

# Personal Computer World

October 1995 £2.95

Overseas Price £3.95  
France 75 FF Germany DM 20,00  
Italy 18,000 Lire Spain 1,225 PTS Malta Lm2.85c  
Ireland HFL 17,95 Belgium 364.00 BFr  
Iceland FIM 49.50 Canada CANS12.95  
EU Business Publications

**FX Fighter -  
Virtua Fighter on the PC?**  
p248

Britain's favourite personal computer magazine

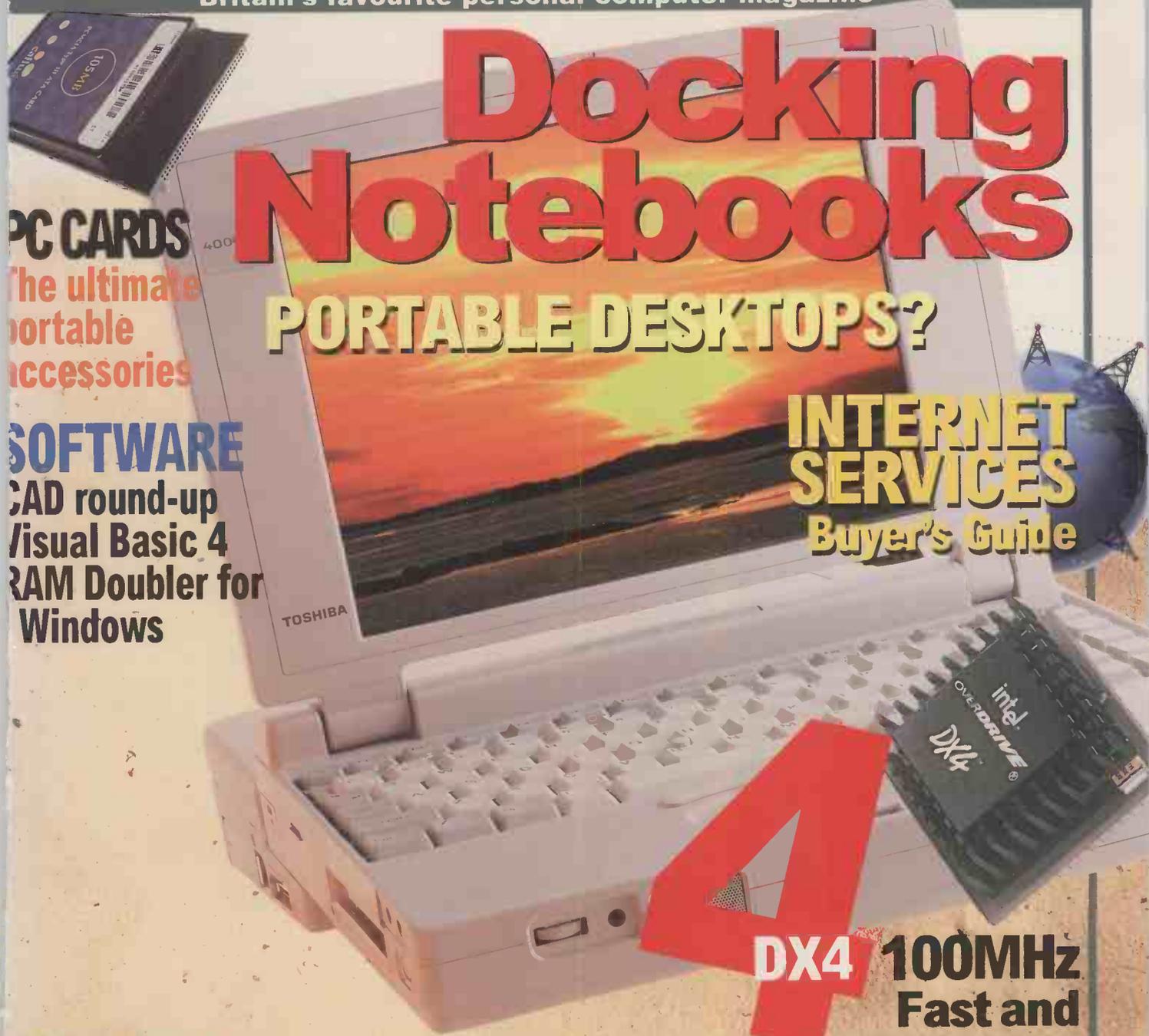
## Docking Notebooks

### PORTABLE DESKTOPS?

### INTERNET SERVICES Buyer's Guide

**PC CARDS**  
The ultimate portable accessories

**SOFTWARE**  
CAD round-up  
Visual Basic 4  
RAM Doubler for Windows



# 4

**DX4 100MHz**  
Fast and affordable PCs

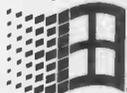


## DIMENSION DESKTOP PCs



pentium  
PROCESSOR

Designed for



Microsoft  
Windows 95

## POWER PLATFORMS

### DELL DIMENSION 466 DL

- Intel® 66MHz 486™ DX2 Processor
- 8Mb RAM
- 128Kb Secondary Cache
- 3.5" Diskette Drive
- 525Mb Hard Drive
- Local Bus Video with 1Mb Video Memory
- 14" Colour SVGA Monitor
- 3 ISA Expansion Slots
- Low Profile Desktop Chassis

Dell Finance 3 year rental: £9.38 per system, per week, excluding delivery and VAT.

## POWER PLATFORMS

### DELL DIMENSION P75†

- Intel 75MHz Pentium Processor
- 8Mb RAM
- 256Kb Secondary Cache
- 3.5" Diskette Drive
- 525Mb Hard Drive
- Integrated 64-bit PCI Local Bus Video with 1Mb Video Memory
- 14" Colour SVGA Monitor
- 4 PCI and 3 ISA Expansion Slots (1 shared)
- Mid-Sized Desktop Chassis

Dell Finance 3 year rental: £10.24 per system, per week, excluding delivery and VAT. (P75†)

## POWER PLATFORMS

### DELL DIMENSION P100†

- Intel 100MHz Pentium Processor
- 16Mb RAM
- 256Kb Secondary Cache
- 3.5" Diskette Drive
- 1Gb Hard Drive
- Integrated 64-bit PCI Local Bus Video with 2Mb Video Memory
- 15" Colour SVGA Monitor
- 4 PCI and 3 ISA Expansion Slots (1 shared)
- Mid-Sized Desktop Chassis
- Quad Speed CD-ROM Drive

Dell Finance 3 year rental: £15.42 per system, per week, excluding delivery and VAT. (P100†)

DELL DIMENSION 466 DL

**£849**

excl. delivery, handling & VAT

DELL DIMENSION P75†

**£949**

excl. delivery, handling & VAT

DELL DIMENSION P100†

**£1,199**

excl. delivery, handling & VAT

DELL DIMENSION P90†

**£999**

excl. delivery, handling & VAT

DELL DIMENSION P90†  
WITH 525Mb HARD DRIVE

**£1,199**

excl. delivery, handling & VAT



ALL DIMENSION SYSTEMS INCLUDE : MICRO

ENHANCEMENT  
PACKS

CONNECTIVITY UPGRADES

MULTIMEDIA UPGRADES

Ready installed Internal data/fax mod

Fast Quad speed multi-session CD

## LATITUDE MOBILE PCs

### DELL LATITUDE LX 475D

- Intel 75MHz 486 DX4 Processor
- 10.4" Dual Scan STN Colour Display
- 4Mb RAM Upgradeable to 20Mb
- 2 PCMCIA type II slots
- 420Mb Hard Drive
- 19mm trackball mouse
- Local Bus Video with 1Mb Video Memory
- NiMH battery pack with second battery option
- 3.5" removeable Diskette Drive
- Easily upgradeable Hard Drive
- Microsoft Windows 95
- CommCentral™ software suite (including Traveling Software CommWorks®, WinCIM for CompuServe)

Dell Finance 3 year rental: £14.84 per system, per week, excluding delivery and VAT.

DELL LATITUDE LX 475D

**£1,399**

excl. delivery, handling & VAT

### DELL LATITUDE XP 475D

- Intel 75MHz 486 DX4 Processor
- 10.4" Dual Scan STN Colour Display
- 8Mb RAM Upgradeable to 40Mb
- 2 PCMCIA type II slots
- 420Mb removeable Hard Drive
- 19mm trackball mouse
- Extra High performance Local Bus Video with 1Mb Video Memory
- Advanced intelligent Lithium Ion battery pack
- 3.5" Diskette Drive
- Microsoft Windows 95
- Microsoft Office 95
- Advanced Port Replicator options
- CommCentral software suite (including Traveling Software CommWorks, WinCIM for CompuServe)

Dell Finance 3 year rental: £22.61 per system, per week, excluding delivery and VAT.

DELL LATITUDE XP 475D  
WITH MICROSOFT OFFICE 95

**£2,299**

excl. delivery, handling & VAT

### DELL LATITUDE XPi P75D

- Intel 75MHz Pentium LM Processor
- 10.4" Dual Scan STN Colour Display
- 8Mb RAM Upgradeable to 40Mb
- 2 PCMCIA type II slots
- 420Mb removeable Hard Drive
- 19mm trackball mouse
- Extra High performance Local Bus Video with 1Mb Video Memory
- Advanced Intelligent Lithium Ion battery pack
- 3.5" Diskette Drive
- Microsoft Windows 95
- Advanced Port Replicator options
- CommCentral software suite (including Traveling Software CommWorks, WinCIM for CompuServe)

Dell Finance 3 year rental: £23.48 per system, per week, excluding delivery and VAT.

DELL LATITUDE XPi P75D

**£2,399**

excl. delivery, handling & VAT

Designed for



Microsoft  
Windows 95

Dell and the Dell logo are registered trademarks, Dimension and Latitude are trademarks of the Dell Computer Corporation 1992. Intel, Intel Inside, Intel 486, and Pentium are trademarks of Intel Corporation. CompuServe is a registered trademark of CompuServe Inc. CommWorks is a registered trademark of Traveling Software. Delivery is charged at £20 + VAT per system. Prices correct at time of going to press. The prices listed reflect the information available at time of going to press. Prices change frequently. All prices and specifications are subject to change without notice or obligation. This picture is not intended to be representative of the actual screen image quality. In common with other manufacturers, monitors are measured using the CRT size. Actual viewing area may be smaller. © 1995 Dell Computer Corporation Ltd, Millbanke House, Western Road, Bracknell, Berkshire, RG12 1RW. The Dimension offers detailed are only valid until 30.10.95. The Latitude offers are available until 30.10.95.

EVEN EASIER TO ORDER. 1 YOU MAKE THE CALL TO OUR EXPERIENCED FRIENDLY SALES STAFF. 2 YOU SELECT AND ORDER THE SYSTEM

**PC'S**

**READY-TO-RUN**

**READY-TO-RUN**

**READY-TO-RUN**

PC's

**DELL DIMENSION P75t**

- Intel 75MHz Pentium Processor
- 8Mb RAM
- 256Kb Secondary Cache
- 3.5" Diskette Drive
- 525Mb Hard Drive
- Integrated 64-bit PCI Local Bus Video with 1Mb Video Memory
- 15" Colour SVGA Monitor
- 4 PCI and 3 ISA Expansion Slots (1 Shared)
- Mid-Sized Desktop Chassis
- Quad Speed CD-ROM Drive
- Microsoft® Office 95

Dell Finance 3 year rental: £11.97 per system, per week, excluding delivery and VAT. (P75t)

**DELL DIMENSION P75t**

**£1,149**

excl. delivery, handling & VAT

**DELL DIMENSION XPS P120c**

- Intel 120MHz Pentium Processor
- 8Mb RAM
- 256Kb Pipeline Burst Secondary Cache
- 3.5" Diskette Drive
- 525Mb Hard Drive
- 9FX Vision 330 64-bit PCI Graphics Card with 1Mb Video Memory
- 15" Colour SVGA Monitor
- 4 PCI and 4 ISA Expansion Slots (1 Shared)
- Mid-Sized Desktop Chassis
- Quad Speed CD-ROM Drive
- Microsoft Office 95

Dell Finance 3 year rental: £14.99 per system, per week, excluding delivery and VAT. (P120c)

**DELL DIMENSION XPS P120c**

**£1,499**

excl. delivery, handling & VAT

**DELL DIMENSION XPS P133c**

- Intel 133MHz Pentium Processor
- 16Mb RAM
- 512Kb Pipeline Burst Secondary Cache
- 3.5" Diskette Drive
- 1.6Gb Hard Drive
- 9FX Motion 771 64-bit PCI Graphics Card with 2Mb Video Memory
- 17" Colour SVGA Monitor
- 4 PCI and 4 ISA Expansion Slots (1 Shared)
- Mid-Sized Desktop Chassis
- Quad Speed CD-ROM Drive
- AWE 32 Sound Card plus Altec Lansing ACS31 speakers with subwoofer
- Microsoft Office 95

Dell Finance 3 year rental: £23.63 per system, per week, excluding delivery and VAT. (P133c)

**DELL DIMENSION XPS P133c**

**£2,499**

excl. delivery, handling & VAT

**DELL DIMENSION P90t**

**£1,199**

excl. delivery, handling & VAT

**DELL DIMENSION P100t**

**£1,299**

excl. delivery, handling & VAT

**DELL DIMENSION XPS P133c**

**£1,599**

excl. delivery, handling & VAT

**DELL DIMENSION XPS P120c**

**£2,399**

excl. delivery, handling & VAT

**SOFT WINDOWS 95 • 102 KEY SPACESAVER KEYBOARD • DELL MOUSE**

Modem **£95 + VAT** 3COM 3C509 network card **£89 + VAT**

CD-ROM drive, 16-bit Sound Card and Altec Lansing ACS5 stereo speakers **£189 + VAT** 16-Bit Sound Card and Altec Lansing ACS5 stereo speakers **£90 + VAT**

**DELL LATITUDE XPI P90D**

- Intel 90MHz Pentium LM Processor
- 10.4" Dual Scan STN Colour Display
- 8Mb RAM Upgradeable to 40Mb
- 2 PCMCIA type II slots
- 810Mb removeable Hard Drive
- 19mm trackball mouse
- Extra High performance Local Bus Video with 1Mb Video Memory
- Advanced Intelligent Lithium Ion battery pack
- 3.5" Diskette Drive
- Microsoft Windows 95
- Advanced Port Replicator options
- CommCentral software suite (including Traveling Software CommWorks, WinCIM for CompuServe)

Dell Finance 3 year rental: £27.80 per system, per week, excluding delivery and VAT.

**DELL LATITUDE XPI P90D**

**£2,899**

excl. delivery, handling & VAT

**LATITUDE ENHANCEMENT PACKS**

**LX UPGRADES**

**Road Warrior Communications Pack**

PCMCIA V32bis Data/Fax Modem, 4Mb RAM upgrade and attaché carrying case

**£349 + VAT**

**Dell Desktop Conversion Pack**

Dell Ultrascan 14XE monitor, notebook monitor stand, keyboard & desktop mouse

**£299 + VAT**

**XP & XPI UPGRADES**

**Road Warrior Communications Pack**

PCMCIA V32bis Data/Fax Modem, spare battery and attaché carrying case

**£275 + VAT**

**Dell Desktop Ready**

Dell UltraScan 15TE monitor, DeskDock, 102-key keyboard and desktop mouse, 10 base T advanced port Replicator and attaché carrying case

**£549 + VAT**

**Mobile Essentials Pack**

Spare battery and attaché carrying case

**£125 + VAT**

**EXTENDED SERVICE PACKS**

Extension to 3 year 'Collect & Return' service

**£99 + VAT**

Extension to 3 year on-site next business day service

**£319 + VAT**

Trade names or registered trademarks of Intel Corporation, Microsoft, Windows and the Windows Logo are registered trademarks of the Microsoft Corporation. Dell Rental is offered (subject to status) to businesses trading 1 year or more. Rental examples shown include extension to 3 year on. The photographed product may not always match the specifications in this advert. Prices quoted refer to specification descriptions only. The price is up to 1 inch less. Office Professional manuals supplied on CD in hypertext format for Dimension PCs. Price does not include VAT & delivery. Available for a limited period only.

**PC'S THAT BEST SUIT YOUR BUSINESS REQUIREMENTS. 3 WE DELIVER TO YOUR DOOR.**

**01344 720000**

Please quote PCW10 when calling Dell Sales.

Pick up on **mighty** Pentium® Processor power.

Just as you'd expect from one of the world's leading computer companies, Dell offers a range of powerful Pentium Processor based PCs. In both desktops and notebooks, Pentium chip performance gives you the power you need to work with greater productivity.

# Powerful PCs, tremendous value. You pick up a mighty

Pick up on **outstanding** value for money.

There's no simpler, more cost efficient way to buy one of these advanced computers than by talking to Dell. Because we deal direct we can keep our overheads down, develop a fast, responsive relationship with our customers and continue to supply PCs at very competitive prices. And we do it without sacrificing the inherent high quality of our computers or our award-winning service and support.

Pick up on **better** desktop choice.

Turn over the page to find examples of the Dell Dimension range, a pick of 'Power Platform and Ready-to-Run' PC packages. All come with Microsoft Windows® 95, designed to speed up everyday tasks and make complex ones easier. At Dell, we make it as easy as possible for you to tailor your system to suit your requirements. So we've also included Dell enhancement packs for both desktops and notebooks. And while you pick up on better choice we just pick up the odd quote or two. Here's what the August issue of PC Pro had to say on the XPS P133c: *"the fastest Pentium 133 on test, the Dell (XPS P133c) handled everything thrown at it with ease"*.



Pick up on **increased** mobility.

Have a look at the specifications for the Dell Latitude™ XPs and see how cleverly the best has got better. Or just take a look at what the July issue of PC User had to say on the XPi P90T *"...Wins a gold award." "a superb price/performance ratio." "...Very impressive..."*. And like our Dimension range, Dell Latitudes now come with Microsoft Windows® 95 making mobile computing even easier. The benefits of our long life Lithium Ion batteries also give you the freedom to work, travel and communicate like never before. Add to this bigger, brighter, clearer displays, more storage and, in the case of the XPi, Pentium Processor power and the result is Dell has the pick of the crop.

Pick up on **assured** peace of mind.

It's not only our computing systems that are designed to suit your requirements, our legendary Openline™ Hardware Technical Support is available to all our customers. Our 'Collect and Return Service' is also included for 1 year giving you added peace of mind. In fact, for all your computer needs, no other company can match our commitment to customer satisfaction. Maybe that's why we've grown since 1984 into one of the World's leading personal computer companies. Because we've always made quality service and innovation a priority. Given the choice shouldn't you pick Dell?



**sight more with Dell.**

**DELL**<sup>®</sup>

**DIRECT**<sup>®</sup>

**01344 720000**

Between 8am and 8pm weekdays, 10am to 4pm Saturdays

# Contents

## Docking notebooks

Computing on the move and power on the desktop — a notebook with a docking station can give you the best of both worlds. Steven Helstrip and the PCW team put 15 through their paces

174



## Group Test

### Internet Service Providers

● The first step in getting wired is to choose your service provider, but with so many to choose from it's easier said than done. Wendy M Grossman tries out 15 and explains what to look out for.

152



## Cover Disk or CD-ROM

● **Cover Disk** 8  
Includes version II of that hit shareware, Charm, PC Tax, which may save you money, and Recorder, for learning and making music.

● **PCW Interactive CD-ROM** 9  
650Mb of software, demos, music and more PLUS our cut-out-and-keep CD label.

## Features

### Computers and Cars 141

by SIMON ROCKMAN



Behind every successful motor-racing team there are banks of computers churning away to get the most out of the cars on the track. We look at how the Williams team puts Adams Technology machines into action.

### Visual Basic 4.0 98

by TIM ANDERSON

Are the changes to VB more than skin deep? We look at a late beta of the Windows 95 version and ask whether it has what it takes to face the Delphi challenge.

### DX4 100MHz 105

by NICK LAWRENCE

DX4s are the last hurrah of the 486 family, with Pentium-like performance at an affordable price. We tested a few, together with DX4 overdrives designed to breath new life into ageing 486DX 33s.

### Windows 95 applications 116

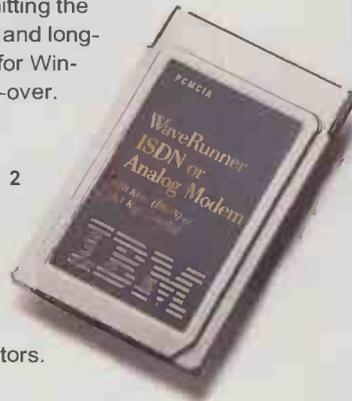
by SIMON ROCKMAN

The first Win95 applications are hitting the streets complete with 32-bit code and long-filename support. Visio 4, Works for Windows and Xara Studio get a once-over.

### PC Cards 122

by TERENCE GREEN

PC Cards, better known as PCMCIA cards, are now the standard way to add extra features to a notebook PC. We test 20, from hard disks to ISDN adaptors.



### CAD Software Round-Up 198

by TIM NOTT

Six CAD software packages to suit every pocket: from over £3,000 for the latest version of the industry standard AutoCad, to as little as £69 for a copy of Drafix QuickCAD.

## First Impressions 61

- 62 NEW! Gadgets**  
A monthly round-up of quirky and useful devices to tickle your fancy.
- 66 Apple PowerBook 5300**  
The highly desirable PowerBook notebooks could only be bettered by a PowerPC processor. We look at the very first model with this speedy chip.
- 67 Panasonic PD System**  
This be-all of storage devices takes 650Mb rewritable cartridges and doubles as a quad-speed CD-ROM drive.
- 70 RAM Doublor for Windows**  
An economical software utility which doubles your RAM sounds too good to be true, but this is a must-have product for Windows users.
- 72 Calera WordScan Plus 4.0**  
The latest version of a veteran OCR package.
- 74 Pioneer DRM-624X**  
The return of this ground-breaking six-disc CD-ROM changer in a new guise: better looking, faster, and cheaper. Ideal for games, large-directory users and network sharing.
- 78 3D Garden Designer 2**  
Don't let Mother Nature ruin your plans. Order pesky plant life and sneaky shrubbery with CAD-like accuracy.
- 79 Pentax PocketJet**  
Hardly pocket sized yet certainly portable. It uses thermal technology to print on fax-like paper.
- 81 Arc en Ciel address utility**  
The genuine Royal Mail postcode database, with simple search tools.
- 82 Adaptec APA-1460 SlimSCSI**  
The EZSCSI setup utility says it all, except that it's a doddle to use and now available for mobile users.
- 84 Vitec Video NT MPEG encoder**  
Real-time MPEG video compression on a PC card for only £400.
- 86 Key Presenter for Windows**  
Don't let the high cost of good presentation packages put you off; this is beauty on a budget.
- 88 Rescue**  
If your disks are sending out an SOS, Rescue will recover the files you thought were corrupted forever.

## Long Term Tests

- 92 HP DeskJet 320 Printer**  
**93 Corel Ventura 5.0**

## Regulars

- 18 Newsprint**  
Microsoft's gamble in launching Windows 95 in the face of a threatened lawsuit pays off; Universal Serial Bus could spell the end of the PC's serial port; Dorling-Kindersley launches CD-ROM titles for adults and children; Netscape hits the £38 million mark; Prisoner banned from using laptop in jail; Windows 95 applications announced; Fujitsu joins the super-floppy league; Acorn angst.
- 40 News Analysis**  
• William Poel on planned legislation to control porn on the Net.  
• Clive Akass on the goings-on in the world of PC ports.  
• Tim Bajarin reports on the industry.
- 43 Sounding Off** by Michael Hewitt
- 45 Homefront** by Tim Nott
- 47 Straight Talking** by Barry Fox
- 49 Business Matters** by Nick Beard
- 52 Letters**
- 325 PCW Marketplace** The best place to compare hardware and software prices.
- 328 Buyer's Charter**
- 671 ChipChat**

## Hands On



- 253 Introduction**
- 254 NEW! Windows 95**
- 256 Windows**
- 260 DOS**
- 262 32-Bit**
- 266 Word Processing**
- 270 Spreadsheets**
- 274 Databases**
- 278 Graphics & DTP**
- 282 Multimedia**
- 286 Sound**
- 292 Visual Programming**
- 298 Low Level**
- 302 Numbers Count**
- 304 Networks**
- 308 Macintosh**
- 312 Computer Answers**
- 315 Beginners**

## CUTTING EDGE

### 2 0 9 Introduction

#### PCW Online

- 2 1 0 Net.answers  
2 1 4 Net.news  
(incorporating Net.surf)  
2 1 8 Comms  
2 2 5 Net.newbies

#### PCW Futures

- 2 2 6 Innovations  
2 2 9 Horizons  
2 3 0 Bluesky  
2 3 3 Retro Computing

#### PCW Media

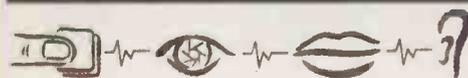
- 2 3 4 Books  
2 3 6 CD-ROMs

#### PCW Fun

- 2 4 1 Kids' Stuff  
2 4 8 Screenplay (with Leisure Lines, page 251)



**LIVE '95**  
THE CONSUMER ELECTRONICS SHOW  
EARLS COURT • LONDON  
19-24 SEPTEMBER 1995



**246** A chance for PCW readers to enter a unique competition to the Personal Computer World stand at Live 95.



# PCW Cover Disk

Another packed cover disk which, this month, features version two of the smash Shareware hit Charm, PC Tax, an excellent tax advisor program that may save you money, and Recorder, a fun and educational music program for Windows.

## Installing and running the PCW Cover Disk

To install the programs, insert the disk in drive A: or B:, and from Windows run the file PCW.EXE in the root directory of that drive. All the files will then be installed (by default unless you specify otherwise) in subdirectories of a new directory called PCWOCT95. Program Manager icons will also be created for you to run the programs.

### Charm II

[Minimum Requirements: 25MHz 386, 2Mb RAM, 256 colour VGA/SVGA display, SoundBlaster compatible card (optional)]

The aim of the game in Charm II is to escape from each of the levels. To do

this, you must collect all of the talismans (golden crosses) to open the Level Exit Door. But it's not as easy as that, as there are various obstacles to make your task more dangerous and complex.

These include: Doors that require the corresponding key to be opened; Stones that must be pushed around; Traps — if you walk over them you're a goner; Gobbs, little nasties that follow you around and attempt to kill you; Stoppers, which are like stones but with a mind of their own; Crushers — heavy blocks that fall from the skies (you must dodge them to escape); Fire, which will spread over twigs lying on the ground, and can bar your path (if you are standing over twigs, then fire can burn you to death); Dark Evil — be very, very careful!

You move your character (called Ivo) around the playing area using the cursor keys or the keys on the numeric keypad. On your travels, be sure to collect as many CHARMS as you can. There are 5

different types of charm ranging from 100 to 1000 points in value.

To help you, you can collect and use sticks of dynamite to destroy boulders and certain other obstacles, but take care — they also destroy orbs, charms, keys and even you! You can also set up chain reactions to blow up a large number of obstacles. To detonate dynamite, press D. To set a stick of dynamite that you are carrying on the ground, press S.

Good luck, you'll need it!

### PC Tax Advisor

[Minimum Requirements: 512Kb RAM, Text mode]

An excellent DOS-based tax advisor which has been produced by HCS Ltd, a software house specialising in PC-based financial software, and Richens & Co, a firm of tax consultants.

It has been designed to not need printed documentation and has sample data preloaded, along with extensive Help screens. The program will prove especially useful for readers who will have to fill in self-assessment forms under the government's latest tax regulations, and could save you money.

### Recorder

[Minimum Requirements: Windows 3.1]

A great program that teaches you how to play the recorder as well as the fundamentals of music theory. It is very easy to use, requiring no documentation. Just click and follow the prompts.

### Shareware

Some of the programs on this month's cover disk are released as Shareware. This means that you are free to evaluate the software for 30 days. If you wish to continue using the software you must pay the author a registration fee, normally a modest amount, in return for which you will normally receive a copy of the latest full release, and often a printed manual too, as well as other benefits such as software support.

### Important Details

If you have problems with the Cover Disk such as receiving a "Cannot read from drive A:" error, please return the disk to: TIB PLC (PCW), TIB House, 11 Edward Street, Bradford BD4 7BH, together with a stamped addressed envelope and two 25p stamps. Where it is a duplication fault, the postage will be returned along with the replacement disk.

However, if your problem is not due to a faulty disk, and a phone number is shown for the publisher of the program in question, then it is usually quicker for you to call them first. Alternatively, ring our hotline on week days between 10:30a.m. and 4:30p.m. on 0891 715929. Calls are charged at 39p per minute cheap rate and 49p at all other times.

# PCW Interactive CD-ROM

Robin Nixon introduces this month's software packed CD-ROM which include the very latest demos, applications, utilities, Shareware, demos, videos and even several dozen megabytes of Mac software.

[Minimum requirements: 8Mb RAM (4Mb of this can be in a permanent swapfile), 386 SX/33 processor, Windows 3.1. Users with less than this should still be able to run all the DOS programs on the CD-ROM using the program DOSMENU.BAT, though you may have to "clean" boot with no unnecessary TSRs or device drivers loaded. For best performance we recommend: 8Mb installed RAM, 486 DX/50 processor, Windows 3.11]

To run PCW Interactive, use either Program Manager or File Manager to select your CD-ROM drive and run the



## PCW INTERACTIVE: OCTOBER 1995 Entire Contents List

**CD TEST:** Test your CDs for duplication errors, scratches or other damage

**COVER DISK:** Charm II — Puzzle adventure game  
PC Tax Advisor — Calculate your tax  
Recorder — Learn to play the recorder

### DEMOS

Deadlock — File security system  
Flagtower — Infotainment demos  
Kingdom — Animated cartoon adventure  
Reunion — Genealogy database program  
Space Quest — Space adventure

### GALLERY

Over 40 American photos  
20 photos from reader Anthony Page

### MAGAZINE

Dance — From the magazine  
Gauss — From the magazine  
PCW Index — Reviews index  
Sound — Sound files  
Winhands — Windows Hands on, including two front-ends for Windows

### MOVIES

Country & Western — Digital music video  
Rock 'n' Roll — Digital music video  
Jazz — Digital music video  
Buried in Time — Digital video trailer

### MSCDEX

Latest CD-ROM Extensions from Microsoft

### ROSENTHAL SUITE

Cleaner — Program to help clean disks  
Master — Prepares duplication masters

SysMon — System problem detector  
Uninstal — Unwanted program remover  
Un\_Dup — Removes duplicate files  
VirSIM — Audits anti-virus programs  
WinLite — Shrinks Windows programs

### SAMPLES

Effects — Sound effects  
MIDI — Selection of MIDI files  
WAV — Same files but in WAV format

### SHAREWARE & PD GAMES

Accordion Solitaire — Card Game  
Charm 2 — Puzzle adventure  
Columns — Tetris-like game  
Invade — Shoot 'em up  
Mah Jongg — Card/tile game  
Mother of all Battles — strategy game  
Poke It Poker — card game  
Scram — Arcade action

### SHAREWARE & PD UTILS

Debt Analyser — Handy reckoner  
Icon Manager — Useful utility plus various icons  
Invoice 90 — Powerful invoicing program  
PC Tax Advisor — Calculate your own tax  
Photovision — Graphic image editor  
Postcode locator — Look up postcodes  
Recorder — Learn how to play the recorder

### SUPERSCAPE

Two more stunning virtual worlds  
SYSTEM SVGA256  
Microsoft's SuperVGA graphics drivers

### VIDEO FOR WINDOWS

Version 1.1e — the latest

CONTINUES ON PAGE 134

CUT OUT THIS LABEL AND KEEP WITH YOUR CD-ROM

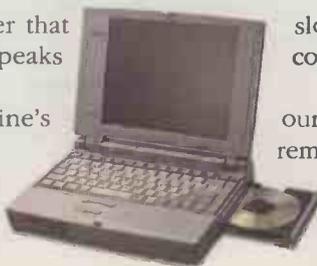


## YOU CAN JUDGE THE QUALITY OF A NOTEBOOK BY ITS COVER.

It's not just the content, it's what's on the cover that counts. And if you're looking for quality one name speaks volumes. Toshiba.

For two years running we've won PC Magazine's award for Service and Reliability.

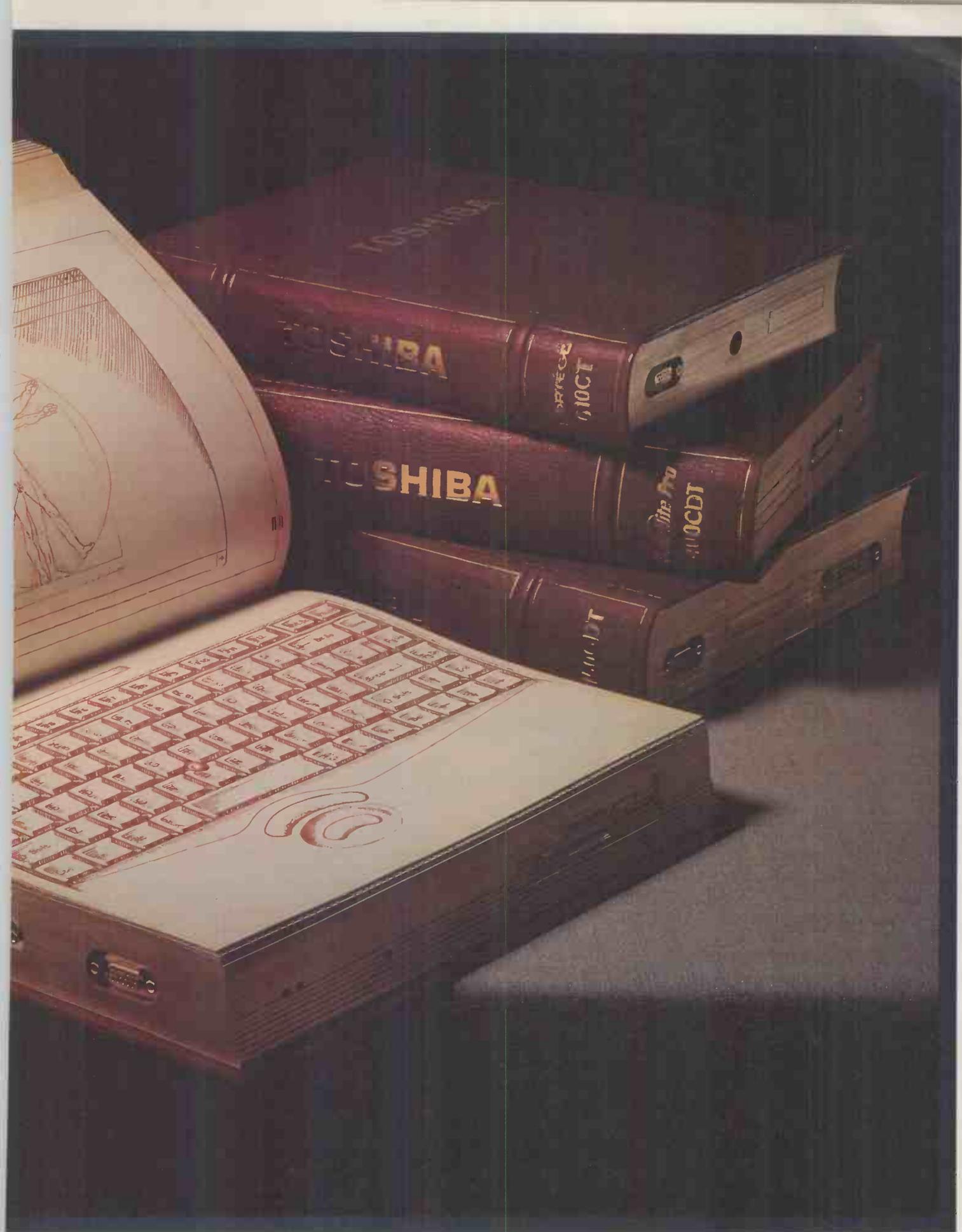
Between the hardback covers our design ideas are always novel. We were the first to introduce built in hard disks, TFT colour screens and PCMCIA



slots and because we use mainly Toshiba built components the reliability is tried and tested.

Why do we put so much into making all our notebooks bestsellers? Because we want to remain the world leader in portables.

Gartner Group research shows that while you may have to spend a bit more on portables than on desktops, people spend



more time working on them. They become notebookworms.

Toshiba's latest edition is the Satellite Pro 400CDT/810 with an interchangeable CD-ROM and floppy disk drive, plus up to four PCMCIA slots, including two on a Card Station. Capable of displaying over sixteen million colours, this makes for a good read.

If you'd like more reading on Toshiba give us a call on 01932 828 828. We'll leave you to reach your own conclusion

but we're sure you'll agree, anything else just doesn't compute.

In Touch with Tomorrow

**TOSHIBA**

Toshiba Response Dept., PCD Marketing, Freepost KT4625, Addlestone, Surrey KT15 2BR.

# Personal Computer World



## Editorial

**Editor** Ben Tisdall  
**Associate Editor** Simon Rockman  
**News Editor** Clive Akass  
**Features Editor** Chris Cain  
**Reviews Editor** Gordon Laing  
**Technical Writer** Eleanor Turton-Hill  
**Staff Writers** Steven Helstrip  
 Nick Lawrence  
**Editorial Assistant** Adele Dyer

**Columnists** Nick Beard  
 Barry Fox  
 Michael Hewitt  
 Tim Nott

**International Correspondent** Tim Bjarin

### Contributors

Tim Anderson ● Nick Beard ● Paul Begg ●  
 Chris Bidmead ● Ian Burley ● Stephen Caplin ●  
 JJ Clessa ● Stephen Cobb ● Simon Collin ●  
 Joanne Evans ● Jeanine Fox ● Tim Frost ●  
 Panicos Georghiadis ● Richard Gibson ●  
 Terence Green ● Wendy M Grossman ●  
 Gabriel Jacobs ● Nicola Kingsley ● AR Landall ●  
 Frank Leonhardt ● Mike Liardet ● Bruce Mackie ●  
 Mike Mudge ● Robin Nixon ● Chris Nixon ● Tim Nott  
 ● Tim Phillips ● Stephen Rodda ● James Taylor ●  
 Jonathan Thaw ● Stephen Wells ● Mark Whitehorn ●  
 David Whyte ●

Editorial Phone **0171 316 9000**  
 Editorial Fax **0171 316 9313**  
 Editorial Email **first name\_last**  
**name@pcw.ccmil.compuserve.com**

## Production

**Production Editor** Lauraine Lee  
**Sub-Editors** Mark Monahan  
 Patrick Ramus

## Design

**Art Editor** Darrell Kingsley  
**Designer** Jonathon Mason

## VNU Labs

**Group Editor** John Barnes  
**Labs Editors** Julian Evans & George MacDonald  
**Labs Assistant** Paul Philip  
 Lab Phone **0171 316 9067**  
 Lab Fax **0171 316 9059**

Enquiries or complaints regarding any advertiser in this magazine should, initially, be presented in writing to:  
**Anthony George**, 'Customer Relations Department',  
 VNU House,  
 32-34 Broadwick Street, London W1A 2HG.

## Advertising

**Group Ad Manager** Paula Devine **0171 316 9194**  
**Ad Manager** Pranav J Oza **0171 316 9466**  
**Assistant Ad Manager** Kevin Elderfield **0171 316 9303**  
**Senior Sales Executives**  
 Catherine J Russell **0171 316 9461**  
 Richard Young **0171 316 9309**  
 Jon Miles **0171 316 9302**  
**Sales Executives**  
 Nick O'Connor **0171 316 9304**  
 Janaya Warren **0171 316 9305**  
**PC Consumer Sales**  
 Beccy Carr **0171 316 9307**  
 Kevin John **0171 316 9462**

**Micromart Sales Executive** Ben Hedges **0171 316 9308**

**Sales Support Executive** Susie Ross **0171 316 9306**

**Credit Control Manager** Michael Donlan **0171 316 9701**

**US Sales Representative** Global Media Representatives, Inc **0101 415 306 0880**

**Taiwan Sales Representatives** Grace Chu/Kent Lai **010 886 2717 7663**

## Production

**Production Controller** Melanle Thomson **0171 316 9481**  
**Production Manager** Adrian Brown **0171 316 9484**  
**Micromart Production Assistant** Susie Ross **0171 316 9306**

## Circulation

**Subscriptions Manager** Leisha Bulley **0171 316 9712**  
**Subscriptions Supervisor** Joanne Nicholls **0171 316 9713**

## Publishing

**Founder** Angelo Zgorelec  
**Marketing Manager** Juliet Parker **0171 316 9191**  
**Marketing & Sales Co-ordinator** Timothy Mickelborough **0171 316 9820**  
**Portfolio Administrator** Kyley Chapman **0171 9316 9183**  
**Publisher** Jon Ross **0171 316 9187**

Test Results are based wholly or in part on methodologies provided by National Software Testing Laboratories, a division of McGraw-Hill Inc, and licensed to Personal Computer World. Neither NSTL nor the Publisher guarantees the accuracy or adequacy of its testing activities and makes no representations or warranties regarding tested products. Articles or portions of articles translated and reprinted (or adapted) in this issue from PC Digest or Software Digest Copyright (c) 1994, by National Software Testing Laboratories (NSTL), a division of McGraw-Hill, Inc, 625 Ridge Pike, Conshohocken, Pennsylvania 19428, USA. Reproduction of the NSTL material in any manner or language in whole or in part without permission of NSTL is prohibited.



157,544  
 JUL-DEC '94



VNU BUSINESS PUBLICATIONS



## REPRINTS

We offer a full reprint service for reproduction of all or part of any current or previous articles. Minimum order 1,000. For details contact Melanie Thomson (0171 316 9000).

## USE OF EXTRACTS

We are delighted for people to use quotations and segments of articles for internal or promotional purposes. For clearance contact Juliet Parker (0171 316 9000).

## SUBSCRIPTIONS

Annual subscription, £24.95. One year Europe only, £30. Rest of World, £60-£80. P&P included.  
 Call 0171 316 9715/9716. Credit card orders welcome.

## BACK ISSUES

We keep a stock of past issues and can provide individual copies at a charge of £5. Call Tom Costin (0171 316 9714).

VNU House, 32-34 Broadwick Street, London W1A 2HG.

Main Switchboard Tel **0171 316 9000**.

No material may be reproduced in whole or in part without written consent from the copyright holder © VNU Business Publications 1994.

Advertisement typesetting by Typematters, London N1.

Origination by Latent Image, 6 Balmoral Grove, London N7.

Printed and bound in the UK by St Ives plc, Plymouth. Distributed by Comag, Tavistock Road, West Drayton, Middlesex (01895 444055).

• "It's only been in recent months that I've come to expect the Internet to become mainstream," said Bill Gates in a recent column. If that's what he's said publicly, you can imagine the flame mail he might have sent to some of his senior VPs. Something along the lines of: "We have missed a multi-billion dollar opportunity by failing to launch an Internet browser. How has this happened?"

And the cause of the imaginary mail is Netscape. Even by Californian start-up standards, Netscape's rise has been extraordinary. Within hours of going public the share price rose from \$11 to \$28 a share, giving the company a market value of over \$1 billion, and the price is predicted to carry on climbing. By using the Internet as the distribution method, giving away free evaluation software, and keeping the price to register the software low, Netscape shot from 0 to 6 million copies in just four months.

• While Netscape looks set to prosper, at least in the short term, it's unclear which of the many companies involved in the other net-related activities of service provision, network operation and supplying third-party content will still be around in a couple of years' time. As our round-up of Service Providers (page 152) demonstrates, loads of companies have been hopping into the service provision market, but most are probably feeling a little apprehensive at present as BT begins to lumber into position to provide a service of its own. BT has the potential to turn every exchange in the country into a POP (point of presence) and decimate the opposition in the process. And for companies like CompuServe who are also in the business of supplying third-party content, things will be just as tough. Microsoft Network is of course a major threat, but the openness of the ever-expanding Internet is a worse one. It means that CompuServe's traditional gravy train — reselling information — may not be around for a whole lot longer.

**Ben Tisdall**  
Editor



# Next Month



## Laser Printers

**An in-depth look at the latest lasers. And because we've divided them into three categories — budget, personal and network, there's one for everybody.**

## Windows Databases

**Latest versions of the Windows databases reviewed, including Win95 versions of Microsoft Access and Lotus Approach.**

### Delving into Delphi

Tim Anderson with part one of a series on getting the most from Borland's Delphi.

### November issue

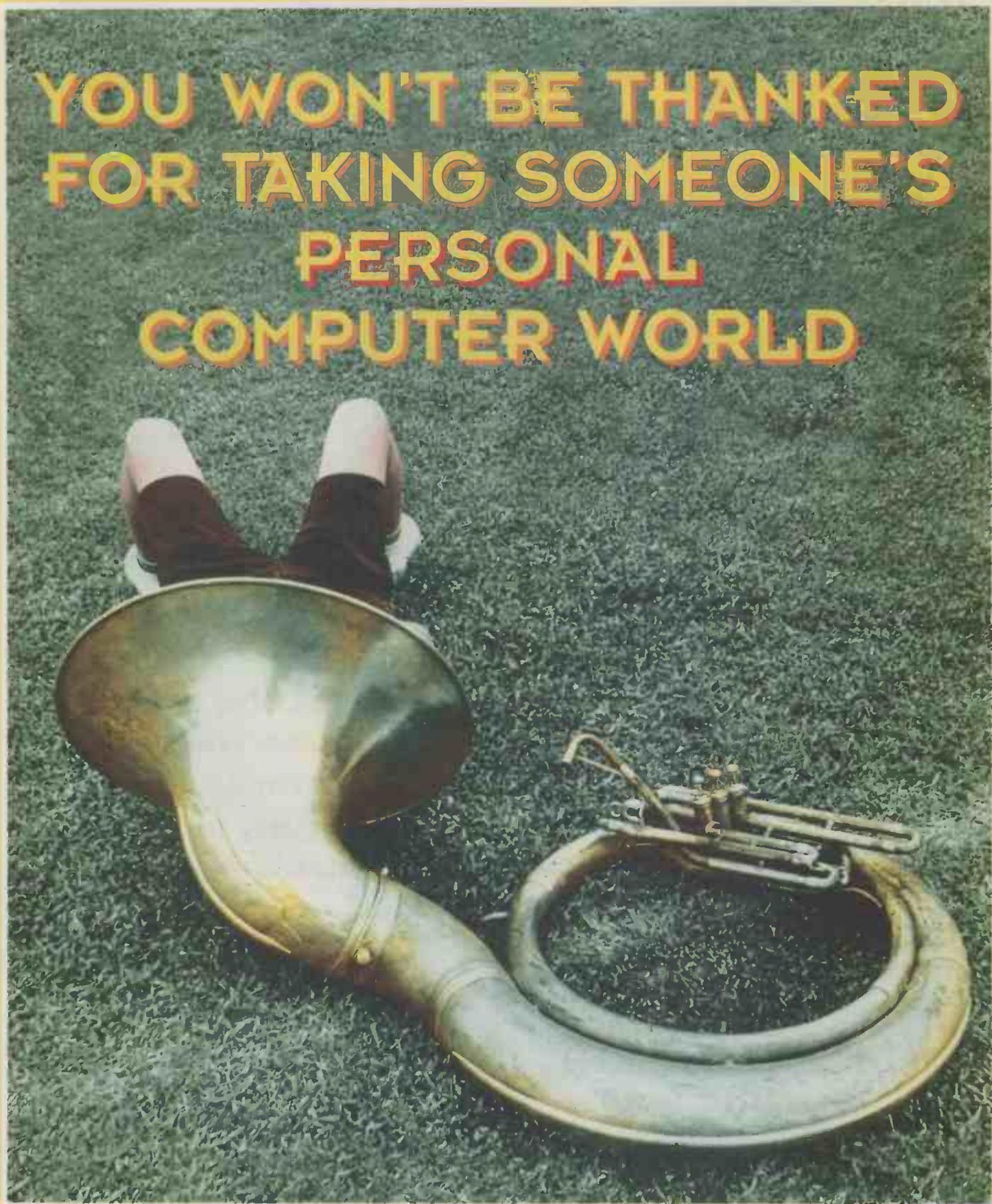
— On sale Thursday 5th October

### December issue

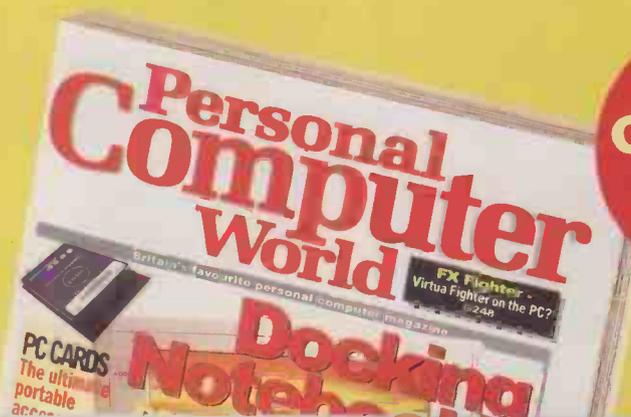
— On sale Thursday 2nd November

- Back up devices
- Accounts software

# YOU WON'T BE THANKED FOR TAKING SOMEONE'S PERSONAL COMPUTER WORLD



Better pick up  
your own copy  
right now.



WITH  
CD-ROM  
& 3.5"  
DISK

# Star Performers

Watch this space .....



dan 486 System  
June '95



dantium 95/90sMM  
June '95



dan Premium/66sMM  
June '95



dan Ultima/100  
June '95



dan Ultima/120  
July '95



dan Premium/100sMM  
July '95



dan for Windows/66MM  
Dec '94



dan Nx P5-90  
Jan '95



dan technology  
Feb '95



dan Premium/66sMM  
Feb '95



dan Nx P5-90  
April '95



Most Reliable PC  
May '95



Best PC System  
May '95



Best After Sales Service  
May '95



Best Direct PC Dealer  
May '95



dantium PCI Server  
June '95



dan PCI Server  
June '95



dan technology pc  
June '94



dan for Windows/66  
July '94



dan Premium  
July '94



dan for Windows/66sMM  
July '94



dan technology pc  
August '94



dantium/66  
Sept '94



dantium/90  
Nov '94



dantium/90  
Nov '94



dan for Windows/66MM  
Nov '94



dan Nx P5-90  
Dec '94



dan Nx P5-90  
Dec '94



dan 386c/33  
Nov '93



dan for Windows/66  
Nov '93



dan Vantage/33  
Dec '93



dan Vantage  
Feb '94



dan technology  
Feb '94



dan for Windows/66  
Feb '94



dantium/60  
March '94



dantium/60  
March '94



dan for Windows/66  
May '94



dan EISA Server  
June '94



dan 486 System  
June '94



dan for Windows PRO  
July '93



dan for Windows/66  
July '93



dan for Windows/66  
July '93



dan Vantage/66  
August '93



dan technology pc  
August '93



dan for Windows/50  
August '93



dan for Windows/66MM  
Sept '93



dan for Windows/66  
Sept '93



dan Vantage/33  
Oct '93



dan for Windows/66  
Oct '93



dan EISA Server/50  
Nov '93



dan 486c/33  
May '93



dan for Windows Pro/33  
May '93



dan for Windows/66  
May '93



dan for Windows/66  
May '93



dan for Windows/33  
June '93



dan 486c/33  
June '93



dan for Windows  
June '93



dan 486c/33s4  
June '93



Server 486DX/50  
June '93



dan 386c/40s4  
June '93



dan for Windows/33MM  
July '93



dan 486SXc/20  
July '92



dan for Windows Pro/66  
December '92



dan for Windows/33  
August '92



dan 386c/40  
August '92



dan 486SXc/25  
October '92



dan 486SXc/25  
November '92



dan 386SX/25  
November '92



dan 386c/40  
July '92



Top 3 Direct Supplier  
Feb '93



dan 486SXc/25  
March '93



BEST UPGRADABLE PC  
BEST UPGRADABLE PC



dan 386SX/18  
January '91



dan 386c/33  
March '91



dan 286/20  
May '91



dan 486c/33  
August '91



IDE HDD CACHE CONTROLLER



dan 286/12  
August '91



dan 386c/33  
October '91



dan 386c/33  
November '91



dan 386SX/20  
January '92



dan 486c/33  
January '92



dan 486c/33  
May '92

The above awards show that when it comes to product consistency and excellence dan has no equals.

# go direct to dan

# The new stars from dan

will take you into the world of the Internet.

Personal Finance available

**1995** is the year of the Internet and dan's new stars will guide you through as easily and painlessly as possible.

## Shining Examples of Personal Computers

All of dan's award winning systems can be easily upgraded to work perfectly on the Internet. All you need is the simple addition of a dan internal modem which can be fitted to any dan system. We will pre-configure the modem to work with your computer. All you have to do is dial the communications company of your choice, pay your subscription, and you'll be ready for a bright future on the Internet!

**dan** **Pentium** **Processor** **PCI**  
**dantum Value/s**  
Entry Level Pentium Processor System

75-133MHz Pentium Processor  
8MB RAM - 525MB HDD  
1MB DRAM 32-bit Video Card  
14" FST Low Radiation N/I Monitor

- Triton Chipset w/256KB Cache Memory
- Free Slots: 2 PCI, 1 PCI or ISA & 2 ISA
- Fast EIDE PCI Hard Disk Controller
- 1.44MB Floppy disk Drive
- Desktop Case w/200W PSU
- 1 Parallel & 2 Fast Serial Ports
- 102 Key UK Keyboard
- New Microsoft Mouse
- Windows 3.11 & MSDOS 6.22 or Windows 95
- Microsoft Works for Windows

75MHz	£ 1052
90MHz	£ 1141
100MHz	£ 1227
120MHz	£ 1375
133MHz	£ 1466

1GB EIDE HDD Upgrade Add £73

**dan** **Pentium** **Processor** **PCI**  
**dantum/s**  
The Classic Pentium Processor System

75-133MHz Pentium Processor  
8MB RAM - 850MB HDD  
1MB DRAM 64-bit Video Card  
15" FST Low Radiation N/I Monitor

- Triton Chipset w/256KB Cache Memory
- Free Slots: 2 PCI, 1 PCI or ISA & 2 ISA
- Fast EIDE PCI Hard Disk Controller
- 1.44MB Floppy disk Drive
- Desktop Case w/200W PSU
- 1 Parallel & 2 Fast Serial Ports
- 102 Key UK Keyboard
- New Microsoft Mouse
- Windows 3.11 & MSDOS 6.22 or Windows 95
- Microsoft Works for Windows

75MHz	£ 1185
90MHz	£ 1274
100MHz	£ 1360
120MHz	£ 1508
133MHz	£ 1599

1GB EIDE HDD Upgrade Add £37

**dan** **Pentium** **Processor** **PCI**  
**dantum 95/s**  
High Power Pentium Processor System

75-133MHz Pentium Processor  
16MB EDORAM - 850MB HDD  
2MB VRAM 64-bit Video Card  
15" FST Low Radiation N/I Monitor

- Triton Chipset w/256KB Cache Memory
- Free Slots: 2 PCI, 1 PCI or ISA & 2 ISA
- Fast PCI EIDE Hard Disk Controller
- 1.44MB Floppy disk Drive
- Desktop Case w/200W PSU
- 1 Parallel & 2 Fast Serial Ports
- 102 Key UK Keyboard
- New Microsoft Mouse
- Windows 3.11 & MSDOS 6.22 or Windows 95
- Microsoft Works for Windows

75MHz	£ 1509
90MHz	£ 1598
100MHz	£ 1684
120MHz	£ 1832
133MHz	£ 1923

1GB EIDE HDD Upgrade Add £37

## Configurations

Based on the above specification with 14" SVGA Monitor and your choice of Hard Disk Drive & PENTIUM Processor

Pentium Processor	75	90	100	120
525MB	£1092	£1185	£1275	£1428
850MB	£1130	£1223	£1313	£1466
1GB	£1169	£1262	£1352	£1505
SCSI 1.04MB	£1519	£1612	£1702	£1855
SCSI 2.10MB	£1833	£1926	£2016	£2169

Pentium Processor	75	90	100	120
525MB	£1106	£1199	£1289	£1442
850MB	£1144	£1237	£1327	£1480
1GB	£1183	£1276	£1366	£1519
SCSI 1.04MB	£1533	£1626	£1716	£1869
SCSI 2.10MB	£1847	£1940	£2030	£2183

Pentium Processor	75	90	100	120
525MB	£1443	£1536	£1626	£1779
850MB	£1481	£1574	£1664	£1817
1GB	£1520	£1613	£1703	£1856
SCSI 1.04MB	£1870	£1963	£2053	£2206
SCSI 2.10MB	£2184	£2277	£2367	£2520

All SCSI models use the Adaptec AHA-2940 Controller that uses an extra PCI Slot. 4GB & 9GB SCSI Hard Disk drives are available

133MHz upgrade from 120MHz add £95

dan internal Fax/Modems

14.4BPS £79

28.8BPS £179

Delivery cost to most of UK for one system is £15. E.&O.E. All prices exclude VAT @ 17.5%.



dan desktop with Multimedia & Power Speakers Option

## dan Multimedia

Choice of Software Bundle in OEM Packaging & On-Line Help

### Lotus Bundle

**Work** Lotus 1-2-3, Ami Pro, Organizer, Approach, Smart Pics, Screencam & Sage 'Moneywise'

**Learn** Grolier Encyclopedia Training for 1-2-3, Ami Pro, Approach, Freelance Organizer, Multimedia, Typing, Windows 3.11 etc

**Play** FIFA International Football MegaRace, Theme Park, Dragon Lore

### Microsoft Bundle

**Work** Microsoft Works  
With tutorials! Microsoft Money

**Learn** Encarta '95  
The best Encyclopedia to date

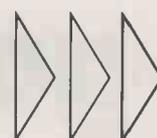
**Look** Microsoft Scenes  
A selection of high quality screen Savers



For sound capability on above option, you must add a Sound Card.



# go direct to dan



# Special Configurations at Special Offer Prices

The configurations of dan /s systems are not variable.

**dan Ultimate PC**  
The PC you always dreamed of

**Windows® 95**  
Ready to Run

from **£1052**

Dan's commitment to continuous improvement and customer satisfaction has already resulted in numerous awards and accolades, both from customers and industry experts. Dan received over forty awards in 1993 and 1994, including PC Magazine's Overall Satisfaction with Service and Reliability Award for three years running. New awards are still coming in 1995. You know you can rely on dan.

Intel Triton Chipset
Pentium Processor
16MB EDO RAM - 1GB EIDE HDD
2MB VRAM 64-bit Video Card
17" Monitor Trinitron LR Monitor
4x CD-ROM
SoundBlaster AWE 32 Value 512K
dan FAX/Modem

- Triton Chipset w/256KB Cache Memory
- Free Slots: 2 PCI
- Fast PCI EIDE Hard Disk Controller
- Hi-Fi Power dan Speakers (80W PMPO)
- dan Internal 14.4BPS Fax/Modem
- 1.44MB Floppy disk Drive
- Full Size Tower Case w/250W PSU
- 1 Parallel & 2 Fast Serial Ports
- 102 Key UK Keyboard
- New Microsoft Mouse
- Windows 3.11 & MS DOS 6.22 or Windows 95
- Software titles:
  - MS Encarta '95 Encyclopedia,
  - MS Works for Windows
  - MS Money for Windows
  - MS Scenes



## Pentium

100MHz	£ 2371
120MHz	£ 2519
133MHz	£ 2610

Limited quantities of Pipeline Burst Cache Memory available.  
Add £55



dan Midi Tower Case Option



dan Mini Tower Case Option

## Upgrade Kits



<b>Dan Multimedia Kit 2</b>	
4x Speed CD-ROM	
SoundBlaster 16	
Advanced Speakers 10W PMPO	
Microphone	
with Lotus Bundle	with Microsoft Bundle
£239	£207

<b>Dan Multimedia Kit 3</b>	
4x Speed CD-ROM	
SoundBlaster AWE 32 Value 512K	
Hi-Fi Power Speakers 80W PMPO	
Microphone	
with Lotus Bundle	with Microsoft Bundle
£309	£277

Subtract £36 for 2x Speed CD-ROM instead of the 4x Speed one.



**pentium**  
PROCESSOR



### dan Ultimate PC RECOMMENDED

"Recognising the value of a fully-configured system designed with the power user in mind, we can recommend the dan ultimate PC (£3,338). As well as a 100MHz Pentium and 1GB hard disk, you also get a quad-speed CD-ROM, SoundBlaster AWE32, network interface card, data/fax modem & DAT drive. This excellent mix of components earned it the highest feature score in this review, and should largely remove the need for disruptive upgrades." *PC Magazine (dan Ultimate100), June '95*

London: 0181 830 1100 Leeds: 0113 259 1200

LONDON: Ironbridge Close, Great Central Way, London NW10 0NW.  
LEEDS: 10 Feastfield, Town Street, Horsforth, Leeds LS18 4TJ.  
ISRAEL: S.G.M. Computers Ltd. Tel: +972 (0)9 563536

FAX: 0181-830 1122  
FAX: 0113-239 0652  
FAX: +972 (0)9 563537



Opening Hours / Showroom: Mon-Fri 10am-6pm

**dan**  
technology plc

PCW

# Newsprint

## NEWS Contents

<b>In the money</b>	<b>19</b>
You're given a cheque for £80: would you remember to cash it?	
<b>Behind bars</b>	<b>20</b>
Peer says prisoner's laptop ban is a load of old tosh	
<b>Design for Win95</b>	<b>23</b>
Developers of graphics apps among the first to announce Windows 95 upgrades	
<b>Acorn controversy</b>	<b>26</b>
Acorn makes up-beat product announcements as MD leaves and dealers rage	
<b>It takes two</b>	<b>27</b>
Two-way wireless messaging for portables is here	
<b>Modem madness</b>	<b>30</b>
Motorola has problems with V3400 Pro modems	
<b>Labour of love</b>	<b>27</b>
The Labour party gives partial backing to British Library online	
<b>Software bestsellers</b>	<b>34</b>

### And for our next trick...

The next version of Windows, codenamed Memphis, is scheduled for 1997 under the name of Win97. It will marry Windows NT and Windows 95, and will have a full 64-bit architecture. An interim Win96 will include network hooks and mail features left out of Win95 in order to get it to market in 1995, say Microsoft insiders. It is targeted to debut at Spring Comdex in Chicago.

Tom Iqbal

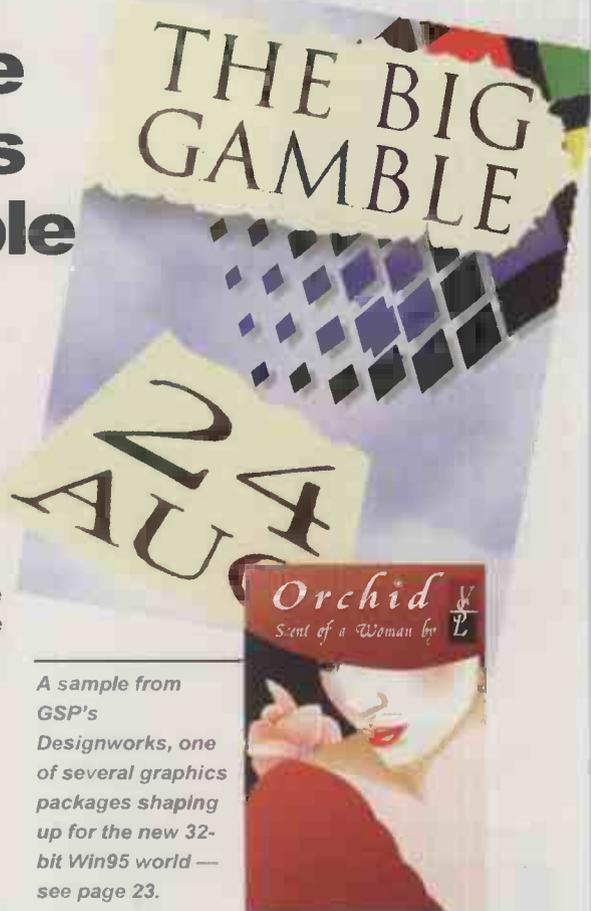
## Battle of the networks as Win95 gamble pays off

Microsoft's gamble in launching Windows 95 in the face of a threatened anti-monopoly suit appeared to have paid off last month. It risked having to withdraw all copies to remove links to the new Microsoft Network (MSN). Instead, the US Department of Justice, investigating claims of unfair competition, pledged to take no action before the August 24 launch. The DoJ was under pressure from an industry poised to reap billions of dollars' worth of business in new or upgraded 32-bit applications.

Still more was at stake: a slice of the burgeoning online cash economy. UK banks are not alone in fearing they may be sidelined, with the MSN just a click away from millions of Win95 screens across the world.

But the MSN faces stiff competition and the charges it announced last month – £60 a year (£55 to early signers, or £6 a month) plus £3.25 an hour beyond two hours a month – are attractive only for light users. Moreover, Web access will not be available to British MSN users until next year. Microsoft argues that its software is easy to use; but so is the latest software provided on signup by Net providers charging a flat monthly £10 to £20.

MSN product manager, Jeremy Gittings, points out the MSN will be available at launch in 52 countries – a big plus for travellers. He said several UK companies plan to offer services on the MSN, and income from these, and from advertising, may



A sample from GSP's Designworks, one of several graphics packages shaping up for the new 32-bit Win95 world — see page 23.

push down connect charges. (This begs the question of why businesses should pay MSN a premium when they can set up shop for free on the Web.)

Compuserve responded by undercutting MSN, slashing its basic hourly rate by nearly 40 percent from £3 to £1.85 – with the first five hours free and no email premium. The monthly flat charge remains at £6.20. Heavy users can pay £15.60, plus £1.22 an hour after 20 hours.

Compuserve offers free membership with software and 10 hours online on 0800 289378; Microsoft 0345 002000

Clive Akass

## Serial killer could have a whirl in every port

The PC's familiar serial port could become a thing of the past with the development of a new fast connection, the final specification for which was due to be published late last month. The Universal Serial Bus stems from Intel but has been endorsed by major industry players.

It could also replace the parallel port, says Intel, which stands to make money from new USB driver chips; but the standard is open and royalty-free for third-party developers.

The old serial port is too slow for fast modems and ISDN, and is usually limited to one device

per port. The new bus is more than 100 times faster (12 Mb/sec) and can be linked to up to 63 devices via a chain of expansion hubs.

The USB is Plug and Play compliant, allowing devices to be "hot swapped" at will. It is designed for simultaneous

support of several relatively slow devices (up to ISDN's 128Kbps) rather than high-speed peripherals such as video displays.

But there are competing technologies, including Apple's Firewire port — see News Analysis on page 38.

# Check this out: £850 for the taking... if you can be bothered!

If you were given a £850 cheque, redeemable only over a 30-day period five years from now, would you remember to cash it? More than three out of four people would not, according to a PC vendor making just that offer.

Singapore-based IPC (unrelated to the publishing company) is offering people who buy selected systems from one of its 75 sales centres 50 percent of their money back in the year 2000.

Similar schemes are common in the US and the Continent, according to sales director Stefan Trbovic (sic). The deal is that IPC

pays a premium on each sale to a company called Homefield Insurance, which in turn is underwritten by three US offshore finance companies.

The cash is invested but earns nothing like enough to cover the payback; the companies bet that most people won't claim. "The people who do not claim are underwriting those who do," said Trbovic.

He reckoned that at most 25 percent, and more likely around five percent, will claim "even if they stick a piece of paper on the wall and frame it to remind them."

That might be true for small sums. But what about sums of up to a memorable £850 from IPC systems costing up to £1,699? Alan Scott, director of a marketing company called Warranty Management which represents Homefield in Britain, said confidently: "The redemption rates are no different if the sums involved are £500 or £2,500."

He said Homefield and its reinsurers had combined assets of around \$430 million and that the claim address for claims would be valid in five years.

IPC 01282 618866

Clive Akass

## Child and (very) adult CD-ROM titles from Dorling-Kindersley

Dorling Kindersley has demonstrated its Autumn CD-ROM titles. Due out in October are Eyewitness Virtual Reality: Cat and Bird, Anne Hooper's Ultimate Sex Guide and the Dorling Kindersley Children's Dictionary.

Virtual Cat and Bird are based on the Eyewitness series of books. The CD-ROMs are innovative because they use a virtual world idiom and allow you to wander around a virtual museum with a floor devoted to each

animal. You can stop in front of exhibits then click on them to drill down for more information. Cat, for example, includes over 800 screens and pop-ups and nearly 50 videos and animations. DK plans to release Virtual Shark and Dinosaur in '96, each of which will have its own floor.

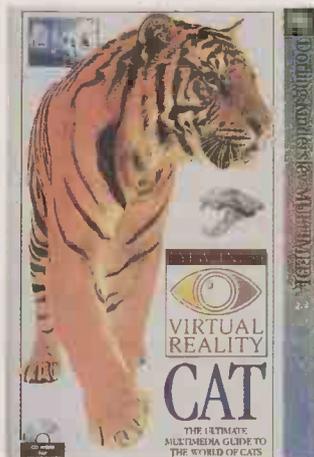
Anne Hooper's Sex Guide, again based on a successful book, is an adult CD aimed at improving people's sex lives. It uses video and animation, some quite explicit, to explain the subject. The CD starts by giving you a sex questionnaire and mimics a real-life personal consultation

with the author, herself a sex therapist and marriage counselor. The CD will also include a Sexopedia reference section and password protection to prevent children getting their hands on it.

The Children's Dictionary follows on from My First Incredible, Amazing Dictionary and is aimed at 7-12 year olds. It has over 45,000 definitions plus animations, illustrations and sounds. All four titles are expected to have a street price of between £29 and £39.

Dorling Kindersley 0171 836 5411

Ben Tisdall



**STAGE 3: DRESS TO STIMULATE TOUCH**

**D**ON'T BE AFRAID to inject a little fun into your lovemaking - it reduces tension and allows partners to relax and experiment. The ways of enhancing lovemaking with erotic touch and sensual clothing are as varied as your imagination and your wardrobe. For instance, a woman could "play the temptress." While wearing a cat suit and refusing to take it off, she could strip her partner and use her hands and her clothed body to stimulate his naked skin.

*Remain clothed.*

*She can press against his naked flesh.*



1  
2  
3  
4  
5  
6  
7  
8

PHYSICAL PROGRAMS    MENTAL PROGRAMS    SENSUAL PROGRAMS

### Short Stories

#### Netscape makes its £38m Mark

● Mark Andreessen, who led the undergraduate team that developed the seminal Mosaic browser, has become a multi-millionaire at the tender age of 24 — just months after leaving university.

He formed Netscape Communications with Silicon Graphics founder Jim Clark, who called him up out of the blue last year to ask if he was interested in starting a company (see last month's *Personal Computer World*).

The Netscape browser is now by far the most used on the Web. The company was floated last month on the New York stock exchange.

In a single day, shares rose from £17 to £37, netting Andreessen £38.5 million profit on his 2.7 percent stake. Clark made an estimated £383 million on the jump.

● Ben Tisdall — page 13



#### What Gaul!

● Asterix the Gaul has fought his way on to a £39.9 CD-ROM called Caesar's Challenge. It is a cartoon game for up to four players.

Funsoft 0181 748 7565

#### Re-markable!

● A new brand of rewritable disk labels, on sale at major stationers, will change your life, according to the publicity blurb. A packet of 10 Re-Mark-It labels will change your bank balance to the extent of £2.49.

#### Live coverage

● The Live 95 electronics show will take place at Earl's Court for six days from 19 September. Attractions include computer games and BT's Internet café.

## Short Stories

## Fax switch turns on your PC

● One snag of fax-modem cards is that your PC needs to be on all the time to monitor the phone line. Alltek has come up with what looks like a relatively cheap, though not ideal, solution.

The Autopower AP1000N device will switch on your PC (or any other device, such as an answering machine) when you receive a phone call and switch it off again after a time of your choice. The logic can cope with Windows or DOS software.

One problem is that the first fax call is lost. But Alltek's Victor Roche said: "Most fax machines are programmed to retry a number at least three times."

The device will cost about £128, but the price is expected to fall to less than £70 if sales take off.

Alltek 0181 662 0736



## Lindy tunes in

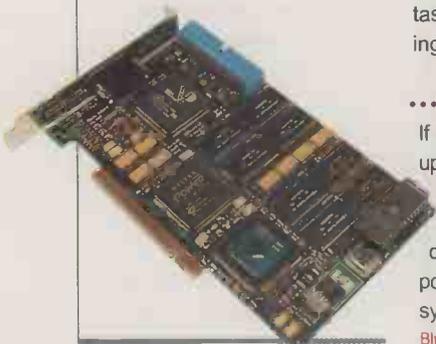
● The £44.99 Lindy sniffer is designed to fine-tune performance on SCSI chains.

Lindy 01642 765275

## Tornado card

● The £299 Tornado video card supports up to 1600 x 1280 in 256 colours, and 800 x 600 in true colour.

Datapath 01332 294441



## Prisoner's laptop ban a load of tosh, says peer

A computer-buff peer has taken up the case of a prisoner who has been banned from his laptop for three years.

The prisoner paid more than £3,000 for a Toshiba 3200SXC in October 1992, using money from an inheritance, after being told that he could keep it in his cell at Long Lartin.

But before the laptop arrived he was moved to Full Sutton, where he was told that as a top-security prisoner serving life, he could not use it.

Now Lord Avebury, chair of the Parliamentary Human Rights Group, has written to the director-general of the prison service, Derek Lewis, asking him to explain the decision. His letter, a copy of which he passed to PCW, concluded: "Many computer users would be



*While we are (almost) on the subject of law and order, clock this hot item from a display of stolen antiques set up by Twickenham police at [www.open.gov.uk/metpolltw/tw-home.htm](http://www.open.gov.uk/metpolltw/tw-home.htm)*

glad to help solve any difficulties that might be foreseen."

The prison service refused to comment on details of the case, but a spokesman said it was up to the local governor to decide whether a prisoner was allowed to use a computer.

It seems, however, that the governor feared the Toshiba's Undelete facility might be used to reveal hidden messages — a line that would presumably ban all mail for fear of invisible ink.

"It is ridiculous. Prisoners in other countries are allowed PCs," said Lord Avebury, who is patron of the Buddhist Prison Chaplaincy. As a knowledgeable PC owner, he is sympathetic to the fact that the unused 20MHz 386SX-driven Tosh is a poor beast by today's standards. "Think what you could get for £3,000 now," he said.

## The power of the P6 reflected in 3D

Real-time continuous speech recognition and increased use of 3D will be among technologies that mature with the power of the next-generation P6 chip, according to Intel.

"It's a capability that will hit the mainstream in a couple of years," said microprocessor marketing manager, Lewis Pacey.

The first P6 is due to ship before October. It will have a 150MHz version as well as the 133MHz chip originally announced, Pacey revealed. Intel claims the 150MHz version will have a SpecInt92/fp92 rating of 220/215, compared with the latest 133MHz PowerPC 604's score of 200/200. On 32-bit applications it is more than twice as fast as a 100MHz Pentium.

But, curiously, Intel cheerfully admits it is actually slower than the Pentium on many 16-bit tasks, because it gains some speed by anticipating instructions on the basis of 32-bit file access.

Pacey said: "If you are planning to run 16-

bit applications, you should buy a Pentium. If you are going to run 32-bit, you should buy a P6."

But the company expects that the P6 will sell at first mostly to companies, designers and academics for servers and processor-intensive applications. By contrast, Pentium sales have been predominantly to the home and small-business market.

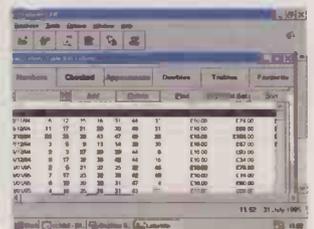
"I think this was mainly due to the fact that the Pentium came at the same time as technologies like the CD-ROM hit the mainstream, turning the PC for the first time into a games machine," said Pacey.

• Intel will announce the name of the P6 at the Fall Comdex where it will be showing 133MHz and 150MHz systems, writes Tim Bajarin.

Officials discounted speculation that the next-generation P7 will use RISC instructions, as in the PowerPC, or the VLIW technology Intel is developing with HP. The P7 is in the works for 1997 and will use traditional CISC instructions. It seems that the VLIW-based chip is unlikely to appear before 1999.

If heads comes up five times in a row, what are the chances that it will come up on the next coin toss? The answer is fifty-fifty, of course, but there are many who would argue otherwise: gambling is the last bastion of superstition. Your opinion on the matter will dictate whether you trust the predictive power of Lotto Win version 2.0, which urges you to "unleash the power of your PC on the lottery." But the package also helps you run lottery syndicates, so at £12.99 it is a good bet anyway.

Blue Quetzal 0181 810 6500



# Applications are voracious little creatures. Satisfy them with the EZ-135.

**MORE MEGABYTES! MORE SPEED! MORE SECURITY! THE EZ-135 IS HERE!**

Forget about deleting storage-hungry applications or juggling drive space, with the new EZ-135 Drive from SyQuest, you'll have all the storage you could ever need. Each removable cartridge holds **135 megabytes** of information – that's about 100 times more than the average floppy. So transporting large files is a snap. And unlike other removable cartridge systems, the SyQuest EZ-135 Drive offers true hard drive performance – the same level of performance that

made SyQuest the world leader and choice of professionals. But perhaps best of all, the **EZ-135 Drive costs less per megabyte than any other comparable system**, making it the best value around. So treat yourself to a system you can grow into, rather than out of. Get the EZ-135 Drive today! For more information, visit your local dealer. Or call us at

☎ **0 9 9 0 - 1 1 - 5 5 - 6 5**



**EZ Drive**™ A removable hard disk in a 3.5" cartridge.



**SyQuest**®

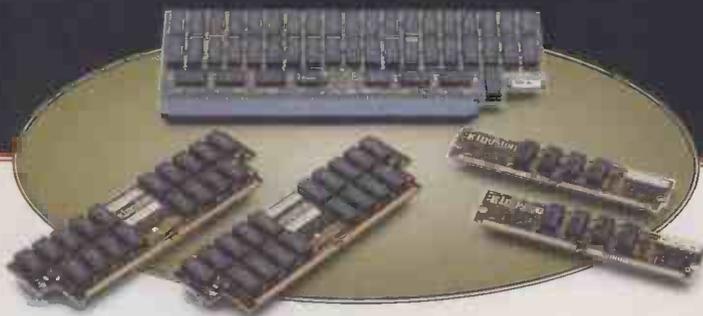
• 135 MBs PER CARTRIDGE

• 13.5 msec ACCESS TIME

• 2 YEAR WARRANTY

• DRIVE VERSIONS:  
Internal IDE/ATA  
External SCSI II  
Enhanced Parallelport

# Run your Windows applications at their maximum potential!



To get better performance from your PC, just add quality memory products from Kingston.

Kingston® is committed to providing you information on the ideal amount of memory to use with Windows® 95. As always, Kingston's hardware products are designed to increase computing efficiency by complimenting the operating systems and applications users depend on daily. According to PC Magazine USA, upgrading from 8MB to 16MB of memory increases performance by 50 percent on a 75MHz Pentium desktop, and by 74 percent on a 100MHz Pentium desktop. Adding additional memory allows users to run more applications simultaneously. For the most up-to-date information on our memory products, call 01252 303500 for your nearest dealer.

**Kingston**  
TECHNOLOGY CORPORATION  
UK EXCLUSIVE DISTRIBUTOR  
**DATRONTECH**

Call Datrontech at 01252 303500 • Fax 01252 303444 42-44 Birchett Road, Aldershot, Hants. GU11 1LU

**FREE**

Yes, I would like to receive

**NEW** Kepler-Kingston's Windows CD. Helps you choose the perfect upgrade for your system.



Kingston Upgrade manual containing over 600 pages describing the upgrade paths for over 4000 computers.



Windows 95 Solutions guide. Informative brochure explaining Windows 95 product enhancements.



Company: \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_  
 Address: \_\_\_\_\_ Tel: \_\_\_\_\_ Fax: \_\_\_\_\_  
 No. of PCs installed: \_\_\_\_\_ Name of preferred dealer: \_\_\_\_\_

# Win95 apps start to roll

Developers of graphics applications, which will benefit particularly from 32-bit operation, were among the first to announce Windows 95 upgrades. Micrografx came out fighting with an aggressively-priced suite bundling an entire range of studio apps optimised for the new Microsoft Office.

The ABC suite includes new versions of Designer, Picture Publisher, Flowcharter, and Media Manager. A CD preview is available for £9.90.

Corel announced that CorelDraw 6.0 would ship shortly after Win95 and would cost £495. It includes a new 3D modelling and rendering module.

More downmarket but looking good value at £39.95, was GSP's Designworks 3.0. This UK package will not have a 32-bit version until next year but it is Win95 tested. Included in the bundle is a utility for making bordered certificates, which GSP believes will be a big selling point with the small clubs and groups among its target market.

Adobe announced version 6 of its PageMaker desktop publisher, which includes facilities for creating Acrobat and HTML Web documents.

● More applications, page 141.

Corel 0800 581028; Micrografx 0800 626009; GSP 01480 496666

## Short Stories

### On the border

● This design was produced by a new package called GraphicType Designer which builds up borders and corner pieces from design elements held as fonts. The character-based approach means the required width, height and thickness of a border can be controlled easily. The £39.50 is available for an introductory price of £24.95.

GraphicType 01275 333730

# Peril of the booby-trapped letters

The belief that email presents no virus risk could lull people into a false sense of security, warns mail specialist Centreline 2000.

A virus, like any program, cannot be emailed without being translated (uencoded) into a 7-bit format which has to be decoded by the recipient to present any threat.

But the increasing practice of sending fully-formatted word-processor files, using a MIME or uencoding utility, presents a new danger: the booby-trapped letter.

Centreline's sales director, Stuart Hillston, points out that a standard Word document can be set to launch a macro, or compiled Basic program, when opened – and that can be made, say, to reformat all the disks on a network.

"If you have a MIME converter, the files comes through as a standard Word document which many people might open without thinking. A virus program would not be able to detect anything suspicious."

He admitted that he had not heard of it happening. "But it can be only a matter of time before someone does it."

Centreline's answer is to include with its mail systems a browser that enables a user to view the file without launching the application.

The sender could hide the source by using an anonymity server or by getting the macro to strip the information from the document, Hillston said.

Centreline 2000, 01905 724080

Clive Akass

### Each-way bet

● Portable Add-ons has introduced a range of what it calls Trumcards — PCMCIA cards that double as modems and Ethernet connectors.

Prices range from £439.

Portable Add-ons 01483 440777

### Soft bonanza

● More than 500Mb of shareware is on the latest Night Owl 17 CD-ROM. It includes utilities, games, drivers and databases for Windows, DOS and OS/2, and costs £19.

CD-ROM Distribution 0161 477 8848

# Fujitsu joins the super-floppy league as it launches the 'world's smallest' drive

Fujitsu is the latest company to enter the "battle of the super-floppies", in which several technologies are competing for an emerging market in low-cost high-capacity removable disks.

It has launched what it claims is the world's smallest magneto-optical drive, the £299 M2541, which is just 17mm high and weighs 250 grams. It takes 3.5in 230Mb disks costing about £20 each.

It is available now to PC and notebook makers as an internal enhanced IDE drive;



but SCSI, parallel-port and PC card versions are imminent. The drive is available as an option in Apple's latest portables.

Maximum data transfer rate is a said to be 1.6Mb/sec – twice as fast as a quad-speed CD drive

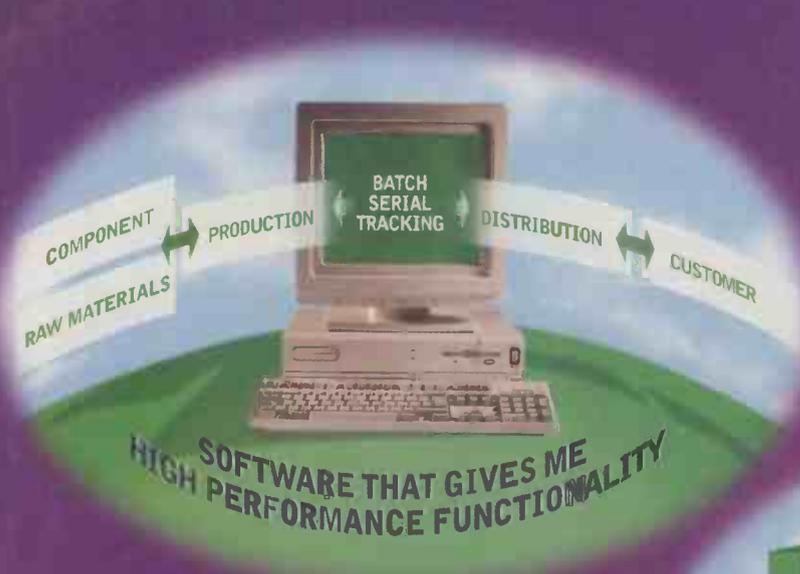
– and the average seek time is 65 milliseconds.

Omega revealed a huge market in this area when demand for its £150 Zip drive, which takes £15 100Mb disks, rapidly exceeded the supply. Drives should be more

freely available this autumn. Omega has a 1Gb drive in the pipeline.

Syquest responded by announcing its 3.5in EZ 135 drive, which is faster than the Zip and takes 135Mb disks costing from £12.50. The internal version costs the same as the Zip, but the standalone costs £179. It should have been available last month but Syquest said it would be delayed by about three weeks.

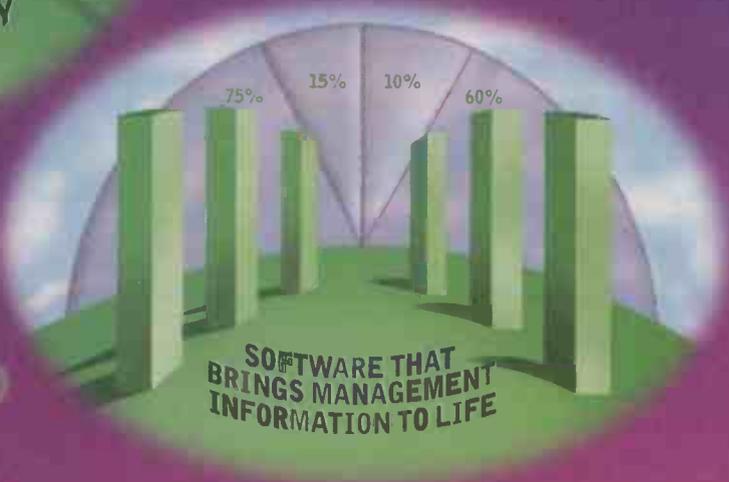
Compaq has said it will launch a true "superfloppy" drive early next year which will read existing floppies, as well as a new 100Mb format. But it is expected to be relatively slow.



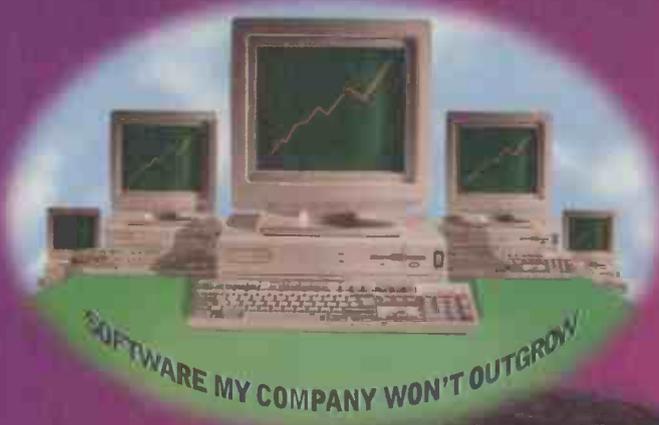
**SOFTWARE THAT GIVES ME HIGH PERFORMANCE FUNCTIONALITY**



**SOFTWARE THAT FITS MY INDUSTRY**



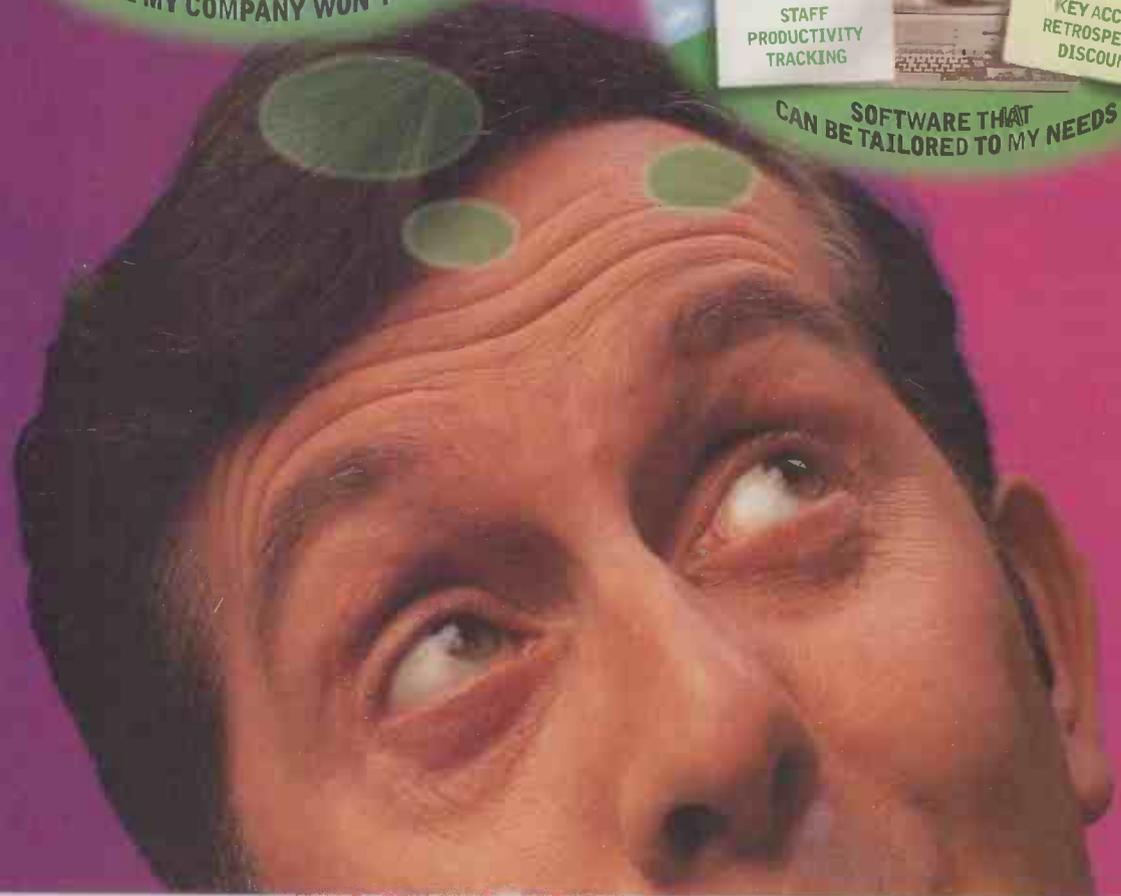
**SOFTWARE THAT BRINGS MANAGEMENT INFORMATION TO LIFE**



**SOFTWARE MY COMPANY WON'T OUTGROW**



**SOFTWARE THAT CAN BE TAILORED TO MY NEEDS**



# Sage Sovereign.

## Accounting software with every feature you have in mind.

Think of the accounting software that is exactly right for your business and you'll find we've already thought of it. Sage Sovereign. Software that meets the needs of your business so precisely you might have designed it yourself.

### ACCOUNTING SOFTWARE THAT CHANGES TO SUIT YOU

The key to Sovereign is tailorability. Its modular approach to business accounting allows you to decide on the features and functions you require, and specify exactly how you want them to operate. Which means that you get all of the features you need, functioning exactly the way you want.

Sovereign's flexibility means that it is perfect for any type of business, regardless of market sector. Manufacturing, retail, construction, advertising, financial services – companies working in all industries have discovered that Sovereign can help put them ahead. Working with specialist Sovereign Development Centres, Sovereign has been specifically tailored to the unique requirements of each industry. So you'll probably find that, whatever your business, there will already be a customised solution for you.

### HIGH PERFORMANCE SOFTWARE

Sage Sovereign doesn't just offer flexibility, it offers functionality. Sovereign is comprehensive enough to meet the needs of any business – large or small, single user or 200+ network. And as those needs evolve,

Sovereign is versatile and powerful enough to be able to meet the change. So no matter how fast your company grows, or how diverse it becomes, it will never outgrow Sovereign.

### A POWERFUL BUSINESS TOOL

Accurate, up-to-date business information is one of the most valuable commodities in today's competitive marketplace. Sovereign's powerful Executive Information System and the new Sovereign Windows Report Writer provide you with the information you need to make effective management decisions.

Another factor in Sovereign's success is its ability to connect with third party software packages such as Microsoft Office, which allows data to be 'sucked in' to spreadsheets and reports for analysis and manipulation. This lets your company identify opportunities and act upon them, tighten up financial controls and ultimately make better-informed decisions, giving your company a competitive edge.



### EVERYBODY COUNTS ON THE UK'S NUMBER ONE

Existing Sovereign users already know how effective it is. A view that's supported by the Institute of Chartered Accountants in England and Wales\*, which has accredited all accounting products in the Sage range. And because we're a UK company, we have a unique insight into the particular needs of businesses in this country – which is why over 100,000 of them have turned to us for the solution to

their accounting needs, making us the UK's number one in accounting software.

To find out how your company can benefit from the Sovereign advantage, call Sage today on 0800 33 66 33. We'll discuss your needs and offer a solution to your problems. And you'll find that while you've been thinking about the accounting system you really need, we've been developing it.

### Sage Sovereign at a glance

- 1 Sovereign is the flagship product from Sage, the UK's number one in accounting software.
- 2 Sovereign is a completely tailorable accounting solution able to meet the demands of any business.
- 3 14 different business and accounting modules that build up into the perfect business management system.
- 4 Seamless links to other software enables data to be used throughout the company.
- 5 Systems from single user up to 200+ networks.
- 6 Accredited by the Institute of Chartered Accountants in England and Wales\*.

Call Sage today for more information

**0800  
33 66 33**

Please quote Ref: SVPCW2

EVERYBODY  
COUNTS ON  
THE  
UK'S NUMBER  
ONE

**S A G E**

Sage House, Benton Park Road,  
Newcastle upon Tyne NE7 7LZ.  
Tel: 0191 201 3000 Fax: 0191 201 0308

For more information fill in this coupon and send to Sage at the above address.

Name

Position

Company

Address

Postcode:

Tel:  Fax:

Please indicate size of business by ticking appropriate box.

Employs 1-25  Employs 26-100  Employs 100+

Ref: SVPCW2



\* Purchasers should ensure that the Licensed Program Materials ("the Materials") meet their own specific requirements. Notwithstanding any accreditation of the Materials, the Institute of Chartered Accountants in England and Wales shall not be liable for any loss or damage incurred by any person, occasioned by the use of the Materials or any related products or services, howsoever caused.

## Short Stories

## Back to school

● Education specialist 10/10 is offering two of its leading products at an 80 percent discount to tempt parents in the approach to the new school year.

The company offers a series of £26 modules based on the national curriculum; each is said to offer computer-assisted learning for all levels between the ages of six to 16.

Peter Davidson, chairman of 10/10, said: "Packages like that can cost £1,500 for one subject. We don't have the same kind of marking and assessment facilities but we are much cheaper."

He said the cut-price offer had been made because experience had shown that parents who bought one module returned for more.

10/10 Software 01132 394627

## Olivetti in ATM breakthrough

● A breakthrough in mobile multimedia communications is being claimed by researchers at Olivetti's Cambridge laboratory.

They have built what they claim is the world's first radio system using Asynchronous Transfer Mode (ATM) communication which is particularly useful for multimedia.

The test system uses the 2.45GHz band with a raw data transfer rate of 10Mb/sec.

## ZSafe hides data on the fly

● ZSafe for Windows and DOS is targeted particularly at portable users who fear sensitive information may get into the wrong hands if machines are lost and stolen.

Developer Zincom says the software encrypts and decrypts hard-disk data transparently on the fly. It can also be used in desktop PCs.

Zincom 01565 650383

## Acorn upsets its dealers and loses MD despite arrival of new machines

Acorn Computers has had a controversial month, making up-beat product announcements but losing a managing director and enraging many of its dealers.

First the good news: a new entry-level (from £749+VAT) A7000 featuring the latest ultra-integrated (audio, video, I/O, memory management plus CPU) ARM3500 RISC chip.

Acorn also upgraded its flagship Risc PC 600 range with a slightly faster ARM610 processor, added an on-board 16-bit audio and ATAPI CD-ROM controller, and improved the Risc OS operating, including a secret new JPEG image decompressor which is incredibly fast.

There is also a 40 percent faster Risc PC 700 featuring ARM's newest ARM710 RISC CPU, also available as a £100 upgrade to 600 owners.

The bad news: Acorn has appointed one third of its education dealers as agents for a new direct sales strategy aimed at tackling Apple, RM and PC schools competition. Sadly, the deal undercuts all other Acorn dealers. Education is 80 percent of Acorn's market. Acorn's Usenet conference (comp.sys.acorn) has been in uproar as dealers accused the company of stealing their livelihood.

Then Sam Wauchope, Acorn's popular MD, unexpectedly resigned. "I can't comment

about his resignation," said his successor David Lee, "...but it wasn't due to the channel changes." Acorn's line, according to Lee, is that dealers with a good reputation can add value

to their hardware sales in various ways. Acorn has also introduced an interest-free credit scheme to boost consumer sales.

Ian Burley

Macabre but fascinating images from the Visible Human project (see *Newsprint*, February) are now available on CD-ROM. The images are of the body of Joseph Jernigan, who earlier this year was executed by injection at the age of 39 in Texas for killing an elderly man during a burglary.

His body, which he left to science, was first scanned for general orientation and then frozen and sliced into 1,870 1mm sections which were photographed in 24-bit colour at a resolution of 2048 x 1216 pixels. The result is a 42Gb set of 10,000 images which allow the body to be viewed from any angle.

The entire set has been compressed onto a single CD-ROM, with navigation software, and costs £495.

Floating Point Systems 01734 776333



## RM goes back to school with Windows NT

Acorn's major rival in schools unveiled its next-generation schoolkid-proof networking product. Research Machines won a majority market share by going the mainstream PC route while Acorn ploughed its own RISCy furrow.

Its RM Connect involves a move to Windows NT as the server operating system to facilitate support of mixed Windows 3.x and Windows 95 environments.

The environment has been customised to help

teachers set up the network for new classes – a considerable task, with each child having specific resources and rights and each PC having several users a day. The task is reduced to simple drag and drop operations; groups can be set up by copying lists to the clipboard.

RM consultant Steve Thomas said schools have more users and more sophisticated systems than many businesses.

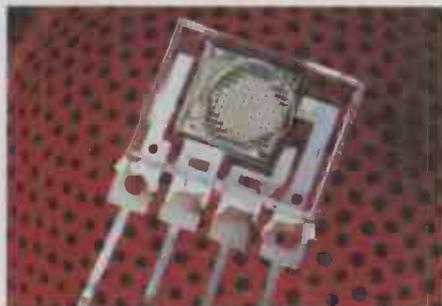
Research Machines 01235 826000

## Logitech beats dirty balls horror

Logitech claims to have solved the vexing problem of dirty balls. Its new range of pointing devices include trackballs and mice with no moving parts apart from the ball itself.

At the heart of the device are a charge-coupled light sensor (CCD) and two light-emitting diodes (LEDs) mounted on a piece of plastic (see picture). The LEDs illuminate a ball splattered randomly with dots.

The image of the ball is



focused onto the CCD and is interpreted with the aid of a neural network to provide positional information. This derives from displacements rather than

absolute positions, so the precise pattern of the dots is not a factor and marks do not upset the calculations.

Moreover, the Swiss-developed system, called Marble Sensing Technology, does away with the usual wheels and rollers which translate ball movements via optical or resistive sensors and are very vulnerable to gunge. The first products using the new systems are likely to appear in September.

## Hot stuff on the Win95 keyboard

Windows 95 has revealed the dark secrets of Microsoft's ergonomic keyboard — the one that looks as if it might swing back and clunk you on the head if you throw it out of the window (as well you might, if you're not a touch-typist). The board sports two extra Windows keys and an applications key, which we were promised would get up to all sorts of tricks under Win95.

Users can now get a free driver upgrade that pops up a shortcut menu at the touch of the apps key. Hot combinations using the Windows key will perform a variety of tasks from logging off to mimimising all apps. The keys are implemented on some third-party boards (see story, right).

Details on 0345 002000

## Two-speed mouse for the Mac

A two-speed Mac mouse which allows you to shift gear for long jumps or fast scrolling may be adapted for PC use if it proves popular, says US mouse-maker Microspeed.

The latest Windows drivers provide a certain amount of ballistic control, moving the pointer further if the mouse is moved quickly, but the effect is subtle, according to Microspeed's Daniel Mertens. The MacTrac 3.0 mouse can be configured to switch gear instantly by clicking a middle button.

Mertens said the sister PC product could be made to do the same thing, but not with the normal Windows driver. A PC driver upgrade will be provided if the feature proves popular with Mac users.

The company has just set up a London office, and plans to launch a Win95 version of its award-winning WinTrac trackball in September for about £75. It will also offer a sturdy £34 keyboard with the new Win95 function keys (see story, left).

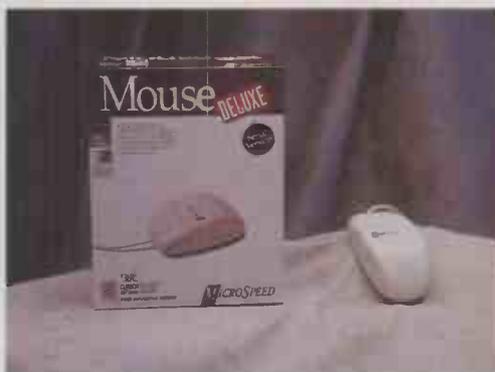
● A new pointing device called the Felix AB is designed to improve the accuracy and comfort of Win95 users, and reduce repetitive strain injuries, writes Tim Bjarin.

A handle operates a chip-controlled tracking system, providing very precise control of the cursor. I was sceptical at first, but quickly found that it was easy to use, fast and precise. Developer Altra bills it as a mouse replacement, but designers and other users may find it a low-cost alternative to a graphics-tablet combination.

It should be in the UK by late autumn and has a street price of around \$60.

Altra 307 328 1342 (US)

Microspeed 0171 720 0592



## Short Stories



Tim Bjarin  
in the US

### Portable paging goes both ways

● The first two-way wireless messaging for portables is hitting the market. Last week, Motorola introduced its \$600 Personal Messenger PC card-modem, which works with its ARDIS FM service. I have been using one with an HP 200 LX palmtop, and find it very useful. It has a connection to RadioMail, a great mail service optimised for wireless, and lets me send e-mail and faxes from almost anywhere.

Also useful is Motorola's Envoy, a pen-based palmtop with a wireless modem built in. It uses General Magic's Magic Link operating system. Skytel will launch a two-way paging system this autumn.

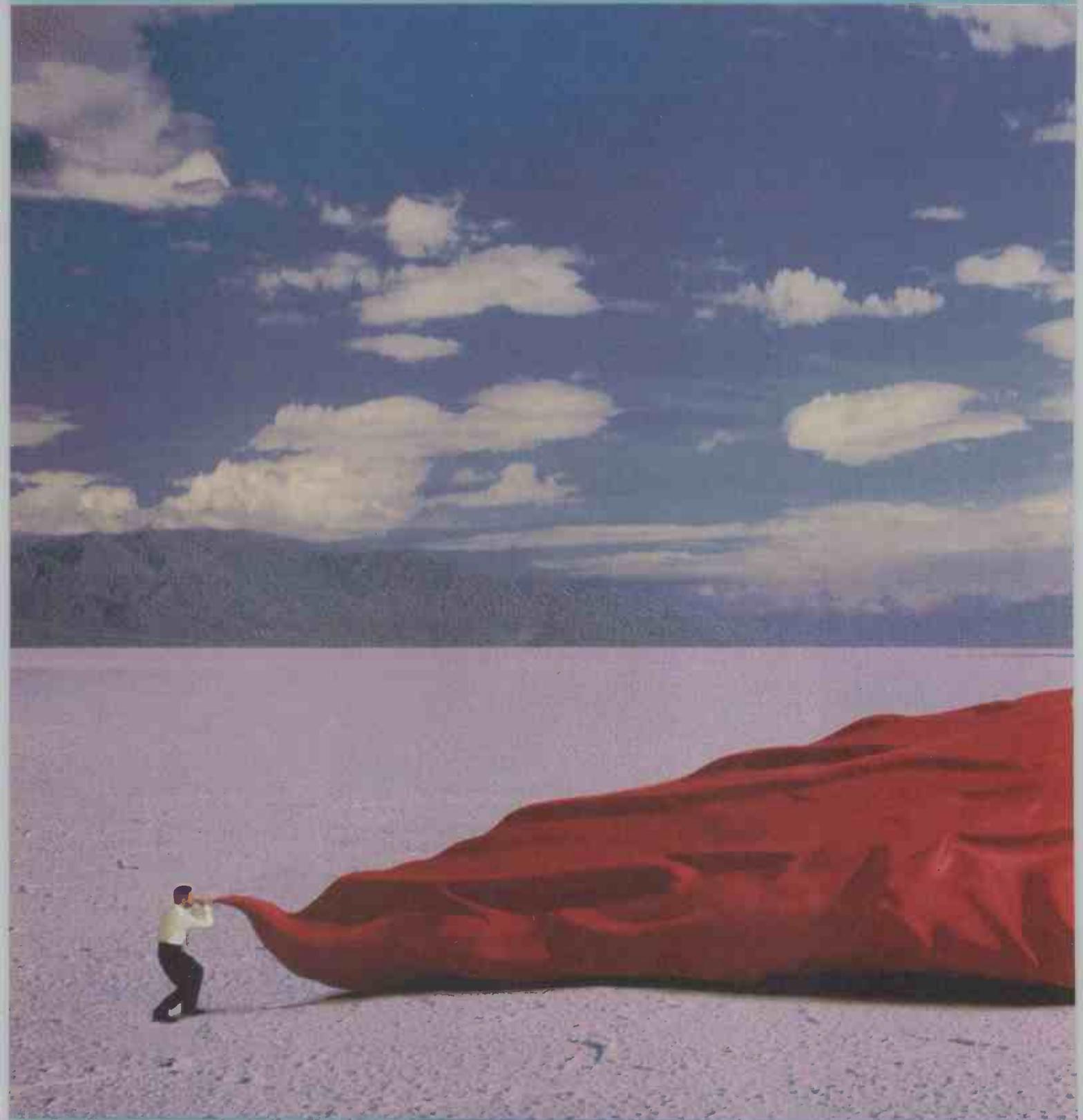
Companies like Ex Machina have enabled PC users to contact this type of pager with ease. However, two-way pagers add a new dimension. Instead of a keyboard, they have four buttons that can be used to respond to messages with multiple-choice questions. They are expected to appear in Europe early next year.

### Advisor checks for Win95

● A program called Win 95 Advisor, from Touchstone Software, rates your PC for Windows 95 suitability. An installation planner lets you pre-select options available during Win95 installation and prepare for required entries. It detects if your BIOS will enable all Win95's Plug and Play features.

Advisor even checks for free space and Windows 95 compatibility with current compression and partition type, and benchmarks your system for multimedia performance. A tutorial explains key Windows 95 options and requirements to help you avoid problems. It will sell for about \$35.

Your company just hired eight new people. You need



Even if your computer is at bursting point today, it may still have to expand to meet the demands of your growing business and



work-force tomorrow. It will come then as a sigh of relief that HP PCs have been built to cater for both your present and future business

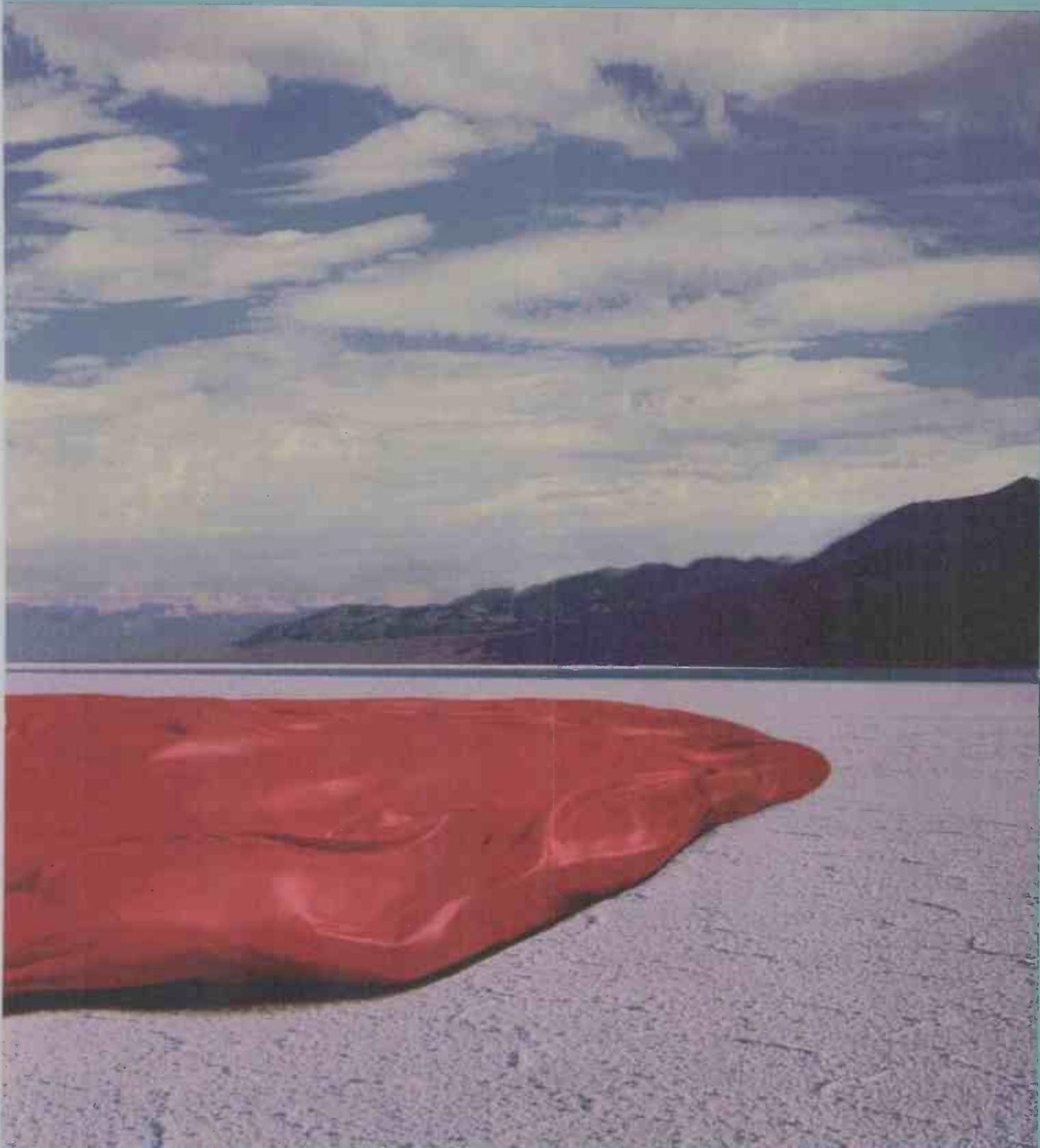
“Built to cater for both your present and future business computing needs.”

computing needs. The dynamic design of HP PCs with the powerful Intel Pentium® processor built-in, leaves plenty of growing

space to allow for tomorrow's computing. Also, every HP PC has the capability to have memory quickly and easily upgraded to meet your future



oom to expand.



The Intel Inside® logo and Pentium™ Processor are all trademarks of Intel Corporation. \*Microsoft, Windows, and the Windows logo are registered trademarks of Microsoft Corporation.

higher demands. So no matter what network and applications your company has now, or plans to use, an HP PC lets you expand to your maximum potential at minimal expense. You won't feel deflated when one arrives either. All HP PCs from our entry level V-Line right up to the maximum performance X-Line come fully equipped



ready to run, right out of the box, so you just have to plug in and play. With your installation costs minimised there will be plenty of breathing room in your budget as well. For more information call HP on 01344 369222.



**GIVE YOU ROOM TO THINK**

## Short Stories



## New Nighthawk printer sharer

● Up to forty PC users can share printers and swap files via the parallel port using new DFS devices from Nighthawk. Data can be transmitted up to 500ft using ordinary phone cable that plugs in the back of the devices, which cost £60 per PC and £50 per printer.

Nighthawk 01799 540881

## Time TV

● Time has launched a new range of PCs equipped with cards that enable you to watch TV. Prices start at £1,699 for a DX2/66 with a 540Mb disk and CD drive.

Time 01282 777111



## New printer

● Mannesmann-Tally has launched the T711c colour bubblejet, with a 300dpi resolution, for £269.

Mannesmann-Tally 01734 788711

## Big picture

● NEC has produced what it claims is the first plug-and-play 29in monitor. The Multi-Sync 4Ppplus supports up to four sources simultaneously and costs £3,197.

NEC 0181 993 8111

## Music online

● You can search for and buy sheet music and MIDI files from <http://www.music-sales.co.uk>, a new Web site set up by the Music Sales Group. Also at the site are sample files which change periodically.

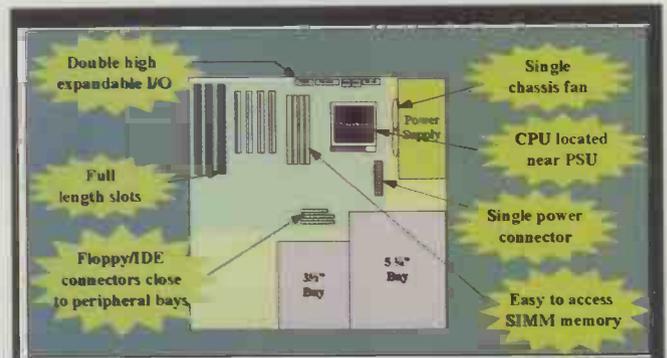
## Motorola's modem trouble

High-speed modems seem hijinxed. After US Robotics' trouble with the 28.8k Sportster, Motorola is now having problems with the V3400 Pro modems which come bundled with the Internet Solution startup kit.

Some early models can generate a very short spike of DC (around 30-35 volts) when switched on. If the PC is already powered up, the spike may travel down the serial lead and into the PC's serial port where it pops a chip.

This only happens if the serial cable is screened, because the screening creates a more efficient transfer path. Most users will however not know whether their cables are screened or not. The cure, now incorporated in Motorola's modems, is a pair of blocking capacitors. If Motorola's engineers are satisfied that a faulty V3400 is the cause of damage, the company will repair a customer's PC.

Motorola seems to be doing its best for customers, without creating a panic reaction or triggering opportunist claims. It says it has warned the distribution chain, withdrawn faulty product and "informed all relevant press". Motorola's Simon Boyle believes that anyone who takes a Motorola V3400 modem back to a shop and complains that it does not work, will be fully advised of the problem rather than just given a



Leave the power supply and disk drives where they are in the above diagram and switch the rest clockwise through 90 degrees, and you will get something roughly like Intel's old Baby AT motherboard, which forms the basis of millions of current PCs. It will look a lot more awkward: longer leads, expansion cards blocking memory slots, and the processor and power supplier generating heat at opposite ends of the board — often necessitating two fans. The layout pictured is of Intel's new ATX board, which PC makers from Compaq, Dell, Gateway, and IBM downwards will be using for the forthcoming P6 machines. The wonder is that the board was made like that in the first place.

Clive Akass

replacement. By then the serial port may not work with any modem.

Most of the faulty batch ended up on the US market, so Motorola expects few claims in the UK. Because of a complex factory numbering system Motorola cannot easily identify risky units by serial number. Anyone with doubts can call Motorola on 01293 422600 for advice. I called and got a very quick response.

Barry Fox

## US Robotics modems speed up

● US Robotics has become the latest modem maker to offer speeds beyond 28.8Kbps — billed with the V.34 standard only last year as the fastest modems would ever go. It is offering free upgrades which push its Courier and Total Control models to 33.6Kbps. Point your browser at [www.usr.com](http://www.usr.com).

USR 0753 811180

## Postcode utility with a nice price

A utility that provides addresses for given postcodes is being offered for £42.50, a fraction of the cost of some rival products.

Postcode, from AFD Software, is also available as a shareware version that gives only the town and county to which a code refers. It is available at <http://www.nildram.co.uk/nildram/postcode.html>.

Distributor Nildram claims it can speed up

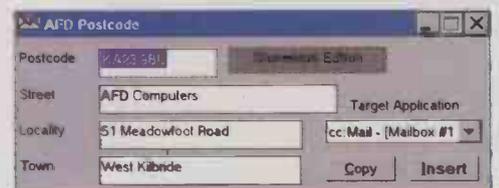
the typing of addresses as it will complete them down to street level once it is given the postcode.

• The new version of QuickAddress with Find from QAS will generate estimated household income from the postcode. It costs £3,000 for one user, with

substantial reductions for multiple licences. QuickAddress basically provides a front-end for income data compiled by The Marketing Information Consultancy with information on more than 13 million households.

Nildram 01442 891331

QAS 0171 498 7777



# SURPLUS COMPUTER STOCKS

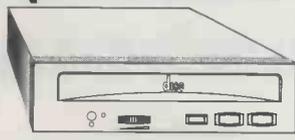
MORGAN COMPUTER CO. DISPOSAL OF BRAND NEW SURPLUS INVENTORY, OVERSTOCK & LIQUIDATED COMPUTER MERCHANDISE

## 486DX2 66MHz



**420Mb DRIVE, 4Mb RAM**  
Fast 66MHz processor, VESA local bus m/board, 14" col VGA. **£599.99**  
Complete with DOS 6.

## QUAD SPEED CD



**GOLDSTAR GCD-540B CD ROM**  
Internal quad speed E-IDE CD ROM, multimedia and Photo CD compatible. Easy install. **£124.99**

## 75MHz 486 D2



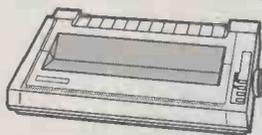
**IBM BUILT "BLUE LIGHTNING"**  
520Mb/8Mb RAM, 1Mb VESA video, 14" .28 SVGA. Access 1, Word 2 & Excel 4 (US). **£799.99**

## ZENITH Z-LITE 486



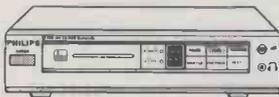
**i486SL 25MHz SUB-NOTEBOOK**  
170Mb/4Mb RAM, NiMH battery, trackball and external 1.44Mb floppy, DOS 6 & Win 3.1 **£699.99**

## 132 COL + NLQ



**SHINWA DOT MATRIX**  
135 CPS draft, 27 CPS NLQ, auto paper load, friction/tractor, IBM & Epson modes. Parallel i/f. **£74.99**

## PHILIPS CD ROM



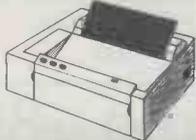
**CD ROM DRIVE CLEARANCE**  
CM 205, internal, s/speed **£49.99**  
CM 215, bare drive, s/speed **£59.99**  
CDD 462, external, s/speed **£79.99**

## 15PPM LASER



**SEIKSHA OP115 PRINTER**  
300 dpi, 1Mb RAM, 5 fonts. HP II, IBM & Epson modes. 250 bin, parallel and-RS232. **£499.99**

## NEC GDI LASER



**SUPERSCRIPT 610 PRINTER**  
Windows laser, 6ppm speed, resolution 300dpi, virtual 600 dpi. **£249.99**  
1 year on-site warranty.

## SHARP UX-135



**AUTOSWITCH PERSONAL FAX**  
Fax switch, answerphone hook-up, 50 auto dials, auto doc feed. **£199.99**  
1 year on-site warranty.

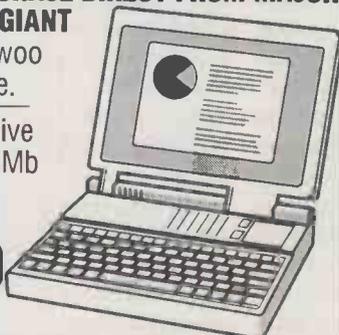
## UNBEATABLE NOTEBOOK DEALS

EXCLUSIVE BULK PURCHASE DIRECT FROM MAJOR KOREAN INDUSTRIAL GIANT

Manufactured by Daewoo - branded Leading Edge.

- 386SX 16, 20Mb drive
- 1Mb RAM, 3.5" 1.44Mb
- Mono LCD display
- MS-DOS 5

**£199.99**



## 386SX-20 60Mb

- Intel 20MHz 386SX
- 60Mb drive, 2Mb RAM
- 3.5" 1.44Mb floppy
- Mono LCD display
- DOS and Windows 3.1

**£249.99**

## 386SL-25 60Mb LCD COLOUR SCREEN

- Intel 25MHz 386SL
- 60Mb drive, 2Mb RAM
- 3.5" 1.44Mb floppy
- Colour LCD display
- DOS and Windows 3.1

**£399.99**

## 486SLC-25MHz

- Intel 25MHz 486SLC
- 80Mb drive, 4Mb RAM
- 3.5" 1.44Mb floppy
- Mono LCD display
- DOS and Windows 3.1

**£499.99**

## 386SL-25 80Mb LCD COLOUR SCREEN

- Intel 25MHz 386SL
- 80Mb drive, 4Mb RAM
- 3.5" 1.44Mb floppy
- Colour LCD display
- DOS and Windows 3.1

**£499.99**

ALL BRAND NEW AND BOXED - PLEASE NOTE US KEYBOARD LAYOUT

TO RECEIVE A REGULAR COPY OF THE MORGAN MONTHLY FLYER - FULL INVENTORY OF MORGAN STOCK - PLEASE CALL 0121-456 5565 OR FAX YOUR BUSINESS CARD TO 0121-456 5564.

## SUPERB GRAPHICS



**HARVARD POWER PACK**  
The best in presentation graphics plus Clip Art, over 2000 images. Superbly packaged. Ver 2. **£34.99**

## ZENITH 17" SVGA



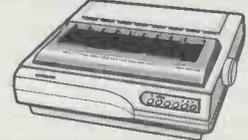
**EX ARCHITECTS OFFICE**  
Zenith ZCM 1024 x 768 res, multi-sync, .26 dot pitch, flat screen, previous light use only. **£299.99**

## ACER PCL 5 LASER



**HP LASERJET III COMPATIBLE**  
10ppm, 8 scalable and 14 Bitmap fonts, 300 dpi, 1.5Mb RAM, parallel & RS232 ports. **£449.99**

## SAMSUNG 24 PIN



**200 CPS + LETTER QUALITY**  
67 CPS LQ, 80 col, 8K buffer, Epson & IBM modes, 6 fonts, tractor/friction feed. Parallel i/f. **£99.99**

## INTEL P90



**520Mb DRIVE, 8Mb RAM**  
Pentium 90MHz processor, PCI board, 256K cache, 14" SVGA. **£999.99**  
DOS 6 & Windows 3.1

## WORDPERFECT 6



**WINDOWS WORD PROCESSOR**  
The world's No 1 word processor, full WYSIWYG, graphics and charting. Retail pack. 3.5". **£49.99**

## MULTIMEDIA KIT



**INC PHILIPS CM 205 CD ROM**  
Single speed, multisession CD ROM, 16 bit stereo sound card, stereo speakers, & free trial CD. **£59.99**

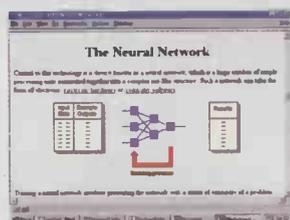
- 64-72 New Oxford Street, London WC1. 0171-255 2115
- 179 Tottenham Court Road, London W1. 0171-636 1138
- Edgbaston Centre, Hagley Road, Birmingham 16. 0121-452 1141
- 12 Piccadilly Station Approach, Manchester 1. 0161-237 1111
- Open Monday to Saturday. Mon/Fri 9am-5.30pm. Sat 9am-5pm

MAIL ORDER CALL 0121-456 5565. FAX 0121-456 5564. NEXT DAY DELIVERY (SUBJ TO STOCK) ON ALL ORDERS PLACED BEFORE 3PM

# Morgan

- Goods subject to availability. Prices subject to change. E & OE
- We accept Access, Visa, American Express, Switch and Connect
- All prices exclude VAT (17.5%) and delivery (call for charges)
- Government, educational and major corporate orders welcomed
- Goods are not supplied on a trial basis. Restocking fee may apply

## Short Stories



● A government Web site devoted to neural networks has been created with the aid of the technology it was set up to promote. The site (at <http://www.globalweb.co.uk/nctt/>) includes an online tutorial for beginners and companies who may be considering neural-net applications.

The creation of hypertext links between its 1000 pages was part-automated with the aid of a neural utility. The Web page is part of the Department of Trade and Industry's three-year Neural Network Technology Transfer programme, which has prompted more than 10,000 enquiries.

The programme has also produced, with the University of York's Electronics Centre, a four-module distance-learning course on neural technology. It is available from the centre (01904 432323) or from the Institution of Electrical Engineers on 01438 313311.

### Net censor to protect kids

● A robot censor has been produced by US company Surfwatch to prevent young netsurfers from being exposed to bad language or sexually explicit material.

The software, which is available for both servers and surfers, keeps an updatable database of dodgy sites to which it block access. It also monitors material for bad words.

SurfWatch 415 948 9500 (US)



● Portable Add-ons is offering this PC Card CD drive for £299. Tel: 01483 440777

# Plan to put British Library online given OK by Labour party

A plan to use millenium funds to put British Library archives online, mooted in Newsprint previously, has received partial backing from Labour. The party proposes to set up a Millenium Archive on the Internet of major works from the Library, as well as from other museums and art galleries.

Shadow Heritage Minister Chris Smith said: "It would take most of the next century to put everything in the British Library online... But we could take all the important manuscripts and some of the rare printed books and put them into digital form."

The facilities would be free to schools and public-access facilities like libraries but there might be a charging mechanism for "the use of creative material."

Mr Smith was speaking at the launch of Communicating Britain's Future, Labour's infonet policy document, which also proposed giving a free rein as soon as possible for British Telecom to compete with cable companies.

This could lead to homes across the country receiving the broadband connections necessary to realise the potential of the infonet. BT has promised to invest £13 billion in upgrading its



IBM is involved in digitising exhibits at several major museums, including the Vatican and (from last month) the Lutherhalle Wittenberg. This wonderful sixteenth-century Aztec painting, from one of the few written works surviving from the pre-Colombian civilisation, can be downloaded from IBM's Digital Library page at <http://www.ibm.com/Features/Library/>.

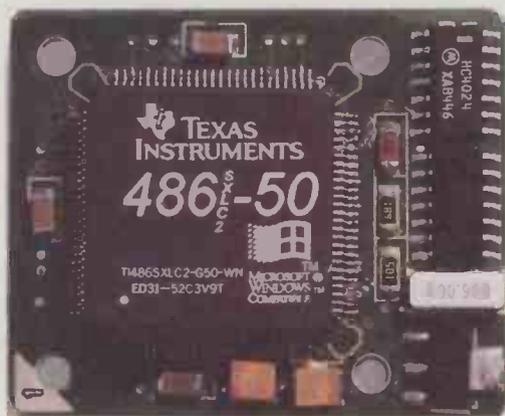
network provided it is allowed to recoup the money with entertainment services.

It is banned from doing this under a deal designed to allow cable companies to make a return on their investment. The

government says it will "review" this policy by 2001.

Mr Smith said Labour would limit this restriction to the first seven years of a cable company's franchise. **Clive Akass**

## Upgrade kit takes 386 into 486



Technomatic is selling a kit claiming to upgrade 386 and 386SX machines to 486 performance for just £99. The kits, from Workstation Source, comprise a Texas Instruments SXL2-50MHz chip sitting on a tiny daughterboard. This replaces a 386DX chip or "piggy-backs" a 386SX up to 25MHz.

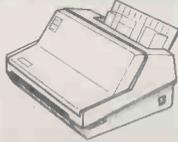
Workstation's James Gower said: "Our specialist dealers will be able to warn customers if their machines are unsuitable, and we give a money-back guarantee."

Technomatic 0181 205 0190; Workstation Source 01734 759292; Sunbelt (corporate enquiries) 0181 715 9913

# SURPLUS COMPUTER STOCKS

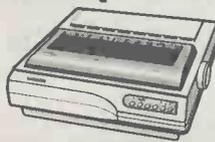
**MORGAN COMPUTER CO. DISPOSAL OF BRAND NEW SURPLUS INVENTORY, OVERSTOCK & LIQUIDATED COMPUTER MERCHANDISE**

## SUB £200 LASER



**MT-9104 "WINDOWS" LASER**  
4ppm GDI laser/300 dpi, uses Windows fonts, driver for DOS prompt, 1 year on-site. **£199.99**

## £75 NLQ PRINTER



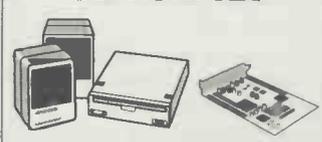
**SAMSUNG SP0912 DOT MATRIX**  
120 CPS + NLQ mode, IBM & Epson modes, tractor/friction feed, auto load. 1 year on-site. **£74.99**

## FX-9000AT



**AMSTRAD FAX/ANSWERPHONE**  
Digital answerphone - uses no tapes, 50 memories, 9 auto dials, fax switch, paper cutter. **£199.99**

## CD ROM KIT



**INC 16 BIT CARD & SPEAKERS**  
Sony dual speed CD ROM, 16 bit stereo sound card and speakers. Includes MS-Bookshelf CD. **£99.99**

## MS-SOFTWARE



**US WINDOWS SOFTWARE**  
MS-Word 2 (WP) 5.25" **£39.99**  
MS-Excel 4 (Spreadsheet) 3.5" **£69.99**  
MS-Access 1 (Database) 3.5" **£29.99**

## MITAC 486-50



**260Mb DRIVE/4Mb RAM**  
486SX2 50MHz, 1Mb video, digital 28 non-interlaced col SVGA, DOS/Win, 1 year on-site. **£549.99**

## CHAPLET 486SX



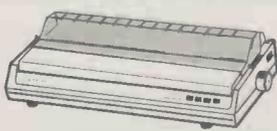
**486SX-25MHz NOTEBOOK**  
486SX 25MHz processor, 120Mb hard disk/4Mb RAM, integral trackball. Inc DOS/Win. **£599.99**

## SAMSUNG A4



**PORTRAIT FORMAT MONITOR**  
MP 5671 15" mono monitor is ideally suited for all creative DTP, CAD etc. 736 x 1008 res. **£44.99**

## PHILIPS PRINTER

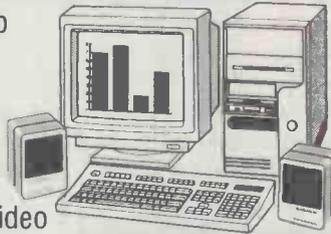


**EX MAJOR HIGH STREET BANK**  
Dot matrix printer, 9 pin, 80 column, NLQ mode. In-house refurb job, fully tested & re-boxed. **£49.99**

## MG586 90MHz MULTIMEDIA

### MORGAN GENERIC PENTIUM PRICE BUSTER

- Nx 586 90MHz chip
- 520Mb/4Mb RAM
- VESA local bus
- 256K cache RAM
- Dual speed CD
- 16 bit sound card
- 1Mb VESA SVGA video
- 14" SVGA col (.28dp)
- K/bd, mouse, Works 3
- MS-DOS 6/Windows 3.1



**£799.99**

## IBM PS/2 E 486 SLC2 50MHz

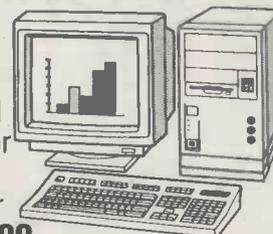
- 120Mb hard drive, 4Mb RAM
- 4 x PCMCIA type II slots or 1 x 16 bit slot, 1Mb SVGA/XGA
- Integral TrackPoint device
- UK keyboard, DOS 6 & Win 3.1



14" mono VGA **£399.99**  
14" colour SVGA **£499.99**

## DTK 486DX2 66MHz TOWER

- Complete mini tower
- Fast 66MHz processor
- 520Mb drive/8Mb RAM
- VESA local bus m/board
- 1Mb Windows accelerator
- Energy Star compliant
- 14" SVGA colour monitor
- UK k/board
- DOS/Win3.1



**IDEAL FOR WINDOWS 95**

## CHAPLET 386



**386SX-25 NOTEBOOK**  
25MHz, 120Mb/2Mb RAM, mono LCD screen, integral trackball. Complete with MS-DOS. **£299.99**

## IBM 486SX 25



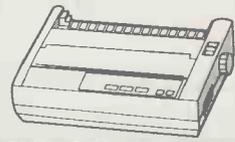
**80Mb DRIVE, 2Mb RAM**  
486SX 25MHz tower, 3.5" floppy, 14" mono VGA (non IBM). K/bd, DOS 6 & Win 3.1 **£299.99**

## MITAC 486 33



**OEM NOTEBOOK CLEARANCE**  
33MHz 486SLC, 80Mb/4Mb RAM, LCD VGA mono display, 3.5" floppy. DOS 6 & Win 3.1 **£549.99**

## 24 PIN COLOUR



**SAMSUNG SP 2417 PRINTER**  
80 col, 200 CPS/53 CPS LQ, 8K buffer, sheetfeeder. Colour kit/ribbon. 1 year on-site. **£149.99**

## IBM MODEM



**THINKPAD PCMCIA CARD**  
Type II fax/modem, 2400/9600 speed. US import with all software/manuals. Not BT approved. **£49.99**

## 20" MONITOR



**MULTI-SCAN COLOUR SVGA**  
1024 x 768 res, non-interlaced, .31 dot pitch, front panel control, ideal for CAD and design. **£699.99**

## CHICONY 486DX



**120Mb 486DX 33MHz LAPTOP**  
120Mb/4Mb RAM, gas plasma screen, half size 16 bit slot, AC/NiCad. DOS 6.2/Win 3.1 **£799.99**

■ 64-72 New Oxford Street, London WC1. 0171-255 2115  
■ 179 Tottenham Court Road, London W1. 0171-636 1138  
■ Edgbaston Centre, Hagley Road, Birmingham 16. 0121-452 1141  
■ 12 Piccadilly Station Approach, Manchester 1. 0161-237 1111  
■ Open Monday to Saturday. Mon/Fri 9am-5.30pm. Sat 9am-5pm

# Morgan

■ Goods subject to availability. Prices subject to change. E & OE  
■ We accept Access, Visa, American Express, Switch and Connect  
■ All prices exclude VAT (17.5%) and delivery (call for charges)  
■ Government, educational and major corporate orders welcomed  
■ Goods are not supplied on a trial basis. Restocking fee may apply

MAIL ORDER CALL 0121-456 5565. FAX 0121-456 5564. NEXT DAY DELIVERY (SUBJ TO STOCK) ON ALL ORDERS PLACED BEFORE 3PM

**Short Stories**

**Power SCSI**

● Adaptec has produced a fast SCSI2 adaptor, called the AHA-2490W, for the PowerMac 9500's PCI bus. The company also says that following its acquisition of storage specialist Trillium Research, it will be developing RAID mass-storage systems for the PowerMac.

Adaptec 01252 811200

**Net benefit**

● WordPerfect 3.5 for the Mac is now available for £125, or £60 to upgraders. New features include an HTML editor for creating Web pages, and the Netscape Navigator is bundled with the package.

Novell claims the new version is the fastest and most "Mac compatible" version available.

Novell 01344 7244600

**Doomed Macs**

● Virgin Interactive is selling Doom II for the Mac in both CD-ROM and floppy versions.

Virgin Interactive 0181 964 8242

**Bit animation**

● Bit UK is selling ElectricImage Animation System 2.5, which it claims is the fastest and most powerful Mac animation production tool available. New features include inverse kinematics, light rays and network rendering. It costs £595.

Bit 01420 83811

**Express storage**

● Micro Design International has launched version 2.0 of SCSI Express, which assists the installation of storage devices in the Mac environment. It supports both the HFS and NDR file formats, respectively for Mac-only and mixed-platform environments.

MDI 01454 614182

● Psion has reduced the cost of its Gold Card V.34 fax-modem PCMCIA card by 40 percent to £299.

Psion 01908 261686

**Infra-red networking for PowerBooks**

Apple has scooped the PC world by incorporating infra-red networking as standard into its latest top-of-the-range PowerBook portables.

Users of the new PowerBook 5300 will be able to connect to a network simply by walking within two metres of a machine equipped with an IR port AirDock 230kbps costing about £59 street price from Farallon.

The IR link, which uses the Appletalk protocol, can sense any other 5300 or similarly-equipped machine within range and link up with them (there can be more than one) as if they are physically linked on a network.

A software upgrade will also make the port IRDA compatible for talking directly to IBM machines, though this is not yet available. Portable products manager James Dingwall says Appletalk allows the machine to connect with "foreign" networks including Netware. There are three new PowerBook ranges:

- The 68LC040-powered 190 replaces the old 100 series. A version with a 10.4in dual-scan colour screen costs £1,490. Options include an I-R port, a

**Apple unveils three new PowerMacs**

Three new PowerMacs were unveiled at MacWorld in Boston last month. The 7200, the 7500 and the 8500 complement the top-ranking 9500. All feature fast PCI buses, enabling them to use cards benefiting from the high-volume prices of the Intel-based market.

Prices start at £1,055, which is also competitive with the PC market. Pictured here is the 90MHz 7200.



lithium-ion battery and one of Fujitsu's new magneto-optical drives. It is designed to compete with low-end Wintel notebooks — a mono version will cost around £1100.

● The PowerDuo 2000 is basically a 100MHz PowerPC upgrade to the 200 sub-notebooks. The Duo 2300 with a 9.5in active-matrix colour screen will cost about £2530.

● The 5000 series replaces the old 500s and use a lithium-ion

battery with a claimed life of up to five hours. A 10.4in active-matrix SVGA version is available.

Farallon faxback 01494 434 224; Apple 0800 127753

Newsprint welcomes your news, views, Web sites and graphics. Send them to cakassa at CIX or clive-akass@pcw.ccmil.compsuerve.com or cakass@dial.pipex.com

Top 10 Windows and DOS		
Product	Manufacturer	Last month
1 First Aid for Windows	RMG	1
2 MS Office 4.2 U/G	Microsoft	4
3 Sidekick for Windows	RMG	-
4 The Business Plan Builder	RMG	4
5 Uninstaller v3	Microhelp	-
6 Alpha 5 Home & Business	Guildsoft	-
7 Cleansweep	Quarterdeck	3
8 Smartsuite	Lotus	-
9 PCDOS Version 7	IBM	10
10 Quickbooks v3	Intuit	-
Top 10 DOS		
1 PC DOS Version 7	IBM	3
2 Flight Simulator V5.1	Microsoft	1
3 QEMM v7.5	QuarterDeck	2
4 Solo Payroll	Pegasus	10
5 DOS 6.22	Microsoft	5
6 Gardeners World	Europress	6
7 The Last Dynasty	Sierra	-
8 Turbo C++ V3	Borland	4
9 Sterling Payroll	Sage	-
10 Star Trek	Microprose	-

Top 20 Windows		
Product	Manufacturer	Last month
1 First Aid for Windows	RMG	1
2 MS Office 4.2 U/G	Microsoft	4
3 Sidekick for Windows	RMG	-
4 The Business Plan Builder	RMG	4
5 UnInstaller v3	Microhelp	-
6 Alpha 5 Home & Business	Guildsoft	-
7 Cleansweep	Quarterdeck	3
8 Smartsuite	Lotus	18
9 Quickbooks v3	Intuit	15
10 MS Office 4.3 Pro U/G	Microsoft	9
11 Quicken v4.0	Intuit	6
12 Truespace v1	RMG	-
13 Solomon's Anti Virus	S&S	5
14 Encarta 1995	Microsoft	-
15 12,000 Clipart	Softkey	20
16 Form Art Tool	IMSI	-
17 Magnaram	Quarterdeck	-
18 WordStar V2	Softkey	12
19 CAD Graphics Converter Gold	IMSI	-
20 Gallery 2	Corel	16

Our apologies for printing old figures last month. These figures from Software Warehouse are for July sales.

# COMPLETE NETWORK SOLUTIONS

## LIFETIME MANUFACTURER'S WARRANTY

### PCMCIA Ethernet Adapter

- \* Credit-card sized PCMCIA Ethernet card
- \* Low power consumption; All components meet U.S. EPA Energy Star standards
- \* Uses NE2000 drivers; no additional drivers needed
- \* Conforms to IEEE 802.3 and fits Type I, II, III PCMCIA slots
- \* Media type auto detection (BNC & UTP)

### EN-5100 32-Bit PCI Bus Ethernet Adapter

- \* Single-chip solution for 32-bit PCI bus
- \* Supports Windows 95 plug & play function
- \* Low power consumption for green PCs
- \* 3-in-1 design supports AUI, BNC & UTP

### 2000 PXA Plug & Play Full-Duplex NE2000 Combo Turbo Adapter

- \* Full-duplex design doubles performance
- \* Plug & play, auto setup IRQ and I/O
- \* Configuration by jumpers or software
- \* Auto detection for media (BNC/UTP)
- \* Uses NE2000 drivers; no additional drivers needed

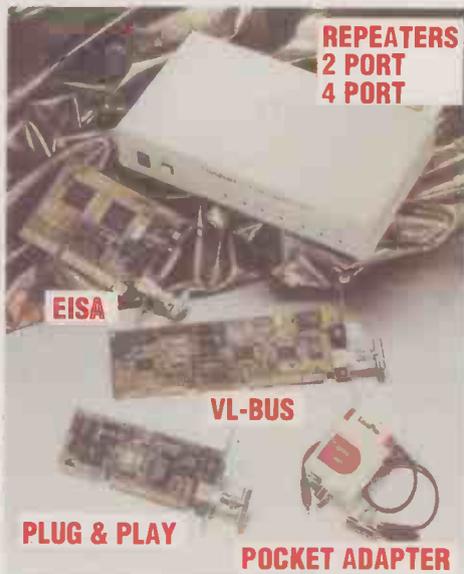
### SNMP Smart Hubs

- \* Stack up to 16 hubs to form a logical hub
- \* 12 UTP ports on each hub
- \* In-band, out of band SNMP management
- \* Supports MIB I, MIB II and repeater MIB
- \* Windows-based management software

### ER-5390T 8-Port Ethernet Hubs ER-5396T 16-Port Ethernet Hubs ER-5397T 32-Port Ethernet Hubs

- \* Automatic partitioning of bad ports
- \* Automatic polarity detection
- \* Hub status LEDs for easy diagnostics
- \* Conforms to IEEE 802.3 10Base-2, 10Base-5 and 10Base-T standards
- \* Supports 8 UTP ports + 1 BNC port for 8 port hubs
- \* Supports 16 UTP ports + 2 BNC/AUI ports for 16 port hubs

- EP-3020 EPP Pocket Ethernet Adapter
- EP-3390 2-Port Ethernet Repeaters/Hubs
- EN-3200 EISA/MCA Bus Ethernet Adapter
- EN-4300 32-Bit VESA Bus Ethernet Adapter
- 2000RA Jumper + Jumperless NE2000 Adapter



**LIFETIME MANUFACTURER'S WARRANTY**

Edimax has a staff of 160, serving international LAN customers since 1986. Represented by Netland in the U.K. From Arcnet EtherNet and Token Ring to fast Ethernet, Edimax is dedicated to providing the correct hardware for your network environment.

Unparalleled service, prompt shipping, and unlimited technical support are just a few good reasons why professionals choose LanPro from Edimax.

If you are in LAN business, you should be acquainted with Edimax, and their complete line of LAN professional communication products.

*Lan Professional*®

**EDIMAX**

Authorised Distributor

**NETLAND NETLAND (UK) LIMITED (UK) LIMITED**

Unit 5F, Lynx Business Park, Newmarket, Cambs. CB8 7NY

**TEL: 01638 720999**

**FAX: 01638 721424**

**NETWORKING**

**RING FOR FREE CATALOGUE**



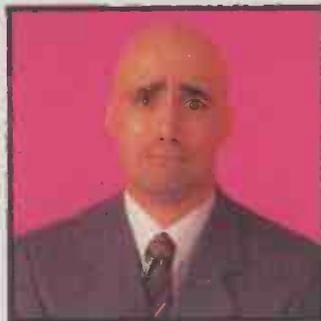
**You know you have £15m to spend on IT.**



**You think you were right to outsource development.**



**You hope the solution was client/server.**



**You pray for a good return on investment.**

**(Aren't you glad it's just a game?)**

**Keep your hair on.** The IT Management Game 1996 just feels for real. It's a virtual world of high-level IT policy-making and strategic thinking. A practice simulation where you get to take those decisions, spend that budget, hire, fire and learn from your successes and mistakes. It's first-class *on-the-job* training with no *on-the-line* consequences. And you'll enjoy yourself so much you'll wish it could actually *be* real.

But that's what you'd expect when 150 teams — drawn from the best brains in the industry — compete nationwide to become **IT Management Team 1996**. So if you think you've got what it takes, can put together a team of between 3 and 5 people, and can find £695 to invest in your combined future, you can't lose.

**Call Deborah Resing on 0171 316 9007 today** (or return the coupon) for an entry form and info pack. It could be the best management decision you'll make all year.

Please return to Deborah Resing, VNU Business Publications Ltd, 32-34 Broadwick Street, London W1A 2HG (Fax: 0171 316 9177).

Name \_\_\_\_\_ Title \_\_\_\_\_

Organisation \_\_\_\_\_ Address \_\_\_\_\_

Tel \_\_\_\_\_ Fax \_\_\_\_\_



# Net sex? No thanks

**Britain does not need any more legislation to control porn on the Net, writes William Poel. We already have the tightest laws in Christendom.**

The recent crackdown on alleged purveyors of online paedophilia has again highlighted the issue of pornography on the Net. But Britain doesn't need more laws to cope — it has enough already.

The British are a very strange lot where sex is concerned. We display a curious mixture of prudence and outrage that perhaps manages to keep the whole subject more interesting than the very matter-of-fact approach adopted throughout most of the rest of Europe. I wouldn't know, of course, but I'm told that it's easy to get very bored with too much easy access to pornography.

So in keeping with our national obsession, every few months our beloved "peep-show" media manage to associate the Internet with some salacious goings-on as rude pictures are seized, and there is a predictable chorus of baying from Westminster as various ignoramuses start bellowing for the disconnection of the Internet and the castration of all computer users as a precursor to the closure of libraries and burning of all books.

I am told, although I must stress that I am not an expert, that there are many prehistoric cave paintings of "lewd acts", which is only to be expected considering the preoccupation with sex that we have maintained through the ages. We no longer rub squashed beetles into cave walls with our

fingertips; technology has moved along. Big deal.

The idea that service providers should be banged up for allowing bytes to cross their networks has also been mooted from time to time. This is of course absurd, and tantamount to suggesting that the Post Office be held responsible for anything in the mail, but with our legislators and that strange but influential stratum of society often referred to as the "Great and the Good" having the technical education of the average mountain goat, reality is still some way from their grasp.

Britain has more anti-pornography laws than any other so-called liberal Western democracy, and they can be applied quite readily to new technology without yet more tedious and expensive acts of parliament.

Moreover, HM Customs and Excise, arguably responsible for anything imported into this country, including pornography, has a wider and vastly more draconian remit than any other agency of the state:

police powers of entry are modest by comparison. Customs people have extraordinary powers when it comes to looking for "illegal substances".

They would not need to resort to random searches for online pornographers. Anything shipped around the Internet leaves a trail that the average sleuth would find extremely useful. There are obviously ways to conceal the origin of a message, but the "fingerprints" left along the way are revealing. It's a bit like a burglar catching his jersey on a nail on the fence, and unwinding the thread back to his den.

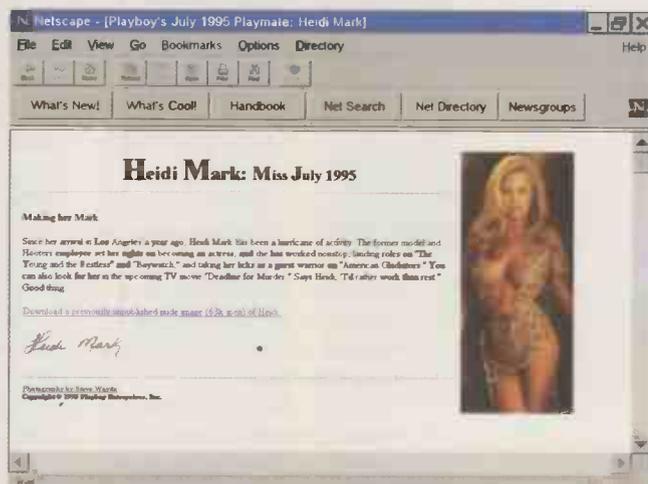
Courts could prove more of a problem. I wouldn't fancy trying

to explain the Internet to that famously daft old beak who wondered aloud if Mr Paul Gascoigne was an "Association or Ruby Union" football player. This is just another of the many issues we have to face when hauling the hierarchy of our technophobic society into the information age.

And from a parental control point of view, firewall software of all sorts is starting to flood out. Smartcard access control will be here shortly, but the issue will boil down to kids being vastly more computer-savvy than their parents.

The bigger issue worrying "authority" is the inescapable fact that the Internet encourages individuality and makes devolved responsibility a reality. People no longer have to be herded together in large administrative units. Authority might have chosen any handy excuse to unplug the Internet, but obviously it cannot now do this without taking down all Telecoms. It will be interesting to see how control freaks in China and in

Thank heavens that the BBC has nailed its colours firmly to the mast of the Internet and is using email and the Web most effectively and positively. It may not be every IT aficionado's idea of perfection just yet, but it's a whole lot more to the point than the mindless and salacious prattle of tabloid journalists and their obsession with online pornography and subversion.



Arab countries cope.

I suppose it was inevitable that the Internet would be used first by mavericks and subversive elements — "perverts of a feather stick together", as someone once observed. But "normal society" is using it for more constructive pursuits.

**Porn again... the Playboy Web pages register 800,000 hits a month and pull in advertising worth tens of thousands of dollars**

ANALYSIS

# Uncorking the latest ports

**Things are hotting up in the world of PC ports, with the familiar serial port about to give way to Intel's Universal Serial Bus. Clive Akass reports.**

The hullabaloo over Windows 95 has meant that moves for a major change in the basic PC have been little noticed. Intel, backed by no less than IBM, Microsoft, NEC, Compaq and Digital, proposes replacing the familiar serial and parallel ports with a new Universal Serial Bus. And, as nothing in the computer industry can be simple, several rival ports are being touted.

The serial and parallel ports have changed little by comparison with other PC components, mainly because they have only recently become seriously stretched. The standard serial port was used mostly for modems and occasional direct PC-to-PC file transfers, and began to be outpaced only when modem speeds and compression pushed data rates beyond 100Kb/sec.

Fast serial ports are available, but even they perpetuate the oddity of having a minimum 9-pin connector (25 pins on the larger size) for serial data which, given an earth, needs only two wires: to transmit and receive.

The extra pins are used, if at all, for handshaking and status monitoring: a "ready to receive" signal, for instance, can toggle an "okay to send" state in the

linked port. This hardware handshaking is very fast but pushes up the cost of plugs

and cables; for all but the most speed-critical tasks it can be replaced by control codes in the serial data stream.

The parallel port theoretically needs eight pins for sending eight bits of data simultaneously. In practice, parallel ports have 25 or 36; an unenhanced one can pass 100Kb/sec, although most PCs drive it at about 10Kb/sec.

The early design was unidirectional and used almost exclusively for printers. The 1987 PS/2 parallel port was made bidirectional, allowing the return of

status information and facilitating comprehensive control of printers from the PC (not that this has stopped printer manufacturers bewildering users with unreadable LCD displays, and buttons with more permutations than the National Lottery).

The latest parallel ports conform to a standard called IEEE 1284. There are two flavours, the Enhanced Parallel Port and the faster Enhanced Capability Port, which differ in how much hardware handshaking they use. They can use a new, smaller socket called a C port and can transmit up to 2Mb/sec, or 8Mb/sec via a fast PCI bus.

Manufacturer 3M believes C ports will become usual for printer links, and has introduced a range of suitable cables and connectors. Lindsay Powell, senior marketing manager for the range, points out that leading printer manufacturers Hewlett-Packard and Tektronix are already using them.

He sees two major advantages of 1284: it's compatible with all existing parallel devices, and it avoids the confusion of the rival SCSI parallel links. But SCSI, though more expensive, is as fast or faster and lets a number of devices be daisy-chained from one port. So an alternative scenario is for SCSI to remain the choice for very fast parallel links, with the new USB becoming the general-purpose PC port.

The USB transfers data at a maximum 12Mb/sec (1Mb/sec being a working minimum for video). At a physical level it is hardly more complex than a mains lead: four wires, comprising an earth, a twisted pair for data in each direction, and a 5v power supply. As a result, the first connector on the market (left) costs just \$1 in bulk.

Low-drain devices can be powered directly from the port; others can have their own supply. One port will address up to 63 devices via a chain of hubs,



3M's new C ports... under threat from the USB

each a star formation of secondary ports; a device can double as a hub, so that a keyboard might link to a mouse and pen as well as to another hub.

You would normally need only one USB per PC and there would be a single type of connector for all peripherals. USB data is transferred either asynchronously, when it is packeted and addressed with no regard to time; or synchronously, when it keeps exact pace with a steady source such as a video link, which is guaranteed its required bandwidth.

One major challenger to USB is Apple's Firewire link, based on another IEEE standard, 1394. This provides for transfers up to 400Mb/sec in its most advanced form and backers include Microsoft (again) and SCSI specialist Adaptec. But Firewire, implemented on some PowerMacs, is more complex and expensive than the USB and may replace it only for very demanding tasks.

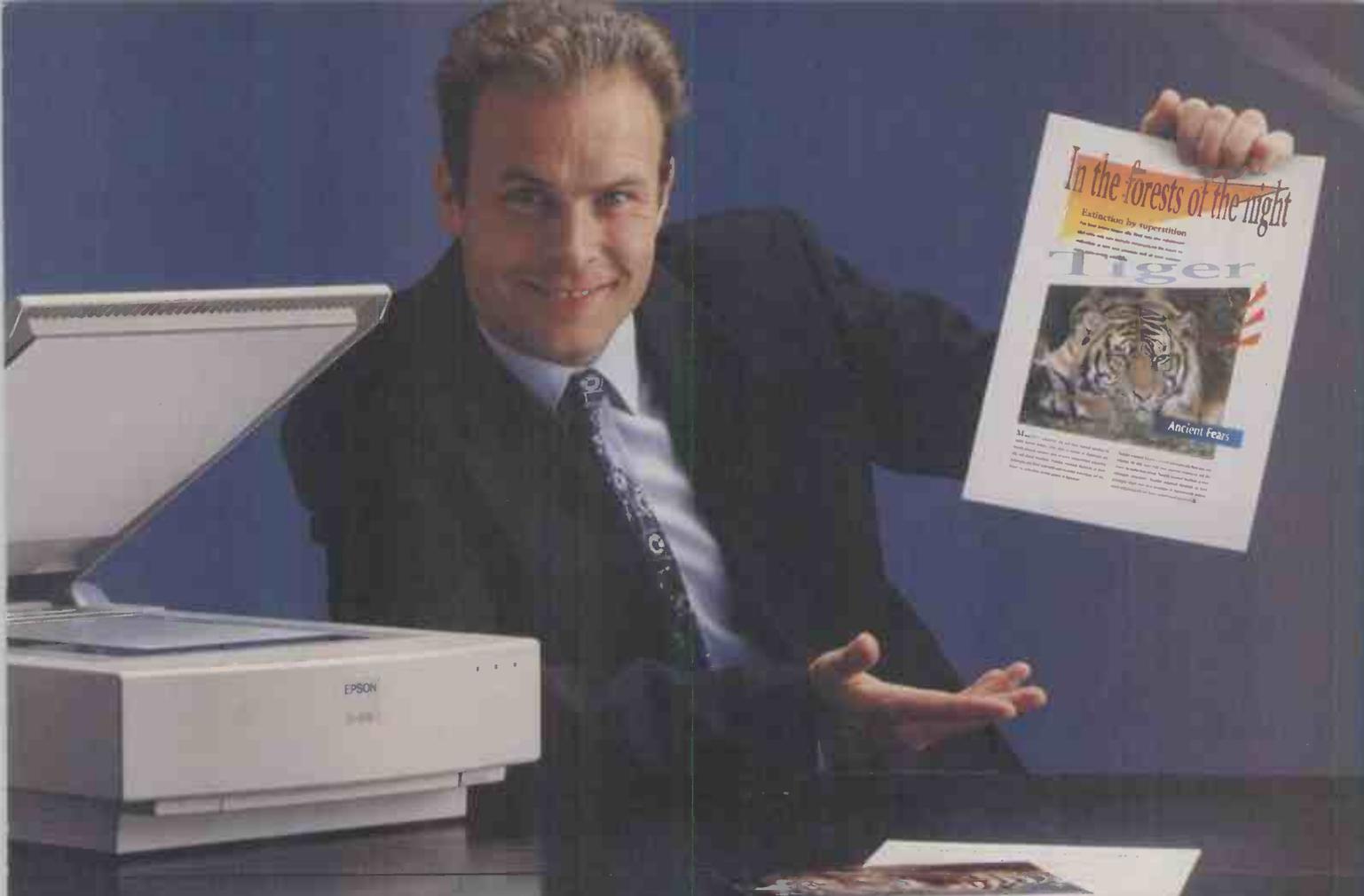
Dataquest analysts predict that at least one in two PCs shipped late next year, and virtually all a year later, will have a USB. Whether they will also have a Firewire, an EPP, an ECP and/or a SCSI is anyone's guess.

• Full details of the USB standard, which is open and royalty-free, can be obtained from <http://www.teleport.com/~usb/index.html>. The server refuses to believe that there's a world outside America, so you could try lying when it asks for your address. The Firewire spec is at <ftp://ftp.apple.com/pub/standards/p1394>. Both are very long documents.



AMD has been first to the market with this USB port

# ANALYSIS



I'm **Mark Long**. If a presentation isn't **stunning**, I **bin it!** I scan photos, images and text **direct** to **my PC** – super-crisp in **dazzling** colour. Advanced OCR means no retyping. I get **excellent** documents and DTP that'll **blow your mind!** That's why I **like** what my **Epson scanner** does for me.

Kiss your clipart goodbye! Epson's GT scanners put precision and power into DTP and presentations with 30-bit colour sampling and 1600 or 2400dpi output. More than enough to get the most complex images and text direct into your PC. Images are razor-sharp with Epson's advanced scanner technology. Text enhancement gives accurate character recognition – even from text on printed backgrounds. The new GT-8500 and the amazing GT-9000 can turn your desktop into a creative powerhouse. **For enquiries call free on 0800 220546.**

I want to kiss my clipart goodbye. Please send me information on Epson scanners and the address of my nearest dealer.

Please send me a free Epson 'Colour-In Colour-Out' CD-ROM, Epson's complete guide to professional printing and scanning

Name ..... Title .....

Company .....

Address .....

Postcode ..... Tel .....

Return to: Freepost, Epson UK Ltd, Campus 100, Maylands Ave., Hemel Hempstead, Herts HP2 8BR. No stamp required.



PCW/SEPT/SCAN

**Get the picture. Spread the word.**  
 INKJET PRINTERS • LASER PRINTERS • DOT MATRIX PRINTERS • SCANNERS

**EPSON®**

# The only way is up

**With 4.7 million PCs sold in the US alone in the first three months of this year, a predicted growth rate of 20 percent for 1995, the PC industry is going from strength to strength. Tim Bajarin reports from San Francisco.**



Most market research companies predicted a strong growth for the PC industry this year, but sales have nevertheless been astonishing. The PC industry is pinching itself to see if it is not dreaming.

Last year was the best in many years, with the number of units shipped growing at between 14 to 17 percent. Creative Strategies predicts that the total annual growth rate worldwide in 1995 will be close to 20 percent.

PC shipments rose 23 percent in the US to nearly 4.7 million computers in the first three

copies by the end of the year. Perhaps 30 million will be sold in 1996.

The home market is the fastest growing segment of the US, where 5.5 million households bought a PC last year. Creative Strategies reckons US home sales will reach 8.4 million in 1995, and 11 million in 1996.

At present, 35 percent of US homes have a PC, and I think that will be close to 55 percent by 1998. Some will be upgrades or second PCs, but most will be sold into new home settings.

This strong growth is being fuelled by cheaper and easier-to-use multimedia PCs, with great edutainment CD-ROMs featuring interactive video, animation and stereo sound, making these PCs great for children.

The other US segment enjoying explosive growth is that of the small office and home office (SoHo) market — 85 percent of the 20 million registered businesses in the US have fewer than 20 staff, and 75 percent with fewer than five. Link Resources predict that the SoHo market will buy 20 million PCs in 1995 and some 26 million by 1998.

If Bill Gates, Intel chief Andy Grove and other PC executives are smiling, you now know why. The PC market is healthy and it looks like it will stay that way for some time.

So, what can we expect for the second half of 1995? Here

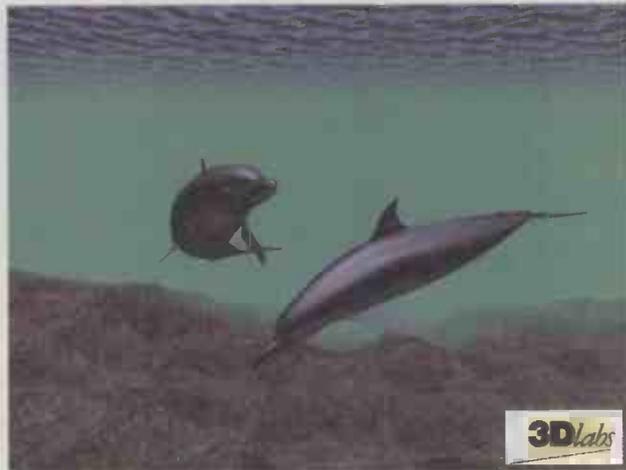
are my predictions.

- 3D is going to be big, especially towards Christmas. Microsoft and many board-makers plan to push the PC as a powerful games platform, and they need a graphics boost if they are going to compete with, and even out-perform Sega's Saturn and Sony's Playstation. That is why Creative Labs, nVidia and others are rushing to market video graphics adaptors that allow the PC to run 3D images.
- The entire multimedia PC market will move over to quad-speed CD drives in 1995, and jump to eight-speed early next year.

- There will be quite a battle this autumn between Sony, Philips, Toshiba and Time Warner over high-density CD standards. Both are developing a format that will boost CD capacity as much as tenfold. Some of the CD drives in the works will hold up to 17Gb, giving software developers space to add full-motion video, 3D animation and other goodies for games, simulations and new multimedia applications.

- By autumn, 16-bit audio will be standard on just about every PC sold; 3D stereo will also be popular since the surround sound effect adds a whole new dimension to PC games.
- Hard drives will also gain serious capacity even on low-end systems. Home PCs will have at least a 350Mb hard drive and the trend is to offer 850Mb in the mid-range home PCs. We are starting to see 1Gb home systems, but you still pay a premium for them.

Most analysts believe that unless there are some serious problems with the US economy, this Christmas will be the best ever. And that will help keep the smiles on the faces of Bill Gates and Andy Grove, and just about everyone else who makes their living in the PC industry.



*Sea of possibilities... 3D will be in this year. This picture was produced by Autodesk's NT version of 3D Studio using a Glint 3D accelerator board with drivers from 3D Labs (01784 470555)*

months of 1995, according to International Data Corp. At that rate, some 20 million will be sold this year in the US alone, and worldwide sales will be close to 48 million. Dataquest reckons they will reach 100 million by 1999, barring a major local or world downturn.

Windows 95 will provide further stimulus. Creative Strategies estimates that Microsoft will sell 12 million copies worldwide in the first 30 days of release and an additional 15 million

ANALYSIS

PARADOX OR dBASE USERS

# This amazing piece of technology can speed-up data management and boost database applications. Easily.

It's all on call.

The next generation Paradox® 5.0 for Windows offers award-winning new database features that are faster and easier to use. And you can now create more powerful applications than ever before. Paradox is now faster and has over 200 new ObjectPAL™ commands. For ease of use, you can call on Experts™ to do jobs for you, including reports and mailing labels for your business communications. Paradox 5.0 is easy to learn with 13 new Coaches to help you.

If you want to boost your visual productivity, you can upgrade to the new dBASE® 5.5 for Windows. Of course, you'll find everything you've used before is compatible with this upgrade, including your previous DOS applications. So you can build on what you already know.

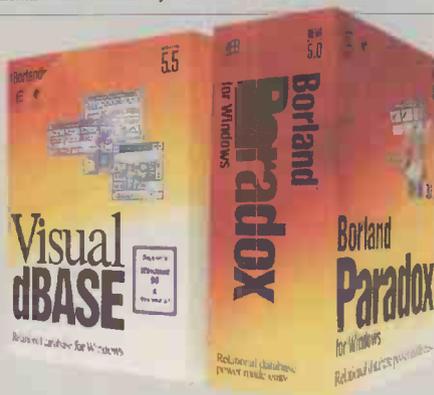
Need more information, or want to place an order? Easy. Complete the coupon, or call us free on:

**0 8 0 0 9 7 3 1 3 9**

Upgrade from previous versions of Paradox for DOS or Windows to Paradox 5.0 for Windows. RRP £129.00

Upgrade from previous versions of dBASE for DOS or Windows to Visual dBASE 5.5 for Windows. RRP £59.00

Upgrade from previous versions of dBASE for DOS or Windows to Visual dBASE 5.5 Client/Server for Windows which includes Visual dBASE 5.5, the Compiler, SQL Links (for Oracle®, MS SQL Server®, Sybase®, Informix® and InterBase™) and Local InterBase Server. RRP £199.00



**Call now!** To find out more about the new Paradox or dBASE upgrade, contact our Customer Services Line free on 0800 973 139. Or, complete the details below and post to: Borland International (UK) Ltd, Freepost RG1571, Twyford, Berkshire RG10 8BR.

Please send me more information about Paradox  and/or dBASE  Please send me more information about forthcoming seminars and workshops

Name: \_\_\_\_\_

Company name: \_\_\_\_\_

Mr/Ms/Other: \_\_\_\_\_ Address: \_\_\_\_\_

Post Code: \_\_\_\_\_

Tel: \_\_\_\_\_

Borland would like to keep you informed about new product developments. If you do not wish to receive information from other related sources, please tick this box

**Borland**  
Making Development Easier

**Borland C++**

**dBASE**

**Delphi**

**InterBase**

**Paradox**

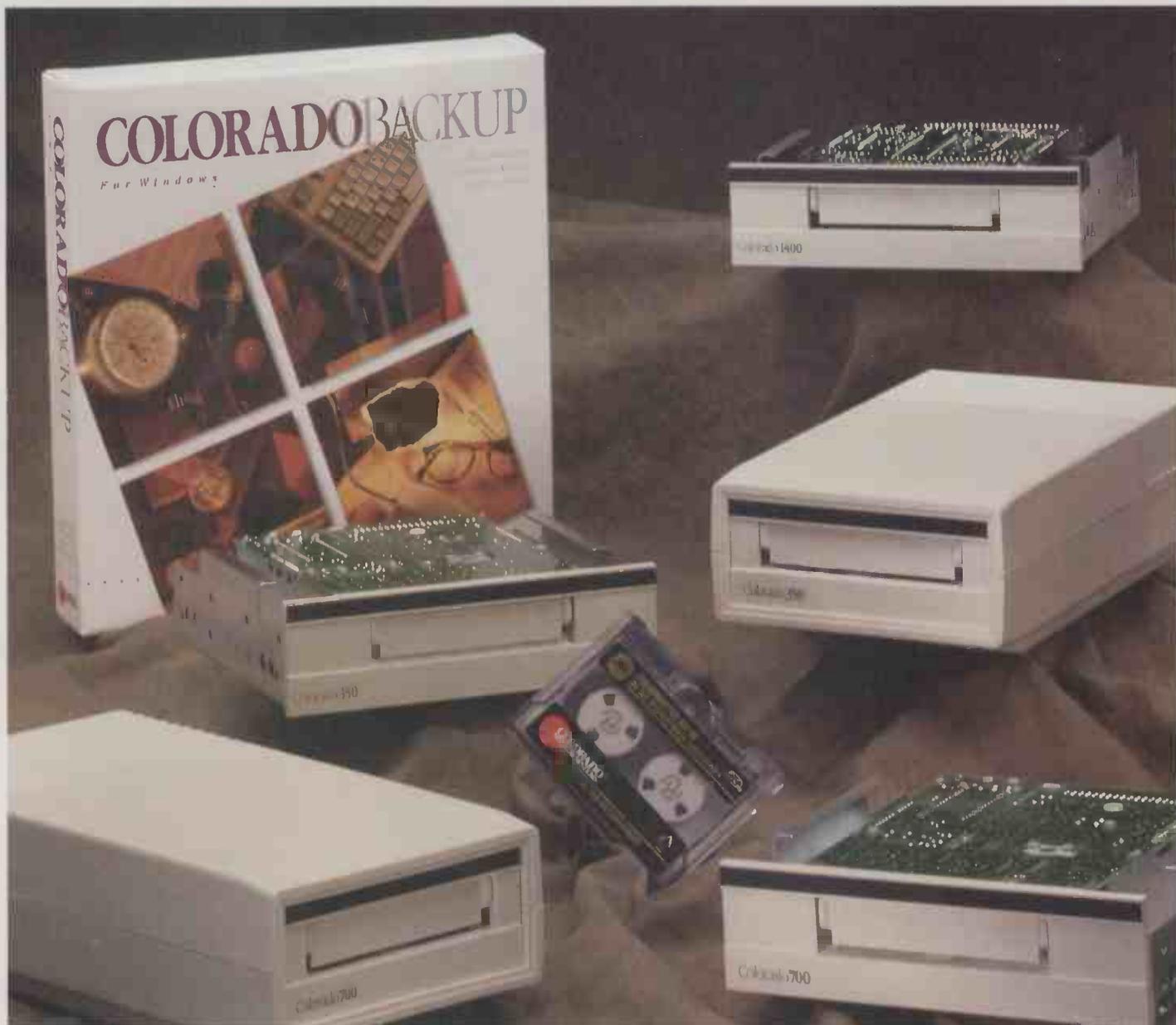
**Pascal**

**ReportSmith**

Join us on line at: <http://www.borland.com/or> CompuServe: GO BORLAND.

Copyright © 1995 Borland International Inc. All rights reserved. All Borland Product names are trademarks of Borland International Inc.

# Protect critical data with tape!



Critical data on your computer is more valuable than you may think. Lose your business records and your company may not survive. Colorado tape drive systems by Hewlett-Packard are designed to protect your hard work.

Colorado makes it easy. Jumbo internal and Trakker external systems are available from 350 MB to over 1.3 GB.

And, easy to use Colorado

Backup Software for Windows™ and DOS comes with every system.

Once you start protecting your critical data, you'll realise that there are other important uses for tape. Transfer large files from office to home. Archive old records on tape. Clean up your hard disk.

Every Colorado tape drive meets QIC industry standards for tape interchange with other drives.

And now, with Colorado a part of the Hewlett-Packard family, you also know that quality and reliability are built in.

Visit your local dealer today and ask for Colorado tape drive products!

Call us on 01344 369222 for more information.



A division of  
 HEWLETT-PACKARD

Those fortunate enough to live in the Bromley area can now take advantage of the latest concept in home shopping. Should you suddenly feel that there's a void in your life because you lack, say, tinned ham, just email [softcare@areti.demon.co.uk](mailto:softcare@areti.demon.co.uk), put "H1: Princes Ham Tin 454gr" in the body of your message, and provided you post your order before noon, your desideratum will be delivered to you, COD, by 6.00 pm the following day. Not so much meals on wheels as spam in a van.

The "Supermarket on Wheels", as it bills itself, carries a complete range of foods, all prefixed with individual code numbers. Canned and packaged goods are delivered the next day. Fresh produce, however, such as meat and eggs requires 24 hours notice to be given, while fresh milk has to be ordered two working days in advance (presumably to allow enough time for the cow to be primed?).

The prices seem reasonable enough. Who can argue with "F297: 1 size egg (large)" for just 10p? Likewise "E18: Burton's Wagon Wheel (choice of radial or cross-ply) is a mere snip at 13p.

I'd imagine the idea is that you draw up your week's shopping list on the Saturday or Sunday, log on and then sit back and wait for the van-borne sustenance to appear over the horizon. Isn't modern technology wonderful? In pre-Internet days, people often starved to death because they weren't able to order their baked beans via the PC.

Actually, the only "modern" thing about this is the means by which the shopping list is transmitted: simple email. Otherwise it's a blast from the past. Those of you under 30 probably won't remember that in the pre-supermarket era, butchers, bakers, and candlestick makers routinely made home deliveries like this. They didn't charge extra for it, either: it was all part of the service. You'd just pop along (or telephone) to the shop and drop off a list of your requirements. Said goods would usually turn up before the end of the day. My local farm even made home deliveries of manure, subject to their horse's ability to produce in reasonable quantities.

Anyway, talking of horseshit, those who espouse the Internet cause so enthusiastically (and naively) appear convinced that the human race is soon to take an evolutionary step and become footless and immobile (or should that be "lose an evolutionary step"?). What other reason could there be for their assertion that within about ten years, all of us will do all our shopping online? What with this, and teleworking, and teleconferencing, the only time you'll need to set stump outside

the house will be to oblige the undertaker.

Lots of people get off on this sort of thing, as I discovered recently, having written an article about online shopping (PCW, August). For the WWW anorak, it would appear that Nirvana is the ability to browse a virtual Safeway, click on crisps and lager on the virtual shelves, and then have them delivered to the door. The concept (de-techified) would no doubt appeal to the ordinary family man and woman, too. After all, no-one enjoys trudging round the average supermarket these days, especially at the weekend when there are more exciting things to do, such as defurring the kettle or worming the cat. Yet, because of work and/or family commitments, most people don't have much of a choice in the matter. So avoiding the queues and saving time by simply clicking on iconic groceries from the comfort of your own living room, might seem the biz.

Think about what the reality would be, though, given the current state of technology: according to the so-called "father of the Internet", Vinton Cerf, network congestion has now reached what he calls a "dangerous measure". This is all the more worrying, he added, because the Internet is still "modest in capacity." He has a strong point: consider how long it already takes, especially at peak times, just for one Web page to assemble itself.

So what's going to happen when everyone who's already hogging the bandwidth (by sucking down .gif images of Miss Whiplash and Brenda Bigjugs) suddenly finds himself competing for that same bandwidth with a million normal people who just want to visit their online Tesco? Browsing virtual supermarket shelves will become a virtual impossibility. In the time it would take for one graphical representation of a can of beans or a jar of Bovril to assemble itself on screen (let alone bigger things like Cornflakes or Sugar Puffs), you'd be able to motor down to your local supermarket, grab a shopping trolley, do the rounds of the shelves, pay and pack, perhaps even visit the local garden centre, and be back again ready to cook the



Michael Hewitt

# Off Sounding

evening meal.

Nevertheless, I imagine home shopping both for luxury items and simple groceries will eventually arrive when they refine the technology. And then, popping down to the local shops will become as quaint a concept as milking your own cow. But to my mind it will be something of a pity — yet another example of computers depersonalising us. Where, for instance, would the Gold Blend couple be if, having discovered herself to be coffee-less, Sharon Mugham had simply been able to type "G5: Nescafe Gold Blend 100gr jar" into her PC? Then again, the online supermarket does eliminate the risk of Danny Baker suddenly ambushing you as you buy washing powder.

Anyhow, Luddite stick-in-the-mud that I am, I nevertheless wish the "Supermarket on Wheels" all the best. And if they ever start operating around my neck of the woods, I might even give them a try — out of curiosity's sake, if for no other reason.

PCW

# A hot line to head office.

For your screen  
only! Pre-installed  
TeamWARE  
Crypto software  
makes sure your  
information stays  
as private as you  
want it to be.

If your office is wherever you open your notebook, we suggest you take a closer look at the ErgoLite RoadOffice.

On the outside, a smaller, more powerful notebook than usual. On the inside, everything you need for mobile computing and direct, trouble-free communication. Like a PC card for instant connection to your Nokia-compatible GSM cellular phone, so you can plug into your office net, Internet – virtually any net. And pre-installed software for e-mail and fax. All configured and ready to go.

These are only some of the features that make the ErgoLite RoadOffice the perfect travelling companion when you're on the move.

## ErgoLite RoadOffice

ErgoLite e50 Notebook  
Intel DX2/50 MHz Processor  
Up to 12 MB RAM  
260 MB Hard Disk  
256-colour VGA Screen  
PCMCIA GSM Data Interface Card  
Supports Nokia 2110 and compatible  
cellular phones (phones not included)  
TeamWARE Crypto, Assistant, Mail,  
pre-configured  
A month's free subscription to CompuServe  
Premium leather carrying case

**£ 1995**

The PCMCIA  
GSM data  
interface card  
puts you on the  
air in seconds.



Intel Inside Logo is a trademark of Intel Corporation.

Call today: 0345-44 11 22

**FUJITSU ICL**

ICL Fujitsu ICL Trading, ICL Volume Products, Lovelace Road, Bracknell, Berks, RG12 8SN. Tel 0345-44 11 22.

Once upon a time, computers in fiction knew their place and writing about them was easy. Authors could feign profound knowledge while writing absolute rubbish, because the public perception of a computer was a vague and nebulous thing. Describe a room full of grey steel cabinets, winking lights and large spools of tape and you'd set the scene.

Populate it with a few acolytes in white coats and a pipe-smoking Scotsman with a beard and it would "only be a matter of hours" until the hero or heroine discovered the true identity of the serial killer, the flight path to Alpha Centauri or their mortgage repayment schedule.

If the book actually made it to the big screen, there would be the obligatory close-up of the "results coming through"; in green lettering on a tiny monitor, at about one character per second.

Personal computing has changed all that, as more people have not only seen a computer but used one, so any credible modern-day thriller protagonist is expected to be similarly clued-up.

Faced with the twin challenges of fashion and technology, the pre-personal computer thriller writer had two choices. For a short-term profit (over one to three years, say) characters could be festooned with designer labels and drive the latest sports car. More experienced writers, with an eye to film rights and pension plans, would dress and transport their leading characters in timeless fashion: you won't catch James Bond tucking his Biba kipper tie into the waistband of his Mr Fish flares before leaping into a three-litre Capri. Consequently his dark blue suits, Sea Island cotton shirts and vintage Bentley have, like the character, worn well. His hand-made cigarettes might raise a quizzical eyebrow in today's healthily-correct atmosphere, but then, nobody's perfect.

Neither of these traditional approaches works with personal computers. The "classic" approach is a complete non-starter: "Bond slipped the 8in floppy boot disk into his trusty gunmetal-grey IBM 8086. Within minutes its entire 65,536 bytes of Random Access Memory were at his disposal. Tracking down Blofeld would be easy..." This is about as likely as his trading in his Walther PPK for a yellow plastic bow and arrow with rubber suction pads.

The "state-of-the-art" technique fares little better. Some authors try to straddle the gap by chucking in a bit of suitably vague jargon. In Patricia Cornwell's *The*

*Body Farm* (1994) a character has to "Re-partition the hard disk, reload the whole thing because I keep running out of space, allocate more, change a bunch of files." This hardly bears detailed analysis and is really just an update on the winking grey boxes school of writing — wisely, the author hurries on to the safer ground of guns and autopsies.

*Complicity*, by Iain Banks, is one of the few books I've read that rises to the technological challenge. The hero, Cameron Colley, is a handsome, hard-drinking young journalist with a penchant for illicit substances, exotic sex and giving up smoking. His prized possession is his computer. (An uncannily accurate profile of the typical PCW contributor, one might think.) But on page 51 we learn that his PC is a 25MHz 386SX with 2Mb of RAM, which, even though the book was published in 1993, takes an immediate two inches off his macho image. Goodness, Cameron — surely you don't try to run Windows on that? Sure enough, by page 91, he's redeemed himself by buying a 486 laptop with a colour screen. But how long is this going to last? I'll bet, by the third or fourth reprint, this will have the technological machismo of a Sinclair Spectrum.

The answer is obvious. Just as in the real world, with-it technonauts have to upgrade their kit regularly, and so should fictional heroes and heroines. So before each reprint, what's needed is a quick run-through of the book, upgrading as necessary. You might think this could be done by lashing up a few word-processing macros: replace "486" with "Pentium", "16-bit" with "32-bit", "double-speed" with "quad", and so on.

Having taken a sample text through two such upgrades, I can report that it is not that simple. This kind of task is too difficult to be left to the authors, who are anyway far too busy writing their next best-sellers. It is, however, an ideal chance for computer journalists to display their expertise.

The former would benefit from a



Tim Nott

# Homefront

much-lengthened shelf life of their books, and the latter from a percentage of the extended royalties. Successful authors only, please contact [timn@cix.compulink.co.uk](mailto:timn@cix.compulink.co.uk). And if you haven't a clue what that means, perhaps you'd better stick to historical romances.

PCW

# *This beauty is a beast.*

A superbly designed exterior. A mean machine under the cover. Whichever way you look at it, the new Fujitsu ICL **teamserver Ci** is the ideal tool for optimising productivity in small to medium workgroups.

With pre-loaded and configured NetWare 4.1, startup is a cinch. Simply insert a licence diskette\* and your **teamserver Ci** is ready to connect to your network.

Leaving you free to enjoy the ferocious performance of a powerful Pentium processor backed up by the latest PCI and EISA bus technologies and an on-board SCSI-2 controller. Secured by a three-year parts and labour warranty with on-site, next-day service.

The real beauty of it is that it's all yours for the price of a PC!

A high-performance 75-MHz Pentium® processor from Intel combined with PCI and EISA bus technologies make for superb performance and genuine compatibility.

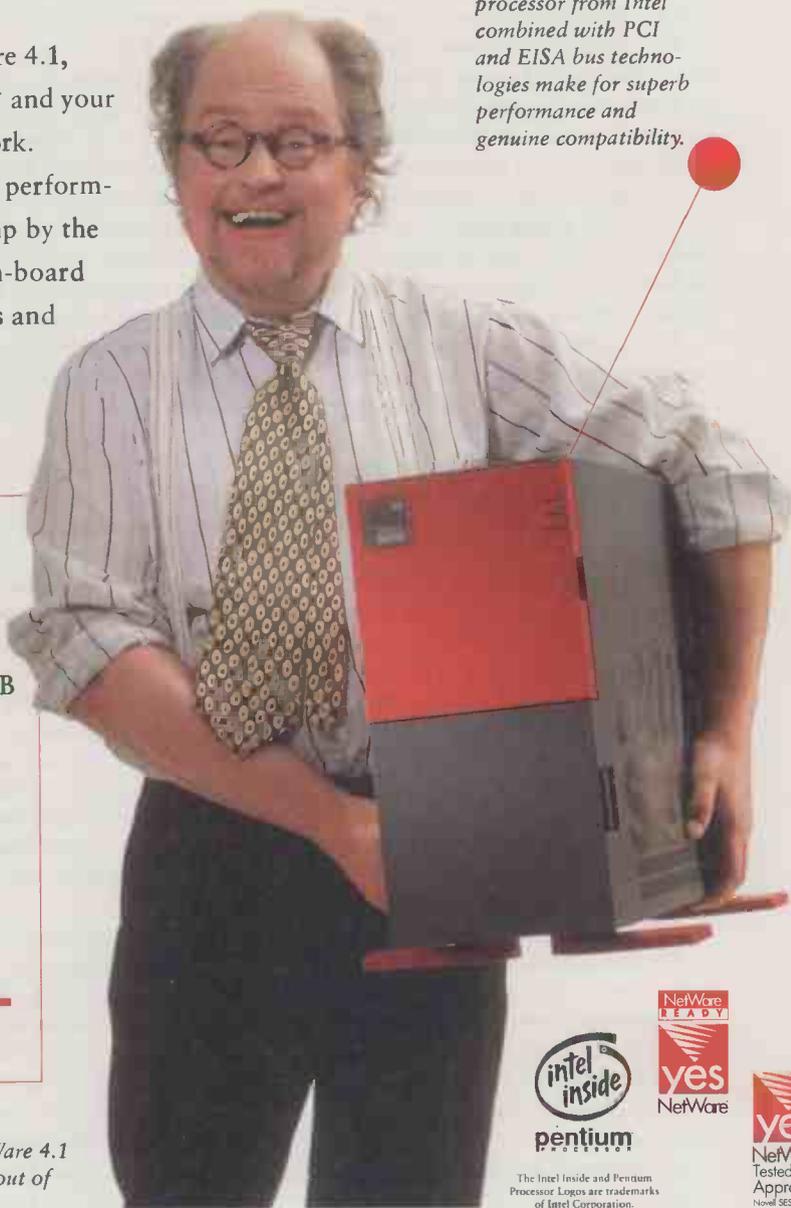
## **teamserver C450i**

75 MHz Pentium® Processor  
1 GB SCSI Hard Disk, upgradeable to 10 GB  
16 MB RAM, upgradeable to 128 MB  
1.44 MB Diskette Drive  
Double-speed SCSI CD-ROM Drive  
Fast SCSI-2 over PCI integrated on the Motherboard  
PCI Ethernet Controller  
NetWare 4.1 pre-loaded (\*licence ordered separately)  
Range of options available

**From £ 2495**



Pre-installed NetWare 4.1 takes the figuring out of configuring.



The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation.



NetWare Tested and Approved  
Novell SES Partner

**STOP PRESS:** Whilst stocks last all **teamserver Ci** systems include a 90 day free use option for ICL's award winning groupware suite - **Team Ware Office**. Call today: 0345-44 11 22

# FUJITSU ICL

ICL Fujitsu ICL Trading, ICL Volume Products, Lovelace Road, Bracknell, Berks, RG12 8SN. Tel 0345-44 11 22.

**W**hen you switch off a PC, all the data stored in RAM is instantly lost. But the PC needs to store its basic system configuration when unplugged from the mains. So setup data, along with clock time and date, is stored in CMOS memory. CMOS needs only a very little power to keep it alive. The battery can be either a lithium long-life cell, or a NiCad rechargeable.

**But long life does not mean infinite life.**

Manufacturers of the early PCs recognised this problem and put an easily available battery into an easily accessible compartment for user replacement. But no-one does this any more. The CMOS battery is now on the PC motherboard, often soldered to it alongside the control and processor chips.

As sure as night follows day, the CMOS battery eventually begins to fail and the PC loses its time and date when switched off, fouling up diary functions and automated file archiving. Things get worse when the CMOS loses the system configuration, including details of hard-disk type, the number of cylinders on the disc and the correct landing zone. Once this information has been lost, the PC is effectively dead.

If the owner is skilled, and has had the foresight to make a note of the system details, then it is a reasonably easy job to run the BIOS setup program and re-enter the vital details. But for most small-business users, a dead CMOS battery means a dead PC and a service call. It is then easy for an unscrupulous engineer to write the system off as being beyond repair. At best, the engineer has to open up the PC to work on the motherboard, probably clocking up two visits because the replacement battery has to be ordered and takes a week to arrive.

Why do manufacturers create this unnecessary obstacle course? Is it ignorance or cleverly planned obsolescence? By chance I was able to check this out first hand, through my experience with a supposedly reputable manufacturer.

My wife bought a Compaq ProLinea in October 1993. After a few days' use it started to give "time and date not set" error messages. The dealer sent an engineer who replaced the motherboard battery under guarantee. But the same error messages recurred a year or so later.

Compaq sells its products on qualities of reliability and offers a three-year guarantee. So, providing proof of the date of purchase, I asked Compaq whether the ProLinea had a known design fault and whether they would supply a replacement battery. Compaq's Care Centre phoned me to ask for the machine's serial number —

at the same time CompaqCare explained that the motherboard battery is a NiCad rechargeable, and users who get error messages should try leaving the machine on for a few days to see whether the battery recharges and self-cures the fault.

After a weekend's charging, the battery was still as flat as a pancake — time and date evaporated as soon as the machine was switched off.

Compaq then made an important admission: the company had found "a problem whereby on-board batteries were discharging prematurely." The cure, I was told, was to order battery part code 160274-001, open up the mainframe, fit the new battery to the motherboard and re-set some jumper pins. But this is way beyond the average small-business user's capabilities.

No, Compaq could not supply a new battery direct. It had to be ordered from a dealer. Please confirm, I asked, that if I can get the dealer to order the part, it will at least be covered by the guarantee?

Again, no: "Although the ProLinea does come with a three-year warranty", regretted CompaqCare, "this does not cover parts of a consumable nature, which is what the battery is considered to be."

Anyone other than a hobbyist would now have only two options: either junk an eighteen-month-old PC, or pay whatever an engineer would charge to order and fit a new battery to the motherboard.

Switching from helpful husband to working journalist, I asked Compaq for press comment: how could the company possibly justify classing a key component on the motherboard as a "consumable" which is excluded from guarantee — especially as Compaq already knew that some of the batteries fitted to ProLineas had been faulty?

It was like getting blood from a stone as Compaq's comments were issued piecemeal: the Notebook Division, the Desktop Division and the Consumer Division all separately reassured me that CMOS batteries were covered by the main three-year guarantee.

So why is Compaq telling customers that batteries are excluded? According to desktop product manager, David Moore, Compaq discovered that it had been fitting



**Barry Fox**

# Talking Straight

faulty batteries between November 1992 and March 1993. As a result, the warranty on affected machines had been extended to four years. Compaq had asked dealers, "pro-actively", to track down ProLineas with faulty batteries and offer to replace them. Customers who asked for replacements, got them, too.

But hang on a minute: on the one hand we have Compaq's desktop product manager telling the press that the company has been volunteering to replace batteries and offering an extra year's warranty, while on the other hand we have Compaq's customer relations department telling real-world customers that their faulty batteries are not covered by the guarantee.

"The CompaqCare representative must have been confused between notebook NiCads and CMOS NiCads. He might have missed the note about the warranty extension because it is buried in a five-page document," Moore told me, following through with the written assurance that: "In most cases these were subject to a pro-active replacement programme... your model was the exception." Pull the other one, Compaq, it's got batteries on. **PCW**

# You may get carried away!

*"The attention to detail in the ErgoPro D5/90 P makes it stand out from the crowd."*  
PC Magazine

Powered by one of the fastest Pentium processors available, with memory, disk space and graphics performance to match, the ErgoPro D5/90 P certainly creates an exciting impression. Exceptional reliability, superb design and a crisp flicker-free display make sure that impression lasts.

So, if you feel an uncontrollable urge coming on, why not just give into it? And let us do the carrying.

## ErgoPro D5/90 P

- 90 MHz Pentium® Processor
- 512 kB Second-level Cache
- Fast PCI Bus ErgoGrafix with up to 4 MB of VRAM
- 16 MB of RAM, upgradeable to 128 MB
- Fast Local Bus enhanced IDE Disks up to 2 GB
- Energy-saving PowerMaster
- Pre-loaded DOS and Windows for Workgroups
- Advanced Security Features
- Optimised Temperature Control
- Ergonomic Keyboard
- Optional CD-ROM and PCMCIA
- Multi-functional ErgoFoot as option
- A wide variety of Ergonomic Displays



*"Beautifully designed and built to last. The PC equivalent of a BMW."*  
Personal Computer World

The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation.

Call today: 0345-44 11 22

*"The ErgoPro D5/90 comes out top of this test."*  
Info PC, France

# FUJITSU ICL

ICL Fujitsu ICL Trading, ICL Volume Products, Lovelace Road, Bracknell, Berks, RG12 8SN. Tel 0345-44 11 22.

**E**ven the best made software is likely to suffer bugs. The complexity of software means that exhaustive testing is impossible. Like proving that there is no life except on Earth: there might always be something in the one place you have not yet looked. So proving software to be bug free is also largely impossible, except for trivial applications such as PRINT "HELLO WORLD" and programs which are not much more interesting.

Some software development methods are emerging where program specifications are represented in mathematical formats, and about which people can reason with well tried and tested formal methods. However, these are not yet able to prove all programs to be bug-free. Their applicability to commercial development is limited — they are definitely of value, though not in all circumstances.

The business problem an IT team faces is persuading users to understand this. Bugs are a real nuisance once known — it is the background fear of unrecognised bugs which causes the greatest concern. If a series of serious bugs crops up, people can begin to doubt the entire system. The inability to guarantee that there are no others makes it hard to instil confidence.

Companies making mass-market PC software have a slightly easier time of it, since they can usually enrol hordes of users in the testing process. Larger applications vendors (such as hospital information system or financial applications providers) have a slightly harder job. The total number of customers is often lower, so the testing load is spread more thickly. Of course, software companies can and do their own testing to varying levels of competence. The problem with in-house testing is that it is laborious, time consuming and thus expensive. A balance must be struck between delivering code fast, and delivering code which is properly tested. This balance is hard to maintain and customers (all of us who buy software) are of course completely (and reasonably) unreasonable in our demands. We want bug-free software now, at the same price as code delivered by companies which "out source" all their testing to customers. This is a key reason for my being against bespoke software. Since writing bug-free code is so hard, it makes sense to share the testing load as widely as possible — say, with other users of the same systems.

The analyst staff in the IS Department here at HCI are responsible for testing and implementing new code, and for liaison with the software vendors to get bugs fixed. Often the problems turn out not to be bugs at all but user errors, hardware or

network glitches, or simply a misunderstanding about what the software was supposed to be doing at that particular point. So we track Issues, not bugs. We do this using a simple Access database with a custom-built front-end which enables us to log issues as they arise. Of course, some issues are bugs — and some are very hard to find.

Each issue has a number of characteristics. It has a unique number, a date of logging, a priority, an accession or code number (assigned by the company responsible for the software involved). It also has a brief and a longer description, a history of efforts being made to resolve the problem, and a named individual with responsibility for sorting out the whole thing. Dates are set by which updates are due, and we then print reports each week so we can see where there are hold-ups where issue resolution is behind schedule.

These reports are vital for issue tracking. Careful documentation of what is being done, with deadlines and clear assignment of responsibilities, all make it much easier to instil confidence in the user population about what is being done to fix stuff. The danger is that unless someone keeps an overall eye on the big picture, lots of resource can be swallowed up fixing scores of niggling little problems, when the best solution would be to make one fell swoop and radically alter the approach to the problem. This is the importance of the overall information systems strategy, and the IT director's job is to keep an eye on the whole thing: making sure the strategy is actually being implemented on schedule, and within budget. The other parts of the job are: understanding the business and determining the strategy in the first place; and gaining support for the resources to implement it.

The IS role in a modern facility (as opposed to old-fashioned ones where all IT is decentralised to users who buy whatever they fancy, spending far more in the



Nick Beard

# Business Matters

process) is increasingly to be the holder of process knowledge. This is not a simple technical function. Maintaining software, hardware and networks and delivering PCs, doing the odd bit of coding; all are important, but as systems are integrated, process becomes key to delivering benefit. Most users have, at best, a single department's viewpoint, often a single individual's viewpoint. Organisational process implications of systems activities are generally best understood by systems people. Users just don't always realise it.

• Feedback and abuse to [nick.beard@hci.co.uk](mailto:nick.beard@hci.co.uk)

**Life's too short!** I don't need to worry about **looking good**. With 720dpi printing I look great. Rich, **photo-real colours** for **outstanding graphics** and DTP. Crisp, dense blacks for letters and reports that **mean business**. I can sit back and **relax**. Check it out.



## The world's most advanced 720dpi inkjet printers.

Epson brought you the world's first 720dpi inkjet. Now there are three more. All with the technology that has won over a hundred awards for quality worldwide. The permanent Epson piezo printhead, to keep running costs low. Epson Microweave to eliminate banding (mysterious stripes common with lesser inkjets). And, of course, dazzling 720dpi quality in colour\* or black and white.

### The **NEW** Stylus inkjet range

If you want to print colour, why settle for less? If you want perfect letters, well — get writing! Epson now has a Stylus for everyone. The new Stylus 820 prints crisp, dense black for professional text and graphics.



For the regular colour user, the new Stylus Color IIs combines



professional dense black with photo-real 720dpi colour. (Can be used as black-only, saving ink.)

And if you're a frequent colour user, the super-fast new



Stylus Color II has accelerated 720dpi with photo-real colour and double-density black print.

The new Epson Stylus inkjets.

Life's too short to compromise.

**Dial 100 and ask for Freephone Inkjet.**

Or E-mail us at [info@epson.co.uk](mailto:info@epson.co.uk)

I want to sit back and relax. Please send information and the address of my nearest dealer. Stylus Color II  Stylus Color IIs  Stylus 820

Name \_\_\_\_\_ Job Title \_\_\_\_\_

Company \_\_\_\_\_ Address \_\_\_\_\_

Postcode \_\_\_\_\_ Telephone \_\_\_\_\_

Return to: Freepost, Epson UK Ltd, Campus 100, Maylands Avenue,  
Hemel Hempstead, Herts HP2 8BR. No stamp required.

PCW-OCT-SR

# EPSON®

Epson is a registered trademark and Epson Stylus a trademark of SEIKO EPSON Corporation, 80 Harashinden, Hirooka, Shiojiri-Shi, Nagano-Ken, 399-07 Japan. \*Coated paper is required for 720dpi colour. A 360dpi setting gives outstanding results on plain paper.

Send your letters to:

**The Editor  
Personal Computer World  
VNU House  
32-34 Broadwick Street  
London W1A 2HG**

or email  
**editor@pcw.ccmil.compuServe.com**  
or fax  
**0171 316 9313**

# Letts

## Roles for children reveal sexist attitudes

I would like to comment on the article by Paul Begg in the Kid's Stuff section of your July

issue. Talking about the Dream Doll's House software, he says: "I was especially pleased to see the Fisher-Price Dream Doll's House as there's very little software available *specifically* for young girls."

I am upset about this remark. It seems that even

when I thought we were in the "technical" era, there are still very sexist attitudes from people who should be very "open minded". When I was a little girl, I used to enjoy the chemistry set and meccano as much as the action men, which unfortunately belonged to my brother. I was never told what to play or what was supposed to be for girls.

I would like to think that finding where the mouse is in this software package and how to find the cheese etc is as interesting for girls as it is for boys. Let's try to change the female role (cleaning, taking care of the house and preparing the food, making the house "cute") and make it available for both sexes.

It is up to us to make children understand that they do

not have to like a particular game or software because of their sex. It actually becomes very handy when little boys and little girls care about tidying up! Let's try it that way and we'll end up with a better society.

**Patricia Vazquez**  
vazquezp@ss.abr.affrc.  
go.jp

## Cabinet shuffle

I've been looking for a useful, sturdy and practical desk or stand or cabinet for my PC for over a year. I fully agree with Michael Hewitt (Sounding Off, June) and everything I have seen so far is ridiculously overpriced rubbish. Places like Argos have no idea about what's needed to support a PC and all the bits, and there are *never* any grooves for the massive collection of wiring.

## Focus on Windows 95

### Windows on steroids

I realise that journalism requires the use of catchy phrases and buzzwords to keep your audience attentive. However, your description of Windows 95's "Explorer" application as being like "file manager on steroids" is, to me, somewhat confusing. Does this description mean that it is a powerful, well thought out tool? Or does it mean that it is a bloated, ill-proportioned application which seems powerful but could drop dead at any moment?

**Laurence Barker**  
laurence@zebedee7.demon.co.uk

*PCW replies: We'll come clean — the offending analogy was first used by a Microsoft employee during an early Windows 95 (then known as Chicago) presentation in Seattle, May 1994. We borrowed the phrase and shamelessly tried to pass it off as our own. As to its true meaning, time will tell. Rumours that Windows 95 is currently undergoing random drug tests are entirely unfounded.*

### On schedule

Thanks for the great review section on Windows 95. I noticed a reference in the section on Office 95 about Schedule+ saying: "...and it is possible to link the software to Project for Windows 95." How? I've been looking through Help in both applications and can't find any clues on this one, though I'd love to be able to do it.

Talking Win95, here's a disappointment comment. Why couldn't Exchange's address book be linked to Schedule+ (or vice versa), or some means of data import be provided for Exchange?

But here's a not-so-disappointed comment. I think it's a brilliant O/S. As a fairly seasoned Win3.x user, it may have taken me a while to get used to thinking "find document, do work" (as against "find application, launch, find document, start work"), but no way would I want to go back. This is much more intuitive.

**Graham Smith**  
100125,1730@compuserve.com

### Warp factor

I wonder how long the current debates will last? Windows 95 vs Windows 3.X, and Windows 95 vs OS2/Warp? I have been running a selection of releases of Windows 95 since early May and have been generally very happy with it. I recently had the "misfortune" to do some work on a Windows 3.x system; it was a simple test, yuck, help, how antiquated! I didn't realise how familiar I had become with 95, and I just couldn't wait to get back to it.

I never did get to test my post-Christmas copy of OS2/Warp. After six attempts to install it, and indifferent support from IBM, I threw it in the corner in disgust. My first copy of Windows 95 installed in about an hour and, like subsequent copies, quite simply worked.

I like the latest version of Exchange, especially since Microsoft have reduced its complexity, and am toying with the idea of uninstalling WinFax. Initially the task bar really annoyed me. However, I changed the options to "Auto Hide" and "Always on Top": it appears at the point where it should be, and now it doesn't annoy me! My scanner has a DMA conflict with my sound card, that's now easy to overcome — dynamically re-configure my hardware, use the scanner, then reconfigure back to my defaults. Easy.

On the Office front, I have been running SmartSuite (minus Freelance, in favour of Corel v5), for some time and liked it. Office 95 was installed at the beginning of July more out of curiosity than need. I find myself gradually converting Lotus files to Office files with the exception of Approach. Office 95 just seems to be easier to use and hangs together better. Word is a definite improvement on Ami Pro, the jury is still out on Excel vs 1-2-3, Schedule is probably better although I prefer the look and feel of Organizer. I'm using both PowerPoint (for simple presentations) and Corel (for complex presentations).

On balance I think Office 95 is better and I really like Windows 95. Given the features of both of these, I am absolutely certain that I will start uninstalling some of my comparable software, and will see a gain, not just in performance, but in disk space as well.

Now, how do I upgrade my DX2/66 to a Pentium...?

**Phil Sinclair**  
Phil.Sinclair@msn.com

No computer furniture I have yet seen fits against a wall, not without seriously compromising cable integrity.

And all of it is ugly, it never has enough shelves, the supports for the monitor are awkwardly placed (see the Innovations catalogues, and others) and the space under the monitor support is never large enough for my system unit. I'm amazed that no-one in two decades or more has given any thought at all to this market. They just assume we're content to pay for overpriced, overweight tables with shelves.

Making helpful suggestions to the companies concerned meets with a prolonged, blank silence. They never even respond. There are, I admit, office suppliers who do a half-

decent job, but their products are well out of my price range. They don't like small orders, and they tend to produce things too large for a modern house with its pokey little rooms.

Please, Mr Hewitt, to save the sanity of millions of PC users, tell us where you found yours. Please? I know it's advertising, but, dammit, if the other guys produced good stuff, they would deserve it too.

**John A McCoy**  
jamccoy@maurabrid.  
win-uk.net

### Responses to the new-look PCW

I have just bought September's issue of PCW and must say that I approve of your new layout. I don't know how your advertisers

#### Point break

I have just read the Windows 95 articles in your September 1995 issue and find one or two serious points missing. Firstly, let me begin by saying that Windows 95 is excellent and streets ahead of Windows 3.1: that's a lot coming from me, as I have an aversion to GUIs for a number of reasons.

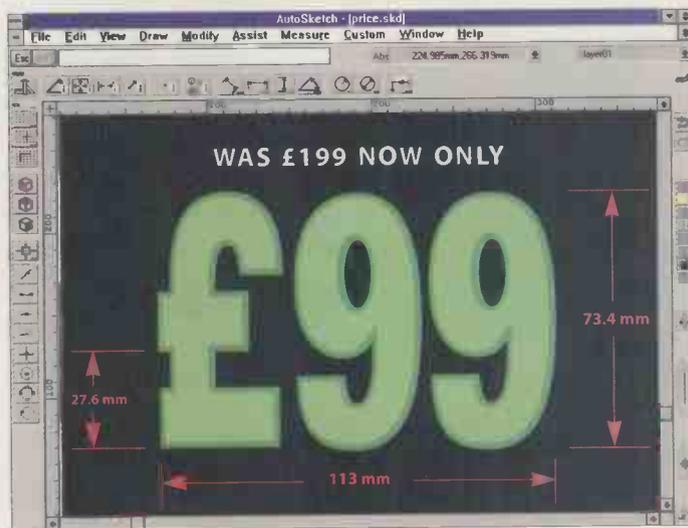
Now to the points. There is very little tape support in the backup program provided with Windows 95. There have been a lot of frustrated users on MSN talking about this and the Microsoft answer is that they are not going to provide support for all the drives, that it will be up to the manufacturers.

In tandem with this are claims of similarity between the 32-bit environments of NT and Win95. I make use of a friend's machine using Win95 that has a DAT drive and a very large hard drive that needs backing up regularly. There is no support for the DAT in Win95 but NT has DAT support, so why not Win95 if they are reasonably similar.

And lastly, Win95 does not support an NTFS type file system. One of the major complaints about Win95, next to memory requirements, is disk space consumed. Windows 95 uses an FXT system "similar" to DOS and on large drives consumes huge chunks just for small files — as an example, each "shortcut" is on average 300 to 400 bytes. If an NTFS-type file system were available it would allocate by sector (512 bytes) and not cluster (clusters vary in size, getting bigger as the partition/drive size increases). So for instance, on a 2Gb partition, NTFS would consume 512 bytes for each "shortcut" where FAT consumes 32Kb, a big difference and a lot of wastage on the FAT system. I hear you cry, how many people have 2Gb drives? Well, most large drives up to 1Gb use 16Kb clusters and that is still a sizeable chunk of unused and unavailable disk space.

**Mike Davies**  
Oxford

# There's only one thing that's difficult to understand about AutoSketch for Windows.



## Its new low price.

Precision drafting and drawing with AutoSketch for Windows is simplicity itself.

Its flexibility means that sketches, drawings, schematics, technical illustrations, business graphics and flowcharts are all easily within its power — and yours.

And because AutoSketch for Windows comes from Autodesk, the makers of AutoCAD, you can be sure of compatibility with AutoCAD LT — and even AutoCAD itself.

Now, at only £99, AutoSketch for Windows is the best value drawing programme on the market.



So why not call  
Autodesk  
on 01703 814116  
for more information  
It's as easy as that.

 Autodesk

# Are YOU ready to dream?

Save £££s on Ray Dream's superb graphics programs now.  
Hurry, these prices only last until 31st October 1995.

## Ray Dream Designer

"The quality of its rendered results are second to none", PC Pro



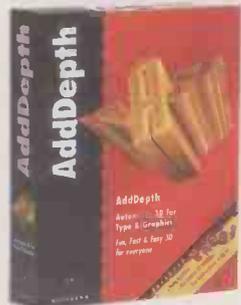
Highly acclaimed as the perfect multitasking graphics package for anyone who's serious about 3D art. Ray Dream Designer will lift your illustrations to another dimension, effortlessly. A tremendous bargain.

RRP ~~£275~~

**£99.95**

## AddDepth

"If you want a 3D version of something flat, this is one of the simplest ways to do it", PC Pro



Let your ideas jump off the page with AddDepth, Ray Dream's high-res package that transforms flat art and drawings. This really effective 3D effects program is the best value you'll find.

RRP ~~£59.95~~

**£39.95**

## JAG

"For anybody working with images, JAG is well worth investing in", MacUser



Turn jagged pixels into clean, crisp enhanced lines at a single mouse click with JAG - and enhance colour and brightness too. An absolute must for every graphics professional.

RRP ~~£39.95~~

**£29.95**

## The Dream Pack

Save even more money when you buy all three together.  
The Dream Pack is the most incredible value in 3D graphics software today.

RRP ~~£334.95~~ **£129.95**

Contact the Reseller of your choice below to take advantage of these great prices. But hurry. This offer MUST end on 31st October 1995.

**window**line

Tel: 0181 401 1177  
Fax: 0181 401 1178

**Carson**  
TECHNOLOGY

Tel: 0500 123486  
Fax: 0171 830 0286

**inmac**

Tel: 01344 301144  
or 01928 579345  
Fax: 0800 611116

# It's just a 'small step' from drawing board to CAD - with AutoCAD LT.

will respond, but from a reader's point of view it's a big improvement in readability.

**John Sollars  
Brignorth**

I'd like to congratulate you on the September layout — excellent! I believe that this makes *PCW* the easiest to access mag in the UK.

**Andy Hardy**  
aph@ahardy.demon.co.uk

Congratulations, *PCW*, you have managed to cloud the issue and fudge the solution (excuse mixed metaphors)! Your new-look magazine with the adverts moved towards the back of the issue does absolutely nothing to help your readers find a given advertisement. Try it and see! Look in the (not so easy to find) index under, say, Dabs Direct: you will see that they are on pages 460/465. Now try finding their advertisement... Easy, isn't it. Page 361, then, er, 364, then 371 to 375, and then... 562 — oops, I must have missed it.

**Steve Dyson**  
steve@sigdel.exnet.com

*PCW replies:* We've received a number of letters asking for more page numbers in our advertisement section and hope to up the count soon.

## Online shopping

Michael Hewitt's piece on online shopping (*Cutting Edge Focus*, August) was very interesting, but I felt he liked the idea of it more than the reality. Thus far, it is a "lowest common denominator" form of shopping. What's available is less than what could be bought at any bland modern shopping mall on the way home from work.

I thought I would be able to search Virgin's database of available CDs, for example. Instead, I am offered a list of a few top 20 albums. I can get these anywhere.

When my daughter sampled online shopping for a couple of books, she could find nothing she wanted. That afternoon she walked into

Waterstone's and bought both of the (not obscure) titles she sought. She won't bother again until online services offer more, not less than an average high street vendor.

Have you seen *PC World's* offering on CIS? You'd do much better to telephone them. And if you query stock availability you get a reply four days later. To succeed, the online vendors are going to have to try much harder. Just being online isn't enough.

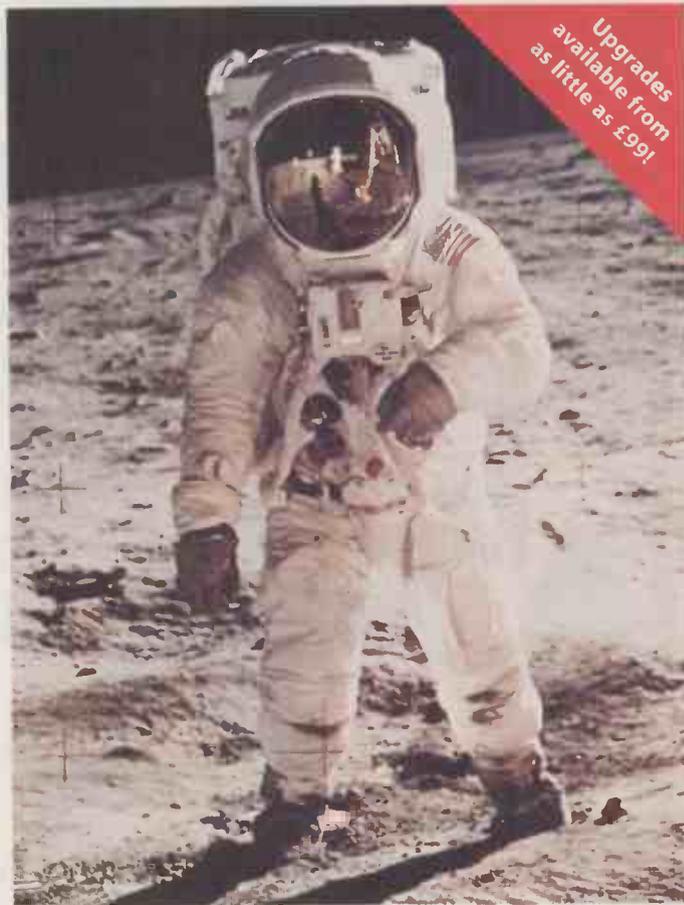
**David Thorpe**  
100524.726@compuserve.com

## Vanishing support

I've read with interest various contributions to this page regarding the status of technical support for hardware and software. However, I now fear that such support could disappear altogether for some users. As a case in point, I recently bought a Dell Pentium PC and had some problems setting up "Microsoft at Work Fax" (I had followed the instructions carefully). I called Microsoft, who told me that since the software was OEM installed, they didn't provide support.

I called Dell who told me that they don't support "advanced features" of the software and anything to do with networks in particular. This leaves me with a new PC with several features which don't work properly, Dell have my money and show no interest in fixing the problem; Microsoft have my money and show similar concern.

In what other area would purchasers tolerate a situation where blatantly faulty goods are sold by unabashed vendors who then deny any responsibility for failure? If I buy a car, I don't expect Ford and Philips to both deny responsibility when the stereo doesn't work. No-one would permit Nikon to claim that the backlight feature on a camera was an "advanced feature" and was thus unsupported.



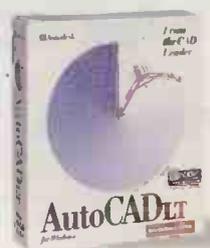
## But it could be a 'giant leap' for your productivity.

If you're using outmoded design tools, the chances are that your productivity and competitiveness are being seriously restricted. All too often, though, the move to CAD can seem as daunting as stepping into a new world.

Fortunately, finding the solution is as easy as the solution itself... **AutoCAD LT Release 2**, from Autodesk — the makers of AutoCAD and the world leaders in design software.

Because AutoCAD LT is windows-based, it's remarkably simple to use. At the same time, it can take large professional projects in its stride. And Release 2 includes a range of exciting new features carefully structured to work with you in a giant leap forward in design capability and productivity.

At only £495, AutoCAD LT Release 2 represents a real investment in your competitive future — without the need for space-age budgets!



So why not call **Force 2 International** on 01844 261872 for more information and bring *your* productivity-leap a step closer.

 Autodesk

# BRITAIN'S #1 DESKTOP PUBLISHER!!

**AMAZING  
£6  
CD-ROM OFFER!**

**WINDOWS 95  
WINDOWS 3.1  
COMPATIBLE**

**WOW!**  
NANCY, YOU RULE!  
I NEARLY SPENT OVER  
£500 ON REALLY  
EXPENSIVE DTP...

THAT'S RIGHT, BRAD...  
SERIF PAGEPLUS IS  
MUCH EASIER AND  
ONLY £6!!



**WITH PAGEPLUS, BRAD & NANCY CAN HAVE A COOL DTP AND A HOT VACATION FOR THE SAME PRICE AS OTHER EXPENSIVE DTPS.**

If you've ever thought about desktop publishing, but didn't know what it was or what it could do for you, you can't afford to ignore this offer.

If you don't already use Serif PagePlus, the UK's best-selling desktop publisher, now's your chance. For a limited time you can get the world's easiest DTP for just £6. Available on CD-ROM or disk, our amazing PagePlus Intro offer has been extended making a further 150,000 copies available!

PagePlus Intro is the little brother to Serif's PagePlus 3.0 - described by Windows Magazine as "caviar for the price of tuna" - our £99 power-packed rival to Aldus PageMaker. Like all Serif products, PagePlus Intro is ideal for first time users and is super-friendly and flexible. Intro is just one of the PagePlus family of award-winning, best selling publishing and graphics products.

PagePlus Intro lets you get started quickly and easily. In no time, you'll be designing high quality, graphics-packed flyers, letterheads, newsletters and ads. And get great results on any dot-matrix, ink-jet or laser printer - in colour or black and white. You'll soon find out that DTP is real fun too!

What's the catch? There's no catch... PagePlus Intro is simply the easiest way to find out all about desktop publishing on your PC.

Get PagePlus Intro today and you'll join nearly 600,000 enthusiastic Serif customers world-wide. Like many others, once you've used one value-packed Serif product you'll want to try the rest!

Call NOW for your copy of amazing PagePlus Intro! The CD-ROM comes with BOTH PagePlus Intro and DrawPlus Intro graphics software - including an incredible 1000 clipart images and 100 TrueType fonts - even better value!

This ad was designed and produced using Serif PagePlus 3.0 & other Serif products.

**CALL NOW TO ORDER YOUR AMAZING SERIF PAGEPLUS INTRO:**

For even better results, use Serif PagePlus Intro with:

- Serif PagePlus 3.0 - £123.45  
Award-Winning, easy & powerful DTP.
- Serif DrawPlus 2.0 - £123.45  
Easy drawing, graphics & illustration.
- Publishing Suite CD-ROM - £240.94  
The Complete DTP & Graphics Solution.
- Mega ArtPack CD-ROM - £76.45  
7000 Colour Clipart images on CD-ROM

All Prices are inclusive of VAT and £6 P&P.

**SERIF 0800 924925**

**Please Quote Code:**

PP/PCW/10



The Serif family of Best-Selling, Award-winning Publishing and Graphics applications

★ Don't risk spending £££s on expensive software - PagePlus Intro is just £6.00 inclusive of VAT and P&P. Please have your credit card ready: Visa, MasterCard, Amex and Switch accepted. Serif and PagePlus are trademarks of Serif, Inc. Aldus and PageMaker are trademarks of Aldus Corp. All other trademarks acknowledged. Offer limited to the first 150,000 UK callers, one copy per household only. Collect from Serif, Adco Ind Park, Bobbers Mill, Nottingham. NG7 5NR. Disk version contains PagePlus Intro only.

It's time hardware and software manufacturers started to supply goods to the same quality standards as washing-machine manufacturers, and to take responsibility when things don't work as advertised.

**John Stolz**  
100115.2676@  
compuserve.com

**PCW replies:** For once we do have some sympathy for the suppliers. Providing technical support for computer software is extremely expensive, and even quite simple PC software has far more permutations than the most sophisticated camera or washing machine. At best it will be several years before PCs become as fool-proof as other consumer goods. In many cases, software is OEM'd to manufacturers at little or no cost as software suppliers compete for market share. The hardware manufacturers themselves work on small margins and try to control costs wherever possible. If consumers want to pay low prices, they will have to pay extra for support.

### The big issue

Some of us still think it's pretty cool to own a 486SX/25 with 4Mb RAM. Those of us who have managed to get a nice, cheap 16-bit sound card and dual-speed CD-ROM drive may well feel we're at the cutting edge of technology. It's pretty frustrating, then, to buy your first copy of *Personal Computer World* with free CD-ROM, stick it in the drive, and discover that really you need a DX50 with 8Mb RAM to run the damn thing.

All I'm basically asking is, why can't you put a nice, big, readable notice on the front cover, saying "Don't buy the one with the CD unless you've got a great big, macho 1995 PC", so that those of us faithful who've been buying your mag since the days of the 8088 with one 10Mb hard

drive (and that was only three years ago) will know to stay in our box and buy the floppy version?

Otherwise, I love your mag.

**Peter Brown**  
Dublin

### Doom descends into benchmarking

I would like to propose that you add a new component to your benchmarking reviews. As I once again reach for magazine reviews to help me choose my next machine, it occurs to me that one key benchmark that I really want is never present. The countless DOS/Windows video, disk, spreadsheet and such benchmarks are commonly provided and have formed the basis of my previous choices. However, although I used my previous machines for substantial program development and will continue to do so, I am not critically concerned whether one machine is five percent faster than another for compilation or general Windows performance. It seems that modern machines are good enough at running Windows and compilations that I do not care enough to scramble for the last ounce of performance.

However, I do still care about performance. The most critical application that I ever want to run is one of the new virtual reality games. What I want to know when seeing a video card benchmark or machine benchmark is the frame rate that they can deliver for such games. A five percent advantage in this case makes a big difference. It seems to me that many readers would also very much welcome a games grading system.

The market has just reached the point where there is a dominant, established game that could be used for such a benchmark standard. Everyone has heard of Doom and it

is likely that a machine that can deliver a high Doom frame rate will also provide a comparable advantage in future VR games. Doom can be made to display the current frame rate, in fact.

I would propose the following benchmark. Run the following command:

```
DOOM2 -DEVPARM
```

Wait for the demo to start. Observe the maximum number of illuminated dots on the bottom right-hand side of the screen. The frame rate can be calculated by

$$72 / (N+1)$$

This is most easily observed by progressively obscuring the row of dots with a finger as the peaks appear. The highest peak should occur just as the demo starts. This gives a value of 9 for my DX/66 machine.

This example is probably not the best, as I am sure that you have a Doom expert at PCW who could provide a better benchmark. If you adopted this additional benchmark, you could keep a step ahead of all the other magazines that did not think of this first. I am sure that with the increasing interest in such games, one of the magazines will do this sooner or later. Get there first! I would be interested in your view on this,  
**Jeff Rollason**  
100031.3537@  
compuserve.com

### Panrix price change

The Panrix Micron 90 reviewed in September's 90MHz Pentium group test was the fastest machine you tested under Dos, Windows and Overall. I would like to inform you that the price you printed, £2,465, was wrong. The correct price is £2,195, effective from 1st August. We hope your readers will welcome the news that The Panrix Micron is now available for next-day delivery.

**Siu Lam**  
Sales Manager  
Panrix

## Hindsight



### PCW October 1980

"It hurts to admit it, but I can't really say that my old friend Graham Barrat has picked a winner with his £4,500 microsystem from Sanyo of France. His machine looks to stand comparison with the Intertec SuperBrain which KGB of Slough is now offering at £1,500 or so. For the extra money, the [Sanyo] Memory System 7000 seems to offer rather more disk capacity."

### ● R/E the Amstrad PCW8256:

"Could this be the ultimate accolade — a machine bearing our name? It's the latest from Amstrad, the Personal Computer Word Processor, which comes with 256Kb of memory, CP/M Plus, Logo, Basic, the LocoScript word processor and a printer — all for £399."

"At the PCW's price level, it's hard to find any competition... this machine is spectacular value for money for a small business or the home. Amstrad is betting there's enough volume out there in the 'serious' market to support the low price, although I'm not sure how large this market is."

Amstrad's word processor was the start of a very successful phase for the company. Other PCW models followed, leading to the launch of the 1512, the first cheap PC-compatible.

# The Acer Advantage.



## AcerPower 510 Multimedia

**£1699\***

100MHz Pentium® processor  
8Mb RAM, 256Kb cache memory  
540Mb EIDE hard disk  
PCI Graphics Accelerator  
with 1Mb video memory  
Dual speed CD-ROM, 16-bit sound  
card and speakers  
MS-DOS® 6.22 and Windows for Workgroups™  
AcerView 55L 15 inch colour monitor

## AcerAcros DX2/66

**£840\***

Am486®DX2/66MHz processor  
4Mb RAM  
540Mb hard disk  
Local Bus Graphics Accelerator  
with 1Mb video memory  
MS-DOS 6.22 and Windows® 3.11  
AcerView 34TL 14 inch colour monitor

## AcerAcros DX4/100

**£929\***

Am486®DX4/100MHz processor  
4Mb RAM, 256Kb cache memory  
540Mb hard disk  
Local Bus Graphics Accelerator  
with 1Mb video memory  
MS-DOS 6.22 and Windows 3.11  
AcerView 34TL 14 inch colour monitor



**MEDIAWARE**

TEL: 0161 343 3000

Mediaware Limited  
Manchester

Sensible Computing

**SOLUTIONS**

TEL: 0116 287 1441

Sensible Computing Solutions Ltd  
Leicestershire

**WESTWOOD  
ASSOCIATES LTD**

TEL: 01753 887161

Westwood Associates  
Chalfont St. Peter, Bucks



**AcerPower 575 Multimedia**

**£1469\***

75MHz Pentium® processor  
 8Mb RAM, 256Kb cache memory  
 540Mb EIDE hard disk  
 Dual speed CD-ROM, 16-bit sound  
 card and speakers  
 Local Bus Graphics Accelerator  
 with 1Mb video memory  
 MS-DOS 6.22 and Windows for Workgroups  
 AcerView 55L 15 inch colour monitor

**AcerPower 575**

**£1259\***

75MHz Pentium® processor  
 8Mb RAM, 256Kb cache memory  
 540Mb EIDE hard disk  
 Local Bus Graphics Accelerator  
 with 1Mb video memory  
 MS-DOS 6.22 and Windows for Workgroups  
 AcerView 34TL 14 inch colour monitor



**TEL: 01524 33266**

On-Line Computers (Lancaster) Ltd  
 Lancaster



**TEL: 01202 532745**

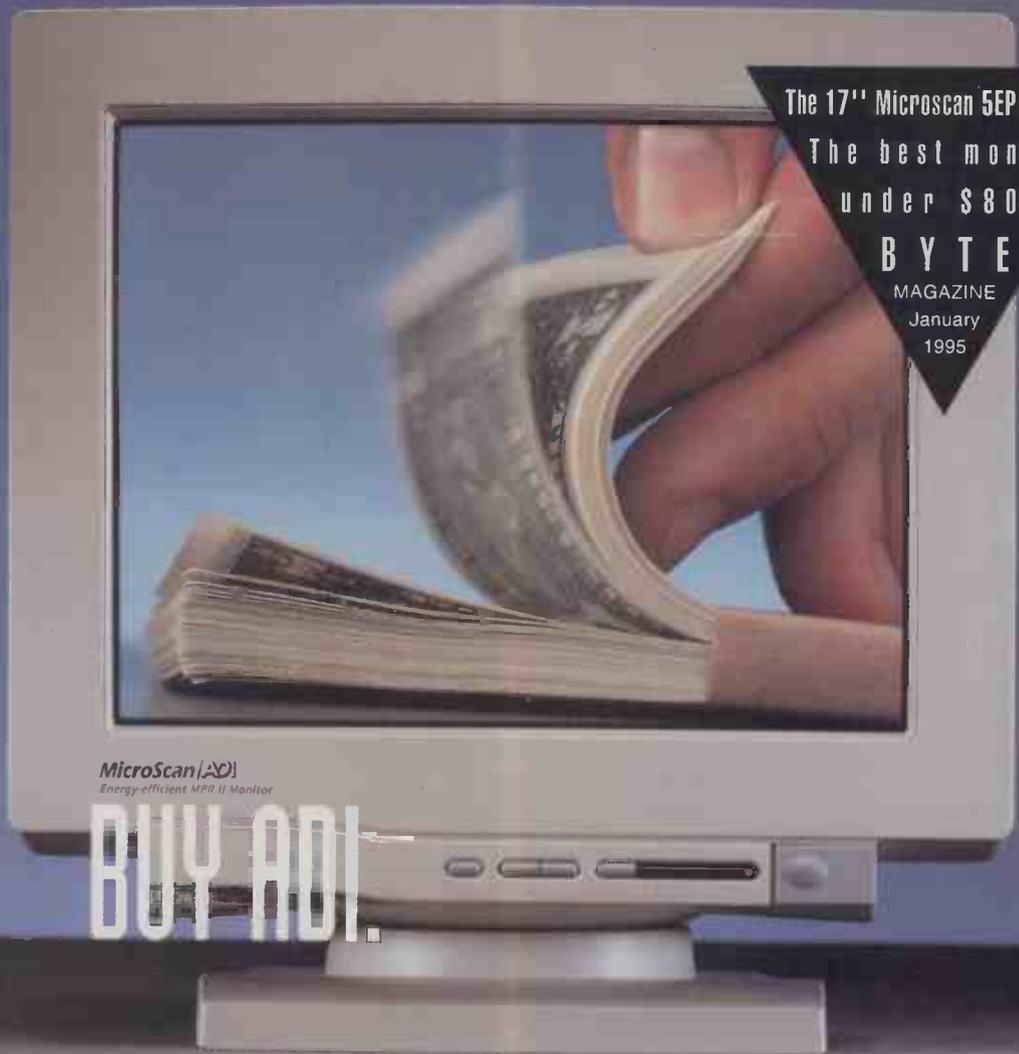
IPM Technology Limited  
 Bournemouth



**Global Brand, Local Touch.**

Acer UK Limited, Maddison House, Thomas Road, Woburn Green, High Wycombe, Bucks HP10 0PE.  
 \* All prices shown exclude VAT and delivery charges. All prices and specifications are subject to change without notice or obligation.

Give  
your eyes  
and your  
pocket a  
refreshing  
break.



The 17" Microscan 5EP Awarded  
The best monitor  
under \$800.

BYTE  
MAGAZINE  
January  
1995

MicroScan ADI  
Energy-efficient MPRT II Monitor

BUY ADI.



## The features and quality YOU expect The price YOU don't.

A billion \$ giant, ADI was established in 1979 and is recognised as a leading force in monitor manufacture. Our line of innovative monitors has set benchmarks for quality, performance and reliability.

### The ADI MicroScan Monitor Range

- Microprocessor intelligence
- Fingertip front panel controls
- 76 Hz flicker-free refresh rate
- Brilliant, non-interlaced images
- Single-board design
- 2-year on-site warranty
- Optional 3-year warranty



US Edition  
ADI MicroScan 3E+

Until now products populating the landscape of performance monitors have looked a lot alike. High in quality, long on features, hefty on price. Thanks to ADI, things are looking up. For much less, you can get the same quality and features ADI has for years, built into the monitors of many of today's world class monitor and PC companies.

With the opening of our UK office, ADI can now offer the same quality of service and support which has helped us to sell over 4 million monitors world wide in the last two years.

So what's the big difference between us and the other so called top-line monitor manufacturers? The answer is the bottom line. ADI gives you something that we all need today - Better Value.

When it comes to quality, features and affordability, you can't beat an ADI MicroScan Monitor. For more information on ADI and our monitors, call **(0181) 236 0801**



MicroScan is a trademark of ADI Corp. All other brands or product names are trademarks or registered trademarks of their respective companies. The Energy Star emblem does not represent EPA endorsement of any product or service. © 1995 ADI Corp. All rights reserved.

ADI

ADI Systems (UK) Ltd. Unit 3, Manor Place, Manor Way,  
Borehamwood, Herts. WD6 1WG

Tel: (0181) 236 0801 Fax: (0181) 207 3842

60  
PERSONAL COMPUTER WORLD

More than just a monitor

# First Impressions

## Contents

- 66 Apple PowerBook 5300
- 67 Panasonic PD System
- 70 RAM Doubler for Windows
- 72 Calera WordScan Plus 4.0
- 74 Pioneer DRM-624X
- 78 3D Garden Designer 2
- 79 Pentax PocketJet
- 81 Arc en Ciel address utility
- 82 Adaptec APA-1460 SlimSCSI
- 84 Vitec Video NT MPEG encoder
- 86 Key Presenter for Windows
- 88 Rescue



First Impressions includes the irresistible "Gadgets" spread on page 62. Highlights include the Apple PowerBook 5300 notebooks—the first to use the PowerPC processor, Panasonic's PD System, and 3D Garden Designer to show you just where to place that shrubbery.



## VNU European Labs

**VNU** Labs tests cover every kind of hardware and software including PC hardware, printers, network products, modems and software applications. The tests are continually developed

and enhanced to reflect hardware and software developments.

Our tests closely simulate real-world use. For example, the suite of PC hardware benchtests uses complete versions of industry-standard applications like Microsoft Excel and Word for Windows, WordPerfect 6.0 (DOS and Windows), Lotus 1-2-3 version 3.4 (DOS) and FoxPro (Windows and DOS).

Application tests are the backbone of all the VNU Labs system evaluations but it's nearly impossible to pin an application result to a specific machine component. Only system-level tests (also known as low-level tests) can reliably tell the difference. VNU Labs' system-level test suite is called Euromark. The tests, which are mainly Windows-based, quickly size up a hard disk, sound card, motherboard, display adaptor and printer, and give individual and overall figures.

● To make them easy to read at a glance, all the graphs in *PCW* are now drawn so that the bigger the bar, the better the result. Normally we'll also include the original data we worked from: for example, the

time in minutes and seconds to print a page in a comparative test of printers.





**Roland Sound Canvas**

Roland has managed to squeeze 364 instruments into a Type II PCMCIA card. However, there's only enough room to play 16 of them at once. The SPC-55 also offers professional-quality reverb and chorus effects and sampling capabilities. Not only this, the card has an MPU-401 MIDI interface so you can make music wherever you go.

Price £322

Contact Roland 01252 816181



**Virtual Pilot**

Learn to fly any aircraft, car or even spaceship with Virtual Pilot from Evesham Micros. It has been designed to provide ultimate precision amid the scariest of dog-fights and is compatible with the Thrustmaster Joystick range. It clamps securely to the desktop and requires no more than a standard game port.

Price £68 Evesham Micros

Contact 01386 765500

**Gadgets**

PCW Gadget Photography by David Whyte

### Wacom Graphic Tablet Pens

There's nothing like a graphics tablet to clear those arty headaches, and there's certainly nothing like tablet manufacturer Wacom's new range of pens. Better ergonomics and easier handling are offered by widening pen barrels, while those disconcerted by the lack of marks left by tablet pens should check out ink ballpoint and lead-propelling pencil models. Last but not least is the new standard pen which boasts an eraser at the other end of the barrel — tablet pens have never been more intuitive.

Price POA

Contact Wacom Computers Unlimited 0181 200 8282

### Scoutmaster GPS

The ultimate handheld accessory for people who need to know exactly where they are. Trimble Navigation's Scoutmaster is intended to do for the sextant what the guillotine did for the French aristocracy. It uses differential GPS (the most accurate kind) to pinpoint your location to within 10 metres. It's small enough to fit in your pocket, light enough to carry anywhere and, with a suitable cable, you can even connect it to a PC.

Price £702

Contact Trimble 01256 760150

### Wireless Keyboards

Not only does this wireless keyboard make your desk the tidiest in the office, it increases productivity. This is because you can carry on working while walking down to the coffee machine — it works, we tried it. It works exactly the same as a standard keyboard and requires no additional drivers.

Price £66

Contact Reed Cosine  
01929 550727

# The new Digital Venturis Pentium.<sup>®</sup>

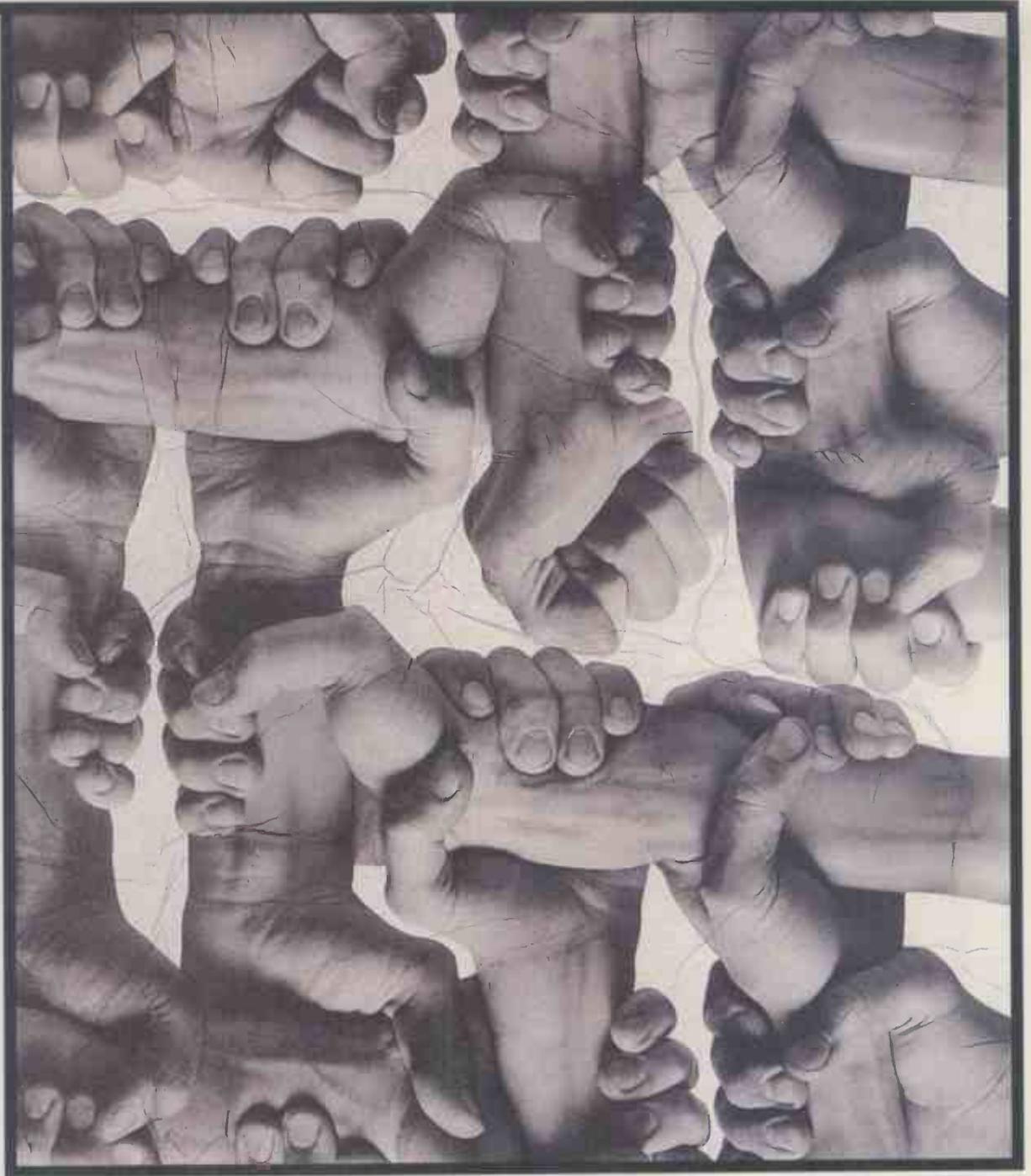
## The end of power struggle.



### INTRODUCING DIGITAL VENTURIS PENTIUM<sup>®</sup>

It's never been so easy to empower so many. The entire Digital Venturis line has always stood for ease-of-use. Now, with a choice of 3 different Pentium<sup>®</sup> chips – not to mention PCI/ISA bus, advanced power management, and Plug and Play capabilities –





the

Venturis makes it even easier. High performance isn't usually associated with a machine this easy to install, start up, network, integrate or maintain.

But Venturis isn't your usual PC.

So what are your chances of finding a more efficient combination of power, performance and flexibility?

*That could be a struggle.*

To find out more about Digital's exciting new Venturis range, call us on 0345 227 228.

*In Ireland call 1 850 360 360.*

**digital**<sup>™</sup>  
**PC**

## HARDWARE

# Apple PowerBook 5300

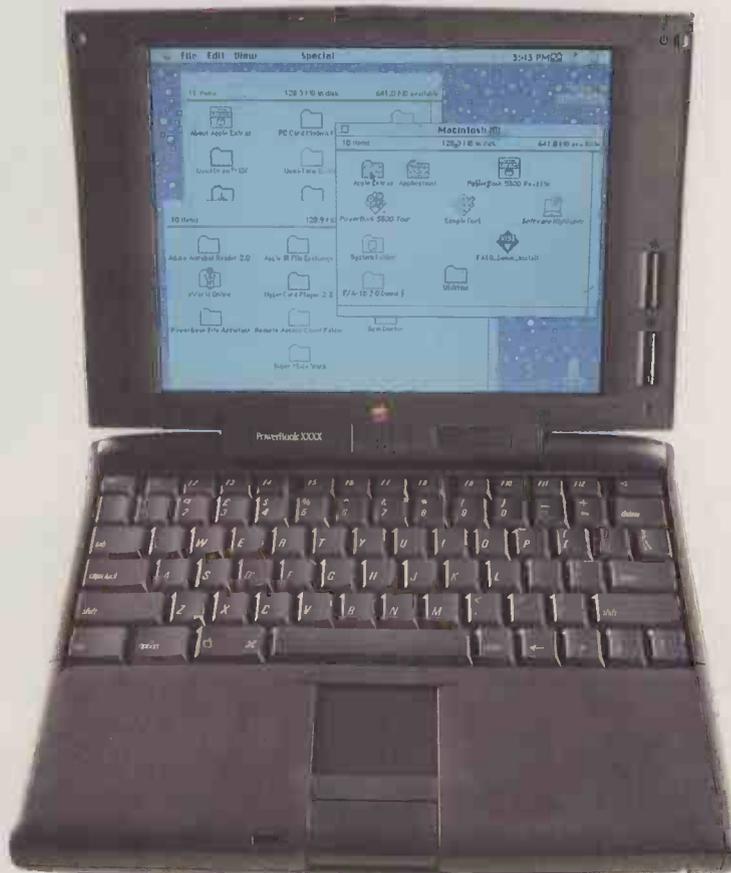
This new series of notebooks is the first to use the PowerPC processor. Chris Cain takes one for a run and reckons it's the best mobile Mac ever.

With their sleek design, built-in networking and stereo sound, Apple's PowerBooks have always been a little smarter than the average notebook. This month sees the launch of the first equipped with PowerPC processors — these mobile Macs look destined to become the most desirable yet. The new 5300 series comes in four configurations, and PCW managed to get its hands on the 5300c/100.

At first glance, the 5300c/100 is visibly different from existing PowerBooks, with a new black casing that's slightly remoulded at the back. I do think that the look of the older 500 series was better, but times change and it's all a matter of personal preference anyway. The keyboard is full size with a 19mm key pitch, function keys and sizeable palm rests for user comfort at the front. Between the rests is the now familiar Apple Trackpad, and a small, single speaker sits opposite at the bottom of the screen (the old 500 series had a stereo pair). The whole thing measures 8.5 x 11.5 x 2.2in and weighs in at 6.2lbs.

The screen on our review model was a superb 10.4in 640 x 480 pixel active matrix colour device, but dual-scan colour and 9.5in greyscale versions are available. There was a small grey patch in the top left-hand corner of our screen, but this apart, the overall display was clear, with vibrant colours. The colour models support displays in both 256 and thousands of colours. Controls for brightness and contrast are on the right. The top-of-the-range 5300c/117 has a screen capable of 800 x 600 pixel resolution.

At the rear are connectors for SCSI, Apple Desktop Bus (ADB), serial/LocalTalk, external video and 16-bit stereo audio in and out. Annoyingly, the video connector requires an adaptor plug which is not supplied, so you'll have to trot down to your local Apple dealer if you want to use this feature. Eagle-eyed Mac readers will have noticed no mention of an Ethernet connector — the machine is not supplied with one as standard.



Ethernet has been more or less replaced with support for PCMCIA or "PC" cards, which offers the option for Ethernet networking along with plug-in modems, hard disks extra memory, etc. A port on the left-hand side has room for two Type 1 or Type II cards, or a single Type III card.

Another change is a move from Nickel Cadmium to Lithium Ion battery technology, providing between 3 and 5 hours of use from a single battery.

Another important addition is built-in infra-red point-to-point LocalTalk communication which allows these machines to talk to each other, and send and receive files without a physical connection. With an infra-red receiver attached to a desktop Mac, and the right software, you can communicate with other desktop Macs. So in theory you can log into your office network without the hassle of connecting leads. One such receiver is the AirDock, made by US Mac specialist, Farallon.

The processor inside the 5300 is a PowerPC 603e running at either 100MHz or 117MHz, depending on the model. The 603e is a new design specifically for use

in notebooks. It differs from the 603 in that it can run Apple's software emulation of the 68LC040 processor (used to run non-native PowerPC Mac software) without the need for an external cache.

Machines ship with a minimum 8Mb of RAM expandable to 64Mb, and either a 500Mb, 750Mb or 1.1Gb IDE hard disk. A 1.4Mb SuperDrive is fitted as standard and can be removed to allow other expansion modules to be connected, such as a Magneto Optical drive (soon to be launched by Fujitsu). The drive simply slides in and out once you release a small, sliding lock, so connecting other peripherals is a piece of cake. Fitting extra RAM however requires the release of three screws and removal of the keyboard (which slides off) before you play with the insides — probably not a job for the faint-hearted.

The PowerBook 5300s come with System 7.1.2, and Apple supplies a small selection of pre-installed software including an eWorld starter kit, Apple Remote Access for controlling and talking to desktop Macs while away from your desk, and three games: the dated but fun Super

Maze Wars, Eric's Solitaire, and the puzzle-based Spin Doctor. Strangely, Apple's standard business suite, ClarisWorks 3.0, isn't bundled with this system.

In use, the 5300c/100 proved to be everything you'd expect from a PowerPC notebook and all our tests passed without incident. The only problem was getting it

used to the Trackpad, although I did eventually master it after about a week. Extended tests with the IR system could not be performed because Apple had provided only one machine at the time of writing, but tests for file sending and receiving during an early demonstration went perfectly.

### PCW Verdict

The old 540c looks better, but if you want the best notebook performance, the 5300 reigns supreme. The best mobile Mac yet.

Price £3,200 (100 MHz 5300c, with 16Mb RAM and 75 Mb hard disk)

Contact Apple 0181 569 1199

## HARDWARE

# Panasonic PD System

With the latest craze for cheap drives and removable media in mind, Gordon Laing reviews Panasonic's latest phase-change rewritable device and judges it a veritable bargain despite some limitations.

Storage, usually an inadvisable topic to broach at a dinner party, has suddenly become quite interesting. I'm not suggesting that anyone launches into the pros and cons of RAID arrays or argues about the lifespan of CD-R while surrounded by friends or family, good food and drink, but in the safe techno-haven of these pages I feel I can enthuse without fear of making an unforgivable *faux pas*.

Storage is of course where you store things — so far, no surprise. And few would be shocked to learn that in the realm of the computer, typical storage devices include hard drives, floppy discs and CD-ROM drives. All have their pros and cons: some are quick, slow, or expensive while others are cheap, rewritable, or removable; some are perfect, but incompatible with anything else. The list is endless. One thing is certain, however: like RAM or other unmentionables, you can never have enough of the stuff. This is particularly true with large multimedia files floating around, along with people merrily downloading from the Internet.

The latest storage craze is cheap drives with cheap removable media, and Panasonic hopes to solve everyone's storage problems with its patented PD system which uses removable optical media.

Removable media is not a new idea: SyQuest has made a comfortable living over the years with its removable hard-

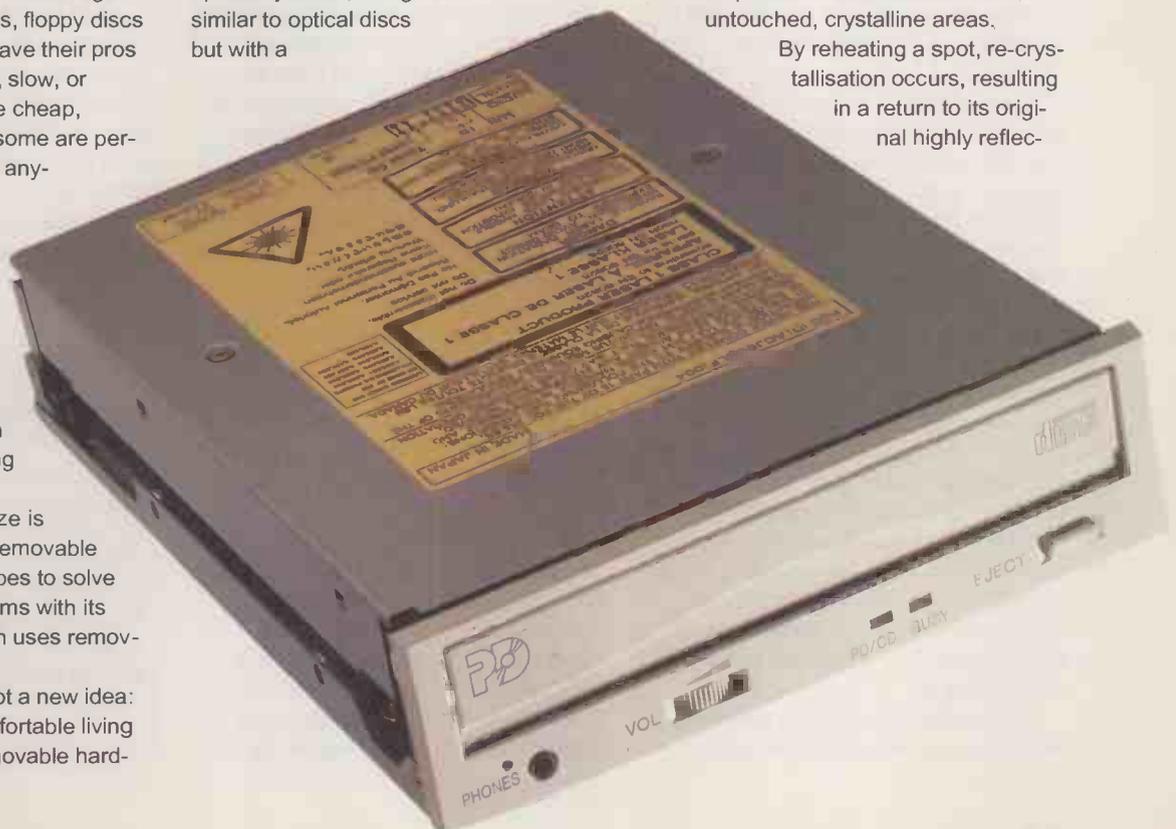
disk cartridge system. The 5.25in 44Mb or 88Mb versions in particular are the industry standard in publishing for transferring large DTP or graphics files from the desktop to the remote printers. They're quick and easy to use but are reasonably expensive: the current 3.25in 270Mb cartridges cost around £55 each and an internal SCSI drive to read them is about £275.

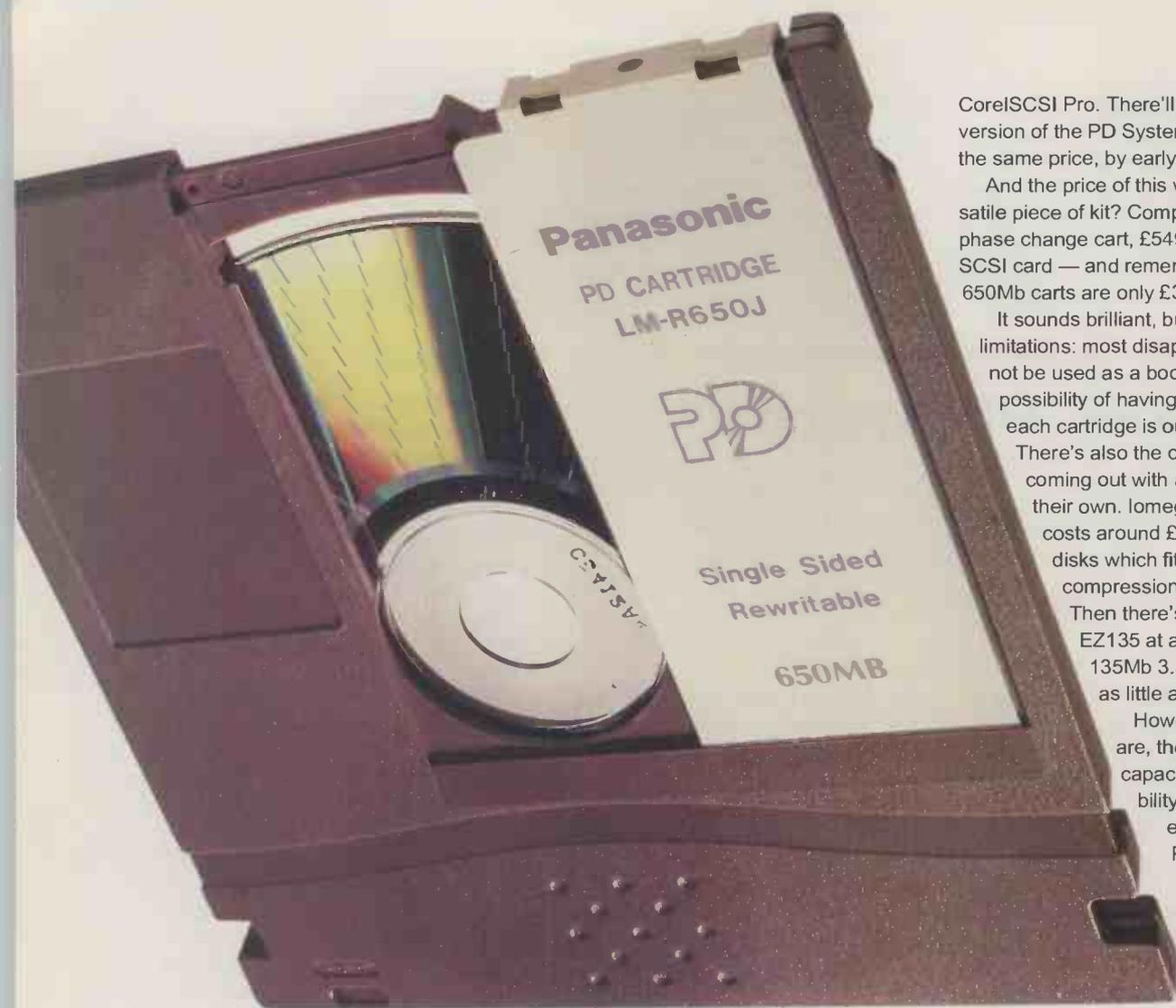
SyQuest uses removable magnetic hard disks. Another possibility is optical discs, currently available in numerous incarnations. There are magneto-optical systems, using media similar to optical discs but with a

magnetic active layer. A high-powered laser heats the material, resulting in a reversal of the material's magnetic polarity. Clockwise and anti-clockwise polarities represent noughts and ones and are read by a lower-powered laser, and before any data can be overwritten the relevant active area must first be returned to its initial state of magnetisation. Consequently, overwriting on a magneto-optical system is a two-pass process.

Panasonic's PD system boasts the company's own patented Phase Change technology, very similar to that used by phase-change WORM (Write Once Read Many) such as CD-R. The difference with Panasonic's system is that the active layer is made of a material with reversible properties. A very high-powered laser heats that portion of the active layer where data is to be recorded. This area cools rapidly, forming an amorphous spot of low reflectivity. A low-powered laser beam detects the difference between these spots and the more reflective, untouched, crystalline areas.

By reheating a spot, re-crystallisation occurs, resulting in a return to its original highly reflect-





tive state. Laser temperature alone changes the active layer to crystalline or amorphous according to the data required, in a single pass.

Consequently, Panasonic's single-pass phase-change system is quicker than the two-pass magneto-optical (MO) version. Panasonic believes that phase change is simpler, using less components, and is easier to implement due to the higher degrees of reflectivity involved: typically between 10 and 20 percent (compared to less than 1 percent with the MO system).

The PD System is Panasonic's latest phase-change rewritable device. It looks like an internal SCSI CD-ROM drive until you eject the drawer; then it turns out to be quite deep, in order to take the rewritable cartridges which look like CD-ROM caddies. Each removable cartridge costs £39 and can store a substantial 650Mb. Performance is slower than a hard disk but not much below that of a 3.5in SyQuest.

So Panasonic has solved the cheap, removable, yet reasonably performing

media problem; but what about compatibility? Only the PD System will make any sense of the phase-change optical disc cartridges, but this PD drive does more. At the bottom of the tray is a five inch circular dip, just like in a CD-ROM drive, and guess what? The PD System doubles up as a CD-ROM drive — and a quad-speed one at that. We measured a sequential transfer rate of 605Kb/sec and overall it performed similarly to other quads.

The same tray is used both for CDs and the phase-change cartridges (although not simultaneously), and only one SCSI ID is required. Under DOS and Windows (or Windows 95 for that matter) two drive letters are required, and since you can't fit a CD and a cartridge into the tray at the same time, you'll find a few occurrences of "No disk in drive X, please retry". Under Macintosh, the desktop mounts whichever media is loaded.

Panasonic can bundle an Adaptec SCSI card if required, for an extra £50, but curiously didn't license Adaptec's EZSCSI software, opting instead for

CorelSCSI Pro. There'll be an ATAPI version of the PD System, costing around the same price, by early next year.

And the price of this wonderfully versatile piece of kit? Complete with one phase change cart, £549, or £599 with SCSI card — and remember, additional 650Mb carts are only £39 each.

It sounds brilliant, but there are some limitations: most disappointingly it cannot be used as a boot drive so the possibility of having a different OS on each cartridge is out of the question.

There's also the competition, each coming out with alternatives of their own. Iomega's Zip drive costs around £150, with 25Mb disks which fit 100Mb through compression, at £15 each.

Then there's SyQuest's new EZ135 at about £150, with 135Mb 3.5in disks costing as little as £12.50 each.

However cheap these are, they offer limited capacity and compatibility with anything else. Panasonic's PD System's cartridges may cost £39, but they'll store 650Mb.

Just as importantly

perhaps, the drive can read normal CDs at quad speed.

Each one of these manufacturers is hoping that its drive will become the new standard — only time will tell. I must admit to being very fond of the PD System and would recommend shelling out extra for the drive, especially if you don't already have a high-performance CD-ROM drive. Never before has that spare 5.25in drive bay in your PC been so hotly contested.

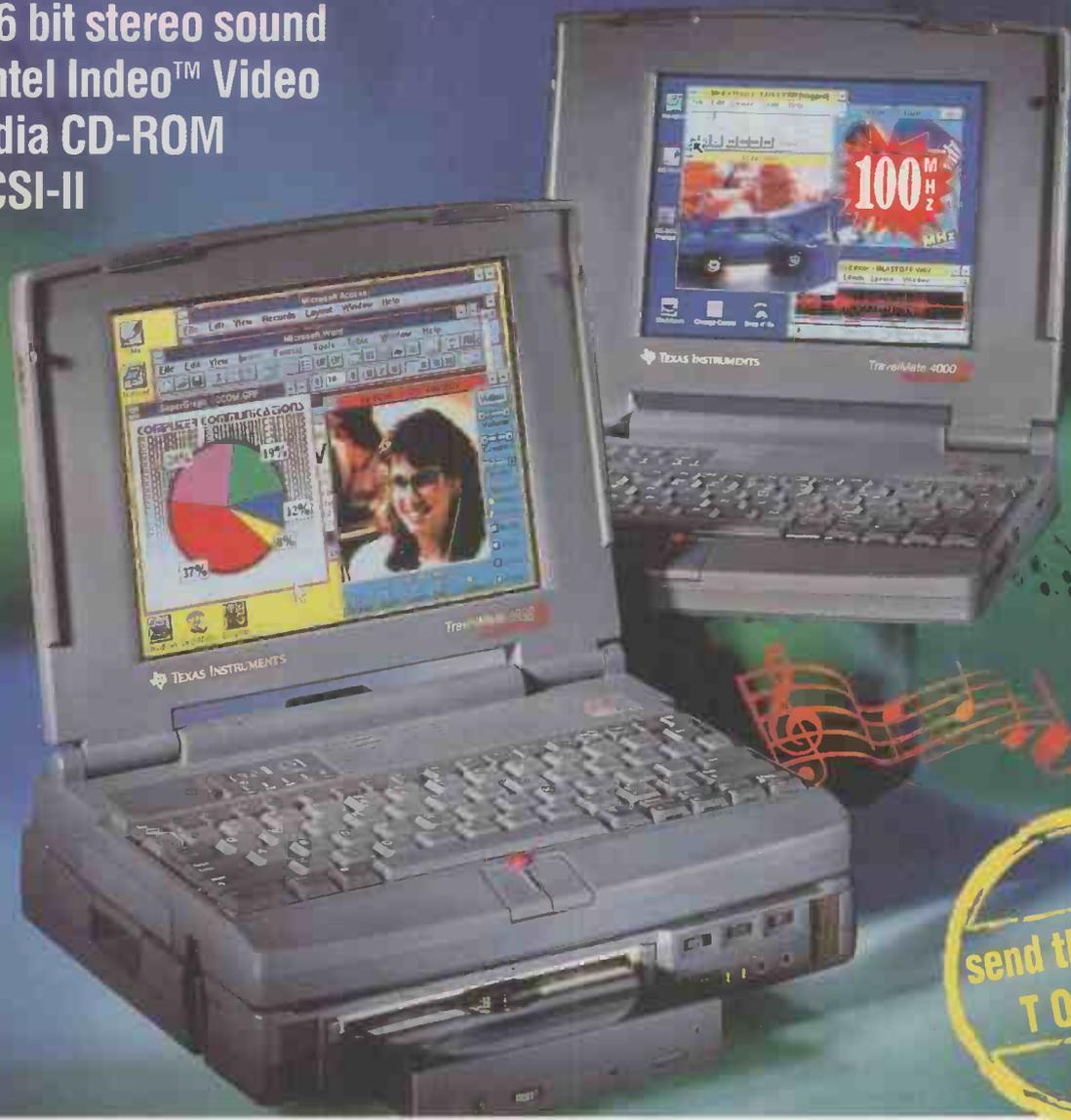
### PCW Verdict

Panasonic's PD System costs more than the new Iomega and SyQuest drives but takes much larger 650Mb rewritable and removable cartridges. It's a quad-speed CD-ROM drive too. A bargain.

**Price** £549 or £599 with Adaptec SCSI card; 650Mb rewritable cartridges £39 each  
**Contact** Panasonic 0800 444220.  
 Fax 01344 853706

# MORE POWER: UP TO 100 MHZ

- Music: 16 bit stereo sound
- Movie: Intel Indeo™ Video
- Multimedia CD-ROM
- More: SCSI-II



**The new TravelMate 4000M series: More power, music and movies – at an amazing price.**

M as in More: 486 processor, 50-100 MHz, up to 525 MB hard disk, up to 20 MB data memory, 1 MB video memory, PCMCIA slot type III, SCSI-II controller, integral mouse, long-life NiMH batteries.

M as in Music: 16-bit sound card, speaker, microphone, MIDI port.

M as in Movies: with the active matrix colour display and pre-installed Intel Indeo™ video, your TravelMate is true mobile multimedia.

M as in Multimedia: the optional docking

## TravelMate Value

**50 MHz Power from £1499<sup>EX VAT</sup>**

station is fully portable as it has its own power source in a separate NiMH battery. CD-ROM drive, stereo speakers, tone and balance control, with external microphone and headphones. The TravelMate 4000M – the portable solution for many varied applications, in particular for professional presentation.

Call MPC: Phone (01923) 249898, Lapland UK: Phone (01256) 812720 or Texas Instruments: Phone (01932) 780753



Your information on TravelMate

Get there faster with TravelMate!



- TravelMate 4000M WinDX4/100 Color™ TFT
- TravelMate 4000M WinDX4/75 Color™ Dual Scan or TFT
- TravelMate 4000M SX2/50 or DX2/50 Color™ Dual Scan or TFT
- Portable Docking Station with CD-ROM and sound system for 4000M-series

Complete the coupon and send to:

Texas Instruments Ltd.  
61-73 Staines Road West, Sunbury-on-Thames,  
TW16 7AH or FAX (01932) 780126

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

## SOFTWARE

# RAM Doubler for Windows

Double your program and data storage in Windows. Chris Cain did, and reckons that not only does the utility work well, it's also a lot cheaper than buying extra SIMMs.

When US-based utility specialist Connectix launched RAM Doubler for Macintosh, it went on to become a "must have" product. Now the company has finally brought its memory management experience to the PC and is hoping to continue its success with RAM Doubler for Windows.

says on the packaging.

Minimum system requirements are a 386 PC or higher with Windows 3.1, 3.11 or Windows for Workgroups, and 4Mb of RAM. The current version will not work with Windows 95 but Connectix promises an update as soon as it ships. It will be interesting to see exactly what this does

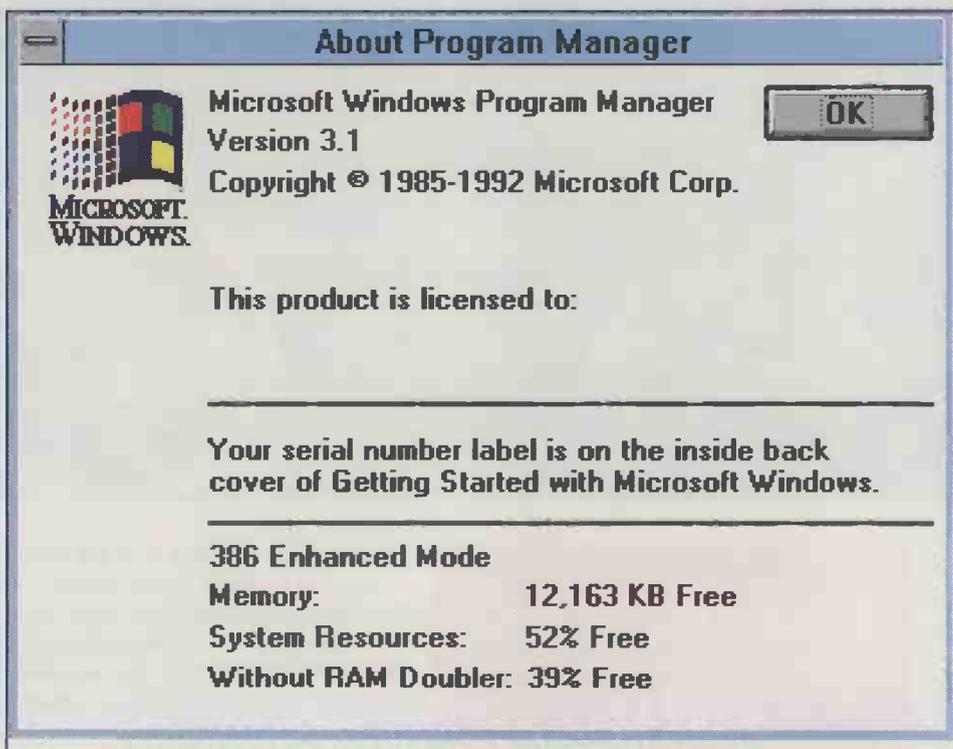
dialogue boxes in Windows programs. It doesn't matter how much memory you have installed, once the total available resource space drops to around 15 percent, Windows won't let you load any more programs. If it drops below 10 percent Windows will usually crash, taking all your precious data with it.

As well as ensuring that resources are used efficiently, RAM Doubler cleans up the PC's infamous under-1Mb area where DOS, network software and hardware drivers regularly waste space. It doesn't give you more DOS memory, it's not a product like QEMM or 386Max (although it does work well in conjunction with these), but it does help make sure Windows has enough space to work happily.

Finally, RAM Doubler intelligently compresses data that's in memory but not likely to be accessed again, and intercepts calls to your Virtual Memory swap-file to see if it can speed things up, by compacting information rather than paging it out to the hard disk.

After using the program for a couple of weeks, RAM Doubler for Windows proved as transparent and essential as its Macintosh counterpart. At £69 it's a lot cheaper than buying extra SIMMs, and with Windows' System

Resource problems the addition of extra megabytes doesn't always help. This is simply a "must have" utility for anyone currently using Windows 3.1 and with plans to continue using it in the future. If you're more interested in Windows 95, wait for the update later this year. If it works as well as this one, it will be worth having.



*Wow, look at all that free memory — well, free memory, anyway*

As its name suggests, RAM Doubler doubles the amount of Windows programs and data you can have stored in RAM. It doesn't allow you to use software that requires more memory than you physically have available, but it does let you open more applications at once on your existing setup. How many times have you failed to get Microsoft Word and Excel running together, or had that annoying "Out of Memory" error when you know you've got 32Mb? Install RAM Doubler and your problems will be solved; at least, that's what Connectix

as Microsoft has already improved its memory management routines.

Installation requires nothing more than double-clicking on a setup program and answering a few straightforward registration questions. Once you're done, Windows restarts and that's it — there's no swap-file configurations or changes to Autoexec.bat. In most cases, as with the original Macintosh version, there's no noticeable performance hit on your machine when you start working.

RAM Doubler works by using custom-patented techniques to compress data and make the most of Windows' System Resources. These are reserved areas in memory, split into 64Kb chunks, that track items such as icons, menus, buttons and

## PCW Verdict

Connectix has done it again. A must for anyone running Windows 3.x.

Price £69

Contact Computers Unlimited  
0181 200 8282.

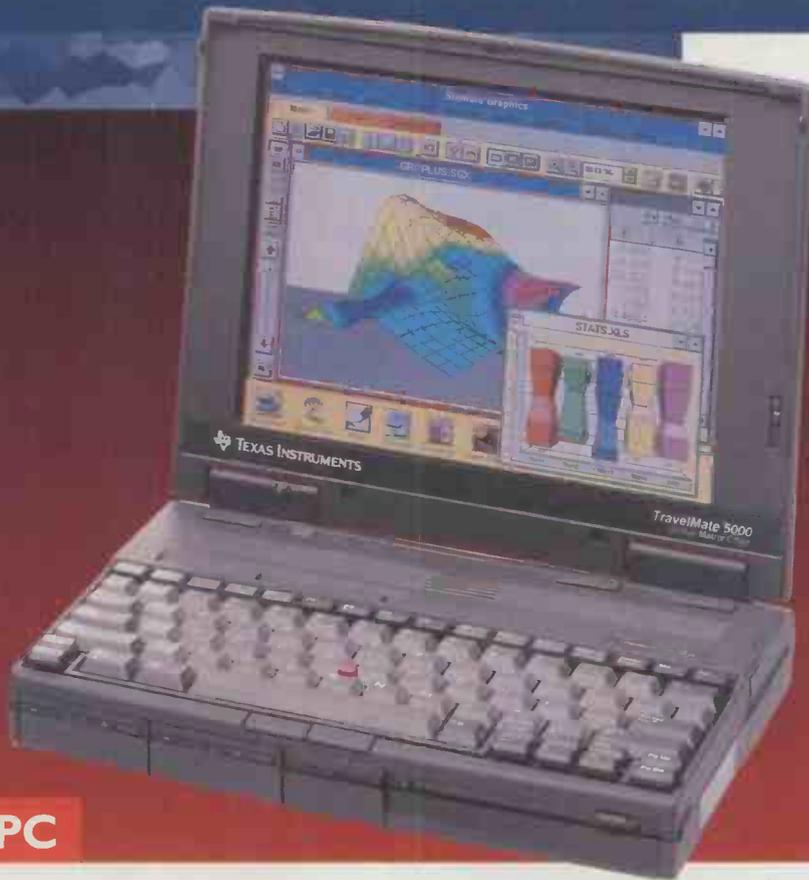
**ANNOUNCING**



# PENTIUM POWER IN A PORTABLE PC



**pentium**  
PROCESSOR



**NEW FROM MPC**

## TEXAS INSTRUMENTS TRAVELMATE 5000 NOTEBOOKS

### TravelMate 5000 Series

- ❖ PCI BUS 75Mhz Pentium Processor
- ❖ 10.4" TFT/ 10.5" DScan Screens
- ❖ 8MB RAM to 32MB RAM
- ❖ 2 Lithium ion batteries
- ❖ PCMCIA Slots/Infra-red port
- ❖ 2MB Video RAM
- ❖ MultiMedia Ready

### FROM ONLY £2999

TM5000 TFT 772MB .....	<b>Call for New Prices</b> <del>£3499</del>
TM5000 DScan .....	<del>£2999</del>

Call for latest prices

### FREE CUSTOMER CARE PACKAGE

#### MPC SERVICE

- ❖ Next day delivery on stock items
- ❖ Free pre-delivery hardware configuration
- ❖ Largest TI UK reseller

#### MPC SUPPORT

- ❖ Supporting TI notebook user for over 5 years
- ❖ Dedicated technical support phone line

#### WARRANTY

- ❖ 12 months international warranty

CALL OUR SALES TEAM NOW ON

**01923 24 98 98**  
**FAX: 01923 24 97 77**

### TravelMate 4000M Series

- ❖ 50Mhz to 100Mhz processors
- ❖ TFT and DualScan Screens
- ❖ Fast SCSI II port
- ❖ MultiMedia Ready
- ❖ 4MB RAM to 20MB RAM
- ❖ Long battery life

### FROM ONLY £1199

i486 SX2/50 340MB TFT .....	<b>Call for New Prices</b> <del>£1199*</del>
i486 DX2/50 455MB TFT .....	<del>£1499*</del>
i486 DX4/75 455MB DS/TFT from ..	<del>£1799</del>
i486 DX4/100 525MB TFT .....	<del>£2499</del>
CD-ROM Docking Station .....	<del>£399</del>

\*While stocks last

### Microlaser Printer Series

- ❖ 5PPM to 12PPM
- ❖ Up to 65 PostScript Fonts
- ❖ Parallel/Appletalk/Network/Serial
- ❖ Large selection of configurations
- ❖ Small Footprint

### FROM ONLY £369

MicroWriter 5PPM 300dpi PS23 .....	<b>Call for New Prices</b> <del>£479</del>
MicroLaser 600 5PPM 600dpi PS23 ..	<del>£599</del>
ML PRO 600 8PPM 6MB 600dpi PS23 ..	<del>£859</del>
ML PRO E 12 PPM 3MB 600dpi .....	<del>£969</del>
ML PowerPro 12PPM 6MB 600dpi PS67 .....	<del>£1099</del>

Public Sector and PLC Purchase Orders Welcome. Credit Cards not debited until goods are despatched

**Call us today for current pricing and special offers**

A full range of accessories is available - Please call



# MPC

MPC International (UK) Ltd

MPC International (UK) Ltd., 11 The Courtyards, Croxley Business Park, Hatters Lane Watford WD1 8GL Tel: 01923 24 98 98 Fax: 01923 24 97 77

Prices exclude VAT. Delivery from £10.00. Prices and specs subject to change without notice. Goods not sold on trial basis. VISA and MC accepted. MPC's terms & conditions apply. Call for details.



SOFTWARE

# Calera WordScan Plus 4.0

There are no changes to the interface of this veteran desktop OCR package, but it is accurate and fast and does the job extremely well. Panicos Georgiades and Gabriel Jacobs report.

**O**CR (Optical Character Recognition) software converts printed text and numbers from a scanned bitmap image to an ASCII or other text file format which can subsequently be read by a word processor or other application. Its uses are many and varied, ranging from publishing to setting up full document image systems.

WordScan Plus is one of the top desktop-computer OCR programs and a long-standing workhorse in this field. Indeed, PCW has reviewed several earlier versions over the years, often comparing it with its principal rival, OmniPage. The

last time we reviewed it, it was produced by Calera. Calera and Caere (the producers of OmniPage) have always competed for the Number 1 position in OCR software. Sometimes one product has been ahead, sometimes the other; a bit like MS Word and WordPerfect, or Excel and Lotus 1-2-3. However, in December 1994 the companies merged, so it looks like it's all quiet on that front.

The last time we compared the two products, we found that WordScan was faster and more accurate, but that OmniPage had more features, including an image editor and a training mode. That's

still true, but WordScan now offers even greater speed and accuracy. As with all OCR programs, results ultimately depend on the quality of your original documents, but in almost all our tests the new version has proven perceptibly faster than before and has produced fewer errors — in

fact, up 50% fewer. The user interface hasn't changed almost at all since the last update, but there was little need for any change because in use the program really is child's play.

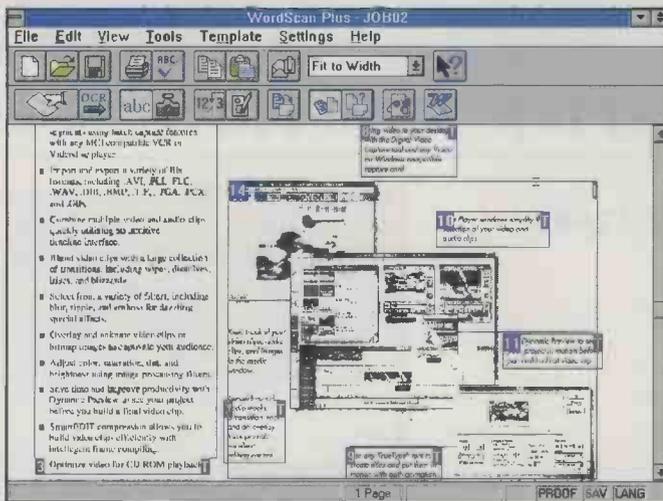
The improvements in speed and accuracy are no doubt due to the program's new recognition engine based on POWR (Predictive Optical Word Recognition). This 32-bit neural network technology extends OCR from character level to word level recognition. Similar technology has been used in speech recognition and DNA matching, but to our knowledge this is the first time it has been applied to OCR.

Attempting to recognise whole words as opposed to individual letters ought to be dreadfully slow because of the vast number of possibilities. POWR, however, uses sophisticated algorithms which enable the program to home in on the most probable interpretation, no mean feat when you have a choice of 13 languages (US and UK English, French, Brazilian, Danish, Dutch, German, Italian, Finnish, Norwegian, Portuguese, Spanish and Swedish).

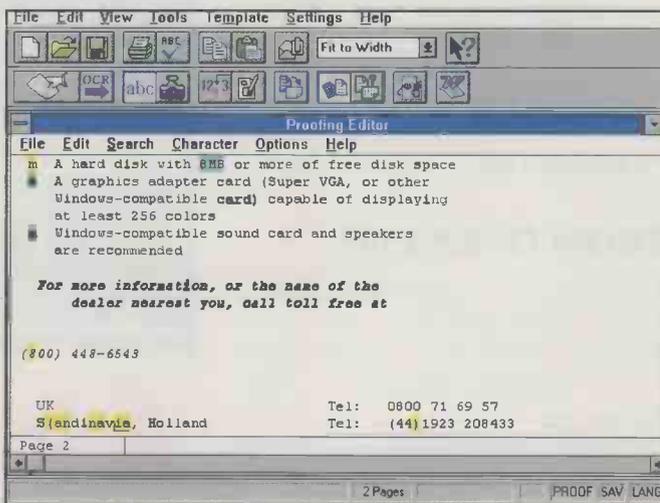
POWR also helps a great deal with the recognition of poor-quality documents, either those which have become degraded from multiple generations of copying, or those which have started off in a pretty poor state such as standard-mode faxes and 9-pin dot-matrix printouts. On documents of reasonable quality, results are very impressive indeed, giving high degrees of accuracy, especially on point sizes between 4 and 28; WordScan is not too good with larger point sizes.

There are OLE 2.0 links to the three office suites (Microsoft, Lotus and Novell), as well as to email and fax software: you can simply carry OCR operations into many packages using drag and drop. And you can work directly from an image file or a fax card, thus entirely obviating the need in such cases for printed documents. Again, you need only drag and drop an image file onto the WordScan icon for the recognition process to begin.

The program can take input from a scanner in portrait or landscape modes, upside down or the right way up. It can also happily handle documents skewed by up to 10 degrees. This means that you don't have to worry too much about lining your documents up too accurately, something which used to be a major cause of error when using OCR software. Over 35 models of scanner are supported, and if



**Above A** scanned page with text and image regions assigned by the program **Right** WordScan's pop-up verifier: yellow marks uncertain characters, blue is for words not found in the program's spell-checker



# COREL CD OFFICE Companion™

The best CD to complete your office suite

## Internet Web Browser and Fax

### Corel Web Mosaic™

- Built-in playback support for AIFF and AU audio files
- Direct display of GIF and JPEG images
- Full printing applications

### CorelFAX™

- Send faxes from within any Windows application
- Built-in OCR and TWAIN-compliant scanning
- Send and receive faxes in the background

## Personal Information Manager

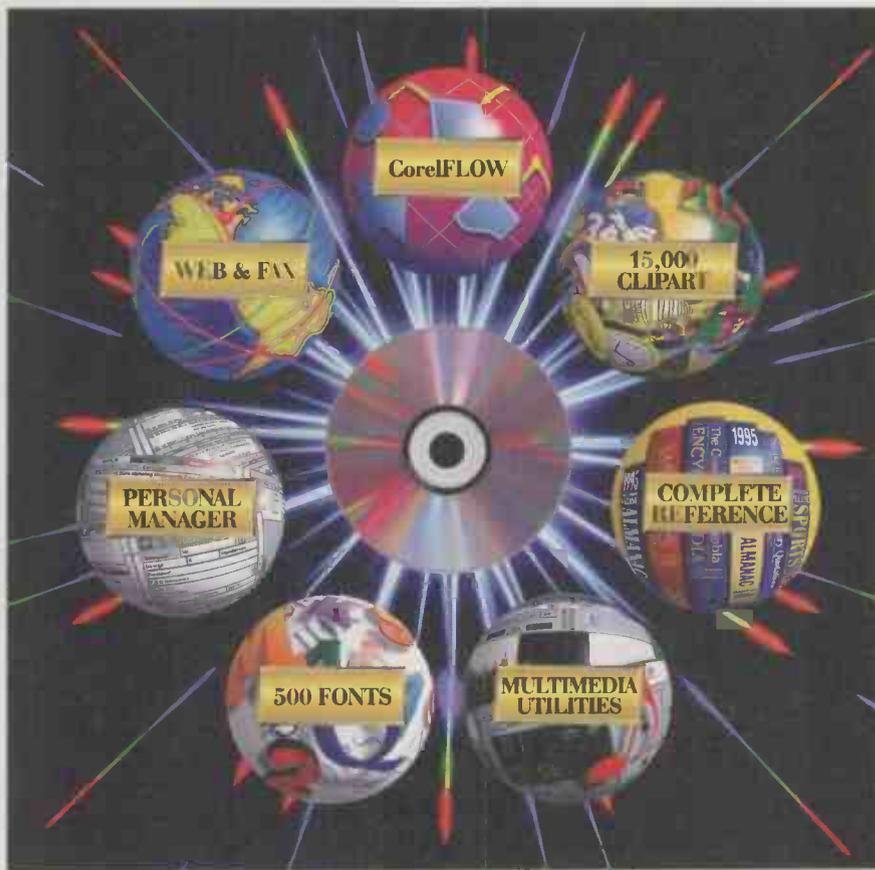
### Corel PLANNER™

- Cross-reference information easily by linking related items together
- Daily, weekly, monthly and yearly calendar views for planning appointments and activities

## Fonts

### Corel FONT MASTER™

- 500 high-quality Bitstream® and URW™ fonts
- Preview fonts, assemble font groups, install and de-install TrueType® fonts on the fly



## Business Graphics

### CorelFLOW™ 2\*

- 2,000 "drag and drop" symbols
- 90 customizable Smart Symbol Libraries
- Built-in spell checker
- Automatic shape connectors

## Clipart and Photos

### Corel GALLERY™ 2\*

- 15,000 clipart images
- 200 photos and 75 sound clips
- Full-colour reference guide with thumbnails of each clipart image

## Complete Electronic Reference

### Corel BOOKCASE™

- 6 comprehensive references
- *Correspondence Library*—700 standard business letters

## Multimedia Utilities

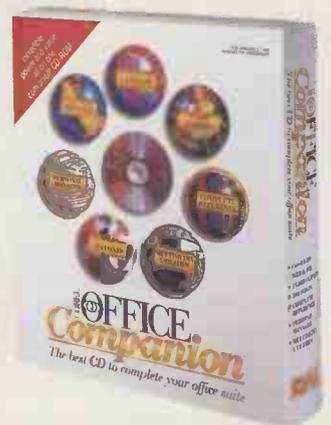
- *Corel CD Audio™*—Listen to your favourite audio CD from your CD-ROM drive
- *WinTune™ 2.0*—System diagnostic indicator to optimize the performance of your PC
- *WinDat™ .WAV Editor*—Record and edit sound clips
- *Corel Screen Saver* and *Wallpaper Flipper*

You've got your office suite... but to maximize your productivity you need Corel CD Office Companion. It's value-packed with World Wide Web and fax communications, business graphics, PIM, clipart, fonts, reference libraries and multimedia utilities—all on one convenient CD-ROM!

Corel CD Office Companion—the ideal complement to:

- Microsoft® Office
- Novell® PerfectOffice™
- Lotus SmartSuite®

Incredible power and value all on one convenient CD-ROM



\*Clipart, font and photo libraries vary from the standalone versions of CorelFLOW 2 and Corel GALLERY 2.



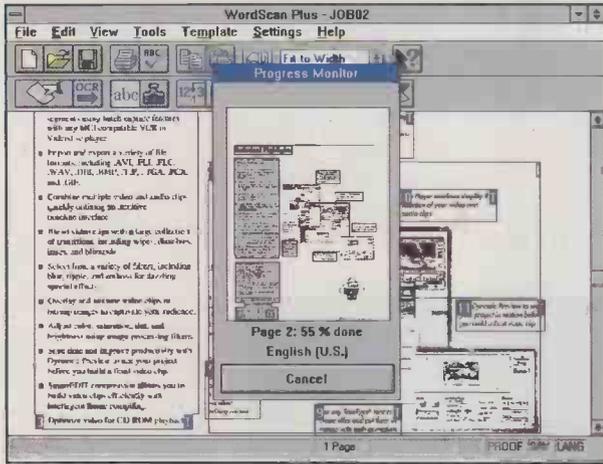
Microsoft is a registered trademark of Microsoft Corporation, PerfectOffice is a trademark of Novell, Inc., and SmartSuite is a registered trademark of Lotus Development Corporation. Microsoft Corporation, Novell, Inc. and Lotus Development Corporation make no endorsement of Corel or Corel CD Office Companion.



Ring 01675 466467

or visit our stores in:  
Birmingham, Bristol, Leeds,  
London and Manchester

**COREL**  
0800 581028  
Corel Service Centre  
Channel MarketMakers  
Tel: +44 01703 814142  
Fax: +44 01703 813830



WordScan during the processing of a page

of over 40 file types, including all the common word processor formats (keeping the formatting of the original document — bold, italics, line spacing and so on), and about a dozen variations of PCX, TIF and PDA

digitised image can't be understood by a word processor, spreadsheet or database.

This is a truly professional program that will handle just about anything you throw at it, and any reservations we may have are minor. We did have a problem during installation, concerning the product serial number, but we've been assured that this has now been sorted out.

Minimum requirements are a 386 with 4Mb RAM, DOS 5.0 and Windows 3.1. We recommend a faster processor and more than 8Mb of RAM. The program comes on 13 disks and takes 12Mb — twice the size of the previous version, which shows that in this case an update is really more of a re-birth.

you have a scanner with an automatic sheet feeder, you can run the program in full batch mode. Otherwise, you can opt for deferred processing: scan a number of documents individually, store the bitmaps, and do a batch recognition job. The program can handle double-sided documents too.

After the OCR process has been carried out, a pop-up verifier window displays highlighted suspicious letters and words for you to accept or correct.

On the output side, you have a choice

image formats.

WordScan is able to save regions of a document which you designate as straight image files rather than text to be translated into machine-readable form. These image files can then be attached to pages which have been OCR'd. So, with the kind of DTP facilities offered by modern word processors, it's quite easy to recreate electronically the full version — text and images — of printed documents. A scanner without OCR software will do that too, but the resulting

**PCW**Verdict

One of the top two or three OCR programs for the PC, often found to be the fastest and most accurate of them all. The last version offers even more accuracy and speed but no changes to the user interface.

Price £495 (SRP), upgrade £129  
 Contact KUK Information Centre  
 0171 630 5586. Fax 0171 630 5587

**HARDWARE**

# Pioneer DRM-624X

Pioneer revolutionised the CD-ROM market with its six-disc changer. Now it has bumped the speed up and the price down, says Gordon Laing.

Several years ago, Pioneer stunned the computer industry with a groundbreaking new product. The DRM-604X was the world's first production-line SCSI quad-speed CD-ROM drive. Quad-speed still commands respect and admiration today, so imagine everyone's surprise when the 604X turned up before even double-speeds became widespread.

As if it wasn't enough to quadruple the standard at the time, Pioneer fitted its speedy number into a shoebox-sized metal case along with a little inspiration from its in-car entertainment division: a six-disc CD-changing mechanism. Indeed, the 604X used the same six-disc caddy as Pioneer's popular car changers.

The whole idea of a changer is that you load your favourite discs into the caddy, then use a remote means to conveniently swap between them — this

allows you to locate the changing mechanism out of the way. In a car, you can stick the changer in the boot. In the case of CD-ROM, you could pop it under your desk, or even hang it off a server, in a different room.

If you do have a CD-ROM drive shared as a network resource, what disc do you load? With six to choose from, Pioneer's changer proved to be a winner, particularly in the case of large databases or directories which span several CDs.

Then there's the aspect of security. Such discs may be worth a fortune, so Pioneer offered a lockable eject button — no running off with precious goods if the administrator wants to play god.

The price for all this, was, well, price. Pioneer wanted a hefty £1,280 for the 604X but customers still queued round the block. So much so that Pioneer

stacked three into one box, creating an 18-disc changer, then went berserk and converted an innocent-looking jukebox into a 500-disc changing monster.

Where do you go from there? Several years on, Pioneer has given up charging — or perhaps the consumers have given up paying — the earth for its products. It's not so much the changer that springs to mind, but its single-disc quad-speed SCSI drives whose prices held as everyone else's tumbled.

Fortunately, Pioneer saw the error of its ways and recently dropped its prices all round. In August 1995 we looked at the new 124X SCSI internal drive, boasting not quad but 4.4 speed performance and an Advanced Buffering System for a very competitive £239. There is a purpose to all this history, honestly, since the new 624X reviewed here is basically

**NEW!**



## CorelDRAW 6 is here!!!

With awesome speed, power and accuracy plus hundreds of enhancements,

CorelDRAW 6 reaches a new level of graphics productivity. CorelDRAW 6 offers fully-featured software applications for illustration, photo-editing and bitmap creation, business and multimedia presentations and 3D rendering. Plus nine great utilities and incredible libraries.

CorelDRAW 6 - Multiple Document Interface, increased speed and power



Corel PRESENTS 6 - CorelMOVE, CorelCHART and CorelSHOW integrated into one professional presentation module



CorelDREAM 3D 6 - Powerful 3D software with easy-to-use CorelDRAW interface



Corel PHOTO-PAINT 6 - More speed, unlimited file size support



### Includes

- CorelDRAW 6
- Corel PHOTO-PAINT 6
- Corel PRESENTS 6
- CorelDREAM 3D 6

### Plus

- 25,000 clipart images and symbols
- 1,000 photos
- 1,000 TrueType® and Type 1 fonts
- over 500 3D models



Microsoft  
**Windows 95**



**Ring 01675 466467**

or visit our stores in:  
Birmingham, Bristol, Leeds,  
London and Manchester

**COREL®**  
custserv@corel.ca  
0800 581028  
Corel Service Centre  
Channel MarketMakers  
Tel: +44 01703 814142  
Fax: +44 01703 813830

# Larger Monitors Higher Resolutions Higher Refresh Rates

How is  
that possible???

It's easy:  
More Colors

with a

64- or 128-bit

Graphic Accelerator

from Number Nine !!!

Stop the bottleneck in your PC with a  
64- or 128-bit Graphic Accelerator from Number Nine.

for any application - from Windows 3.1 to Windows 95, Multimedia  
to games, DTP to CAD, Warp to NT or complex picture publishing

and for any budget - graphic boards from Number Nine  
speed up and accelerate your PC's performance.

**Imagine 128 / Pro**  
For power hungry Pentium  
users and graphic pro-  
fessionals who demand only  
the best performance

- 128-bit Graphic Processor
- 2, 4 or 8 MB VRAM
- Resolution up to 1600 x 1200
- with 16.8 Mio. colors
- RAMDAC up to 250 MHz
- Refresh Rates up to 200 Hz
- PCI Bus
- HawkEye for Windows

**9FX Motion 771**  
The ultimate 64-bit VRAM card  
for demanding Windows and  
multimedia applications

- Graphic Processor S3 Vision  
968 with Video Acceleration
- 2 or 4 MB VRAM
- Resolution up to 1600 x 1200
- True Color up to 1152 x 864
- 220 MHz RAMDAC
- Refresh Rates up to 150 Hz
- PCI or VESA Local Bus
- HawkEye for Windows
- MPEG Software Decoder

**9FX Motion 531**  
Perfect for Windows,  
Multimedia and Games

- Graphic Processor S3 Vision  
868 with Video Acceleration
- 1 or 2 MB DRAM
- Resolution up to 1280 x 1024
- True Color up to 800 x 600
- 135 MHz RAMDAC
- Refresh Rates up to 150 Hz
- PCI or VESA Local Bus
- HawkEye for Windows
- MPEG Software Decoder

**9FX Vision 330**  
Ideal boost for Windows  
performance and DOS games  
acceleration

- Graphic Processor S3 Trio 64
- 1 or 2 MB DRAM
- Resolution up to 1280 x 1024
- True Color up to 800 x 600
- 135 MHz RAMDAC
- Refresh Rates up to 150 Hz
- PCI or VESA Local Bus
- HawkEye for Windows

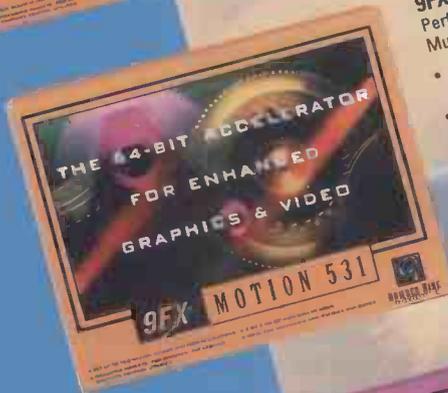
NUMBER NINE  
VISUAL TECHNOLOGY  
2 Station Cottages  
Bagmore Lane  
Herriard, Hampshire, RG25 2PY  
Phone 01256-381194  
Fax 01256-381194



PERFORMANCE RAISED TO THE POWER OF 9

For more information please send coupon to: Number Nine Visual Technology  
2 Station Cottages, Bagmore Lane, Herriard, Hampshire, RG25 2PY or  
fax to 01256-381194  
We are:  Enduser  Dealer  Distributor

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Street \_\_\_\_\_  
Post Code, City \_\_\_\_\_  
Phone / Fax \_\_\_\_\_



a cross between the old 604X changer and the new 124X speedy drive. The really special part is that Pioneer has whacked the price of this new drive down to a remarkable £499.

That about says it all. Beyond the above, Pioneer has streamlined the case so it's a little shorter, with more curves. The two lights which indicated audio (single speed) or quad speed have been replaced with a single, busy LED.

Despite being quad speed, the old 604X was a little slow on average access times, but both access and transfer rate have been improved by fitting exactly the same transport as the 4.4-speed 124X. Sustained data transfer rates exceed 670Kb/s (quad is around 600Kb/s), and average access times are around 150ms; network configurations would also make more use of the Advanced Buffering System.

The 624X is a SCSI-2 device, so you'll need a SCSI card to make it work. We say this every time we review a SCSI device, but the best and most reliable cards we've used are from Adaptec. These range from ISA adaptors like the 1505 costing around £50, to the PCI-bus mastering adaptors such as the 2940, costing £210. Any of these will work with the 624X, which connects via two full-sized SCSI ports.

The software drivers are quite neat. There's only one CD-ROM drive reading mechanism in the 624X, but under DOS and Windows you'll see six drive letters. Selecting one prompts the unit to swap to the desired disc, which takes around eight seconds. Sometimes it's a little infuriating as you wait for it to change over but it's quicker than doing it by hand on a conventional drive, particularly if the drive's on the other side of the room or in another one entirely.

If there aren't enough drive letters available under DOS, an additional utility can assign the unit under a single letter with the help of extra switching software.

On a Macintosh the driver loads as a special extension, offering the choice of six discs on a pull-down menu next to

the Finder. Only the disc currently under the scrutiny of the laser is mounted on the desktop.

By more than halving the price, Pioneer has opened its disc-changing technology to the masses. I can picture many SoHo or even personal situations which would now consider the 624X instead of a single-disc CD-ROM drive. Many games players wouldn't flinch at the price after shelling out thousands on a machine to run Descent that bit smoother – remember that games such as 7th Guest, Wing Commander III and Creature Shock all run over more than

one disc. Pioneer has no immediate plans to swamp the games and consumer press with ads for the 624X, instead aiming it, like the 604X, as a shared network resource. If this was the prime intention, then I would have liked to see an Ethernet connection, IPX or even TCP/IP support as standard. Third parties offer suitable solutions, such as Microtest's Discport which allows any SCSI CD-ROM drive to be hung directly off a network node. I have just installed the 624X and Discport on our Novell thin Ethernet network and it seems to work like a dream – I'll do a full review next month.

Whichever way you look at it, the 624X is a winner, offering the same excellent performance as the 124X with the convenience of a six-disc changer, in a lovely box for the bargain price of £499.

### PCW Verdict

Pioneer has taken its original £1280 six-disc CD-ROM changer, sped it up to 4.4 speed, fitted it in a slighter smaller, better-looking case, and dropped the price to £499. Hurrah!

Price £499

Contact Ideal Hardware 0181 286 5000.

Fax 0181 286 5056



## SOFTWARE

# 3D Garden Designer 2

The grass grows as high as an elephant's eye, as James Taylor digs in and attempts to bring order to his personal jungle with the aid of this software

Software that adds to your lifestyle away from the keyboard is all too rare, and 3D Garden Designer 2 is one of these rarities. One of the problems of conventional garden design, on paper, is that you need to draw all your elevations as well as your plan to be able to visualise the overall layout. If you get it wrong, you start again with a fresh sheet of paper. But 3D Garden Design overcomes this.

You start with simple geometrically-shaped plots. The landscaping graphics you add to these can then be viewed in elevation and 3D perspective. The

graphics include trees, shrubs and flowers which can be identified on the plan and listed separately in an inventory. You can specify growing conditions (soil type and temperature, aspect, latitude, and minimum air temperature) to help refine plant selection from the database. Both inventory and garden design can be printed out, although the latter is not dimensioned. Pre-drawn gardens, of various types, are supplied for inspiration and practice.

The plant database (over 600 plants) allows selection by almost any criteria imaginable. Each description includes

height, spread and colour of leaf, bark and flower, as well as the plant's shape and height in ten years' time and when the plant is fully grown. You can add plants to the database, including shape, colour, season and all the other criteria needed for their selection. Additionally, the database can generate a plant palette showing the current selection, and this can be sorted by Latin name, common name, or height and spread.

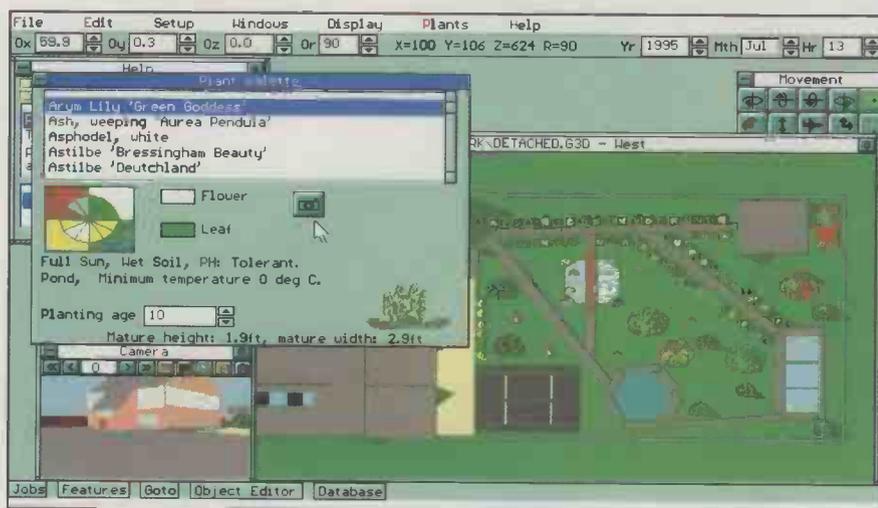
When you first place plants in the garden they will appear in size as ten-year-old plants. That's useful enough, but your garden can age before your very eyes, too, showing how big the trees and other plants will be in another ten or even 20 years' time (a very useful feature to prevent you placing a weeping willow three feet from your door) and showing their changing colour throughout the seasons.

Not only this, but when you place a plant or object in your garden 3D Garden Designer 2 checks against the information it holds about your garden and warns you (if necessary) about planting position and distance, soil acidity, temperature, sun and shade. This is a highly practical program.

As in version 1, the program allows you to position objects in plan with the automatic generation of a side view and the ability to rotate either view through 360 degrees. Using virtual reality techniques, you can then go into your garden and look around it, viewing it from any angle; or step outside and see how it looks from a distance. But this is where it gets tricky.

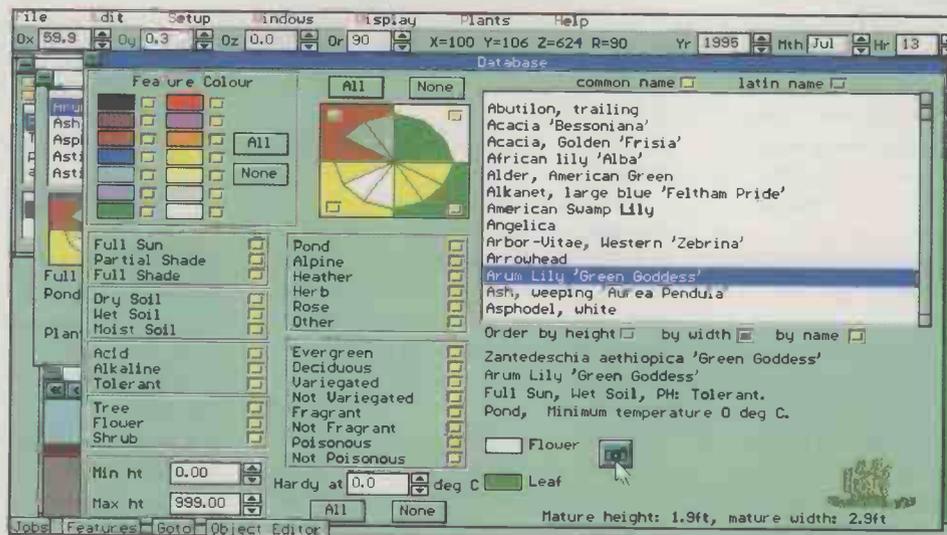
All of 3D Garden Designer's views are in fact *your* viewpoints. So instead of scrolling the image *down* the screen, you

move your viewpoint *up* the screen. This translates to using the up arrow to move the garden down the screen, and the down arrow to move it up the screen. Similarly, the left arrow moves the garden towards the right, and vice versa. The



**Above** The plant palette holds your short-list of preferred plants which can be positioned to suit in your design

**Right** The plant database allows selection by practically any combination of criteria. Some entries, indicated by a button, have associated CD-ROM photographs



zoom only works in elevation rotation and depends on whether you're inside or outside your garden. Any movement is slow.

Two other features make their own contribution to your garden design. The first is the "camera" which lets you record different views as you go, to refer to later, and you can also use it to create a moving video sequence. The second, available only with the CD-ROM version, is a collection of photographs of some of the plants in the database (indicated by a

button). But the photo collection is not complete: for instance, considering the extraordinarily large number of Acers included, three photographs seems mean, and no photographs at all of Wisteria is positively miserly.

3D Garden Designer runs under DOS or Windows, requires at least a 386 processor, 580K conventional memory, and a VGA colour monitor. To look at the photographs you need a CD-ROM drive and VESA-compatible display.

### PCW Verdict

Useful (and fun) landscape design and layout software. The concept is excellent, the detail impeccable and there's a high level of gardening expertise supporting it.

Price £29.99 inc VAT

Contact Europress Software 01625 859333.

Fax: 01625 879962

## HARDWARE

# Pentax PocketJet

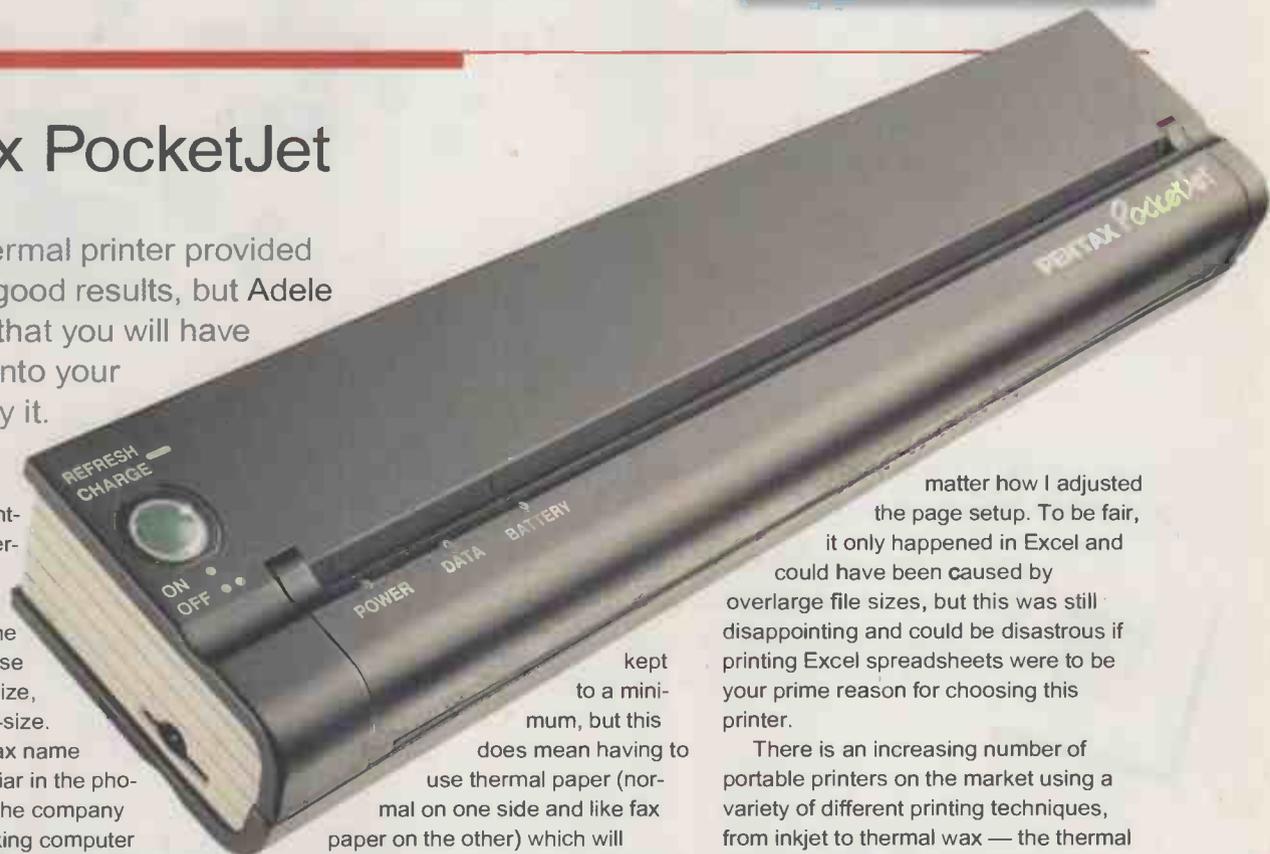
This little thermal printer provided reasonably good results, but Adele Dyer warns that you will have to dig deep into your pocket to buy it.

Like desktop printers, portable versions have been getting smaller and smaller over the years: from briefcase size, to notebook size, and now to pocket-size. Although the Pentax name may be more familiar in the photographic market, the company has also been making computer peripherals for some time. The PocketJet is its latest entry into the portable printer market.

Although the prefix "pocket" often raises doubts, the PocketJet is nevertheless small and light. Pockets the size of a small rucksack are usually needed to transport anything that is so-called "pocket-sized", and in the case of the PocketJet your pockets should be at least a foot deep. However, the other dimensions are modest: one inch high by two inches deep. It weighs only slightly more than 1lb, including the rechargeable battery.

The problem of fitting a large parallel port to a small device is solved by using an inch-wide connector at one end. Pentax supplies a suitable cable with this plug on one end and a standard PC parallel plug on the other.

As it's a thermal printer the spares are



kept to a minimum, but this does mean having to use thermal paper (normal on one side and like fax paper on the other) which will inevitably fade in time and is not as pleasant to use as plain paper.

There is no paper feed, so you must carefully manoeuvre each sheet into the printer individually and hold it there until the printer is ready to grab it. The instruction book suggests you hold it in place, but I discovered it was quite happy to pull through by itself.

As for the actual print quality, it is reasonably good. Simple text documents are clear, even in tiny point sizes, and spreadsheets are well reproduced too. While not specifically designed to handle graphic images, particularly fine shading, it handled solid areas of black well, without banding.

However, not all Windows applications are easy to set up properly. When I tried to print spreadsheets I hit an annoying problem: the formatting constantly split away from the rest of the spreadsheet, no

matter how I adjusted the page setup. To be fair, it only happened in Excel and could have been caused by overlarge file sizes, but this was still disappointing and could be disastrous if printing Excel spreadsheets were to be your prime reason for choosing this printer.

There is an increasing number of portable printers on the market using a variety of different printing techniques, from inkjet to thermal wax — the thermal wax Citizen PN-60, for instance, which uses plain paper for around the same price.

Considering the limits of the PocketJet — it is black and white only, uses thermal paper and has no paper feed — its price in relation to those of its competitors might prove to be a stumbling block.

### PCW Verdict

Light and portable, but of average quality considering the price.

Price £399.95 including 100 sheets of thermal paper

Contact Eurotech 0181 951 4665.

Fax 0181 951 5857

# From books to windows in one easy step.



Pegasus Capital is the exciting new software package for complete accounting control.



It combines the full range of computerised business accounting functions with the practical simplicity of on-screen windows. Access to information is easy,

reports are quick to prepare, and there are comprehensive help and search facilities.

Pegasus Capital is your window of opportunity for computerised accounting. Call us today or return the coupon for an information pack and free demonstration disk.

**RRP £550 + VAT**

## Pegasus @capital

*The Future of Computerised Accounting*



**PEGASUS**  
Business Software

To: Dept. Cap1, Pegasus Software Ltd. FREEPOST NH4169,  
35-41 Montagu Street, Kettering, Northants. NN16 8BR  
Tel: 01536 518000 Fax: 01536 518118

Name	_____
Company	_____
Address	_____
	_____
Postcode	_____
Tel. No.	_____
Send me further information on Pegasus Capital	<input type="checkbox"/>
Send me further information on other Pegasus products	<input type="checkbox"/>
Do you have a Pegasus reseller? Yes/No	

## SOFTWARE

## Arc en Ciel address utility

You can't get (ad)dressed without it — a postcode, that is. And in the wake of the Royal Mail's Postcode Address File have come numerous address and postcode utilities, of which Arc en Ciel's is one. Eleanor Turton-Hill looked at it.

Postcodes were introduced by the Royal Mail in 1966 to speed up the sorting of mail. It took eight years to complete the full postcoding system for the UK, finishing in 1974. Using sorting machinery and OCR equipment, postcodes these days allow letters to be sorted up to 20 times faster and more accurately than by hand, whether the address is hand-written or typed.

Although the postcode system was originally developed to make the postal service more efficient, it's obvious that a complete listing of all UK addresses and postcodes is an invaluable source of information to businesses.

About a year ago, the Royal Mail wised up to this fact and produced a Postcode Address File (PAF) on CD-ROM. This contains postcode and address data for the entire UK — that's over 600Mb of data in the form of 25 million UK

addresses, 1.25 million business addresses and 1.6 million postcodes. The standalone version, Address Finder National, costs £445, and a second version, the Address Manager, costs a massive £1,200. The latter contains ordinance survey references and grid references and has an export facility.

Recently, a spate of address and postcode utilities based on the Royal Mail's PAF have appeared on the market. These attempt to provide improved versions of the PAF by including facilities which help to integrate the data more effectively with existing applications, provide data correction utilities and improve

the speed of data access. The offering reviewed here, from Arc en Ciel, has several characteristics which make it easier to install and use than the Royal Mail's own system.

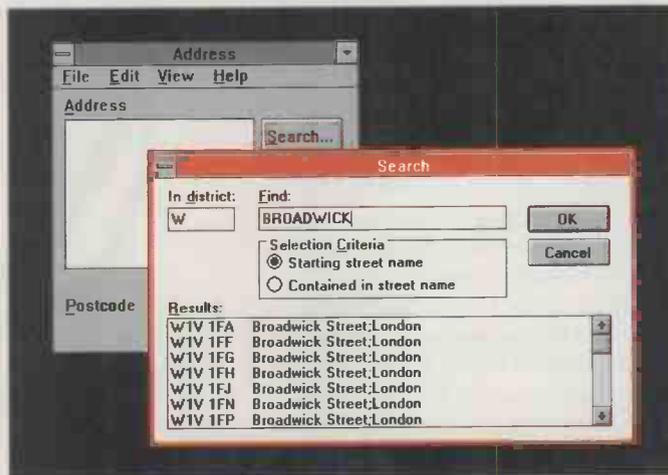
Firstly, it's available on disk, unlike the PAF which is available only on CD-ROM. That's not to say that it's impossible to get the data on disk from the Royal Mail. You can; but there are over 120 disks and the data takes up over 600Mb of your hard disk which is hardly a practical proposition. What really puts a damper on the idea is that the disk version, unlike the CD-ROM version, has not been

regularly updated.

The great thing about the Arc en Ciel application is that by using compression techniques, it manages to pack the entire PAF into just under 10Mb. The application comes on eight separate disks, each of which represents a different geographical area, and the program allows you to install as many or as few areas as you want.

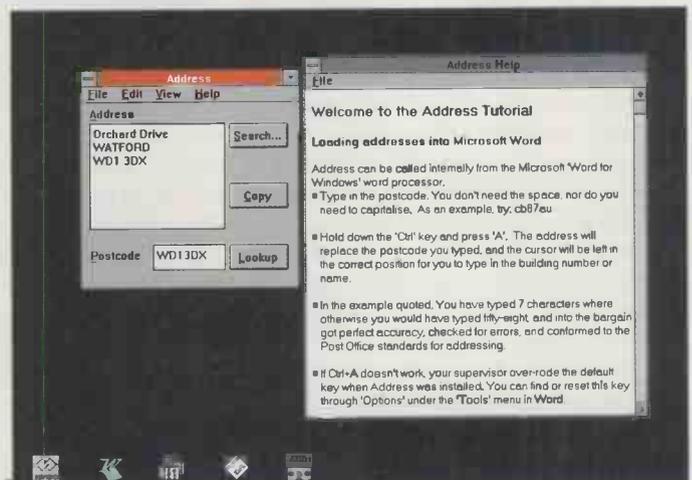
The address application itself comes in the form of a small dialogue box offering simple searching utilities. The main screen acts as a simple address retrieval system — enter the full postcode, click on the "lookup" button, and the corresponding address appears. If you don't know the full postcode, a "search" button provides more sophisticated ways of retrieving data. This requires the first letter of the postcode, which narrows the search down to a specific area, followed by the complete or partial name of the street. A word contained in the street name will often produce a lengthy list of results. The word "queen", for example, produces all the street names within the defined area which contain that word, e.g. Queens Road, Queensway, Great Queens Avenue.

As an independent utility, this application works well. It sits in the corner of the screen and acts as a reference tool when you need to verify information. Retrieved data can be copied over to other applications using the "copy" button. But as well as working independently, it also integrates with MS Word and WordPerfect. Within Word, a macro is automatically inserted during installation and can be invoked using a simple key combination like Ctrl-A, which allows you to type a postcode into a document and immediately call up the corresponding address



**Above** If you don't know the full postcode, you can search the database using a distinct letter

**Right** Comprehensive help facilities are incorporated into the software



which is written directly onto the document.

For programmers who want to integrate data into custom applications, there's a separate executable file provided called addressc.exe. This is a function which can be called in code to accept a postcode in the form of a character string and return an address. Unfortunately, there's no facility for searching the database in more sophisticated ways. The only way of narrowing down a group

of records is by setting up a loop which continually calls the "addressc" function.

The major advantage of this system over others is its price — just £149 with an annual charge of £98 for data updates. Compared to similar products like the ones from Hopewiser and QAS Systems, the integration utilities on this application are rather limiting. On the other hand, this is the only version of the Royal Mail's PAF which fits neatly on your hard disk into a space of under 10Mb.

### PCW Verdict

Compacts a vast amount of data into a very small space and incorporates simple searching tools. Well worth £149.

Price £149 (£98 for annual updates)  
Contact Arc en Ciel 01273 721069.  
Fax 01708 872389

## HARDWARE

# Adaptec APA-1460 SlimSCSI

Installing the PCMCIA SCSI interface used to be tricky and confusing. The introduction of Windows 95, as Simon Rockman discovered, has made it effortless.

This was very nearly the shortest short review ever — the Adaptec PCMCIA SCSI interface worked.

It worked because it was first tested using Windows 95. The prime reason for using the card was to install a newer beta onto a Dell Latitude which was already running Windows 95. Plugging the card into the slot triggered Windows 95's Plug and Play, which recognised the card and asked for the right Windows driver disk. That done, the CD-ROM drive appeared as drive D: and everything was tickety-boo.

Installation under earlier iterations of Windows is less straightforward. Adaptec includes the EZ-SCSI software with the card. When EZ-SCSI was launched, it seemed just a sensible solution to the severe problems everyone encounters when trying to set up SCSI devices. Over the years, it has proved invaluable.

In a machine which has working card and socket services, setup is pretty straightforward: EZ-SCSI installs the software after the socket service power-up. In a machine without the card and socket services, you have to deal with the problems of memory areas and interrupts. This used to be a common nightmare but any recent notebook should not cause problems.

From then on it's plain sailing. The card will support the regulation seven SCSI devices, providing they are correctly daisy-chained. Being a SCSI-II device it will run at 10Mb/sec, but this is



hampered by PCMCIA transfer rates, resulting in a throughput of only 2Mb/sec. To be fair however most people will want to use it for CD-ROM drives, so speed is not too much of an issue. The card and software will work with multi-session Photo CDs.

The connector into the card and the cable itself are flat, leaving space for another adjacent PCMCIA card, so your only concern is power. Adaptec claims that the APA-1460 is relatively low-power at 0.3w when running and 0.2w in standby. Adaptec also claims that it is rugged, and this seems true. The cable plugs into the PCMCIA end with a couple of press-in clips and feels secure.

It uses a screened ribbon cable which terminates in a standard 50 connector, although a high-density version is available. At 3ft the cable is a little on the short side, which is fine if you have the first device on a desk next to the notebook but isn't quite as convenient if you want to use the machine on your lap with a cable to the attached devices. The SlimSCSI should be compatible with any SCSI device, but to be on the safe side Adaptec lists a handful of CD-ROM drives, SCSI tape drives, magneto-optical

drives, removable hard drives and scanners which the card definitely does support.

All hard disks *should* work, but make sure that you are not reading from or writing to the device when you remove the card. Windows 95 has special protection for this — you can ask the software when it is safe to remove the card. Ignoring the warning will cause a crash.

### PCW Verdict

A good, reliable way to add SCSI to a notebook, but a little pricey.

Price £195  
Contact 01252 811200.  
Fax: 01252 811212



## HARDWARE

## Vitec Video NT MPEG encoder

It's French, it's flash, it's a real-time MPEG encoder PC card for just £400. Video on the PC does come cheaper, says Tim Frost, but not at this quality.

From a starting price of £150,000, professional MPEG encoding systems have rapidly dropped to an entry level of £15,000, and earlier this year ReelMagic launched Producer, its PC MPEG encoder card for just a few thousand. But a new Video NT capture card from the French company, Vitec, simply astonishes in the way it has pushed back the MPEG encoding barrier by producing a real-time MPEG encoder PC card for a mere £400.

The card looks nothing much at all. It is half-length ISA with three main chips on it, a pair of Philips video in/out, and the VN422 video processor that does all the MPEG or AVI work. On the back is an S-VHS socket, a phono socket for composite video and a 9-pin D for connection to a SCART socket.

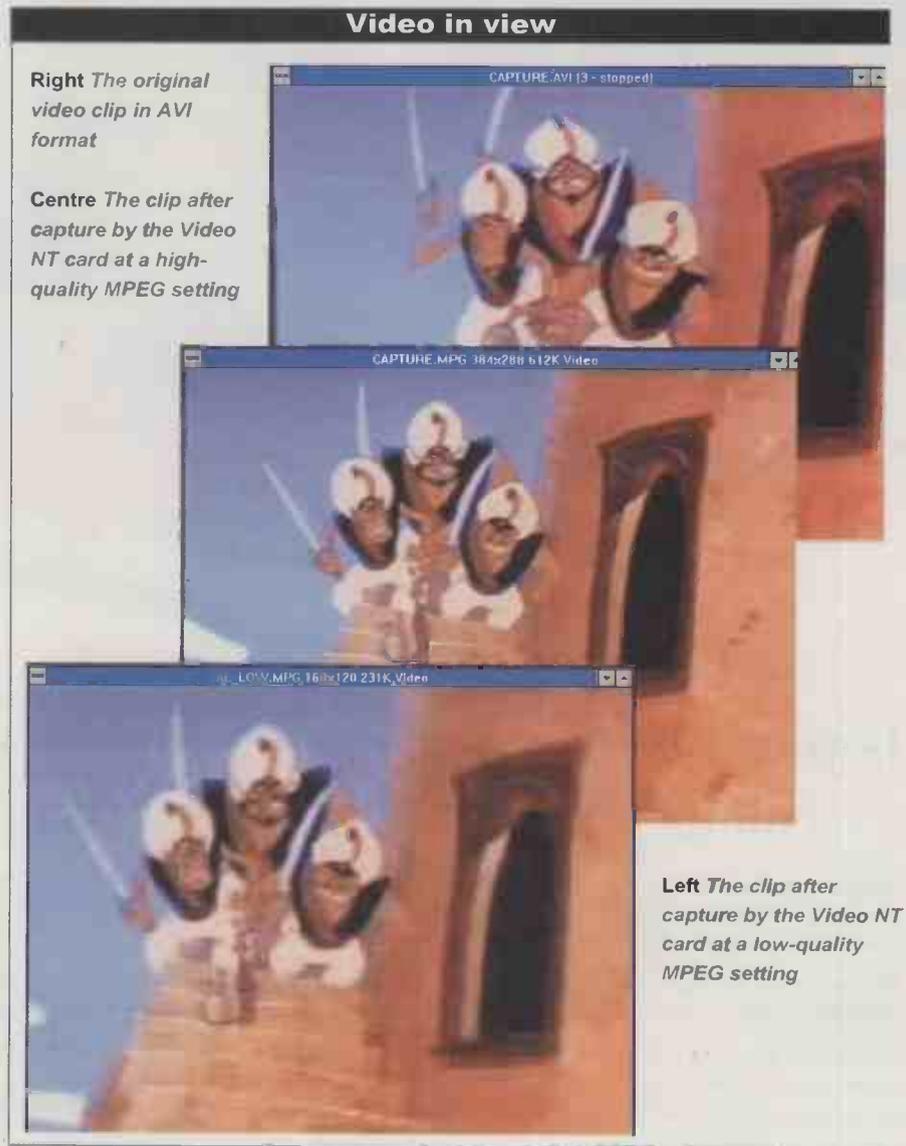
The card has got to be seen as an MPEG alternative to a standard capture card and will work on most 32-bit PCs, although the faster the PC, the faster the frame rate can be recorded.

The Vitec NT is there purely to get video onto the hard disk; it is not a replay card so you will need an MPEG video replay card and a SVGA card as well (Reelmagic's Rave combined SVGA/MPEG card was used on the test). The Vitec sends its data via the normal PC bus, so additional connections, either internal or external, are not required.

The software loads easily, although it does come in several sections which is a bit of a pain. As with all MPEG/video products, this is not bullet-proof and you may (or may not) have difficulties running the system properly on some setups.

The whole suite of software has been designed to either capture MPEG directly from a video source, or use AVI as an intermediary editing format and then to convert the final AVI movie to MPEG for storage and playback.

"Imager" is the video capture software, which encodes the incoming video in real-time as MPEG or AVI files. If you are capturing in MPEG (which cannot be edited at the moment, although editing



**Right** The original video clip in AVI format

**Centre** The clip after capture by the Video NT card at a high-quality MPEG setting

**Left** The clip after capture by the Video NT card at a low-quality MPEG setting

software is on the way) then it is simply a matter of defining the image size, the quality level and frame rate and setting the capture going.

One obvious limitation is that MPEG capture is at 384 x 288 resolution at the best. But by using the best compression quality, these MPEG images (at a maximum of 15 frames/second) can be replayed quite acceptably full screen. The other serious limitation, if you wanted to

consider this card as a VCR replacement, is that it only captures sound as a separate wave file (using your sound card). These files cannot be easily replayed at the same time as the MPEG images, so the Vitec should be considered as a provider of mute images of decent quality.

The MPEG image quality is a moveable feast with three variables: frame rate, resolution and compression. The

# Give yourself a head start – Upgrade to NetWare 4.1 now and save 20%



If you are an existing NetWare or e-mail user, give yourself a head start – upgrade your network with the very latest and most advanced Novell network solution – the NetWare 4.1 upgrade and GroupWise 4.1 upgrade.

A NetWare 4.1 upgrade will help your company operate even more smoothly than before, and at the same time, make

significant savings in both time and money.

And until **31 October 1995**, we are offering you a very substantial discount of **20% off the upgrade**.

Equally as attractive, and also available at a **20%**

**discount**, is Novell's GroupWise 4.1 upgrade (formerly

#### The benefits of the 4.1 upgrade

- Value for money
- Easy to use
- Greater return on investment
- Improved cost efficiencies
- Wide choice of network applications
- Enhanced printer management
- Increased workgroup productivity
- 20% discount until 31 October 1995, while stocks last

WordPerfect Office 4.0). This gives you

significantly improved network

communications, with one of the world's most versatile and fully integrated e-mail, calendar scheduling and task management functions.

**But remember – both discounts are only available until 31 October 1995, and only while stocks last.**

So be quick – make a dash to your local *Novell Authorised Reseller*, or call Novell's Customer Care Department for further information today on **01344 724 100**.

**NetWare 4.1 - The only network ready for tomorrow, today**

 **NOVELL**

frame rate is user definable; you can even use it for security camera-type stop frame, with each frame recorded from 1 second to 18 hours apart. In the normal video-capture mode 15 frames per second is possible in all image sizes up to 384 x 240 (providing your PC is fast enough) and this rises to a full 24fps when working at the smallest image size (160 x 120).

With MPEG you can blow the image up to full screen, but of course, the lower the resolution, the rougher the images become when enlarged. The compression ratio can be altered from x2 to x20 and each time you double the compression rate, you halve the amount of disk space required to record the file. x2 gives the best quality, and x10 is about as far as you can reasonably go before a larger image starts being lost under the blocks that make up the MPEG image. For small colour images, going down as far as x17 still produces recog-

nisable faces at a minuscule transfer rate of 6Kb/sec. Running at 320 x 240 and at x4 compression produces acceptable video-type results for quarter or half-screen replay, while consuming under 130Kb/sec.

The software suite includes Video Clip, a neat AVI editing package to construct AVI movies (including morphing) which you can then convert to MPEG using "MPEG Maker". There is also the software-only MPEG Player, which needs nothing more than an SVGA card to play out MPEG files at a few frames per second. This means that MPEG files can be viewed (albeit rather jerkily) by anyone with a PC who hasn't yet invested in an MPEG card.

In sheer image quality terms, the MPEG file is noticeably better than AVI while using at least a third less disk space. MPEG hardware's big advantage is that it always plays back at the right

frame rate, with no AVI jumping.

For MPEG encoding, the Video NT's £400 is stonkingly cheap; but at that price it has a lot of competition with more traditional capture cards that also offer audio. For the producer of video clips, with one eye on the near future when MPEG playback cards become as common and cheap as sound cards — or you just want to be the first with your own MPEG files — then this Vitec is a must-buy.

### PCW Verdict

There are cheaper ways to capture reasonable-quality video on the PC. But if you want MPEG, the Video NT is simply the only low-cost answer — and it works in real time.

Price £400

Contact Ideal Hardware 0181 286 5000.

Fax 0181 286 5056

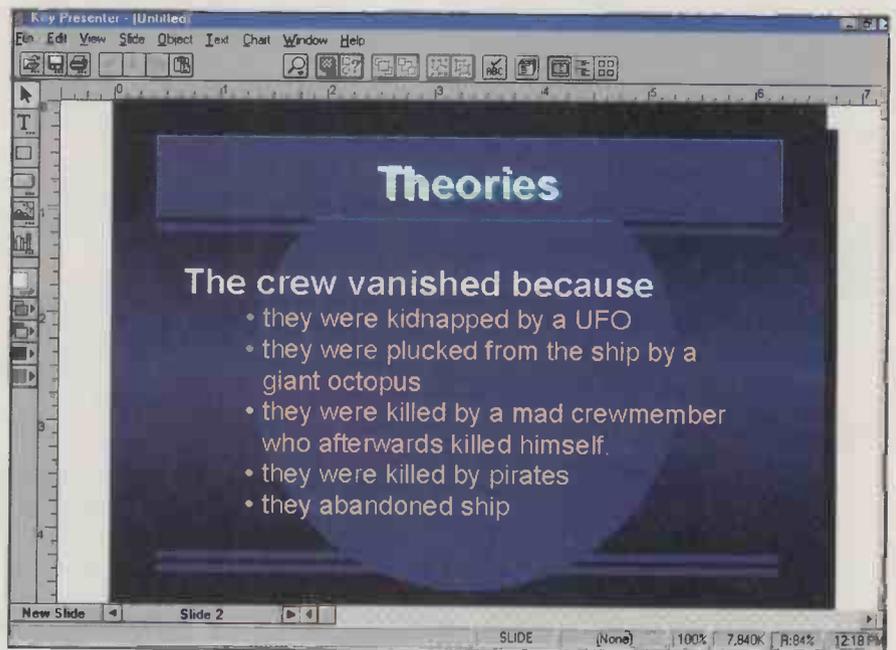
## SOFTWARE

# Key Presenter for Windows

Have you ever wanted to do a couple of presentations but been prevented by the cost of the software? Paul Begg presents his view that this product could be the answer.

Presentation software is a strange area: if you do a lot of presentations, you will almost certainly be geared up with all the high-end state-of-the-art presentation packages that provide the quality glitz you require. On the other hand, if you don't carry out many presentations but simply want to jazz them up, the price and complexity of the software will probably have proved prohibitive.

There have been a few budget-priced presentation packages, but generally you are looking at something in the region of £100 — still a lot of money for something you don't use very often. To break into the presentation market, you need quality software priced below £50 and which is so easy to use that you can be up and running with it even when it's been gathering dust for the past six months. Such an animal is Softkey's Key Presenter for Windows. It is easy-to-use, has some fairly heavyweight features (it'll double as a pretty neat drawing package) and will have a street price well within the budget of many small businesses.



Key Presenter has the features you would expect from a top-end presentation package: there's a full-screen editor

*Good-looking presentations at a great-looking price*

**People only notice  
who makes the laser printer  
when something goes wrong.**

**We're happy  
to remain anonymous.**



People don't pay much attention to our machines.

Sure, they walk over occasionally and pick up a document from the tray, they might even add paper every once in a blue moon (after every 1150 pages to be exact, with the 1260's advanced paper handling options).

But that's about as intimate as it gets.

Frankly, we're keen to keep it that way. That's why the Brother HL-1260 is packed with our best technology to date.

The result is a machine which boasts speed, intelligence and the capacity to handle anything a busy network can throw at it.

In business, time is money. So the HL-1260 doesn't hang about.

A 12 page per minute engine means urgent documents (and let's face it, they're all urgent) are processed in double-quick time.

What you gain in speed you certainly don't sacrifice in quality.

Combine Brother's High Resolution Control with Microfine Toner and a 600 dpi engine and the HL-1260 delivers remarkable 1200 dpi class output.

Put simply, it's a higher standard of printing.

If you magnified the letter 'B' for example, printed from a common or garden printer you'd notice a certain degree of fuzziness.

The same letter printed from the Brother, however, is pin sharp. All these demands would probably be a burden on an inferior machine's brain.

But the HL-1260 can cope. The standard 2Mb of memory combines with Brother's Enhanced Memory Management Technology to allow even complex files to be printed easily.

Network versions are also available with features specifically designed to reduce the chances of the dreaded network bottleneck.

But most of all, the Brother HL-1260 is utterly reliable.

Think of it this way. An eminent businessman once said that he hardly ever noticed when his staff did something right, he only noticed them when they did something wrong.

Perhaps that's why Brother is the last name on people's lips.

**brother**®

For more information on the HL-1260 call now on 0345 535 100.

Quoting Ref: PCW001.

for designing slides, an outline view of the text, and a slide sorter. Each of these "windows" offers different tools, all of which are available from the Slide View window.

Outline View displays a text outline of all the slides in your presentation. This not only gives you an overview of the text across multiple slides, but enables editing and cutting and pasting as well. With the Slide Sorter you can see all the slides in your presentation, rearrange them and rename them. Using the Speaker's Notes button, you can create notes to accompany the presentation — useful not only as a memory jogger, but also as a good place to store names, titles and other facts and figures.

Creating slides is easy: just select a

design from any one of an excellent collection of templates supplied, or create your own (there's a small library of clip-art to help you), and then add your text and personal graphics. You can choose colours and fonts for your text messages, and you get a full range of charting features too, including 3D rotation of charts. As well as this, there's a spelling checker to save you from embarrassment caused by those nasty typographical errors that everybody notices. And when you've done, you can output (use) the finished presentation in many ways: as slides, overheads, printed handouts, and so on. The choice is yours.

Key Presenter doesn't so much as nod in the direction of multimedia — there's

no provision for adding narration, music or sound effects to your presentation, and you can't do anything so glitzy as to add animation. But these weaknesses aside, Key Presenter comes at a good price and doesn't gobble up system resources. It'll run on anything from a 386 with 4Mb of RAM and takes up only 6Mb of hard disk space. Overall, the price is persuasive.

**PCW**Verdict

Easy to use, and produces professional results This is unbeatable value for money.

**Price** £46.95 (incl VAT)

**Contact** Sofkey 0181 789 2000.

**Fax** 0191 789 5626

SOFTWARE

# Rescue

There is nothing worse than a disk disaster, except perhaps an omnibus edition of Eldorado. Paul Begg reckons Rescue could be your insurance in the event of the former. The latter — it's too horrible for even him to contemplate .

**S**tick a pencil through a floppy. Go on, make a hole in it — that's right. Now try and read the disk...

Florida-based company, AllMicro, describes Rescue as "the most comprehensive, user-friendly data recovery software available." They go on to claim that it can recover data even from a disk the operating system can't read. Of course, to properly test this claim you must have lost some data, hence the encouragement to stick a pencil into a floppy.

Rescue has its own operating system, that overrides DOS, to directly move the disk heads itself. This is different from most other data recovery software which tries to repair the damaged part of the disk, then reconstruct the data. With Rescue, even if you are missing your boot sector (that's the bit of your disk that contains all the start up or boot information) you can still attempt a recovery.

It's ready to run right out of the box. But you don't have to install it to your hard disk — it can be run either from DOS or from Windows.

At the top of the screen are three text boxes telling you the status of Rescue. The first describes the drive that Rescue is reading, the second tells you what Rescue is doing, and the third refers to the sector being read. On the right-hand side is a scroll bar which you can use to view one sector at a time. On the left is a list of

files and directories. At the bottom of the screen there are nine buttons that perform various functions such as browsing sectors, searching for text strings, or exiting the program.

All you have to do is highlight the file(s) or directory(s) you want to recover and — hey presto, Rescue does its thing.

Rescue comes with Anyware Antivirus which detects viruses during the boot up of the system; and a backup program called Backit Lite for Windows.

So did I stick a pencil through a floppy disk? In the name of science, I did. I also

recovered the data on the disk — except where the hole is, of course. So, in these days of shortages, does anybody want to buy a slightly damaged floppy disk? It's going cheap...

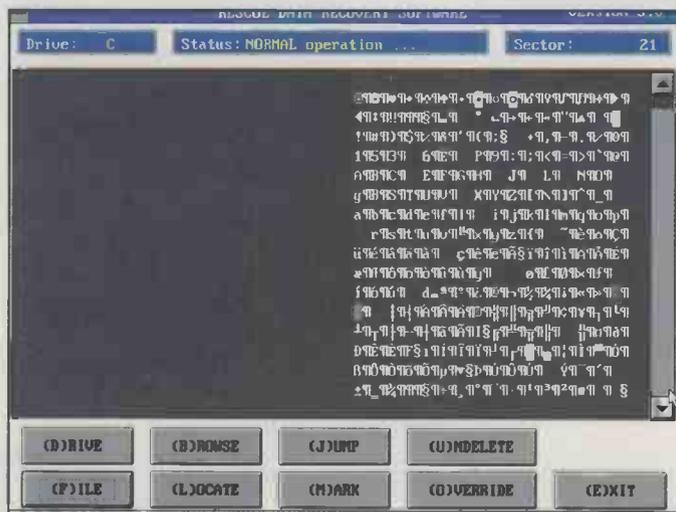
**PCW**Verdict

A to-be-considered insurance in the event of disk disaster, but it could do with being cut in price by at least half.

**Price** £99.95

**Contact** POW! Distribution 01202 718725.

**Fax** 01202 715600



So simple to use — how to retrieve data following a disaster



**IT'S A LOVELY  
SUMMER  
EVENING AND  
APRICOT USERS  
ARE WHERE THEY  
SHOULD BE.**



**pentium**  
PROCESSOR

# WHEN YOU GET IN YOU

*If you're spending too many evenings slaving over your computer, you're using the wrong computer.*

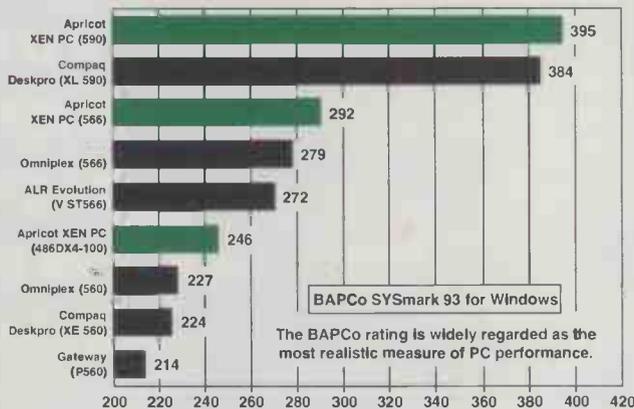
*At Apricot, we haven't forgotten that the real measure of a good PC is one that helps you get your work done quicker, better in the real world of unforgiving deadlines and tight margins.*

*Which is why systems like the Apricot XEN range are optimised to provide the fastest possible performance over the widest range of applications.*

*This is more than just advertising copy, but a demonstrable claim based on a single but very important fact: Apricot is one of only a handful of manufacturers in the world to design and build our own systems.*

*So our understanding of what makes for optimum performance lies at an altogether deeper level than those manufacturers who are simply assembling third-party components. Similarly, our understanding of the crucial interaction between hardware and software is fundamental, not superficial.*

*All of which explains why Apricot systems tend to come off best in the industry standard*



*BAPCo™ tests, widely accepted as the most realistic measure of PC performance.*

*This holistic approach to design shows itself in other areas, too. For example, instead of having an untidy mess of separate speakers and loose wires, the XEN-PCM (for multimedia) has stereo speakers built-in. In similar fashion, the*

*quad-speed CD-ROM is neatly concealed behind a fold down panel until you need it.*

*The network-ready XEN PCLS arrives network ready, whatever your network. While the XEN-PCONLINE comes with an internal fax/modem.*

*Add it all together and you get the kind of user-appeal that, once you've tried an Apricot, you'll never so much as look at another PC.*

*So get an Apricot. And get a life.*

To: Apricot Computers Ltd. 3500 Parkside, Birmingham Business Park, Birmingham B37 7YS.  
Please send me a free copy of "The Book of Workgroup Computing" and information on the Apricot range.

Name \_\_\_\_\_ Telephone \_\_\_\_\_ PCW 0995

Title \_\_\_\_\_

Company \_\_\_\_\_ No. of Employees \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Fax \_\_\_\_\_ No. of PCs in company \_\_\_\_\_

Network?  Novell  Unix  Other \_\_\_\_\_  None

apricot

MITSUBISHI ELECTRIC

**GET IN FRONT. GET IN FRONT OF AN APRICOT.**

All trademarks acknowledged. Intel Inside and Pentium processor Logos are trademarks of Intel Corporation. The prices shown within this advertisement are for the most popular non-profit corporation whose charter is to develop and distribute a set of objective performance benchmark

# FRONT OF AN APRICOT, GET IN FRONT.

## THE APRICOT PC RANGE



### XEN-PC

486DX2-66 to 120MHz Pentium™ processors  
256K Cache  
4Mb RAM up to 128Mb  
Up to 1Gb hard disk options  
Plug and Play Support  
Fast VL Local Bus graphics, PCI on Pentium™ models.  
PCI-bus IDE drive controller on Pentium™ models.  
Pentium™ models Energy Star compliant  
3.5" 1.44Mb diskette drive  
Mouse, DOS 6.22, Windows for Workgroups 3.11  
14" SVGA monitor (15" and 17" available options).

**FROM £999**

### XEN-PCM

As XEN PC with additional features  
Integral quad-speed CD-ROM drive  
SoundBlaster Vibra 16 card  
Integral Stereo speakers,  
Midi interface and stereo recording  
Microsoft "Family" software (6 free titles).

**FROM £1399**

### XEN-PCONLINE

As XEN PCM with additional features  
Fast V.32bis internal fax / modem  
Delrina Winfax and DOSfax Lite fax software  
COMit Communication software suite  
Free Compuserve trial membership pack  
(Including 1 month membership and £10 usage credit).

**FROM £1499**

### XEN-PCLS

As XEN PC with additional features  
Integrated enhanced business audio  
LOC Technology security  
Integrated Ethernet  
Integral stereo speakers.

**FROM £1299**

*“The Apricot's balanced overall performance shows a high level of integration between the major subsystems, which indicates quality design from board level up. At the time of writing, it was the fastest PC we've benchmarked.”*  
- PC Pro, June 1995

*“A compact desktop system built to the usual high Apricot standards and surpassing any system ever put through Ziff-Davis' Winstone benchmarks.”*  
- PC Direct, May 1995



There are a number of ways and over 200 places to buy Apricot systems. Call now for details.

**CALL FREE ON 0800 212422**

Worldwide Web address <http://www.apricot.co.uk>

give you an indication of the typical prices you will pay for Apricot products. BAPCo™ stands for Business Applications Performance Corporation. BAPCo™ is a based on computer applications and industry-standard operating systems. BAPCo™ members include the main software and hardware suppliers.

**PCW How You Can Contribute To The Long Term Tests Section**

We welcome contributions from readers for our Long Term Tests section. If you've been using a piece of hardware or software intensively for some time, just write a 450-word article (for hardware) or a 750-word piece with screenshot — GIF format — for software and send it on disk, in MS Word (Mac or PC) or ASCII format, to: The Editor, *Personal Computer World*, VNU House, 32-34 Broadwick Street, London W1A 2HG. Mark your envelope clearly "Long Term Tests". We'll pay for any contributions we use.

**HARDWARE****HP DeskJet 320 Printer****1** YEAR  
TEST

Jonathan Thaw invested in a 320 about a year ago, and has been reaping the benefits of clear, portable, colour printing ever since.

Anyone who bought an HP inkjet printer back in the earlier months of this year would have been disappointed to see their "new" printer become obsolete overnight, as a whole new range of inkjets was introduced for superior quality and value for money. The only printer that survived was the relatively new DeskJet 320. Some might be put off by the fact that it seems a little flimsy and may not look quite at home on their desktops, but over the last year of intensive use, it has proved an excellent machine.

Despite a few minor limitations, the DeskJet 320 is probably one of the best printers around in terms of value for money. Its biggest advantage is its versatility — it will quite happily sit on your desktop or in a briefcase, and weighs only 1.96kg (4.3lbs). On the road, paper insertion is a little fiddly, but on the desktop, the 60-page feeder handles paper very efficiently.

The printer offers 600 x 300dpi resolution and although this is still not up to the quality of the more expensive laser printers, the colour option compensates for this. The colour output is similar to that of the later DeskJet 500 and the newer 540.

But this is where you encounter the printer's first snag: it won't hold colour and black cartridges at the same time. Not only does this mean that blacks will

have to be dithered (where colours are combined to give a black effect), reducing the life of the cartridge, but there's the added hassle of constantly replacing the two cartridges. The biggest inconvenience is when you have a page full of black text with a thumbnail picture somewhere in the middle, and this scenario should be avoided to conserve the life of the colour cartridges, which are very expensive. This, though, is the price you pay for the printer's portability and versatility, and HP are good enough to supply a special storage container for the cartridges with the optional colour kit.

The 320 can print efficiently on specially coated transparencies and paper, although this is expensive. (The glossy paper gives the best colour output.) The feeder integrates well with the printer and paper jams are rare.

Control of the printer is simple but by no means limited. The six buttons on the front panel provide access to the various options by means of a clever system whereby the cartridge moves down a list of options listed inside the printer. The print driver for Windows rarely encounters problems and gives many options about the printer, print media and quality despite being a little slow with long documents.

A printer of this size would definitely not be suitable serving a small network and is more comfortable with a small workload. But it offers perfectly good black printing with the option of fine colour, and this, together with its portability and versatility, means that it's well worth the low price.

*The HP 320 — a paragon of portability and versatility*

**PCW Verdict**

Good print quality, with real portability and versatility, make the DeskJet 320 a real winner.

Price £229 (approx.)

Contact Hewlett Packard 01344 369222

## SOFTWARE

# Corel Ventura 5.0

After eight months' use, AR Landall finds the latest incarnation of Ventura "a brilliant product with some amazing flaws". Intrigued? Read on.

**8** MONTHS  
TEST

I've always had a love-hate relationship with Ventura. I don't use it every day, but I do use it regularly enough to have got used to many of its little foibles. In fact, it's certainly easier to use than its reputation suggests. I've always liked the frame-based approach, which allows easy and powerful integration of graphics and text. Version 5.0 is a major upgrade and the first real step forward for years.

A good deal of effort has gone into making the program competitive again, and it shows — it feels much more like a true Windows application. Many of the facilities that users had demanded are now there: the ability to override paragraph settings; a usable text flow around graphics; vastly improved editing;

also the ability to move files rather than just copy them. The spell-checker, though, is still caught out by Ventura's own markers! And there's no UK English option either.

But once past the shiny new interface, I soon discovered that, despite the delay in shipping, this release was rushed out too soon — there's a definite incomplete feel about it. For a start, certain illustrations in the manual don't match what appears in the program and some of the information is clearly inaccurate. For example, the manual says: "Tip: You can expand the Refs & Markers list by dragging the roll-up's bottom border downward." Oh no you can't. There's no re-sizeable border and the picture of the roll-up is different from that in the actual

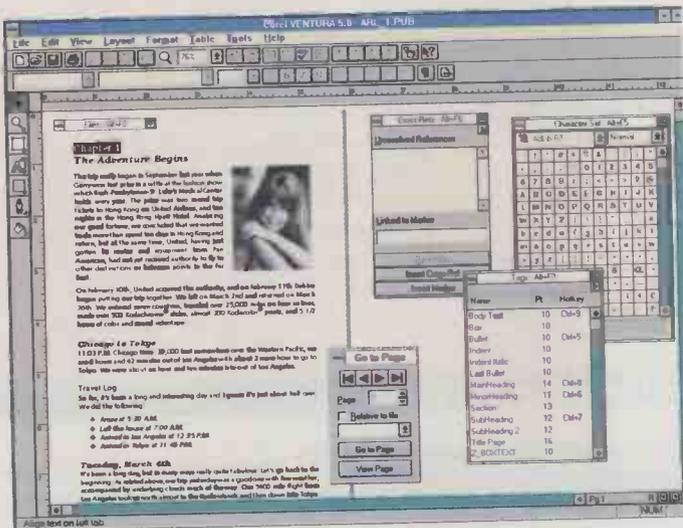
to the idea.

But Ventura doesn't go out of its way to be helpful. Astonishingly, you can't choose to print all odd or all even pages for a multi-chapter publication; you're forced to do it a chapter at a time. This is a problem if you don't have a duplex printer and want to print on both sides. Nor can you set the auto-numbering feature to work automatically across a publication — the start number has to be set manually for each chapter, which is a pain.

On a more positive note, one of my favourite features is the booklet format. I love it because it makes the production of A5 booklets, which is the main reason I use Ventura, so much easier. It allows me to choose an A4 base page and produce a folded A5 booklet. All the page numbers, headers and footers appear in the right place. Laying out and formatting a booklet manually can be a real nightmare — this is just the sort of thing computers should be harnessed to do, and it's a tremendous productivity boost.

However — and this illustrates my point about the incomplete nature of the package — where printing is concerned, Ventura shoots itself in the foot. A booklet is printed in sheets rather than pages: each sheet containing four different pages, two on each side. But you cannot specify "print all back", "print all front" or "print sheet x", and this is a serious oversight. There are workarounds, but it's far from satisfactory.

So the love-hate relationship continues, but perhaps more love than hate these days. It's a brilliant product with some amazing flaws. But at least Corel seems to have a vision for Ventura which had previously been sadly lacking.



*The Jekyll & Hyde Ventura 5.0 is good and bad in equal measure*

rotation of text; the ability to move objects onto the Pasteboard; the abolition of width tables; and an up-to-date 3D interface with tabbed dialogue boxes etc. There has also been a general "Corelising" of the product, including a plethora of useful roll-ups.

Many of the niggly things have been addressed too, such as a Whole Word Only option for Search and Find and an Undo feature that actually works. There's

Ventura is also one of the most unstable applications I've got. This aspect of the program hasn't improved much, and it falls over far too easily despite its voracious appetite for memory. I save my work regularly.

The publication metaphor is developed further in this release and you're forced to use it, because all files are now saved in \*.pub format. Every publication file contains one or more chapters (\*.chp) and you can add or delete chapters as you wish. It works reasonably well and you soon get used

## PCW Verdict

Not perfect by any means, but a great package nonetheless.

Price Full product: CD £349; Disk £395.  
Upgrade £79

Contact Corel 0800 581028

# Visual Basic

The long-awaited Visual Basic 4.0 is here, having been delayed along with Windows 95. Tim Anderson looks at the latest beta and finds substantial new features.

The original Visual Basic (VB) introduced a new way in which to program. Those not won over by its captivating visual interface were wooed by its support for VBX components, on offer from countless third-party vendors.

When version 3.0 added a built-in database engine borrowed from Access, VB's momentum became unstoppable. But that was two and a half years ago. A VB-like interface is now commonplace in

development tools, and developers have become frustrated by the slow performance of VB's interpreted Basic, and with its lack of support for power features like pointers and call-backs. Borland's Delphi supplies all this along with a true object-orientated programming language, leaving Visual Basic under pressure to compete.

Delayed along with Windows 95, Visual Basic 4.0 finally delivers Microsoft's answer. But those hoping for a native code compiler, or fuller object orientation, will be disappointed: instead, VB 4.0 majors on support for OLE 2.0 and Windows 95, and provides new features for client-server database development. At first glance, it seems that Microsoft has been more concerned to promote its new technologies than to provide what the VB development community has been demanding. But closer investigation reveals substantial technical advances over VB 3.0.

On the surface, Visual Basic 4.0 looks much like older versions. But looking deeper, the menu structure has changed,

with the old Debug menu now part of Tools, an Insert menu for adding forms and modules, and a new Add-ins menu.

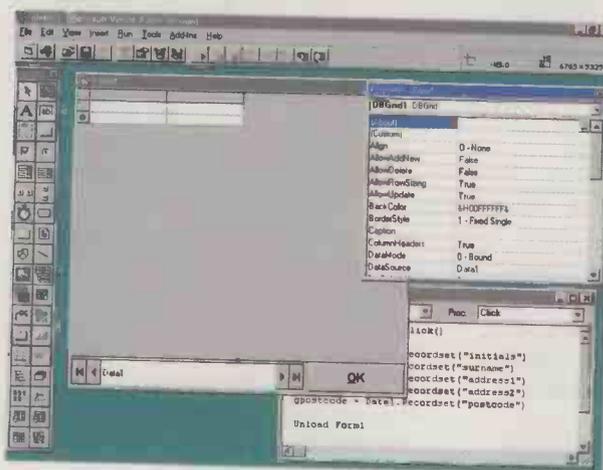
VB 4.0 comes in two flavours. The 16-bit model runs on Windows 3.1 as well as Windows 95, and supports both VBX and 16-bit OCX controls. Since the standard edition of VB 4.0 doesn't include the 16-bit version, Microsoft clearly wants to promote the 32-bit edition which runs only on Windows 95 or NT and uses 32-bit OCX only; no VBX controls. It adds a number of extra features including a toolbar control and a rich-text edit control for the display of formatted text. These encapsulate elements added in Windows 95 and NT 3.51, so there is no chance of them working with earlier versions of Windows.

Versions of VB have proliferated to the point of confusion, with the old Standard/Professional split continuing and a new Enterprise edition for client-server development. Despite the superficial resemblance all these VB variants are greatly changed from version 3.0, using Visual Basic for Applications technology to bring them into line with the

## Creating an OLE Automation Server

OLE automation is VB 4.0's big new feature. This demonstration shows how easy it is to create an OLE server that will work with any OLE automation client application. At the moment these are limited in number, but since Microsoft is making it a key feature of Windows, it looks likely to be supported by most Windows applications and development languages before long.

Our Visual Basic 4.0 beta came supplied with sample code to display an About box, but we thought we should give a more useful example. The OLE server that follows is for any application that requires access to an address database. It enables you to select a name from a scrolling list, and returns the full address to the client application. The sample database contains around 10,000 names.



The project begins much like a VB 3.0 application, with a form, a data control, and (new to VB 4.0) a data-bound grid. The bundled data grid is made by Apex, developers of True-Grid. By setting properties, the data control is bound to an SQL query (in this case, "SELECT \* FROM CUSTOMER ORDER BY SURNAME"), and the grid is bound to the data control. Code in the click event of the OK button assigns the current address to global variables, so it can

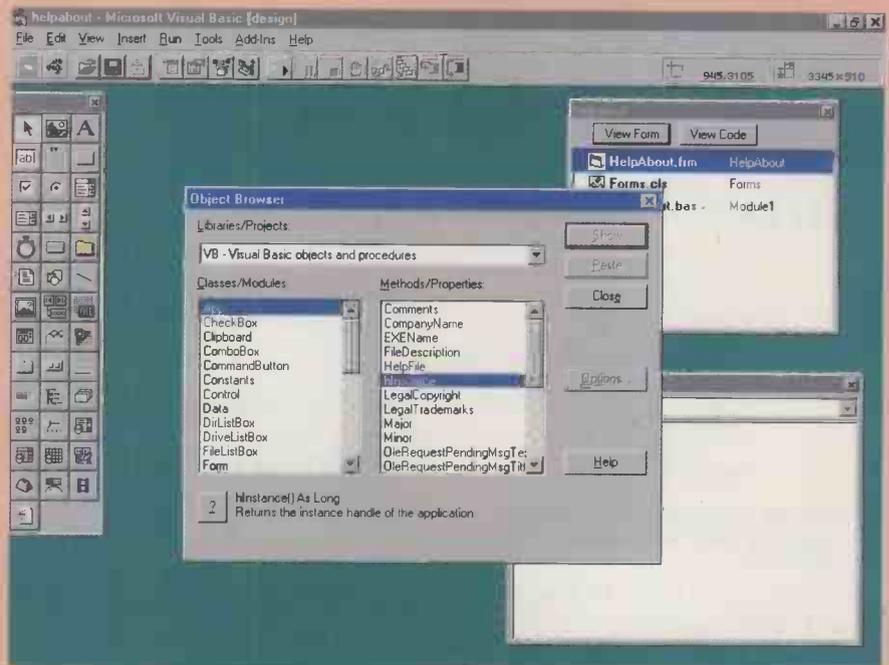
be accessed by other modules in the project after the form has been unloaded

# 4.0

language first found in Excel, and eventually migrating to all the Microsoft Office applications.

VB 3.0 was extensible primarily through VBX controls. With Office 4.0 came OLE automation, enabling objects in other applications to be assigned to variables in a VB application and controlled through properties and methods. For example, an Excel spreadsheet could be opened, modified and saved.

Visual Basic 4.0 takes OLE technology further, integrating it seamlessly into the development environment. A custom control dialogue lists all the OLE insertable objects and OCX controls available on the system, and those which are checked appear in the VB toolbox. Once you get over the thrill of seeing Excel sitting on your VB form, you may wonder whether you really want to use a 4.5Mb custom control in your application. But the integration is impressive. Visual Basic's development environment is itself now an OLE automation object, which means add-ins and wizards are easy to create and will no doubt proliferate.

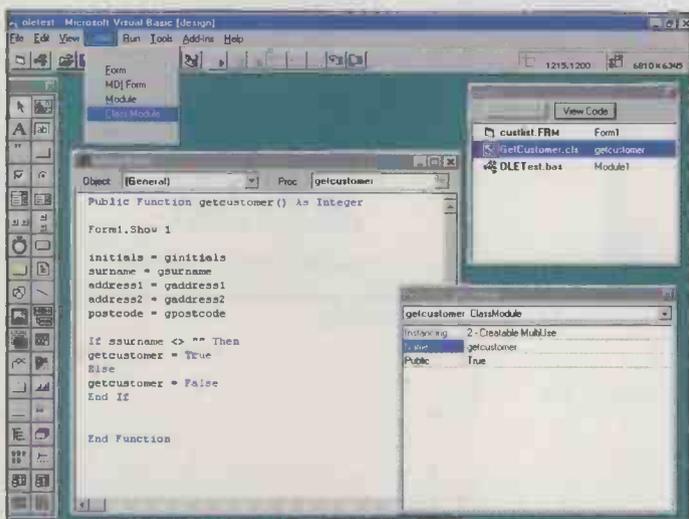


*Familiar through Excel and the Office Development Kit, the Object Browser*

## Visual Basic and Objects

VB has moved closer towards object orientation but is still more accurately described as object-based. There is a new kind of module, a class module, in which you can create custom object types with their own properties and methods (though not events). This certainly makes it easier to code well-structured applications, but as an object model it's feeble, with no support for inheritance,

polymorphism or operator overloading. In one sense this leaves Visual Basic seriously behind the times when other languages like Delphi, Visual dBase and Microsoft's own Visual FoxPro offer much fuller object-orientation. But there is a philosophy behind VB — it is the philosophy of components and of OLE 2.0. Microsoft



*There is a new kind of module in VB 4.0, called a class module. Class modules enable custom object types to be defined in VB, with their own properties and methods. They also support two events, initialise and terminate. To make a class into an OLE automation object requires several steps. Each class has three built-in properties: Instancing, Name, and Public. The Instancing property must be set to Creatable (either Multi use or Single use). Then, the Public property must be set to True. Finally, the Name property determines the name of the resultant OLE object. That done, any variables declared as Public in the class module become properties of the OLE object, and any Public procedures or functions become methods. You can also define private properties and methods to hide the internal workings of the object. This is encapsulation. The function shown displays the data access form, and copies the current customer details into public class variables, so they are exposed to client applications*

# GREY MATTER

Prigg Meadow, Ashburton  
Devon TQ13 7DF

Prices do not include VAT or other local taxes, but do include delivery in the UK and Europe. Please check prices at time of order as ads are prepared some weeks before publication. This page lists some products - call us for a complete price list.

ORDER BY PHONE WITH YOUR CREDIT CARD

**TEL: (01364) 654100**

FAX: (01364) 654200

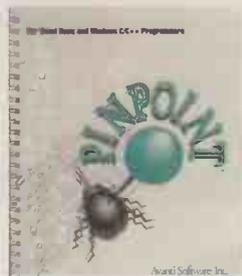
## CALENDAR WIDGETS



- Calendar Widgets is perfect for Visually displaying time and date related information
- VB Custom Controls (VBX) and 16 and 32 bit OLE Controls (OCX)
- Four controls included for MonthView, YearView, Date Combo and DayView
- Calendar widgets is ideal for PIMs, data entry, billing, project management or any application requiring entry of time or dates

**£99**

## PINPOINT



- Pinpoint is the "professional tool for finding and fixing bugs"
- Analyzer tracks function entry and return points within VB
- Display of program flow and automatic indentation of function calls
- Multi-language development returns Analyzer information between VB & C/C++ components

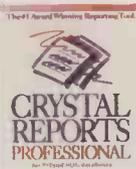
**£150**

## MORE VB ADD-ONS

3D Widgets	ADE/ VBX	CCF Cursors
Custom Controls	Designer TCPTP	Agility/VB
Chart FX	Crusher	Data Widgets
Dazzle/VB	Designer Widgets	ds Socket
Dynazip/VBX	Fax Plus	Formula One
Gantt/VBX	Greenleaf Commlib	Grid/VBX
Image SDK	Imageknife	Leadtools
PDQComm	Schedule/VBX	TabPro
VB/Magic Controls	VB Tools	Visual/db

NEW VISUAL BASIC V4.0  
NEW VISUAL BASIC V4.0

## CRYSTAL REPORTS PROFESSIONAL



- Find out why Microsoft, Borland and 80 other vendors have chosen to include Crystal Reports in their software programs. The new version 4.5 includes:
- VB Custom Controls (VBX) and 16 and 32 bit OLE Controls (OCX)
- 40 new (>80 total) Print Engine Calls for maximum printing flexibility
- 2-10 times faster report processing
- Fully integrated and tailorable graphing
- Report distribution expert with free runtime

**£290**

NEW VISUAL BASIC V4.0  
NEW VISUAL BASIC V4.0

## CODEBASIC



- A set of DLL Libraries and VBX controls for connectivity to dBase, Foxpro and clipper data, memo and index files
- Full multi-user support
- Distributable runtime DLL's or Debug versions for development
- Integrated report generator for complete xBase support

**£140**

## MICROSOFT VISUAL BASIC STANDARD NEW V4.0



- Professionally create Windows, Windows NT and Windows 95 applications
- Great Entry Level tool to Windows 95 programming
- New enhanced programming environment & free runtime distribution of finished applications
- Easily port your VB 3.0 applications into Windows 95
- Full integration with Office 95
- Now shares the same common language engine as Microsoft Office

**EPOA**

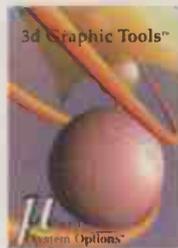
## MICROSOFT VISUAL BASIC PROFESSIONAL NEW V4.0



- Professionally create Windows, Windows NT and Windows 95 applications
- New enhanced 16-bit, 32-bit and OLE programming environment and free runtime distribution of finished applications
- Load and recompile 16-bit VB applications into Windows 95 and Windows NT
- Full integration with Office 95 & Windows 95
- Enhanced 16 & 32-bit JET engine with enhanced ODBC support for SQL Server and Oracle

**EPOA**

## 3D GRAPHIC TOOLS



- Three dimensional graphics developers toolkit
- 1-24 bit colour support
- 3D point and line drawing primitives and clipping
- Offscreen drawing and animation control
- Complete source code included

**£130**

## DBARCODE/VBX



- Creates resizable barcode metafile images for Windows
- Optionally rotate, include text, select colours, generate checksums
- Supports EAN, UPC, ITF, Code-39, Code 128, PostNet, Royal Mail, Telepen & more
- Also creates bar pattern in string form
- DLL included for C Developers. OLE-2 version also available

**£94**

NEW VISUAL BASIC V4.0  
NEW VISUAL BASIC V4.0

NEW VISUAL BASIC V4.0  
NEW VISUAL BASIC V4.0

NEW VISUAL BASIC V4.0  
NEW VISUAL BASIC V4.0

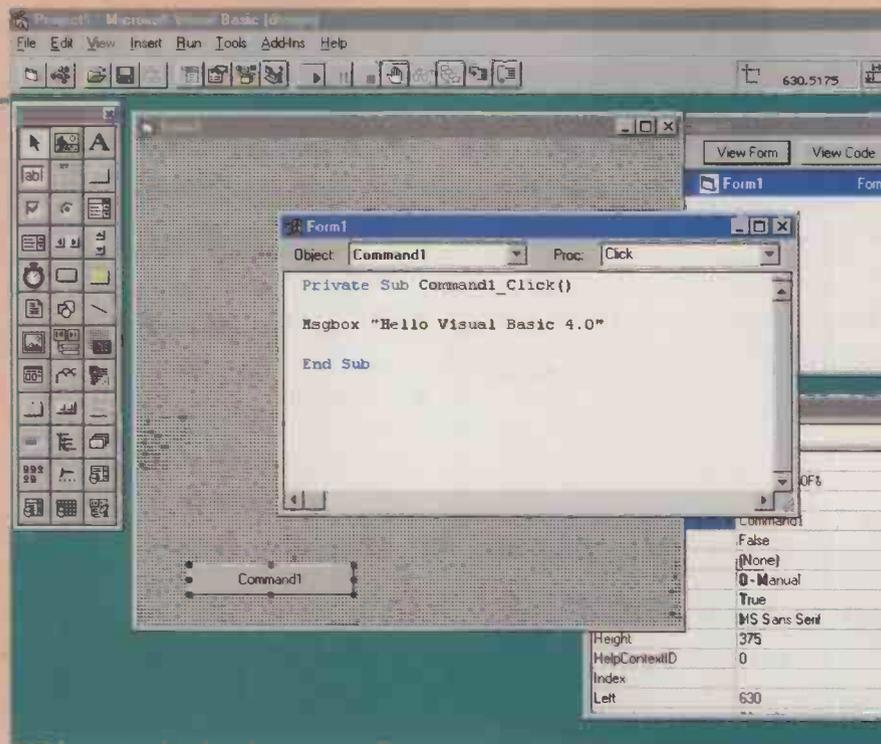


*The Visual Basic interface is outwardly little changed in version 4.0, but with OLE automation far more extensible*

argues that the main purpose of object orientation is reusable code, and that VB offers this reusability with its support for OCX components, OLE automation, and now a new feature — native VB OLE servers.

A common gripe among VB developers was the inability to create DLLs. You still can't, at least not in the old sense, but VB 4.0 offers an alternative which is to create an OLE automation server. This allows you to expose properties and methods to any application able to be an OLE automation client (see panel, "What's new...", page 100).

Since VB applications can be both client and server, this opens up interesting possibilities for VB developers to create specialist OLE components that can either be linked together, or with non-VB applications, to form custom solutions. Unlike a C++ or Delphi object, useful only at development time and in its own native environment, an OLE object library is continually available to the entire Windows environment — in some circumstances, even across a network. The argument has some force, although the old-style DLL offers much of this functionality together with the added speed of fully-compiled code. OLE imposes a performance penalty, and when you add the further penalty of VB's runtime interpreter, it is clear that a VB OLE server will not perform briskly. That would appear to sum up VB's new OLE capabilities: a hugely impressive concept, but



with serious question marks over its real-world usefulness.

**Visual Basic and databases**

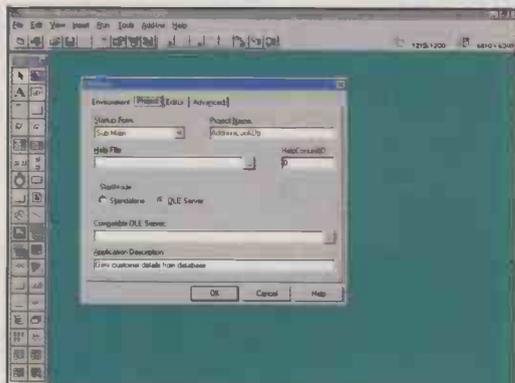
Visual Basic 4.0 will delight database developers. VB 3.0 offered programmatic control of most of the features of the JET database engine, but not all — the ability to set up security or enforce referential integrity was missing. VB 4.0 introduces a new data access objects (DAO) interface that overcomes these problems. Even new features of JET 3.0 (like database replication) are supported in Visual Basic.

Existing VB developers will find DAO familiar since the underlying model is similar to version 3.0 which had dynaset, snapshot, and table objects. The new model is tidier, with a single recordset object that can be of any of the latter three types. Several new objects are available, each with appropriate collections, properties, and methods: DBEngine, Workspace, User, Group and Relation.

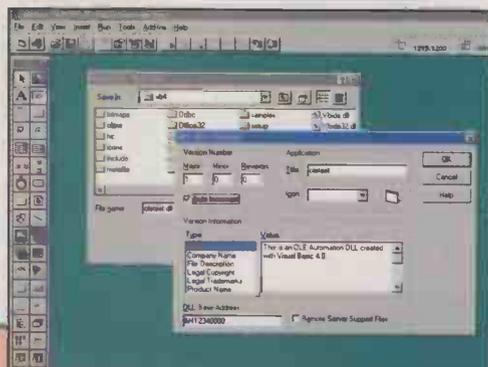
DAO is great, and builds on VB 3.0's database capabilities to offer comprehensive data management based on SQL,

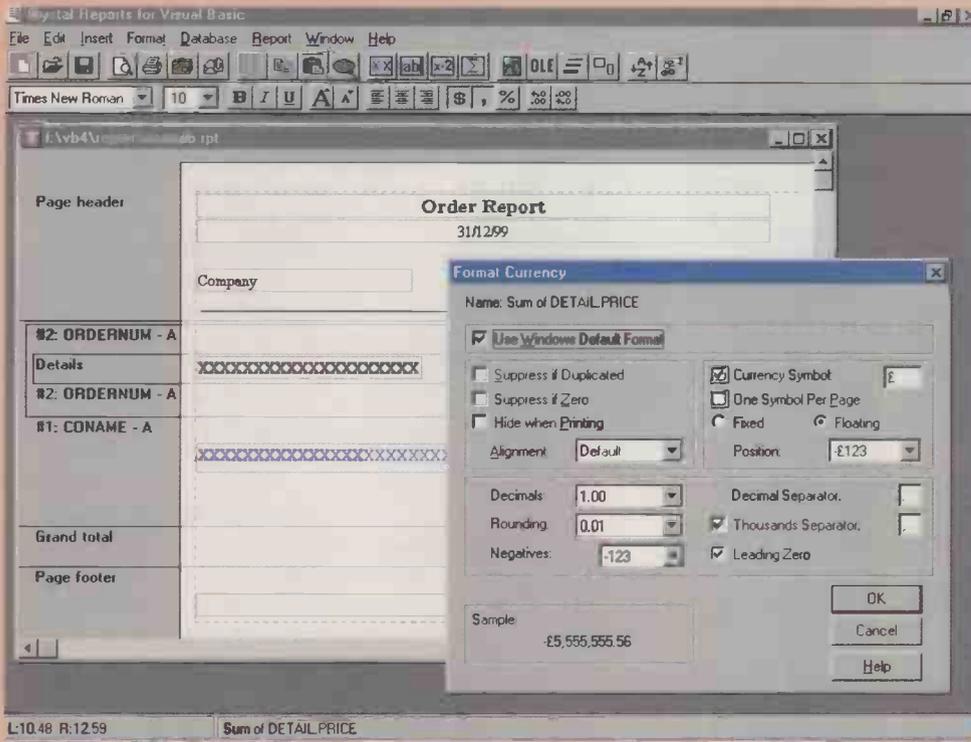
**Creating an OLE Automation Server (continued)**

*Using project options, the OLE server option is selected. The project name, new in VB 4.0, will be the library name containing all the OLE objects in the project. A description can be entered, to appear in OLE class browsers. Note that OLE servers' projects are almost always set to start up from Sub Main, and not from a form. This is done here, even though Sub Main is empty, so that the project compiles correctly*



*VB 4.0 has two compilation options, "Make Exe" and "Make OLE DLL". Either can create an OLE automation server, the difference being that .EXE servers are out-of-process servers and .DLL servers are in-process, which run in the same process as the client application for greater speed and efficiency. You cannot create DLLs with the 16-bit VB 4.0, although you can still create OLE automation EXEs*





Now at version 3.0, Crystal Reports for Visual Basic is greatly improved over the old VB version

much improved performance through direct ODBC calls that were arduous to program. The direct ODBC route may still have advantages, but there are now two other options. The Remote Data Control is an ODBC-based data control which bypasses JET, but still works with all VB's data-aware components. Better still, a new Remote Data Objects (RDO) interface is a wrapper for the ODBC API, making it substantially easier to program. Microsoft describes it as "Performance tuned for SQL Server 6.0 and Oracle 7." RDO offers several key features for client-server development such as control

but easily applied to local databases. The new DAO means that old VB 3.0 code will not run without changes. This can be overcome through a compatibility add-in which allows the old code to work against the new JET engine. But a better solution is to rewrite those bits of code which no longer work — the changes are trivial to make.

Some long-standing niggles have been removed. For instance, the data control can now be pointed to a table and has an index property that works; the bound controls include a data grid; and

the manual contains a helpful chapter entitled "Writing SQL Queries". Reporting is via an improved version of Crystal Reports which can now be bound directly to a data control, although Microsoft points out that VB developers could also consider driving the new Access 7.0 report writer through OLE automation.

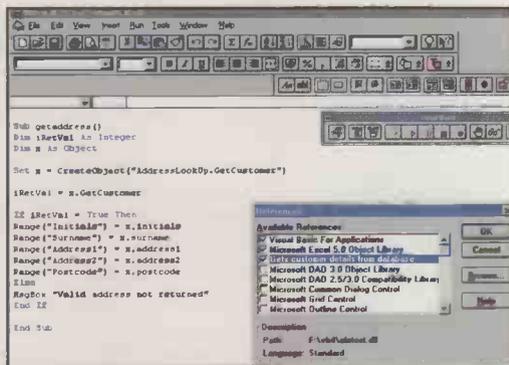
VB 4.0's Enterprise edition is aimed at the client-server developer. One of the problems with Visual Basic 3.0 was that it forced a choice between easy but slow access to SQL servers through JET, or

over server-side cursors, and the ability to limit the number of rows returned from a query. The Enterprise edition also includes a customised version of Source-Safe, and the ability to create remote OLE automation servers (see panel). First impressions are that VB 4.0 is far better suited to serious database development than its predecessor.

**OLE with everything?**

Visual Basic 4.0 has clearly defined strengths and weaknesses. VB developers who are not interested in either OLE or database work will be disappointed.

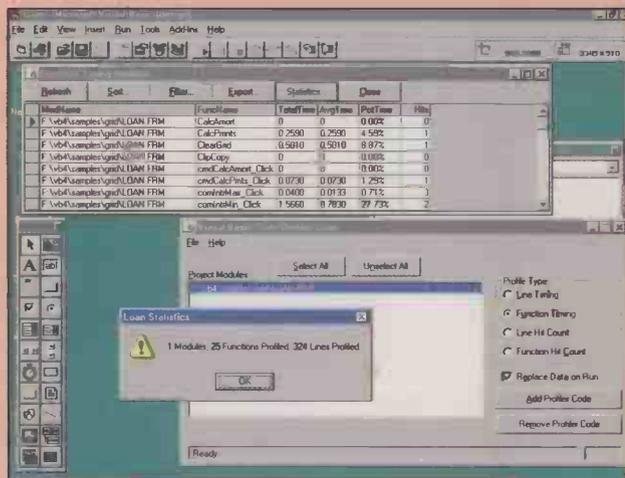
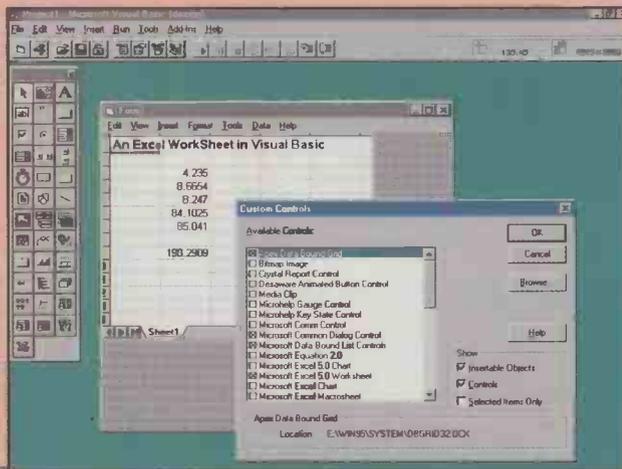
Over in Excel, the VB OLE Server has magically appeared in the list of "References", OLE objects accessible from Visual Basic for Applications. When it was compiled, VB put the necessary information into the Windows registry (a corrupt registry is the dread of OLE programmers). A short piece of VBA code in Excel creates the object, using the project name and class name set in VB 4.0. The routine gets a customer address and inserts it into an Excel worksheet



Finally, the OLE server is put to work: a button in Excel calls the VBA routine, and the VB form pops up over Excel. Once selected, the address appears in the Excel spreadsheet. This is especially impressive when you consider that the VB application itself contains an OLE object; the data grid OCX. The ability to create OLE servers substantially expands VB's usefulness.



*Excel can literally be treated as a VB custom control if you don't mind your application running like a slug*



*The Code Profiler is both useful and a good demonstration of what can be achieved by add-ins*

Performance is no better, the core language not much changed, and power programming features like inheritance, pointers and call-backs are still absent.

It is primarily a product for 32-bit Windows, and judging by Microsoft's half-hearted attitude towards 16-bit VB 4.0 (omitted from the Standard version), it may be wise to stay with VB 3.0 for 16-bit programming and enjoy a runtime DLL one-third of the size. But Visual Basic remains the easiest way to program for Windows, and that, combined with presumed strong third-party support for OCX components, endows version 4.0 with a substantial attraction.

From the point of view of Database development, it addresses many of the frustrations of version 3.0. Although lack of object orientation is a disappointment, in every other respect VB stands up well as a database development tool against specialist products like dBase, FoxPro and PowerBuilder.

Finally, there is OLE and the possibility of creating universal Windows components without stepping outside the safe environment of VB. It's a great concept, but one which depends on OLE becoming a dominant standard and which will only come into its own when and if 32-bit Windows becomes the norm. The ability to create OLE servers is likely to appear in competing products soon. There's plenty of choice among Windows development tools, and Visual Basic is settling into a new niche, for database development and as a high-level language to drive Windows. It has its place, but for general development does not look as good against the competition as it did two years ago.

### What's new in Visual Basic 4.0

- New architecture uses Visual Basic for Applications engine
- Development environment extensible via add-ins and OLE automation
- Conditional compilation with #IF ... THEN ... #ELSE
- Line continuation character in code
- Menu and toolbar negotiation for in-place OLE editing
- Class modules for custom VB objects
- OLE controls (OCX) replace VBX format
- New Collection data type
- Property procedures
- Forms can have public properties and methods
- Use insertable OLE objects as custom controls
- Data aware grid and list controls

#### Professional Edition

- Separate 16-bit and 32-bit versions
- New Data Access Objects with full control of JET database engine
- Windows 95 controls, including rich text edit control
- Create OLE automation servers
- Code profiler
- Full programmatic control of JET
- Resource compiler works with standard Windows resources

#### Enterprise Edition

- Remote Data Control
- Remote Data Objects for fast SQL server access
- SourceSafe for team development
- Create remote OLE automation servers

### PCW Details

#### Standard Edition

32-bit Visual Basic with basic controls only.

#### Professional Edition

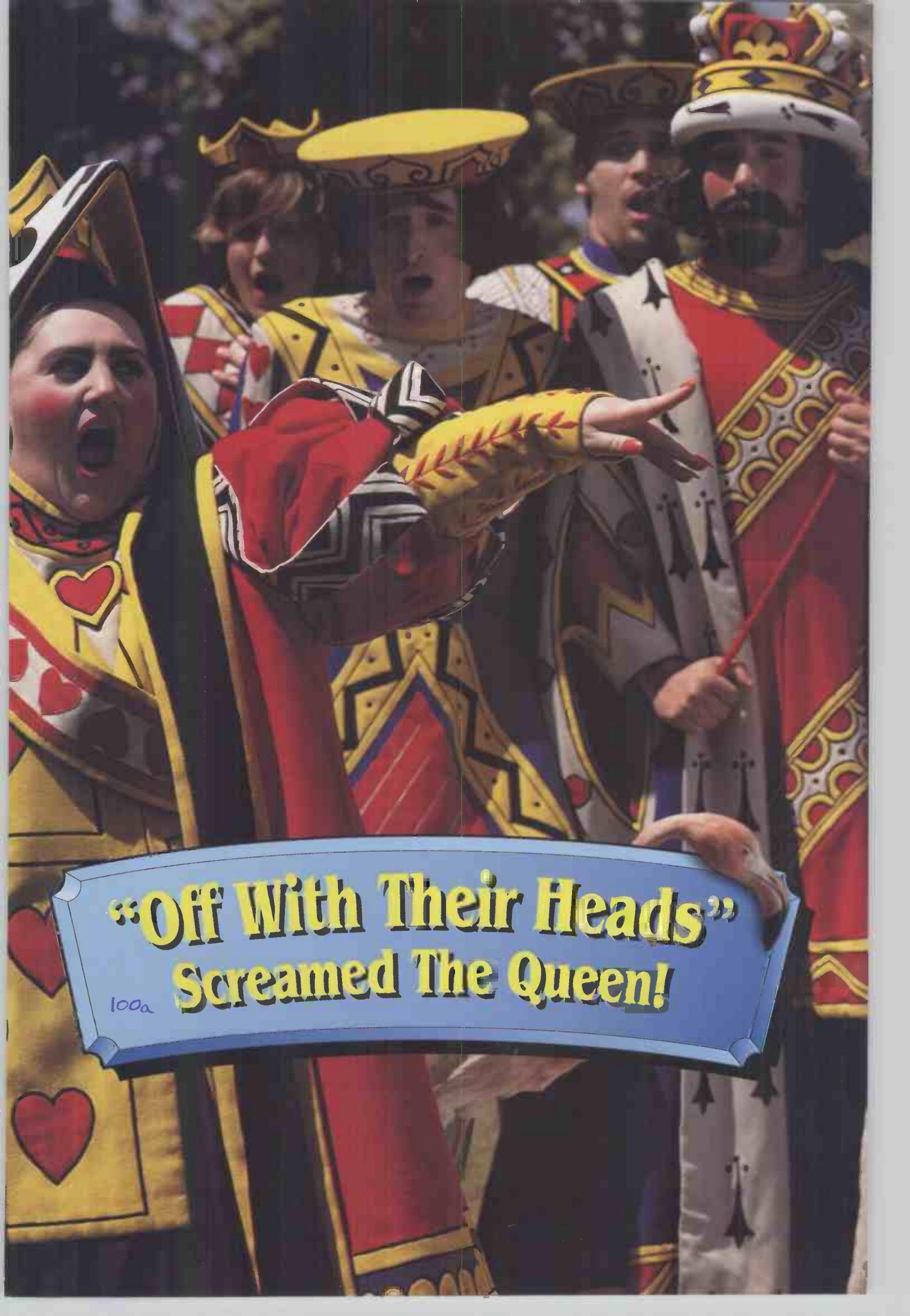
32-bit and 16-bit Visual Basic with additional controls and full database programming.

#### Enterprise Edition

The Professional Edition with remote automation technology, remote data control and remote data objects, SourceSafe for team development.

Prices Not available at the time of writing.

Contact Microsoft 01734 270001



**“Off With Their Heads”  
Screamed The Queen!**

100a

# "Oh Don't Worry" Said Alice "Everyone Loses Their Heads Over Gateway"

Take a look at what Gateway 2000® have to offer and you'll believe you've slipped into a Wonderland of value! What's more, Windows® 95 is here! Available as an option on all our systems at no extra charge, Windows 95 takes you into a fantastic new world of personal computing. It's faster, easier to use and even more reliable than previous operating systems and it gives you access to all the new 32 bit programs. You can multi-task, run multi- programs and save time and effort with real 'plug & play' capabilities. Once again Gateway 2000 brings you the latest technology at the best prices.

Large or small, home or business we have the system to fit your needs. Every system is configured and built to suit your requirements. Our highly trained sales staff will be happy to discuss your needs and help you decide on the system that's best for you.

And the service we offer will make your head spin! Major components of our desktop and tower PC's are backed for a full three years. We provide one year on-site service if required whilst our portables carry a one year back-to-base service warranty.

All Gateway 2000 systems come with freephone support for the lifetime of the system.

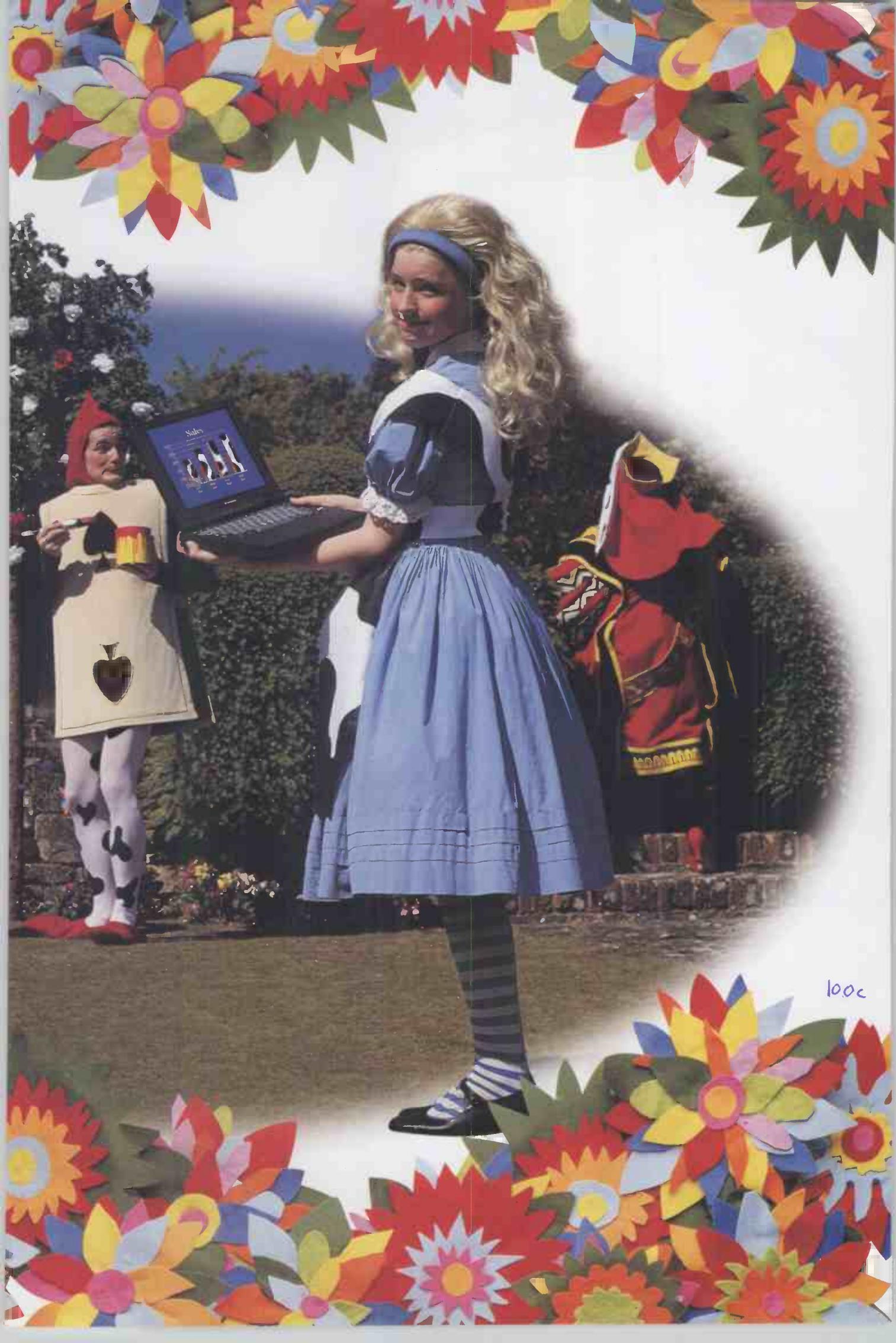
Our aim is to give you the best value systems in the land and support them with the best service you'll find this side of Wonderland!



0 8 0 0 1 7 2 0 0 0

1006





100c



GATEWAY 2000 PS-133

pentium

RESET  
HDD TURBO

Drink  
me

Eat me

100a

"Gateway's PC's are **HUGE**  
on value and performance" said Alice

We hold the key for you to unlock the door to the best value systems around! Whatever system you're looking for, you should take a good look at Gateway 2000. You'll find we're perfectly sized to provide for

processor and the 120MHz Pentium processor, these systems deliver serious power. Each features 16MB EDO RAM, the latest 'pipeline burst' cache technology, quad-speed CD ROM and a huge 1.6GB hard drive with PCI enhanced IDE interface. The P5-120 has ATI Mach 64 graphics with 2MB VRAM whilst the P5-133 has the Matrox Millennium video card with 4MB WRAM and includes a triple deck CD changer. And with the 28.8 BPS internal desktop modem available

as an option on all systems, it's a piece of cake to stay in touch from Wonderland to Sunderland! These systems sound as good as they look through Altec Lansing speakers and a sub-woofer. The 17" Vivitron™ monitor is pretty special too, and utilises the latest Sony® Trinitron™ tube technology, making every colour as vivid and sharp as any seen in Wonderland!



your every need as the largest direct PC manufacturer in the United States

(source: IDC) and the second fastest growing PC company in Europe (source: Dataquest). There's no reason to be curious as to why – our service and value speak for themselves.

You'll find it hard to believe your eyes when you see the amazing value Gateway 2000 offer across our whole range of systems. Our P5-133 Elite and P5-120 Elite have the power to deal with every situation you may find yourself in, however curious.

Based on Intel®'s latest, fastest CPUs, the 133MHz Pentium®

But what's even madder than a hatter is our pricing! The P5-120 Elite is yours for only £2,299 and the P5-133 is just £2,599.

Quad speed CD ROMs are standard on all Gateway PCs from one end of the scale to the other, and every system is ATAPI compliant, giving Windows® 95 compatibility. Every system comes with the choice of Windows 95 and most have Microsoft Office 95, Professional Edition too. All our monitors, from the 14" through to the optional 21" offer you the best view and brightest colours you'll see! "It's all enough to set your lobster quadrilling!"



0 8 0 0 1 7 2 0 0 0

# "NO ROOM, NO ROOM" Said The Mad Hatter

With our multimedia systems, you won't have to gatecrash the party. You'll have everything you need right at your fingertips! And, as with all our ranges, they're amazing value for money too.

With a throughput of 600KB per second, the quad speed CD ROM gives you full screen, full motion video from a CD, perfectly served.

Your spreadsheets, multimedia, video and design applications will fly onto your screen. Large complicated graphics files load quickly and redraw effortlessly, whilst the quality of the superb Vivitron monitors enable you to see everything in truly glorious colour and clarity.



 **GATEWAY2000**  
*"You've got a friend in the business."*

0 8 0 0 1 7 2 0 0 0

100f

# "There's Always Room For Gateway's Liberty" Said Alice

You're guaranteed there'll always be room for the Gateway 2000 Liberty™. It's compact, weighs only 4.2 pounds and has a full colour 10.4-inch dual scan STN display screen giving you sharp clear colours however curious your location!

There's no footsie under the table here, this is a serious portable! The Liberty

has an Intel 100MHz DX4 processor, removable hard drive, up to 24MB RAM and an excellent power management system. And the latest infrared connectivity lets you swap files, download data and go straight to print – without any wires!

The Liberty is served to you complete with the option of Windows 95 and Microsoft Office 95. The optional extras menu includes an external floppy drive, fax modem, lithium ion batteries and Ethernet adaptor.

As one of the tastiest notebooks around the Liberty will keep up with every move you need to make!



100g



# Its Always A Good Time For Service With Gateway 2000

We give our customers kid glove treatment! Our pledge is to bring you the best value for money systems possible and to back them up with the best service and support in the industry. When you call Gateway 2000 our highly trained sales people will take the time to give you expert advice and talk you through all the systems on offer, to determine which best suits your needs. We'll then build this system for you!

Every Gateway 2000 desktop carries a three year warranty on major components. Desktops carry a one year on-site service. This is provided at our discretion in the unlikely event of our technicians not being able to solve your problem over the phone. Portables carry a one year back-to-base warranty. Every system carries freephone technical support for its lifetime. If you call our Technical Support department our technicians are trained to deal with your query and offer expert advice on every hardware or software item we sell.

If it becomes necessary to replace any component within the warranty period, a replacement part will hare its way to you free of charge, and we pay for the overnight delivery.

Our Customer Service department are here to handle any queries you may have with regard to your order, extended warranty options, the delivery process, any question you may have. Unlike poor Alice, we promise not to leave you feeling dreadfully puzzled!

We offer a choice of methods of payment, giving you the opportunity to select the one best suited to your circumstances.

Should you be dissatisfied with your Gateway 2000 system for any reason, you can return it to us within thirty days under our no-quibble money back guarantee. We will refund you the amount you paid for the system less the shipping charge.

Our wish is for you to be entirely happy with both your system and the service you receive from us.

Whether you're buying for the home, the office, a school, college or government department we're here to satisfy your PC needs. We promise you that once you experience the Wonderland of Gateway 2000 value and service, you'll never want to leave and unlike Alice's adventure, the world of Gateway 2000 is not a dream, it's a reality!



*"You've got a friend in the business."*

0 8 0 0 1 7 2 0 0 0

PCW OCT 1995

took



# "Oh Do Be Quiet" Said Alice "Everyone Can Join The Party With Gateway's Multimedia"

Sounds almost good enough to eat, eh? But there's more. Altec Lansing speakers, and a separate sub woofer on the high-end machines, ensure sound quality to make any party go with a swing!

Invite your family to the party with the Family PC™, and we'll serve them with some tasty helpings of software, including Microsoft® Encarta '95.

Our top-of-the-range multimedia systems come complete with the very latest software, including Encarta 95 and the option of Windows 95 and Microsoft Office 95.

There's plenty of fare at the Gateway table for every taste, and there's always room for one more!



0 8 0 0 1 7 2 0 0 0

**WINDOWS 95  
AVAILABLE NOW  
ON ALL SYSTEMS**

# Prices You Won't Believe

## Professional Systems

### P5-75 BEST BUY

- Intel® 75MHz Pentium® Processor\*
- 8MB RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 540MB 11ms IDE Hard Drive with PCI Enhanced IDE interface
- PCI Local Bus Graphics with 1MB
- 14" CrystalScan® Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows® 95
- MS Works™ 3.0
- MS Money™ 3.0

**£979**

### P5-90

- Intel 90MHz Pentium Processor\*
- 8MB EDO RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 730MB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics with 1MB
- 15" Vivitron™ Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- MS Office™ 95

**P5-90 • £1299**

**P5-75 • £1199**

### P5-100

- Intel 100MHz Pentium Processor\*
- 8MB EDO RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 730MB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics, 2MB DRAM
- 15" Vivitron Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- MS Office 95

**£1399**

### P5-133

- Intel 133MHz Pentium Processor\*
- 8MB EDO RAM
- 256KB Pipeline Burst Cache
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 1GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics, 2MB DRAM
- 15" Vivitron Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- MS Office 95

**P5-133 • £1749**

**P5-120 • £1549**

## Multimedia Systems

### P5-75 FAMILY PC™

- Intel 75MHz Pentium Processor\*
- 8MB RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 540MB 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics with 1MB
- 16-Bit Sound Card with Speakers
- 14" Crystalscan Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- Family PC Software Bundle
- MS Encarta '95

**£1099**

### P5-75 MULTIMEDIA

- Intel 75MHz Pentium Processor\*
- 8MB EDO RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 1GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics, 2MB DRAM
- 16-Bit Sound Card with Speakers
- 15" Vivitron Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- MS Office 95
- MS Encarta '95

**£1399**

### P5-90 PREMIUM

- Intel 90MHz Pentium Processor\*
- 16MB EDO RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 1GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- PCI Local Bus Graphics, 2MB DRAM
- 16-Bit Sound Card with Speakers
- 17" Vivitron Colour Monitor
- Desktop Case
- 102-Key Keyboard & MS Mouse
- MS Windows 95
- MS Office 95
- MS Encarta '95

**£1799**

### P5-100 EXECUTIVE

- Intel 100MHz Pentium Processor\*
- 16MB EDO RAM
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 1GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- ATI Mach 64 Graphics, 2MB VRAM
- Ensoniq Wavetable Sound Card with Premium Speakers
- 17" Vivitron Colour Monitor
- Desktop Case
- 125-Key AnyKey® Keyboard & MS Mouse
- MS Windows 95
- MS Office 95
- MS Encarta '95

**£1999**

## Top-of-the-Range Systems

### P5-133 ELITE

- Intel 133MHz Pentium Processor\*
- 16MB EDO RAM
- 256KB Pipeline Burst Cache
- 3.5" Diskette Drive
- Triple Deck Quad-Speed CD-ROM
- 1.6GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- Matrox Millennium Graphics, 4MB VRAM
- Ensoniq Wavetable Sound Card with Premium Speakers
- 17" Vivitron Colour Monitor
- Tower Case
- 125-Key AnyKey Keyboard & MS Mouse
- MS Windows 95
- MS Office 95
- MS Encarta '95

**£2599**

### P5-120 ELITE

- Intel 120MHz Pentium Processor\*
- 16MB EDO RAM
- 256KB Pipeline Burst Cache
- 3.5" Diskette Drive
- Quad-Speed CD-ROM
- 1.6GB 10ms IDE Hard Drive with PCI Enhanced IDE Interface
- ATI Mach 64 Graphics, 2MB VRAM
- Ensoniq Wavetable Sound Card with Premium Speakers
- 17" Vivitron Colour Monitor
- Tower Case
- 125-Key AnyKey Keyboard & MS Mouse
- MS Windows 95
- MS Office 95
- MS Encarta '95

**£2299**

## Portables

### LIBERTY™ DX4-100

- 1.9kg (4.2 lbs)
- 25.4 x 20.3 x 4.1cms (10 x 8 x 1.6")
- Intel 100Mhz 486DX4 Processor
- 8MB RAM
- Infrared Capability
- 720MB Removable IDE Hard Drive
- 10.4" Dual-Scan STN Colour Display
- NiMH Battery & AC Pack
- Instant On
- 2 PCMCIA Type II Slots
- 78-Key Keyboard & Pointer
- Parallel, Serial, VGA & PS/2 Ports
- MS Windows 95
- MS Office 95

**£2399**

### LIBERTY DX4-100 GOLD

- 1.9kg (4.2 lbs)
- 25.4 x 20.3 x 4.1cms (10 x 8 x 1.6")
- Intel 100Mhz 486DX4 Processor
- 24MB RAM
- Infrared Capability
- 720MB Removable IDE Hard Drive
- 10.4" Dual-Scan STN Colour Display
- 2 NiMH Batteries & AC Pack
- Instant On
- 2 PCMCIA Type II Slots
- PCMCIA 14.4 Fax Modem
- 78-Key Keyboard & Pointer
- Parallel, Serial, VGA & PS/2 Ports
- MS Windows 95
- MS Office 95
- Carrying Case

**£3199**

PLEASE CALL FOR INFORMATION ON OTHER PROCESSORS AVAILABLE.

At Gateway 2000, if you can't find a system that suits your needs, call us – and we'll be happy to build one for you.

All Gateway 2000 systems come with award-winning service and support including:

• 30-day money-back guarantee • Three-year limited parts warranty • One-year warranty with factory service for portables • One-year on-site service on desktop systems • Lifetime Freephone technical support • Extended warranty options available •



\*Intel Verified:  
Upgradable



0 8 0 0 1 7 2 0 0 0

Gateway 2000 Europe • European Headquarters • Clonsbaugh Industrial Estate • Dublin 17 • Ireland

Telephone: 00-353-1-797-2000 • Fax: 00-353-1-848-2022 • FaxBack: 00-353-1-867-0400

Gateway Bulletin Board: 00-353-1-867-0433 • Hours of Business: 8am-9pm Weekdays, 9am-6pm Saturdays

©1995 Gateway 2000 Europe. AnyKey, CrystalScan, Liberty, Vivitron, black-and-white spot design, "G" logo, "You've got a friend in the business" slogan, Family PC and Gateway 2000 are trademarks or registered trademarks of Gateway 2000, Inc. The Intel Inside Logo, Intel, Pentium and OverDrive are trademarks or registered trademarks of Intel Corporation. All other brands and product names are trademarks or registered trademarks of their respective companies.

All prices and configurations are subject to change without notice or obligation. All prices are quoted in Sterling and exclude carriage and VAT.

Printed on Environmentally Friendly Paper

100j

# In Our Wonderland Of Value

## SOFTWARE

All Gateway 2000 systems are preloaded with Windows 95, Microsoft's newest operating system. Software masters, are provided on either diskette or CD. Documentation is also provided (either printed or on CD). Software is tested and optimally configured for your system, eliminating potential installation and set-up errors.

### ■ Microsoft® Works™ for Windows™

Many of our systems come with Works, the integrated application that combines all the tools you need to run a business: word processor, spreadsheet, database and electronic communications. It's simple to use, yet powerful.

### ■ Microsoft Office 95

Many of our systems now include  Microsoft's Office 95 on CD-ROM as standard. This is the very latest version of one of the leading application software suites. It includes new and enhanced versions of Microsoft's most popular applications: Word, Excel, PowerPoint and Access.

### ■ Family PC Software Bundle

Gateway 2000 Family PCs come with Microsoft Works, Money, Golf, Publisher and Musical Instruments. Now you also get Creative Writer, the perfect writing tool for children.

## PERIPHERALS

### ■ Basic Audio Multimedia Kit

Creative Labs 16-bit Sound Blaster sound card. 2 Altec Lansing ACS5 speakers. **£70**

### ■ Wavetable Audio Multimedia Kit

Ensoniq Soundscape 16-bit Wavetable sound card (compatible with MT-32, FM mode and General MIDI Sound Blaster, AD Lib, Roland MPU 401), MS Windows Sound System, Altec Lansing ACS31 speakers. **£170**



### ■ CH Flightstick

Engineered to look and feel like a real jet joystick. Includes two fire buttons and seven foot cable. Durable and ergonomic. **£29**

### ■ 28.8 Data/Fax Modem

Internal data/fax modem, 28,800bps modem, V.34bis, 28.8 fax capability. Software included. **£199**

### ■ Network Cards

New PCMCIA Network Cards available. Call us for details on our range of Ethernet or Token Ring adaptors.

### ■ Vivitron™ Monitor Upgrades

If your system comes with CrystalScan® 14" monitor you can upgrade as follows:

■ 15" Vivitron colour monitor for **£80**

■ 17" Vivitron colour monitor for **£340**

■ 20" Vivitron colour monitor for **£1160**

### ■ Hewlett Packard DeskJet 540

Here's a high-quality business printer which also offers great versatility and value. Prints 600 x 300 dpi black text at up to 3ppm or add a low cost optional Colour Kit and add colour to your documents. **£249**

### ■ Hewlett Packard 660C Printer

Fast, professional-quality black printing for crisp, sharp characters at 600 x 600 dpi. Also prints clear and vivid colour at up to 600 x 300 dpi. **£349**

### ■ Hewlett Packard LaserJet 4L

HP's best value-for-money laser printer, the 4L runs at 300 dpi, 4ppm. With 1MB memory. **£449**

### ■ Jumbo 1400 Tape Backup Unit

Internal tape backup unit stores 680MB native and up to 1.36GB compressed. Back up speed 9.4MB per minute. With the scheduler feature, you can back up at any time. **£139**

### ■ 2GB SCSI Bundle

Kit includes 2GB SCSI drive and Adaptec AHA-2940 PCI SCSI Controller. **£588**

### ■ SCSI DAT Tape Drive

Colorado Memory Systems drive stores up to 4GB typically on a single cassette tape, at up to 44MB per minute. **£649**

## PORTABLE OPTIONS

- 28.8 PCMCIA Data/fax modem.
- Memory upgrades.
- Liberty 720MB removable hard drive.
- 3.5" 1.44MB external floppy drive for Liberty.
- Padded, soft-sided case custom designed for the Liberty.
- Additional NiMH or Lithium Ion batteries.

Call us for pricing today!

## SERVICE

Every Gateway 2000 system comes with excellent after-sales support. Our technical support staff is renowned for being friendly and helpful. When you buy a Gateway 2000 system, you get:

- 30-day money back guarantee.
- 3-year limited parts warranty – first year on-site (desktops only).
- Freephone technical support.
- On-site service (desktops only).
- Extended warranty options available.

If our technical support staff determines that an on-site service call is needed, we will send a technician to most locations in the UK at no charge during the warranty period. Please call for more information on our guarantee, warranty and on-site service programmes.

### WARRANTY OPTIONS

	1 Year	2 Years	3 Years
Next Business Day On-Site Repair Service At GW Discretion	Free/Std	£75	£150
Same Day On-Site Repair Service At GW Discretion	£40	£105	£210



We also offer several payment options including advanced payment and major credit cards. We charge your credit card only when your system is despatched. Net 30-day credit terms are also available to qualified commercial customers.



**GATEWAY2000**

"You've got a friend in the business."

0 8 0 0 1 7 2 0 0 0

The software, peripherals and upgrades listed here are sold only with the purchase of a Gateway 2000 PC.

# The New Viglen XX SERVER

## reliability and power you can

You want power, reliability and a system that's future proof! You need a server that can be installed, maintained and upgraded with ease! Not only that, you want a server that has the ability to work with everything in your current environment.

In answer to your needs, Viglen brings you the new XX SERVER incorporating the most advanced technology available. Just look at some of these features;



### Reliability

With inbuilt ECC error checking memory, RAID and Hot swapping capability and internal environmental monitor, the Viglen XX provides one of the most reliable platforms for server applications as well as providing an easy to integrate and service range.

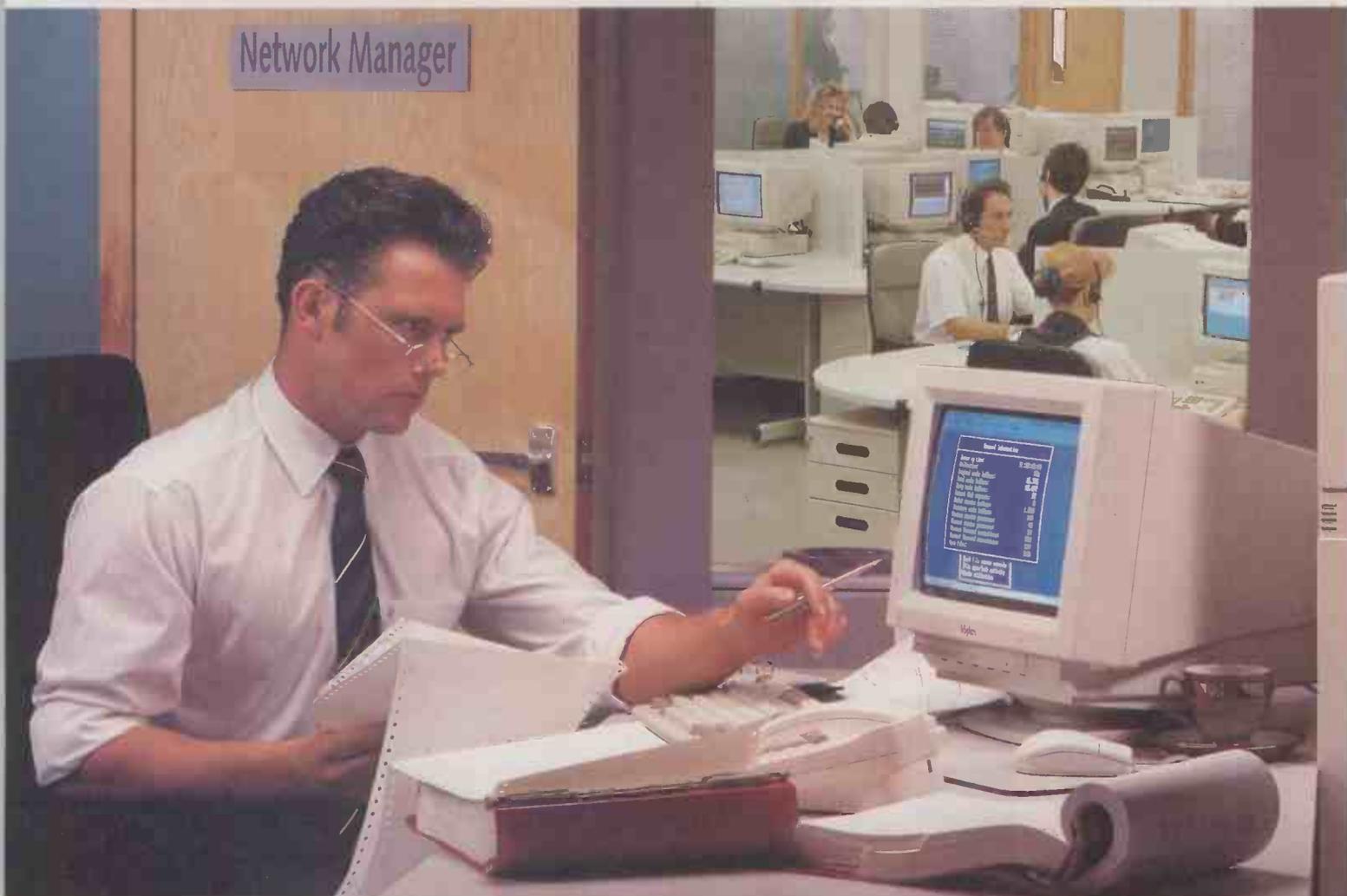
### Performance

The Viglen XX SERVER provides scalable performance from one Pentium® Processor to four and is capable of delivering over 1000 transactions per second. This performance is supplemented by high two speed PCI channels (133MB per second) as well as EISA and ISA bus structures.

### Upgradeability

The Viglen XX SERVER provides a future proofed platform with a modular and scalable architecture allowing processor upgradeability from a Single, Dual and Quadruple Pentium® processor, up to generations beyond the Pentium® Processor .

Network Manager



Genie, XX SERVER, EX and ENVY are trademarks of Viglen Limited. Microsoft, MS-DOS, Windows and Microsoft Ready To Run are trademarks of Microsoft Corporation. The intel Inside and Pentium Processor logos are trademarks of Intel corporation. SCO is a (registered) trademark of Santa Cruz Operation, Inc., Unix is a (registered) trademark, licenced exclusively through X/Open Company Ltd. IBM O/S 2 is a trademark of International Business Corporation. Novell, Netware and the Novell logos are trademarks of Novell Inc. SMC is a trademark of standard Microsystems Corporation. All other trademarks are acknowledged.

Tel **0181 758 7000**  
Fax **0181 758 7080**

**Viglen**

# depend on.

# Viglen<sup>®</sup> XX SERVER

## Security and ease of management

In addition to all the standard security features, the Viglen XX SERVER has bay door locks with intrusion detection. With the optional battery backed server management board, further security measures can be made available, including temperature and voltage monitoring, watchdog timer waiting for S/W poll, POST code capture, Console and TAP pager alert as well as remote access and monitoring. The XX SERVER range provides this "Plug and Forget" security management and peace of mind.

## Promoting new Industry standards

The Viglen XX SERVER provides a host of new Industry standards including dual channel PCI Bus at full speed of 133MB per second (as well as EISA slots), DMI/DMTF Network and Server Management Capability with remote Access and Alerting, and SCA (SCSI Connector Architecture for Standardised 'Hot Swap'), ECC memory and Multi-processing support.

## Approved by major Network O/S

Undergoing full approval for use with major operating systems such as Novell<sup>®</sup> Netware, Microsoft<sup>®</sup> Windows NT and SCO Unix. The openness of the Viglen XX SERVER range not only gives you complete integration, but also provides the very best in Networking technology and a wide platform of support, all with unprecedented value.



pentium<sup>®</sup>  
PROCESSOR



NOVELL  
Authorized OEM

Viglen  
Taking the work  
out of networking.

## THE VIGLEN XX SERVER SPECIFICATION

- Choice of Intel Pentium<sup>®</sup> processor, memory, hard disk and operating system
- Module upgradeable to 768MB of ECC RAM
- One 1.44MB Floppy Drive
- One Quad speed SCSI CD ROM Drive
- 8 I/O bus slots, 4 EISA, 2 PCI (Full Speed Dual channel) and 2 PCI/EISA shared
- 100Mbit PCI Ethernet card
- Two channel PCI, PCI Fast and Wide SCSI-2 support
- 2 serial, 1 parallel port
- SVGA Graphics
- 512K Paged Flash BIOS
- Server Management hooks for temperature and voltage sensing
- Viglen ENVY 14P 14" Colour Super VGA Monitor
- 102 key compact keyboard

### Case Specification

- 11 External Drive Bays
- 6 External 'Hot Swap' bays with SCA (SCSI connector Architecture)
- Fan failure detection

The following are some ready to run server configurations.

### VIGLEN XX NETWARE SERVER

HARD DISK	RAM	Pentium <sup>®</sup> processor 100MHz	Dual Pentium <sup>®</sup> processor 100MHz
1GB IDE	32MB	£6719	£8319
2GB SCSI 2	32MB	£7069	£8659
4GB RAID 5	32MB	£9369	£10969
8GB RAID 5	64MB	£11529	£13129

The XX Netware SERVER includes Novell<sup>®</sup> Netware 4.1 pre-installed with a 25 user licence. To increase the number of users please add £479 for a 50 user licence, £1219 for 100 user licence, £3249 for a 250 user licence, £7849 for 500 user licence and £16319 for 1000 user licence (for SFT III 4.1 please add £599 for 100 users or less and £1494 for more than 100 users).

### VIGLEN XX NT SERVER

HARD DISK	RAM	Pentium <sup>®</sup> processor 100MHz	Dual Pentium <sup>®</sup> processor 100MHz
1GB IDE	32MB	£5989	£7589
2GB SCSI 2	32MB	£6339	£7929
4GB RAID 5	32MB	£8639	£10239
8GB RAID 5	64MB	£10799	£12399

The Viglen XX NT SERVER includes Microsoft Windows<sup>™</sup> NT 3.5 Server. For client licences, please add £29 for single user client and £469 for 20 user clients licences.

### VIGLEN XX SCO UNIX SERVER

HARD DISK	RAM	Pentium <sup>®</sup> processor 100MHz	Dual Pentium <sup>®</sup> processor 100MHz
1GB IDE	32MB	£6489	£8089
2GB SCSI 2	32MB	£6839	£8429
4GB RAID 5	32MB	£9139	£10739
8GB RAID 5	64MB	£11299	£12899

The Viglen XX SCO Unix SERVER includes SCO Open Server Networks 16 users. Please add £449 for a 32 user licence, £889 for a 64 user licence, £1669 for a 128 user licence and £6429 for a 1024 user licence.

**FOR MORE INFORMATION AND YOUR FREE COPY OF THE VIGLEN DIRECT GUIDE PHONE OR RETURN THE COUPON**

Name \_\_\_\_\_ Title \_\_\_\_\_  
 Address \_\_\_\_\_  
 Postcode \_\_\_\_\_ Telephone \_\_\_\_\_

NET/PCW/10/95

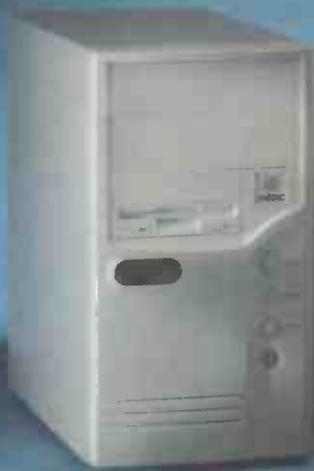
Please send me more information on the Viglen range of personal computers.

Business/Education use  Home Personal use



# Mitac 486 DXII/66 Price Breaker

# £599



**T**his new PC from Mitac offers the very latest features at a price our competitors charge for entry level machines. Whatever your PC requirements, the Mitac offers more than enough power, thanks to its 486 DXII CPU running at a blinding 66MHz. Its built-in co-processor makes light of any maths work and an internal 8K cache gives fast data handling within the CPU.



Because the fastest chip is only as good as it's surrounding hardware we've included a 32 bit VESA local bus display card with 1MB of dedicated video memory. Add to this an MPR 1 14" digital colour monitor with on screen display and a maximum resolution of 1024 x 768 in non-interlaced mode and you've probably never seen Windows as fast or as clear as this before.

**Pentium  
75MHz Mod  
£999**

- 486 DXII/66 MHz processor
- 4MB RAM expandable to 64MB
- 540 MB HDD
- 32 Bit VESA Local Bus card, 1MB RAM expandable to 2MB
- 3.5" 1.44MB floppy disk drive
- 14" SVGA Colour monitor with digital on screen adjustment, 28 dot pitch, MPR 1
- Expandable desk top case with 4 drive bays and extra 16 bit expansion slot
- MS DOS® 6.22, MS Windows™ 3.11 and a range of software
- 12 months Return To Base Warranty
- 4MB RAM upgrade £120
- Mini Tower version £599

## MULTI MEDIA KIT

- Twin Speed CD Rom Drive • Sound Fx™ Card Sound blaster compatible 16 bit • Audio Software • Speakers • 5 CD ROM Titles
- The New Grotler Multimedia Encyclopedia – 33,000 articles, 3,000 photos and illustrations, 100's of detailed maps, sound tracks and animations.
- Space Adventure – A space voyage of exploration, 100's of pictures, sounds and a full motion video.
- Undersea Adventure – Ocean graphic tours, a biology lab, global perspectives, films, animations, a virtual 3-D aquarium.
- Quad Speed Option +£80
- Wave Table Sound Card +£80

Speed – Zoom through the history and science of speed from the fastest animals to simulations of the speed of light, includes speed reading courses, speed games, the award winning interactive motion picture "Speed".  
Mega Race – Drive like a maniac. A futuristic TV show that gets higher ratings every time a car explodes, stunning graphics, awesome video footage.

# £150

## TRULY GREEN

The Mitac 486 DXII/66 is a PC with true green credentials, its power saving mode can significantly reduce its power consumption compared with an ordinary PC. Giving lower electricity bills and less pollution, in fact even the packaging is recycled and there are absolutely no CFC's used.



# 01902 871001

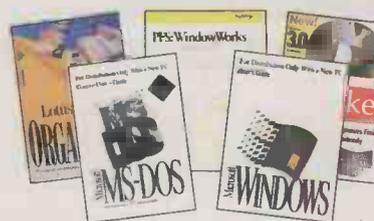


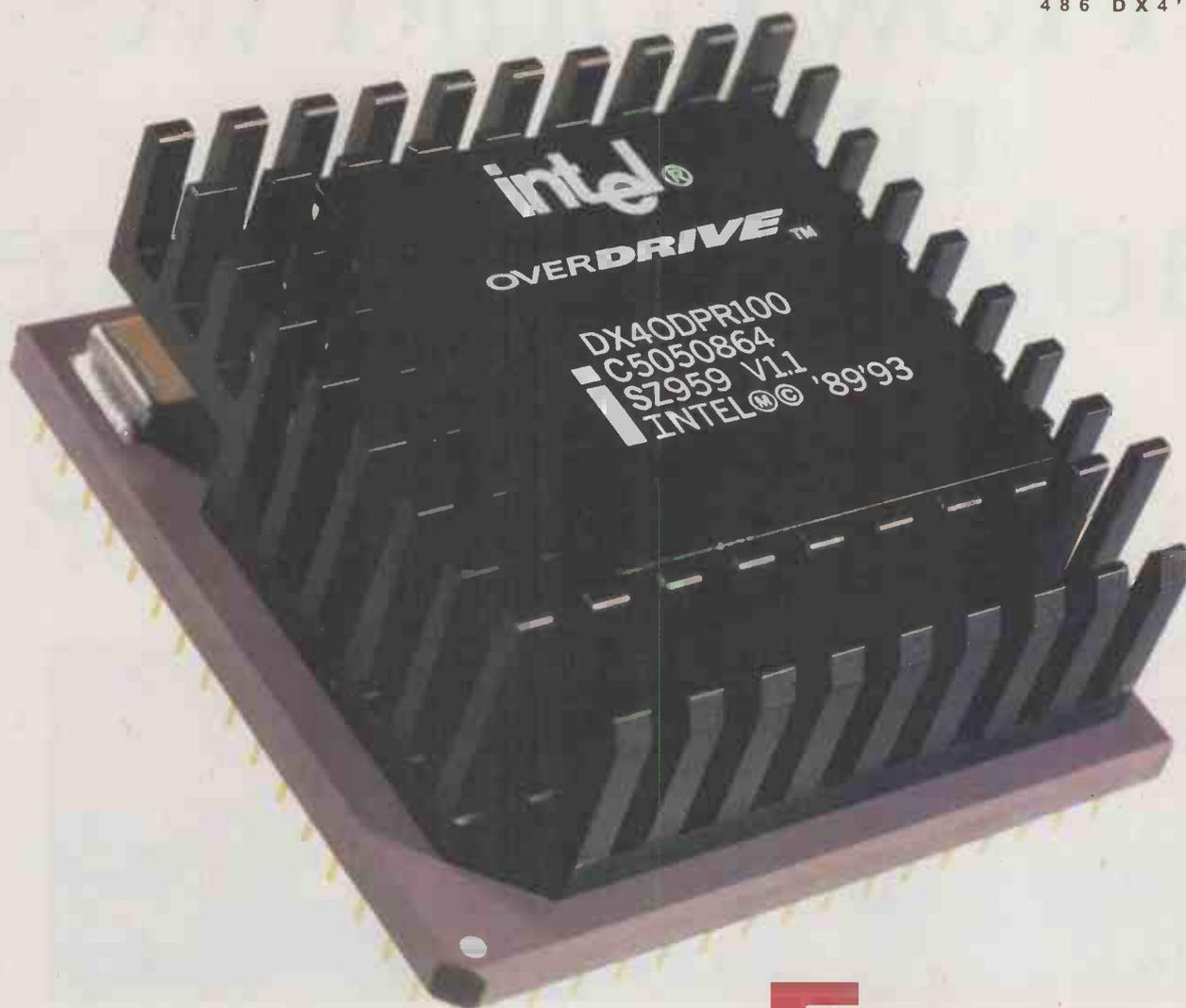
Distributed by: Actinet Computers Ltd  
Unit 6A, Marlborough Estate, off Thompson Ave., Wolverhampton WV2 3NP Fax: 01902 871002

Order Line Open, 9am-5.30pm Monday-Friday, 9am-1.00pm Saturdays  
All prices exclude VAT, Delivery and are subject to change without notice E&OE

## READY TO GO

Finally, just to get you started, we've pre-installed  
• PFS Windows Works • MS Windows™ 3.11  
• Intuit Quicken 3.0 • Lotus Organiser  
• MS DOS® 6.22  
The Mitac Popular is delivered ready to go!





FOUR SIGHT

# Four your Pleasure

PCW Photography by Bruce Mackie

**Intel intends to end production of the 486 to make way for the Pentium, so there are DX4-based bargains to be had now. But are they worth buying, or can you upgrade performance by adding the DX4 overdrive chip to your existing system? Nick Lawrence investigates.**

**N**o matter how much the desktop PC market changes and how fast computers become obsolete, it seems that there are always three price points dictating the performance a user will get. £2,500 will always buy somewhere near the latest and greatest — usually involving a chunky mark-up for the privilege of owning such a cutting-edge slab of silicon; £1,500 tends to be the right price for users who want something fast that won't get left too far behind over the next couple of years, but who don't want to break the bank.

At the £1,000 point things become interesting for the home market. Compared to most home electronics such as videos and TVs, £1,000 is a lot of money to spend, even more once VAT is

# How could we make our notebooks more like the top quality brands?



## Simply by increasing the prices.

**Apart from** the price, there's very little difference between Mitac notebooks and their big brand equivalents.

With features and options you'd normally associate with much more expensive notebooks, Mitac has unequalled price/performance.

Features such as modular upgradeability and blistering CPU performance, plus DX2-66 and DX4 options to suit every need and budget. Total connectivity, including the

latest PCMCIA technology. And build quality that is never less than world-class.

Mitac notebooks are fully supported by the massive resources of an international organisation and a new European manufacturing and service centre in Telford.

Small wonder, then, that several of the world's premier brands have chosen Mitac to manufacture their computers.

And no surprise that leading computer

industry titles regularly name Mitac products as 'Editors Choice'.

So when you want to purchase a top quality notebook, choose the one that doesn't charge you for its name - Mitac.

For more information, please call Mitac Europe Marketing on 01952 207351.

**MITAC** 

The Quiet Giant.

PCW/P/10/95

taken into account. But the latest speed demon is generally out of the price range of the average home user, and ironically, the kind of applications run in the home are often more demanding than standard office applications. The latest games and CD-ROM releases tend to need more power and memory than the average spreadsheet or word processor.

Intel is starting to ramp down production of the 486 family, partly to make way for Pentiums and the forthcoming P6, and partly to try to kill off the market for its competitors such as AMD and Cyrix. By the beginning of 1996 Pentium is likely to be the entry level, but in the meantime there's a great opportunity for users with an eye for a bargain to pick up DX2- and DX4-based PCs at rock-bottom prices.

### Which 486 should I buy?

In the current market we wouldn't recommend buying anything under a DX2/66, and even these, though still serviceable, are not a very future-proof deal for those buying new. DX4/75s are not as good a compromise as they seem because their board speed is 25MHz, which means that your peripherals will run a little more slowly than they would if you picked a 66 or 100, which are both based on a 33MHz board speed. DX4/100s are the class with the performance required for games and business usage; their price tag of around £1,200 at the time of writing may well have dropped to the magic £1,000 mark by the time you read this.

If you choose to skip the 486 market and jump directly to a Pentium, go straight for a P75 and miss out the P60 and 66 processors. Partly because of the overheating problems that afflicted many of the earlier P60s and 66s, but mainly because a well-specified DX4/100 will outperform both of these in many applications. You may also want to consider AMD's 120MHz 486, which we have not yet been able to try out for ourselves but which looks like a good performer at a reasonable price.

What many new users fail to realise is that it is not just the class of processor that makes a difference. The amount of memory and L2 cache you have are perhaps two of the most important factors in the speed of your system, along with the type of graphics acceleration, the speed of your hard disk, and a thousand other factors. A DX2/66-based system can outperform a DX4/100-based system if the components in the former are of much higher quality than those in the latter. For example, one vendor is rumoured not to



supply customers with L2 cache unless it is specifically requested and the customer pays more, which makes its systems look particularly cheap but they perform particularly poorly.

For this reason, we have asked for what some may consider a high specification for the class of processor involved: 8Mb RAM, 500Mb hard disk, 15in monitor, 4X CD-ROM drive, 16-bit sound card, and extras such as speakers and bundled software. We left the specification more flexible than usual, with the proviso that the machine should be suitable for games and light business usage in the home, rather than it should match the specification exactly.

For those with good overall systems but a lower-end 486 CPU, upgrading could well be a viable option. We have therefore also looked at two Overdrive processors, one from Intel and one from AMD, to examine their respective performance.

### Adams Accura Value 486MM

Adams Technology, winner of our recent

P90 group test, has elected for a tilt at the budget end of the market. At £1,199, this is the cheapest system here.

The case opens easily with a thumbscrew, to reveal an ABIT motherboard on the left which takes up a smaller space than many. It uses the SIS 85C496 chipset, but despite having two EIDE channels on board misses out the other I/O functions. These are supplied on a separate card in an ISA slot. This uses a Winbond chipset to control the floppy drive and serial and parallel ports. Adams has put the hard disk on one of the EIDE channels on the motherboard rather than using the controller on the card, which would have been much slower.

An advantage of having three IDE channels is that you could support up to six devices, of which three or four could be hard disks and the others, a CD-ROM and a tape drive. There is room for another internal 3.5in device and another front-facing 5.25in device, although it's unlikely that so many devices would be needed on a machine intended for games.

New OmniPage Pro 6.0. Think of it as an accurate 1500 wpm typist who never takes a coffee break.



Try this powerful OCR software just once, and you'll never go back to retyping documents again.

Nobody likes wasting time typing letters, faxes and reports back into a word processor. That's why OmniPage® Pro 6.0 Optical Character Recognition (OCR) software for Windows is so valuable to scanner users. It's faster and more accurate than even the fastest typist.

**Best accuracy ever!**

With its new OCR engine, OmniPage Pro 6.0 reads through each page, recognising text in any font, from 5-point fine print to 72-point headlines. It intelligently analyses the document for context and spelling, making smart

decisions on hard-to-read characters. It's the most accurate OmniPage software yet.

**Easy to Use. Easy to Customize**

Bring your text directly into your favourite word processor or simply edit from within OmniPage Pro 6.0. It's fully customisable, so you can tailor OmniPage Pro 6.0 to your individual needs. Or train it to recognise special characters and symbols. You'll save lots of time and thousands of keystrokes.

Even complex layouts are no problem, because OmniPage Pro 6.0 excels at handling both text and graphics on the same page. And it features Image Assistant®, an

integrated 24-bit colour image editor.

So try OmniPage Pro today and stop retyping.



*"OmniPage Pro is accurate, swift and has a great set of features."*  
PC Magazine, June 1995.

**OmniPage Pro. Never retype another document.**

Caere, the Caere logo, Image Assistant and OmniPage are registered trademarks of Caere Corporation. 3D OCR, Language Analyst, AnyFax and TruePage are trademarks of Caere Corporation. All other registered trademarks and trademarks are property of their respective companies. © 1995 Caere Corporation. All rights reserved.



**TRADE UP**  
to OmniPage Pro 6.0  
from your scanner's Caere  
OCR software! Only  
**£129\*** excl. VAT

from any version of OmniPage, WordScan, or OmniScan SE, including those bundled with your scanner.\*\*

Get these powerful new features:

- Increase accuracy up to 65% with innovative neural network and Language Analyst™ technologies
- Improve recognition of hard-to-read documents with 3D OCR™ and customisable OCR training
- The AutoOCR Toolbar™ easily guides you step-by-step through OCR
- Easily edit graphics with fully-integrated, 24-bit colour Image Assistant
- Retain original text and graphic layout with exclusive TruePage™
- Special price of £149\* for OmniPage Pro 6.0 upgrades from non-Caere OCR software.

\*Suggested price. \*\*Excluding hand held scanners.

**Maximise your scanner's power today.**

For more information on this offer call 0171 630 5586 or return this coupon to Caere UK Information Centre, Victoria House, 98 Victoria Street, London SW1E 5JL. Tel: 0171 630 5586 Fax: 0171 630 5587

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Postcode \_\_\_\_\_  
Phone \_\_\_\_\_  
Fax \_\_\_\_\_



June 1995  
OmniPage Professional 5.0  
Caere Corporation

The graphics card, a Number Nine FX Vision 300 with 2Mb of RAM, will provide all the graphics performance required, and the 15in ADI monitor provides a clear picture with MPR II power-saving features. Sound comes courtesy of the Creative Labs SoundBlaster 16 Pro, which is best suited to wave files rather than MIDI, and though the speakers are little 5 Watt Labteks they can put out enough sound to keep the kids happy while playing Descent.

The CD-ROM drive is an ever-popular Toshiba XM5302B, the quad-speed model included with all four systems here. Read/write storage is provided with the 500Mb IBM hard disk drive.

Adams can supply either Windows 95 with Novell PerfectWorks and a bundle

pack of five CD-ROMs, or Win OS/2 Warp 3.0 with the Bonus Pak and Lotus SmartSuite for OS/2. Whether the former's support for games is all that Microsoft would like it to be remains to be seen, but this system is well suited to the games player ready to move up from the Nintendo to a proper computer.

**Price** £1,199

**Contact** Adams Technology  
0161 877 8822

### **Armari Rocket II EDRAM DX4-100**

Armari is the only supplier we know of in the UK with an EDRAM machine. They are more widely available in the United States and some more technical users are kicking up a big fuss over their

performance. EDRAM refers to (yet another) new type of memory which offers 15ns performance in main memory. In fact, it has been around longer than pipeline burst synchronous cache and EDO RAM, but has yet to hit the big time in the same way.

EDRAM offers big performance increases over standard machines, but there are penalties: a specific chipset is required which restricts the choice of motherboards; that chipset, the Opti Blackhawk, supports only VESA and not PCI. VESA cards are on their way out, and although it's still possible to buy them, it puts a question mark over the system's long-term prospects. Also, there are few suppliers for the RAMTRON memory this system uses; and there is no Pentium chipset which supports EDRAM, and there will be none until the end of the year.

The system has two cards which use the VL-bus architecture: a Diamond Stealth 64 DRAM with 2Mb RAM, and the I/O controller. The latter is a CMD 604 with the ability to support up to Mode 5 EIDE on both channels, although Mode 4 is the highest speed of hard drive we have seen, with the ability to transfer 16Mb/sec in burst mode. A Quantum Fireball using Mode 4 is supplied as the 500Mb hard disk. A DTC 2278 will have been supplied instead of the CMD card by the time you read this.

The other component which is destined for replacement is the Toshiba XM5302B, and this is due to become a Pioneer unit from the beginning of September. The Pioneer has a 150ms access time, rather than the 190ms of the Toshiba.

A SoundBlaster AWE-32 is the best card for MIDI musicians because of its support for WaveTable sounds, and it has been included here. It is also great at playing sounds from games, which it can pump out through the Typhoon speakers at 10 Watts per speaker.

Expansion is catered for with the single free VESA slot and the four free ISA slots for expansion cards. RAM can be mixed between EDRAM and FPM DRAMs (standard memory), which both come in 72-pin SIMMs. As supplied, one of the four SIMM slots is filled with an 8Mb SIMM.

This system is one for the more adventurous and technical user on a budget. If that fits your description, this is well worth a look.

**Price** £1,399

**Contact** Armari 0181 810 7441



**Compaq Presario CDS942**

Compaq is the only supplier to put its system in a tower case; it is the same as can be found on the Prolinea we had for our P90 group test last month. Both sides open with the aid of three thumbscrews, and a very neatly laid out interior awaits the user.

On one side there are five ISA slots, two EIDE connectors, a floppy disk connector and a lot of empty space. On the other is the main system board, containing six unfilled SIMM slots (the 8Mb RAM is soldered directly onto the motherboard), an empty cache-on-a-stick socket, a Cirrus Logic GD-5434 graphics chipset and an AMD processor running at 90MHz rather than the usual 100MHz. There is also an ISA slot which has been slightly modified to take proprietary Compaq cards such as Ethernet.

The sound is integrated onto the board, using a SoundBlaster-compatible ESS chipset. It goes out through 4 Watt Labtec speakers.

The Compaq's setup is a little strange: when you turn it on, it

comes up with a software setup screen which asks you for your name and company and then proceeds to spend nearly two hours setting up your software for you. This could easily make it very frustrating when you get home with a new PC and promise the kids that they can play Doom as soon as you set it up, only to find you have to wait while the PC appears to go mad, flashing up images and rebooting every couple of minutes.

The software supplied is pretty decent however, consisting of Works for

Windows, Money, the Microsoft Entertainment Pack, Encarta, Dorling Kindersley's The Ultimate Human Body CD, Tabworks, and some proprietary software to take care of the Presario under Windows. There is also a

free upgrade to Windows 95.

Unfortunately, this PC's performance was very poor indeed. Its lack of speed can be largely attributed to its lack of L2 cache, although the poor disk performance is probably due more to the small size of the hard disk (420Mb) and the inverse of the rule that the speed of the hard disk increases with its size.

Compaq is a supplier of great repute so it is a shame that there are such flaws in the design of this home-based PC. Nevertheless, it will have a large and well-deserved market among those who value the security of the Compaq brand-name.

**Price** £1,361 plus upgrade from 14in monitor (around £100)

**Contact** Compaq  
0181 332 3000

**Dan Premium 486**

Dan Technology has risen in only a few years to become one of the foremost British PC suppliers, and one of the most recognised brand names around. In this desktop case there is an ASUSTeK PVI-486SP3 motherboard. The great oddity of this SIS-powered board is the combined PCI/ISA slot which features in the middle of the board; this is



# Kills 99%\* of all known viruses... Dead!

## \*Virus Bulletin (1995)

– One clear winner...the top product in terms of detection.

In the Wild	–	100%
Boot Sector	–	100%
Standard	–	100%
Polymorphic	–	99.5%

## \*PC Direct (1994)

– 100%...Unquestionably this is an excellent product.

## \*Virus Bulletin (1994)

– 100%...has deservedly become one of the benchmarks by which other anti-virus products are measured.

Version 7 of Dr. Solomon's award winning Anti-Virus Toolkit is the most comprehensive virus protection yet.

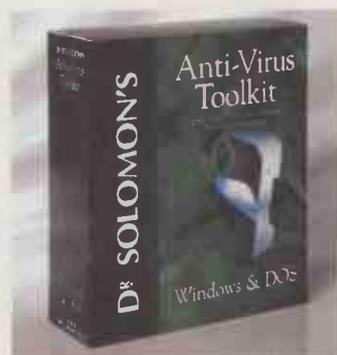
Scanning at speeds of up to 7 megabytes a second, the enhanced Generic Decryption Engine even mops up polymorphic viruses.

And it doesn't stop there.

Version 7 scours ZIP, ARJ, PKLite and LZExe compressed files. It already detects over 5,700<sup>†</sup> viruses and is uncovering new ones at the rate of 150/200 per month.

Available in Windows, OS/2, DOS and NetWare versions, it is the premium protection against the unseen enemy.

Combining the best virus detection system on the market with the expertise of the world's leading research laboratory, version 7 is sure to clean up.



<sup>†</sup> (As of February 1995)

**NEW  
IMPROVED  
VERSION 7**

**DR SOLOMON'S**

**ANTI-VIRUS**

**Toolkit**

**KILLS VIRUSES**

**DR SOLOMON'S**

Please send me more details of:  
Dr. Solomon's Anti-Virus Toolkit version 7

Name

Company

Job Title  No. of PC's

Address

Postcode  Tel No.



S&S International Plc, Alton House Business Park, Gatehouse Way, Aylesbury, Buckinghamshire HP19 3XU.  
Tel: 01296 318700 Fax: 01296 318711  
email: support@sands.co.uk

PCW 10/95

a proprietary slot that can be filled with forthcoming cards from ASUSTeK. We have heard about but not yet seen the first of these, a combined sound and graphics card with an S3 Vision868 (the same chip used in the Diamond Stealth 64 VRAM) powering the graphics, the Creative Labs Vibra 16S audio chipset, a Yamaha OPL3 synthesiser, a WaveTable upgrade, Plug and Play compatibility and 2Mb EDO RAM.

The cards currently surrounding the AMD DX4/100 processor are a Diamond Stealth 64 DRAM graphics card using the S3 Trio64 chipset, and a SoundBlaster AWE-32 sound card, at the top of Creative Labs' soundcard range due to its support for downloadable MIDI sounds to use with its WaveTable capabilities. Two PCI slots and two ISA slots, as well as the proprietary slot which can be used as a PCI, are available for expansion.

The Toshiba XM-5302B 4X CD-ROM drive has its own IDE channel, and the 80 Watt speakers should be more than loud enough for any game or audio CD. A CTX 15in monitor, the usual offering

from Dan, is clear with good resolutions.

If you use a lot of bundled software, Dan computers have a good offering. On top of the usual DOS/Windows combination (which will have changed to Windows 95 by the time you read this) a Lotus bundle and a Microsoft bundle combine to give you SmartSuite and Office together. It is unlikely that you will need both, but it is good to know that you have the option. Various other software, including games, is thrown in.

With a score of 3.58, this machine comes in between its direct competitors Adams and Armari. Its price tag of £1,448 makes it expensive compared with the other systems, but the components are high quality and the bundled software will make a big difference for many people.

**Price** £1448

**Contact** Dan Technology 0181 830 1100

### Conclusion

The four systems supplied here appeal to different sectors of the market. The Adams Accura is best for the real budget end of the market, with its low price tag

and good support contract. The Armari Rocket II is much more suitable for those who understand chipsets and motherboards and are willing to take the plunge with something unusual. The Compaq Presario is for those who like to play it safe, while the Dan Premium is a good all-round system.

For those contemplating the upgrade to DX4/100 from the 33 (or indeed from 25 to 75) the performance gains are dubious. The price tags are pretty hefty for the performance increase, casting the benefits of the Pentium Overdrive (and the P6 Overdrive for Pentium systems) into even more doubt as the law of diminishing returns kicks in. Unless you have a particularly well specified system, you will have to weigh up the performance increase against the possibility of putting that money towards a more up-to-date system or even just more RAM, which for users with under 8Mb may prove to give better performance gains.

Together, the systems and processor upgrades here conspired to prove one point to us: the 486 may be wheezy, but there's life in the old dog yet.

## Intel and Kingston Overdrive Chips

**W**hat about those people with perfectly serviceable but ageing 486SX and DX systems; is it worth the upgrade to 100MHz? We took an Intel DX4 Overdrive and a Kingston Turbochip and slotted them into a standard DX33 system.

The system we used for benchmarking was an IBM 433DX/sp, released from its usual duties as one of our printer-testing machines, to make the existing setup as realistic as possible. It features an on-board S3 464 chip with 1Mb RAM for the graphics, 8Mb RAM (knocked down from the usual 16Mb to make it more realistic), and a 500Mb hard disk on EIDE partitioned into three with the primary boot sector taking 120Mb. The processor was in a ZIF 3 socket, which made releasing it as easy as pulling a lever. The hard disk mounting casing had to be removed from the computer's chassis before we could get to the processor, but this is not an arduous task; only requiring the removal of three screws.

If you have a 25MHz-based system rather than a 33, you will not be able to get 100MHz performance but will have to stick at 75MHz by buying a different chip. The DX4, despite its name, is in fact a clock-tripler rather than a quadrupler. Luckily, our system was a DX33 so we were able to get the maximum potential out of the 486-class family: only an AMD 120MHz upgrade chip

could have pushed it further, and we have so far been unable to get hold of one.

The Intel chip comes in a simple flat pack, with a heatsink adhering to the top and a couple of sundry chips between the chip and a raised part of the heatsink. It fits easily into the socket and requires no jumpers to be changed on the motherboard. The Intel Overdrive Upgrade Guide provides a large quantity of reassuring-looking charts measuring iCOMP performance, but anyone with experience of different benchmarks knows that these are based more on Intel's marketing strategy than on real-life performance.

The only difference in the installation procedure with the Kingston model is the height of the chip, which may cause problems if you have an expansion card which reaches over the processor slot. For those people with ZIF levers which reach right over the processor, which wouldn't otherwise fit due to its height, there is a way around the problem with a pin extender, which allows the lever to close, into which the processor can fit.

At least part of the height is due to a fan on top of the processor, which some would argue is not strictly necessary. Nevertheless, it is good to err on the side of caution, especially if you intend to overclock.

The results of the performance tests are interesting. The Intel's 16Kb cache, as opposed to the 8Kb on the AMD chip inside

the Kingston packaging, makes for a performance of 1.89 against the Kingston's 1.52 (the benchmark IBM machine scored 1.34, and these results are all measured against a score of 1 for an Apricot XEN-PC with 8Mb RAM).

The only reason Intel's competitors have set up is to supply the same type of chips at a cheaper price, so it comes as a surprise to see the price of the Kingston at more than that of the Intel (a street price of £199 against £180 respectively). Considering the relative performance and reputations of the companies, the Intel chip does look like a much better deal.

The real question, though, is whether it is worth upgrading at all. Although the increase in performance of the Intel Overdrive over our standard DX33 looks small, it works out at a 50 percent increase in system speed while running everyday business applications. Whether this is enough of an increase to justify the price is debatable, and certainly it would be a good plan to try hacking and slashing the amount of TrueType fonts in Windows, defragging your hard disk, and other more mundane measures before forking out.

**Price** Kingston: street price £199.

**Intel:** street price £180

**Contact** Kingston: Datrontech

01252 303500. Intel 01793 696000

# PCSCIENCE

## PCSCIENCE PACK 1

### WINDOWS WORKSTATION

- 4 Mb Ram exp to 128 Mb
- 3.5 Diskette Drive 1.44 Mb
- 560 Mb 11ms fast IDE HDD
- 1Mb VLB graphics card
- 14" NI SVGA Colour Monitor
- PC-Science Internet Fax/Modem
- Minitower case (other options)
- 3xVLB, 4xISA slots
- 102 Key 'Bullet' tactile K/B
- MS-DOS 6.22, Windows FWG 3.11 preloaded
- CLARIS WORKS (worth £155)
- Mouse \*5 year warranty
- Fast delivery

from  
**£669**  
(exc. VAT)

- 486 DX2-66 ..... **£669**
- 486 DX2-80 ..... **£699**
- 486 DX4-100 ..... **£749**

## PCSCIENCE PACK 2

### PENTIUM CD-WORKSTATION

- Intel Pentium P60, 75, 90 or 100 Mhz
- 8Mb Ram exp. to 128 Mb on board
- 3.5" Diskette Drive 1.44 Mb capacity
- 560 Mb 11ms fast IDE Hard Disk Drive
- CD-Rom Double Speed Panasonic
- Fast PCI Bus 1Mb Graphics card
- 14" NI SVGA Colour Monitor
- CLARIS WORKS, CD (worth £155)
- Minitower case (other options)
- 4xISA, 3xPCI slots
- 102 Key 'Bullet' tactile K/B
- MS-DOS 6.22 preloaded
- MS-Windows FWG 3.11 preloaded
- Mouse \*5 year warranty
- Fast delivery

- PENTIUM 60 ..... **£ 899**
- PENTIUM 75 ..... **£ 999**
- PENTIUM 90 ..... **£1099**

## PCSCIENCE PACK 4

### MULTIMEDIA - PRO

- Pentium P75, 90, 100, 120
- 16Mb fast EDO Ram
- 3.5" Diskette Drive 1.44 Mb
- 1.2 Gigabyte Mode 4 E-IDE hard disk drive
- Read/Writeable Panasonic CD-Rom drive, quad speed
- Diamond Stealth 2Mb PCI graphics card (1280 x 1024)
- 15" Iiyama NI SVGA Digital Colour Monitor
- Sound expert wave 32 wave front sound card
- Cubase lite and Midisoft
- 240 watts base booster Hi Fi speakers
- Minitower case (other options)
- 102 Key 'Bullet' tactile K/B
- MS-DOS 6.22/Windows for workgroups 3.11
- PC-Science Internet Fax/Modem
- Microphone and Joystick
- FREE Megpak 2, 11 CD ROM's, Jurassic Park, VirtualReality, Internet etc.
- MS Encarta 95, Works, Golf, Scenes, Dangerous Creatures etc.
- Mouse \*5 year warranty
- Fast delivery

- PENTIUM 75 ... **£2099**
- PENTIUM 90 ... **£2199**
- PENTIUM 100 .. **£2299**
- PENTIUM 120 .. **£2599**

*'your Multimedia partner'*



## PCSCIENCE MULTIMEDIA WORKSTATION PACK 3

- Choice of 486 or Intel Pentium processor
- 8Mb Ram exp. to 128 Mb on board
- 3.5" Diskette Drive 1.44 Mb capacity
- CD-ROM, Quad speed Panasonic
- Soundblaster Pro (Comp.) Sound card
- 100 Watts Hi-Fi Bass booster speakers
- 1.2 Gigabyte Mode 4E-IDE Hard Disk Drive
- PCI fast 1Mb Video Graphics card
- VLB 1Mb Graphics card in 486's,
- 14" NI SVGA Colour Monitor
- Minitower case (other options)
- 102 Key 'Bullet' tactile K/B
- MS-DOS 6.22/Windows 3.11
- PC-Science Internet Fax/Modem
- Microphone and Joystick
- CLARIS WORKS (worth £155)
- FREE 11 CD ROM's, Jurassic Park etc.
- MS Encarta 95 etc....(worth £289)
- Mouse \*5 year warranty
- Fast delivery

- 486 DX2-66 ..... **£ 949**
- 486 DX2-80 ..... **£ 979**
- 486 DX4-100 ..... **£1029**
- PENTIUM 60 ..... **£1099**
- PENTIUM 75 ..... **£1199**
- PENTIUM 90 ..... **£1299**



**0% FINANCE Available!**  
on selected models subject to status

E & OE. Prices and specifications subject to change without prior notification - all prices exclude VAT at 17.5%

**INFORMATION HOTLINE**  
**CALL 01423-323386 NOW**



**Northern Sales 0131-220 4410 London Sales 0171-433 1589**

HOW TO ORDER: By phone using Access, Visa, Switch, cheque and by fax to 01423 323370 or by mail to: Personal Computer Science Ltd, Head Office, Trafalgar House, Bar Lane, Roecliffe, York YO5 9LS  
Open 6 days.....Monday to Friday 8.30am to 6pm, Saturday 10am to 4pm

# FREEDOM!

The Freedom To Work Whenever You Like, Wherever You Like. Free Your Mind... And Your Time!

When it comes to choosing your supplier make sure you choose the best, we will not ask you for a catalogue number, we will ask you what you need; we are not a clearance house for old, obsolete or unknown products, we are the UK's leading supplier of branded mobile computing systems and peripherals.

You already have the freedom to choose who you buy from, exercise that freedom - call LapLand now for the best ADVISE, PRICING, SYSTEMS and PERIPHERALS this industry has to offer.

**PRICING** Our pricing is always competitive, however prices can change after an advertisement is created, please call for latest updates.

**STOCK** We carry large stocks of all advertised brands.

**DELIVERY** Same day shipment on orders received up to 5.30pm on all stock items.

**AUTHORISATION** LapLand is fully authorised for all brands advertised. All products are sourced directly from the manufacturer in the UK and carry the full manufacturers warranty, beware of grey imports.

**PAYMENT** All major credit cards accepted, we NEVER charge a Credit Card before goods are despatched, corporate credit accounts are available on request and subject to approval.

ALL PRICES ARE SHOWN EXCLUSIVE OF VAT  
E&OE PRICES CORRECT AT TIME OF GOING TO PRESS



digital



## DIGITAL HI-NOTE ULTRA The Thinnest, Lightest and Most Stylish Notebook Available?

- Intel 486 SX33, DX2/50 and DX4/75 MHz Processors
- 9.5" Dual Scan and TFT Colour Displays with 32 Bit Local Bus Accelerated Graphics and 512K/1MB Video RAM
- 8MB RAM Upgradeable to 24MB (DS = 4MB to 20MB)
- 240MB/340MB/510MB Hard Disk Drives
- Two PC-Card II Slots (Or One III)
- 16mm Internal Trackball Pointing Device
- Ports - SVGA/Serial/Parallel/PS/2 Port
- Complete with - Lithium Ion Battery (Up to 6 Hours)/ AC Adapter & Battery Charger/Microsoft Dos 6.22 and Windows 3.11 Plus Lotus Organizer/3 Year Warranty

Hi-Note Ultra CS433 9.5" Dual Scan 240MB	£1,499
Hi-Note Ultra CS450 9.5" Dual Scan 340MB	£1,699
Hi-Note Ultra CT450 9.5" TFT 340MB	£2,499
Hi-Note Ultra CT475 9.5" Dual Scan 510MB	£2,399
Hi-Note Ultra CT475 9.5" TFT 510MB	£3,299

## Twinhead SLIMNOTE 3/5 Excellent Value Modular Technology!

- Intel Processor DX2/50 and DX4/100 MHz
- 10.4" Dual Scan and 9.4" TFT Colour
- Removeable 260/340/520/810MB Hard Disk Drives
- Two PC-Card II Slots (Or One III)
- 'TwinTouch' Pointing Device
- Ports - SVGA/Serial/Parallel/PS/2 Keyboard
- Complete with - NiMH Battery/AC Adapter & Battery Charger/Microsoft Dos and Windows

SlimNote 3 DX2/50 Mono 260/340MB	£ 899	£ 999
SlimNote 5 DX2/50 Mono 340/500MB	£1,149	£1,279
SlimNote 3 DX2/50 DS 260/340MB	£1,349	£1,399
SlimNote 5 DX2/50 DS 340/500MB	£1,549	£1,699
SlimNote 5 DX4/100 DS 500/810Mi.b	£2,099	£2,299
SlimNote 5 DX4/100 TFT 500/810Mi.b	£2,749	£2,849

NEW SlimNote 8 - All of the features of the SlimNote 5 P PENTIUM 75 PROCESSOR/SVGA 10.4" TFT & DUAL SCAN SCREENS/OPTIONAL INTERNAL CD-ROM DRIVE/LI-ION BATTERY - CALL FOR PRICING



## TOSHIBA



### Portege and Satellite - YOU SAW IT HERE FIRST!

	Mono	DS Col	TFT Col
T2100 DX2/50 9.5" 4MB/260Mi.b	<b>£869</b>		
T2100CS DX2/50 10.4" 4MB/350Mi.b			£1,369
T2110CS DX4/75 10.4" 4MB/350Mi.b			£1,549
T2130CS DX4/75 10.4" 8MB/520Mi.b			£1,799
T2130CT DX4/75 10.4" 8MB/520Mi.b			£1,969
T2150CDS DX4/75 10.4" 4MB/260Mi.b		£1,899	
T2150CDS DX4/75 10.4" 4MB/520Mi.b		£2,050	
T2150CDT DX4/75 10.4" 8MB/520Mi.b			£2,699
T3600CT DX2/50 8.4" 8MB/250MB			£2,130
T4850CT DX4/75 10.4" 8MB/810Mi.b			£3,299
T4900CT P75 10.4" 8MB/810Mi.b			£3,399

### NEW NEW

TOSHIBA Satellite Pro 400CS/CT CS P75 10.4" Dual Scan 8/810Mi.b Optional Quad Speed CD	£2,439
TOSHIBA Satellite Pro 400CS/CT CT P75 10.4" TFT 8/810 Mi.b Inc. Quad Speed CD!!!	£3,149
TOSHIBA Portege 610CT CT P90 9.5" TFT 8MB/720 Mi.b LESS THAN 5lbs!!!	£2,999

ALL OTHER MODELS AVAILABLE.



## IBM THINKPAD SERIES - A System For Every Budget CALL FOR DETAILED SPECIFICATIONS No-One Knows IBM Like LapLand!

	DS Col	TFT Col
T/P 340 slc50 9.4" 4MB/200MB	£1,095	
T/P 340 slc66 10.4" 4MB/360MB	£1,369	
T/P 370 DX4/75 10.4" 4MB/340MB		£2,345
T/P 370 DX4/75 10.4" 4MB/540MB		£2,575
T/P 701 DX2/50 10.4" 4MB/360MB	£1,939	£2,240
T/P 701 DX2/50 10.4" 4MB/540MB	£2,060	£2,385
T/P 701 DX4/75 10.4" 8MB/360MB	£2,565	£2,930
T/P 701 DX4/75 10.4" 8MB/540MB	£2,710	£3,070
T/P 701 DX4/75 10.4" 8MB/720MB	£2,855	£3,220
T/P 755 DX2/50 10.4" 4MB/340MB		£2,775
T/P 755 DX4/75 10.4" 4MB/540MB		£3,684
T/P 755 DX4/75 10.4" 4MB/810Mi.b		£4,135
T/P 755CE DX4/100 10.4" 8MB/340MB		£3,595
T/P 755CE DX4/100 10.4" 8MB/540MB		£3,795
T/P 755CE DX4/100 10.4" 8MB/810Mi.b		£4,080
T/P 755CX P75 10.4" 8MB/540MB		£3,035
T/P 755CX P75 10.4" 8MB/810Mi.b		£3,320
T/P 755CX P75 10.4" 8MB/1.2 GB		£3,750
T/P 755CX P75 SVGA 10.4" 8MB/540MB		£3,975
T/P 755CX P75 SVGA 10.4" 8MB/810Mi.b		£4,260
T/P 755CX P75 SVGA 10.4" 8MB/1.2 GB		£4,690
T/P 755CD DX4/100 10.4" 8MB/540MB		£4,260
T/P 755CD DX4/100 10.4" 8MB/810Mi.b		£4,550



## NEC VERSA 'V', 'M' AND 'P' SERIES Versatile Power and The First Ever SVGA TFT Notebook Computer

- Intel DX2/4, Pentium Processors - DX2/50, DX4 75/100, Pentium 75
- The Widest Choice of the Best Colour Displays Ever
- 4/8MB RAM Standard Upgradeable to 40MB
- 'M' & 'P' Feature Built-In 16 Bit Stereo Sound
- Removable and Upgradeable 340MB/540MB/810MB HDD
- Ports - SVGA/Serial/Parallel/PS/2 Port/Docking Station
- Complete with - NiMH Battery (Up to 4 Hours)/Second Battery Option (Remove FDD) for Twice the Battery Life/AC Adapter & Battery Charger/Microsoft Dos and Windows

Versa 'V' 50 D Dual Scan Colour 250MB	£1,499
Versa 'V' 50 C TFT Colour 340MB	£1,899
Versa 'M' 75 D Dual Scan Colour 340MB	£2,099
Versa 'M' 100 C TFT Colour 540MB	£3,099
Versa 'M' 100 S TFT Colour 540MB	£3,299
Versa 'M' 100 T TFT Colour 540MB	£3,379
Versa 'P' 75 C TFT Colour 810MB	£3,419
Versa 'P' 75 S TFT Colour 810MB	£3,799





**NEW NEW NEW NEW NEW NEW**  
**TEXAS INSTRUMENTS TM5000**

**TI First Again with Super Fast Pentium Based PCI Notebooks**

Intel PENTIUM Processors - 75MHz + PCI Local Bus  
0.5" Dual Scan Colour OR 10.4" TFT Colour with  
1MB Video RAM and Built-In Graphics Accelerator  
1MB RAM Standard, Upgradeable to 32MB (See Chart)  
500MB/772MB Hard Disk Drives  
Built-In - Full 16 Bit Sound and Internal Stereo Speakers  
Two PC-Card II Slots (Or One III)  
The Point\* Internal Pointing Device  
Ports - SVGA/Audio In/Audio Out/Microphone/Serial/  
Parallel/PS/2 Mouse & PS/2 Keyboard  
Complete with 2 x Li-Ion Batteries/AC Adapter & Battery  
Charger/Microsoft Dos and Windows for Workgroups Plus  
Utilities

TM5000 P75 10.5" Dual Scan Colour 500MB **£2,999**  
TM5000 P75 10.4" TFT Colour 772MB **£3,399**

**TEXAS INSTRUMENTS 'M' SERIES**

**Award Winning Multimedia Ready Presentation System**

- Optional 12cm CD-ROM Chassis
- Intel 486 Processors - 50, 75, and 100 MHz
- 9.5"/10.4" Dual Scan Colour OR 8.4"/10.4" TFT Colour with 1MB Video RAM and Built-In Graphics Accelerator
- 4MB RAM Standard, Upgradeable to 20MB (See Chart)
- 340MB/455MB/520MB Hard Disk Drives
- Built-In - Full 16 Bit Sound/Internal Stereo Speakers/Fast SCSI II
- Two PC-Card Type II Slots (Or One III)
- The Point\* Internal Pointing Device
- Ports - SVGA/16 Bit Midi/Audio In/Audio Out/Fast SCSI II/Microphone/Serial/Parallel/PS/2 Mouse/PS/2 Keyboard
- Complete With - NiMH Battery (3 to 5 Hours)/AC Adapter & Battery Charger/Microsoft Dos and Windows 3.11 Plus Utilities

TI 'M' 50 Dual Scan Colour 9.5" 340MB **£1,349**  
TI 'M' 50 TFT Colour 8.4" 455MB **£1,499**  
TI 'M' 75 Dual Scan Colour 10.4" 455MB **£1,599**  
TI 'M' 75 TFT Colour 10.4" 525MB **£2,099**  
TI 'M' 100 TFT Colour 10.4" 525MB **£2,499**

See Panel for Options and Upgrades

**AST ASCENTIA 810**

**Possibly the Best and Brightest Dual Scan Colour Notebook Computer Yet!**

- Powerful 486 DX/2 66MHz Processor
- An Enormous 10.4" Dual Scan Colour Display with 16 Bit Local Bus Accelerated Graphics and 1MB Video RAM
- 250MB/510MB Hard Disk Drives
- 4MB RAM Standard Upgradeable to 20MB
- Two PC-Card II Slots (Or One III)
- Big 19mm Internal Trackball
- Ports - SVGA/Serial/Parallel/PS/2 Mouse & KB
- NiMH Battery (Up to 3 Hours)/Second Battery Option (Remove FDD) for Twice the Battery Life
- Complete with - AC Adapter & Battery Charger/Microsoft Dos and Windows Plus Lotus Organizer and LapLink Remote Access Software

810N DX/2 66 Dual Scan Colour 250MB **£1,435**  
810N DX/2 66 Dual Scan Colour 510MB **£1,570**

**AST ASCENTIA 910N**

**AST's Reputation for Feature Rich Value Continues with the Market Dominant Ascentia 910N!**

- Intel 486 DX/4 75 MHz Processor
- Enormous 10.4" Dual Scan and TFT Colour Displays with 32 Bit Local Bus Accelerated Graphics and 1MB Video RAM, TFT Features 65,000 Colour Display!
- 8MB RAM Standard Upgradeable to 32MB
- Removable 510MB/700MB Hard Disk Drives
- Two PC-Card II Slots (Or One III)
- 'Smart Stick' - Internal Pointing Device
- Ports - SVGA/Serial/Parallel/PS/2 Port/Docking Station
- Complete with - Lithium Ion Battery (Up to 10! Hours)/AC Adapter & Battery Charger/Microsoft Dos 6.22 and Windows 3.1 Plus Lotus Organizer/3 Year Warranty, Free First Year Exec-Care Rapid Replacement Warranty

910N 75 10.4" Dual Scan Colour 510MB **£1,885**  
910N 75 10.4" TFT Colour 510MB **£2,380**  
910N 75 10.4" TFT Colour 700MB **£2,515**

**AST ASCENTIA 950N**

**PENTIUM Processors and SVGA DS/TFT Technology**

- Intel PENTIUM 75 MHz Processor
- SVGA 800 x 600 10.4" Dual Scan and TFT Colour Displays with 32 Bit Local Bus Accelerated Graphics and 1MB Video RAM!
- 8MB RAM Standard Upgradeable to 40MB
- Removable 500MB/800MB & 1.2GB Hard Disk Drives
- Embedded 16bit SoundBlaster Vibra 16 Chip
- Two PC Card Type II Slots (Or One III)
- Enhanced 'Smart Stick' - Internal Pointing Device
- Ports - SVGA/Serial/Parallel/PS/2 Port/Dock
- Complete with - Lith Ion Battery/AC Adapter & Battery Charger/Microsoft Dos 6.22 and Windows 3.11/3 Year Warranty, Free First Year Exec-Care Rapid Replacement Warranty

950N P75 10.4" Dual Scan Col. 500MB/800MB **£2,515/£2,695**  
950N P75 10.4" TFT Colour 800MB/1.2GB **£3,325/£3,550**



See Panel for Options and Upgrades

**PANASONIC CF-41**

**Internal 12cm CD-ROM, Big Screen, Fast Processors and Optional MPEG Video - The Power to Present**

Intel Processors - DX/4-75-100 MHz/PENTIUM 75 & 90MHz  
10.4" TFT Colour with 1MB Video RAM and 65,536 Colours  
1MB/16MB RAM Standard Upgradeable to 32MB/40MB  
450MB/680MB/1.0GB Hard Disk Drives  
Optional MPEG Full Motion Video - This Feature is Unique  
Built-In - Full 16 Bit Sound and Two Speakers  
Two PC-Card II Slots (Or One III)  
Big 19mm Internal Trackball  
Ports - SVGA/Audio In/Audio Out/Microphone/Serial/  
Parallel/PS/2 Mouse & Keyboard/Docking Station  
Complete with NiMH Battery (Up to 3 Hours)/AC Adapter &  
Battery Charger/Microsoft Dos and Windows 3.1 Plus Utilities  
F-41 DX/4 75 TFT Colour 8/450MB **£2,699**  
F-41 DX/4 100 TFT Colour 8/680MB **£3,149**  
F-41 PENTIUM 75 TFT Colour 16/680MB **£3,699**  
F-41 PENTIUM 90 TFT Colour 16/1.0GB **£4,199**

	4MB Upgrade	8MB Upgrade	16MB Upgrade	Spare Battery	AC Adapter	Car Adapter	Port Replicator	Docking Station
<b>AST</b>								
ASCENTIA 800/810	£170	£440	£799	£85	£55	£55	-	-
ASCENTIA 900/910	£175	£350	£699	£145	£40	£75	£65	£295
<b>IBM</b>								
THINKPAD 340	£185	£368	-	£45	£40	-	-	-
THINKPAD 360	£185	£368	£699	£95	£53	£48	£198 (I)	£536 (I)
THINKPAD 755 - DRAM	£203	£405	£899	£135	£53	£48	£72 (II)	£500 (II)
<b>DIGITAL</b>								
HIGH NOTE ULTRA	£165	£330	£899	£70	£50	-	£115	-
<b>NEC</b>								
VERSA 'E'/V'	£185	£360	£790	£135	£65	£40	£80	£425
VERSA 'M'/P'	£185	£360	£790	£145	£75	£40	£80	£425
<b>PANASONIC</b>								
CF41	£229	£440	£899	£95	£115	-	-	£399
<b>TOSHIBA</b>								
T19xx/46xx/47xx/48xx	£170	£298	£999	£94	£56	-	-	£374 (IV)
T21xx	£192	£340	£999	£94	£56	-	£140	-
T34xx/36xx	£192	£340	£999	£175	£48	-	-	-
<b>TEXAS INSTRUMENTS</b>								
TM4000 'M'	£170	-	£999	£99	£105	-	-	-
TM5000	-	£349	£999	CALL	£105	-	£179	-
<b>TWINHEAD</b>								
3/5 SERIES	£199	£320	£680	£99/120	£69	£60	CALL	CALL
<b>CD ROM MULTI MEDIA CHASSIS AVAILABLE FOR:</b>								
IBM THINKPAD 360/755							CALL FOR OPTIONS	
TEXAS INST. 'M'							£399	
NEC VERSA E'/M'/P'							£549	

**PROXION GOLD CARD RANGE**



**ACCEPT NO SUBSTITUTES, THESE ARE THE BEST PC-CARD FAX MODEMS AVAILABLE - BAR NONE!**

32bis - 57,600bps Data, 14,400bps Fax  
Free Fax and Comms Software **£199**  
34bis - 115,200bps Data, 14,400bps Fax  
Free Fax and Comms Software **£299**

**GREY CELL PC-CARD ETHERNET**



**Made in the UK - Best of Breed!**

- 100% NE2000 Compatible - Guaranteed
  - Automatic Cable Type Detection
  - CardDealer Software - Automatic Configuration
  - Money Back Guarantee of Compatibility
  - PC-Card Fibre Optic Solutions also available
- 10 Base 2 (BNC)/10 Base T (UTP)  
**Combo Card £189**

**CALL NOW 01256 812720**  
**LAPLAND**

LapLand UK Limited, Unit 4 Faraday Court, Rankine Road, Basingstoke Hampshire RG24 0PF Fax: 01256 812719

# Windows 95:

## today's specials

By the time Windows 95 launched on 24th August, the first applications were already starting to appear. In this article we preview some of the first Win95 apps to arrive in the *Personal Computer World* office.

Microsoft has bet the farm on Windows 95 and so the developer community has been stirred to produce the widest possible range of applications. To promote those programs which fulfill the remit of being true Windows 95 programs Microsoft has instituted the "logo programme", whereby any program which is truly a Windows 95 program can be submitted to Microsoft, it will be tested to ensure that it meets the criteria — long filenames, OLE 2.0 support, the correct presentation of icons and file handling — and if it does, the manufacturer of the software can put the "Windows Compatible" logo on the box.

Microsoft has worked hard internally, producing compatible versions of nearly all its own products including Works and the newly acquired Autoroute. It has worked with friends like Visio and with old rivals such as Philippe Kahn, formerly of Borland and now of Starfish. Even new names on the scene like Xara have benefited from Microsoft support. The result is a well-rounded collection of applications ready to fill your hard disk.

### **Visio 4.0**

Ten disks show how much Visio has grown since it was a simple drawing program. In fact, it has grown so much that



PCW Shopping Basket Illustration by Stephen Caplin

Visio 4.0 will have a sibling, Visio Technical, which takes some of the more vertical applications of the software, such as electronic schematics and process control, out of the mainstream and into a special version. This will be available in the new year after a thorough programme of Europeanisation. The American version of Visio Technical ships, over there, with this new version.

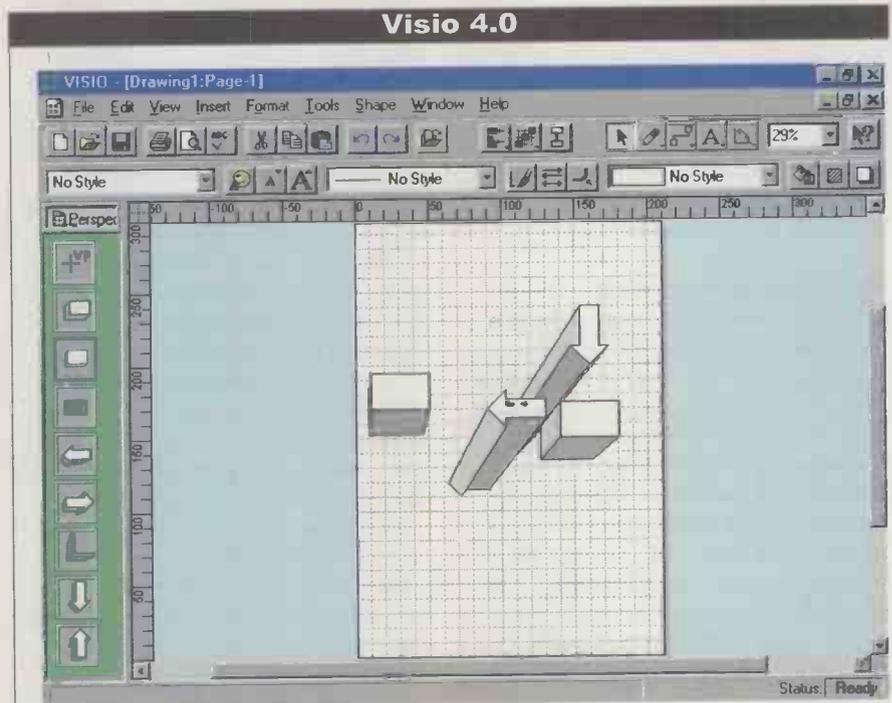
All the major software houses claim to work closely with Microsoft, but more than anyone else Visio Corporation seems to have the ear of the software giant. The result is a program which feels more like a Microsoft application in the Office mould than either Works or Autoroute; and similarly, Visio 4.0 offers more discoverability and a number of Wizards.

There is a new spell-checker which uses the Microsoft-compatible dictionaries, and a number of changes which have come about as a result of an extensive Visio 3.0 wish-list. Freehand drawing has had splines added, layers replace the system of pages, and a user-definable snap-to grid replaces the system where Visio decided the size of the grid. With a nod to Visio's capabilities as a presentation graphics program, the colour palette has been extended and there is a format painter which gives a consistent feel to pictures; the best way to do this however is to use stencils, the term Visio uses for the palette of shapes that some programs would call a template. In Visio 4.0 the stencils are dockable, which makes them easier to arrange and speeds up complicated designs where you might need access to a number of stencils.

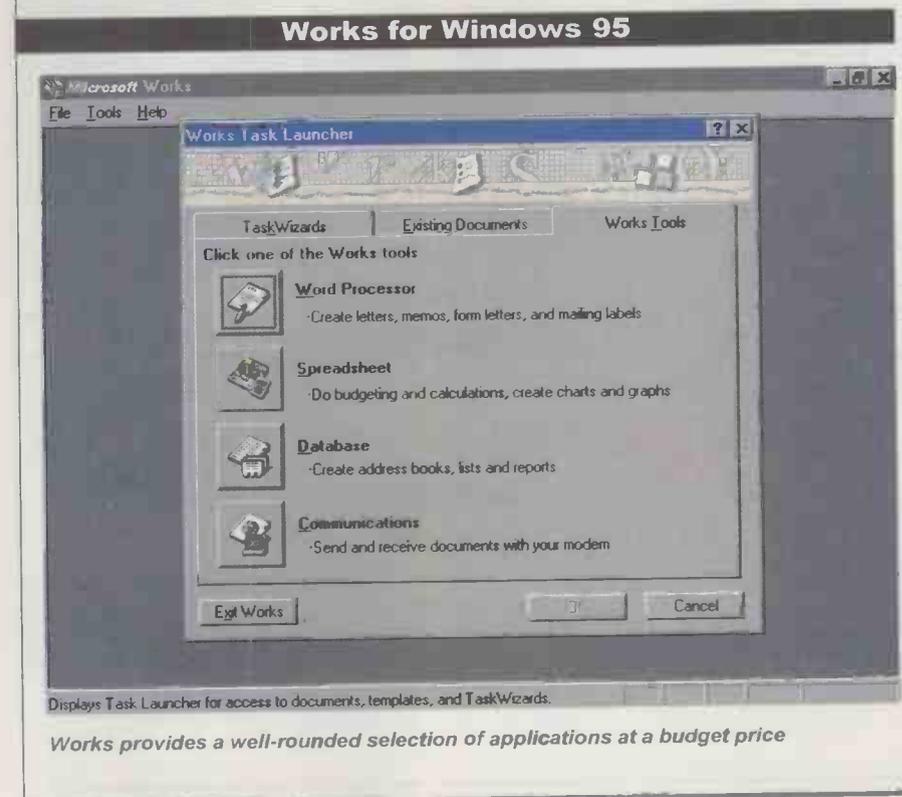
Visio, the company, claims that it is not out to oust CorelDraw but there are file converters for Corel and Micrographx Designer. These file filters are supplemented with a flowchart converter which takes ABC Flowcharter and CorelDraw shapes and turns them into Visio smart shapes. The smart shapes now have more attributes and there are a lot more of them: over 250 have been added, including Mind Maps for drawing ideas, and 3D shapes with shadows. These are defined by a vanishing point which can be moved around. The end result is a chart which looks as though it is bursting out of the page.

Visio charts can be described as text: an Organisational chart wizard takes information from a text file or Excel spreadsheet. This is ideal for a rapidly growing organisation where people move around a lot and need to know who does

what. Project timelines can be automatically charted from Microsoft Project data, plus there are links making Visio useful for developers who want to drive charts through OLE automation. This is relevant for process-control environments where graphics may need to change as machinery works on chemicals or a



*Existing Visio owners will feel very much at home but new templates add a lot to the program*



Displays Task Launcher for access to documents, templates, and TaskWizards.

*Works provides a well-rounded selection of applications at a budget price*



manufacturing process.

For more mainstream users Visio has been made a little easier to use — there are now tool tips on the control points of shapes and the right-button menu is not only supported but configurable. With features being added at such a rapid rate it won't be long before Visio sires a sibling for its technical offspring.

### Works for Windows 95

Works has always had an air of being a junior version of Office. It's the software you get with the computer so that you can do something — a bit like the trial pack of soap powder you get when you buy a new washing machine. The idea is that once you are hooked on Works, you'll want to upgrade to Office. For many people this won't apply, but as part of the bundling stratagem it was essential that Microsoft had a version of Works to run under Windows 95. The old version *would* work, but the new one offers 32-bit protection, long filenames, right mouse-button support and all the other good

things Windows 95 brings.

Works is an integrated collection of applications: word processor, spreadsheet, database, drawing program and communications software. The old Microsoft policy of being data-centric — you open files and work on them regardless of whether they are word processor, spreadsheet, whatever — is well at home here. The software starts with a task launcher and over 30 wizards for automating common tasks.

Work in the Microsoft usability labs, where local people are asked to try out new versions of the software while they are monitored through one-way glass, have led Microsoft to place an emphasis on "discoverability", where the software guides you to the new features. For Works this has been supplemented with a new manual which is designed to be browsed through rather than read from cover to cover, and short tutorials which Microsoft calls "show me" movies. The software tracks you, and when you first use a new feature, such as embedding objects, it offers to run a tutorial.

Works has a slightly different feel to other Microsoft applications, in that it guides you through tasks rather than confronting you with a blank screen. The buttons are bigger, but it manages to avoid being condescending.

A comprehensive menu of options is shown while you type, which helps with

the discoverability but cuts down the amount of space available for actually typing. The toolbar is customisable but there is no macro language — although of course, OLE 2.0 is supported so information from Office can be linked or embedded. The option for custom toolbars is very much more restricted than that offered by Word, although interestingly it includes a link to Microsoft Network. The table options are run as a separate program, linking in with the spreadsheet, and it is here that (if you'll pardon the pun) Works excels.

The software is very well integrated within itself, but a lot of the research work done by the Office teams has not filtered in, or has been omitted to provide some product differentiation between a suite which will typically cost £100 or be bundled free, and one which sells for £300. There are no IntelliType features, none of the nice scrolling when you insert text or guessing at what you are going to type.

The spreadsheet has most of the functions a typical user will want. Again, there are none of the advanced features such as Visual Basic or the mapping charts of Excel, and none of the new usability features, but for most people the facilities will be more than adequate. It watches what you are doing and provides help boxes and tutorial tours when you attempt something for the first time.

The biggest difference between the type of applications in Works and those in Office is the inclusion of the database with Works and Access being an option for Office. The database is more comprehensive than Cardfile but lacks any language or automated query support, although you can apply filters to searches in quite a sophisticated way. With a small database loaded it seemed quite fast, but ultimately this is not a program which will be used for high-power applications. Microsoft claims that it is designed for address books, lists and reports. It integrates well with the word processor, making it easy to produce mailing lists, and has good help when you're unsure how to proceed. Setting up a database is complicated but Works does its best to guide you through.

The last, and certainly the least significant part of the package is communications. This seems a little pointless when Windows already has Hyperterminal, a reasonably good comms program. The communications section of Works adds Kermit, Xmodem and Ymodem to Hyperterminal's Zmodem, there is key-stroke recording and a button which

**Works for Windows 95**

Microsoft Works

File Edit View Format Tools Window Help

Arial 10

	A	B	C	D	E
1		Monday	Tuesday	Wednesday	
2	£1.00	1	1	1	
3	£2.00	2	2	2	
4	£3.00	3	3	3	
5	£4.00	4	4	4	
6	£5.00	5			
7	£6.00	6			
8	£7.00	7			
9	£8.00	8			
10	£9.00	9			
11	45	45			
12	89	89			
13					
14					
15					
16					
17					
18					

Unsaved Spreadsh...

Help

Step-by-Step More Info

**To create a chart**

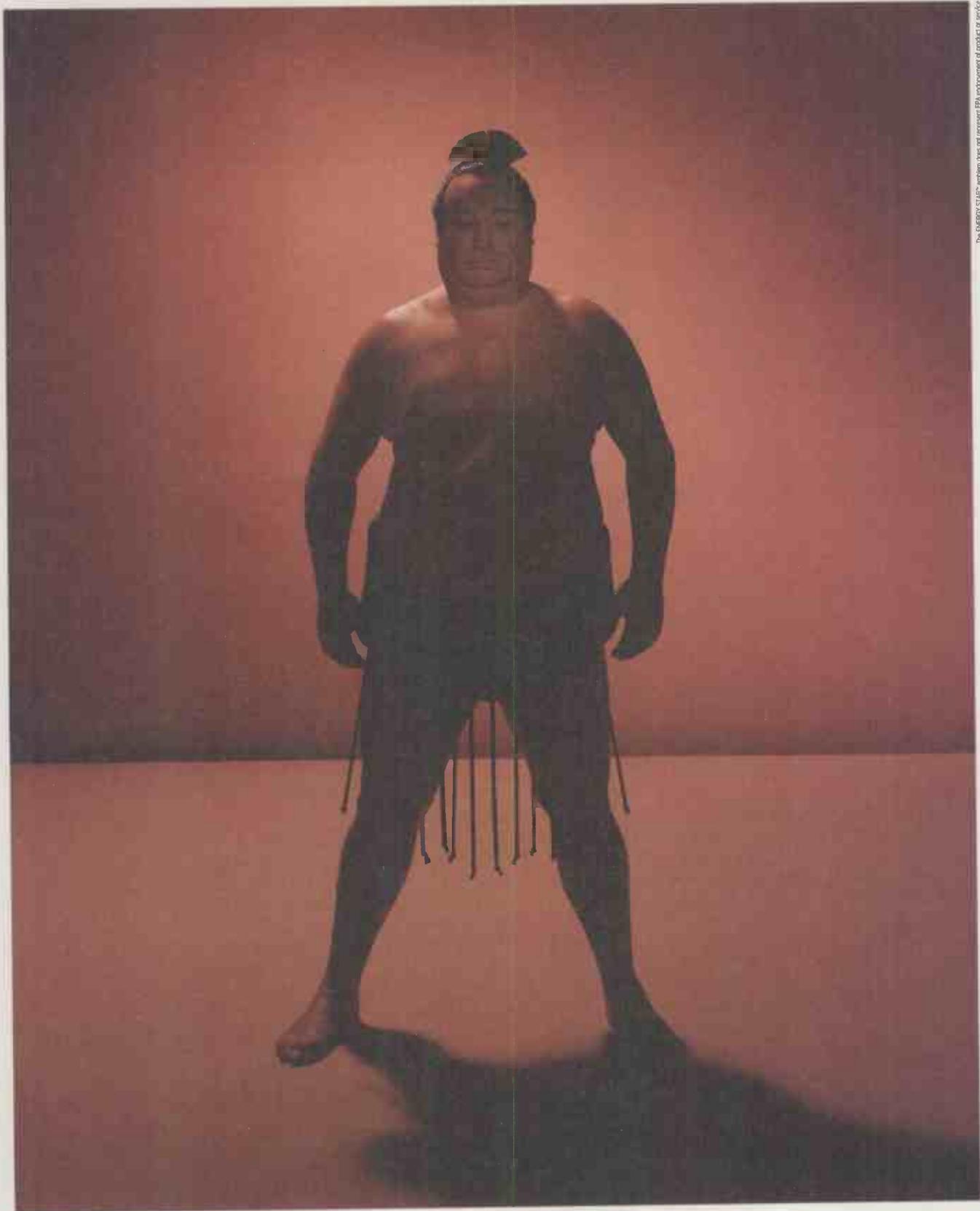
- 1 In the New Chart dialog box, choose the chart options you want.  
For more information on each option, click the question mark in the upper-right corner of the dialog box, and then click an option.
- 2 When the preview of your chart looks the way you want, click OK.

Print this topic

Index Back  
Shrink Help Menu

Press ALT to choose commands

*Works provides a basic spreadsheet with an emphasis on guiding the naive user through using the software*



The ENERGY STAR® emblem does not represent EPA endorsement of product or service.

## *When big is beautiful*

It is said that beauty is in the eye of the beholder. Behold, the Taxan Ergovision 1080 LR, a fully featured 20" monitor at a price that is particularly pleasing to the eye. Call 01344 484646 to have a look.



**TAXAN**  
MONITORS



automatically logs you into the Works forum on the Microsoft Network, but beyond that there isn't much more that you can do with a comms program without getting unnecessarily esoteric.

Generally the software is a little slow: even on a machine with 24Mb RAM and a DX4 running at 100MHz there were noticeable delays, although as this was a late beta things may improve. Works 4.0 is a full 32-bit application, but the switch to 32-bit-ness alone does not automatically speed a program up.

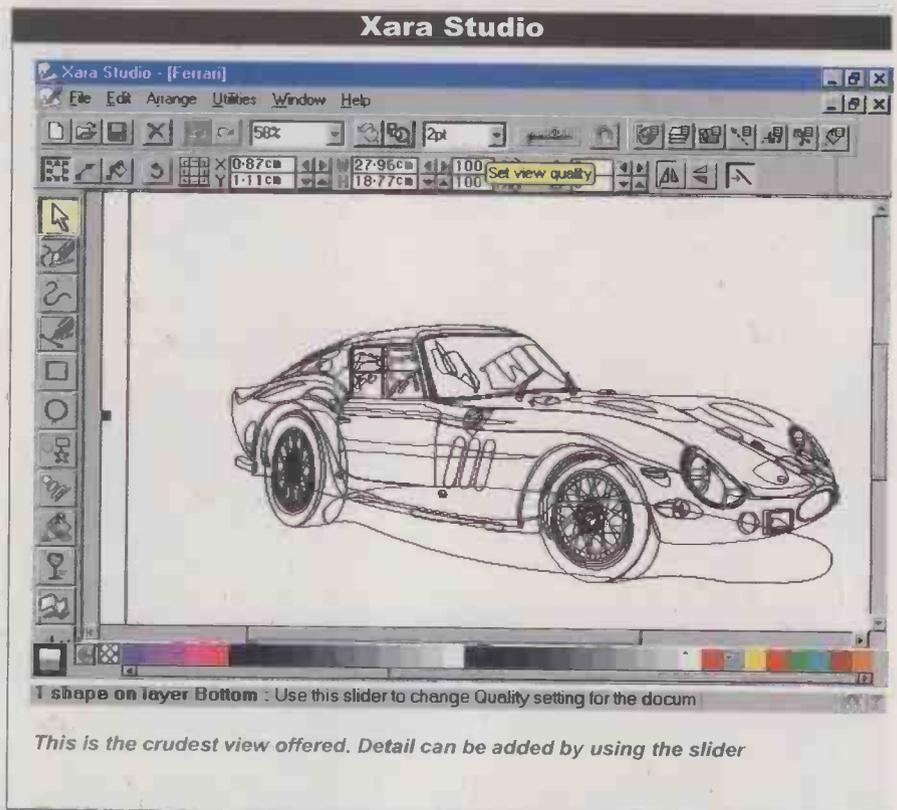
Works is a fine first taste of Windows 95 software, and if you haven't used the advanced features of more expensive programs you'll be happy with it.

### Xara Studio

In the November 1994 issue of *PCW* we previewed Camelot, the 32-bit drawing program from Computer Concepts. At the time, Windows 95 was called Chicago and was going to be out in time for Christmas of that year. The delay in the operating system has been a mixed blessing for Computer Concepts, which has set up a new company, Xara, with which to take on CorelDraw. It's not the first time a software house has targeted CorelDraw with a new program. SPC launched Harvard Draw specifically at the same market and failed.

The expertise which led to Xara was the Acorn program ArtWorks, but Studio is not a port. Xara realises that its major advantage over Corel is the lack of a legacy; the program can be optimised for today's computers, leading to a faster program with a greater level of accuracy. The only advantage of the ArtWorks legacy is a huge library of clip-art selected from drawing competitions.

The performance edge is the result of 150Kb of hand-coded assembler — the old-fashioned way of doing things is still the best. The program is so fast that the major bottleneck is the speed at which the CPU can read from and write to RAM. Being 32-bit helps in other respects. All co-ordinates are held to 32 bits of accuracy, giving a resolution of 72,000dpi and 4000 levels of zoom — four times the



depth of CorelDraw.

But Studio is not designed to take on the might of Corel head-to-head. One of the fundamental differences is that it has a dimensioning system. As with a CAD program, shapes can be scaled in metric, imperial or a scaling of your choosing.

More impressive is the bitmap handling. The fill bitmap mode works astonishingly quickly, allowing the bitmap within a random shape to be stretched and skewed in real-time.

Perhaps the most impressive tool is the transparent graduated tint. An arrow tool allows the artist to specify the beginning, end, direction and rate of graduation. The transparency allows great effects — stained glass windows can be created with overlapping glass, for instance. There are two types of glass, reflective and transmissive, and both are supported. The tint is held as start and end co-ordinates within the native file format, which makes some complex-looking artwork surprisingly compact. Xara can blend between one shape and another, which is ideal for creating complex highlights.

The software is not multi-threaded so will not take advantage of a multi-processor system. According to one programmer there was little advantage in this, since little of the software was processor-bound. The bulk of the code is written in Visual C++; ports to other systems — the Mac in particular — will

depend on the availability of the compiler.

There is an infinite undo and redo buffer, and two types of handle on shapes to make Corel users feel at home. Camelot's own method of manipulating shapes is there, too.

### Conclusion

There is an impressive diversity in the Windows 95 programs already available, and not just from Microsoft. If you are unsure as to whether to upgrade you should look hard at the applications rather than the operating system: they all offer significant benefits. There will come a time when you won't have an option — all software will be made this way.

### PCW Details

#### Visio 4.0

Price £169

Contact Visio Corporation  
01372 227900

#### Works for Windows 95

Price £99, but look out for special price of £80 inc VAT until the end of the year. Current users of Works 3.0 will be able to upgrade FOC until the end of the year.

Contact Microsoft 01345 002000

#### Xara Studio

Price £199. Upgrade from CorelDraw £99

Contact Xara 01442 350000.  
Fax 01442 350010



## THE SUPERHIGHWAY CODE

*Never underestimate the damage caused by loose chips. We don't. That's why ATI make the chipsets for their graphic accelerators. That's why we sell them. Avoid the road to ruin and call Taxan on (01344) 484646*



**TAXAN**

O N B O A R D W I T H

ATI Graphics Pro Turbo and ATI Graphics Xpression

# Expand and deliver

PCMCIA cards have become an essential accessory for any self-respecting notebook. Terence Green looks at 20 leading devices and picks out some of the best.

PCMCIA Photography by David Whyte

**A**ll new notebook PCs and an increasing number of desktops now have a PCMCIA slot and there's a PCMCIA card to suit almost every application, from hard disks to Ethernet adaptors, SCSI adaptors and fax-modems. Here we review 20 PCMCIA devices from the leading manufacturers (we have omitted fax-modems as these were covered in detail in our May '95 issue).

PCMCIA is the original plug-and-play hardware, a small credit card-sized device which you can plug in and remove at will — at least that's the theory. In fact, PCMCIA is a lot less hassle-free than the words plug-and-play suggest. When problems occur it isn't always obvious who might be responsible. Sometimes the PCMCIA card manufacturer may have cut corners, leaving the card slightly off-spec and therefore impossible to configure correctly. Or the problem may be with the card and socket services software that supposedly enables automatic PCMCIA configuration, or plug-and-play. Sometimes a PCMCIA card which doesn't work with one vendor's software will work perfectly with that of another.

The problem might even be the PC notebook. We had to upgrade one vendor's card and socket services package as it fell over the first time it encountered a fast PC, a 75MHz DX4. Timing problems often occur on the woefully

## PCMCIA Cards Contents

- 123 Callunacard 130Mb
- 123 GameCard II
- 123 Kingston DataPak 260
- 123 SunDisk ATA FlashDisk 10Mb
- 123 SMC EliteCard Combo
- 123 PA0 Ethernet
- 124 IBM/DIP IR Wireless Card
- 124 SCM SwapBox Floppy Combo
- 124 Grey Cell Ethernet II Gold Combo
- 124 New Media Multimedia Combo
- 125 WaveRunner ISDN Digital/Analogue
- 125 NogaVision Digital Video NV-256
- 125 SecureData/PCMCIA
- 125 ChaseCARDport ISA
- 128 Cardwell PCMCIA SCSI-2 Card
- 128 Mitsubishi Melcard SRAM 1Mb
- 128 Maxtor MobileMax 131Mb
- 128 Cardwell CardBay-AT Card Drive
- 129 Elonex PC-500R/I
- 129 SystemSoft CardWizard Pro
- 129 Table of features
- 131 Conclusion
- 131 PCMCIA standards

ill-defined IBM PC standard.

Fortunately most of these problems can be overcome by not always choosing the cheapest option, and by always asking suppliers to state in writing that the PCMCIA product they're selling you will work in your chosen configuration. Don't waste your time attempting to get it all going in the belief that you're working with entirely compatible components because they're PC-standard. It's just a fact of life that the PC is a flaky piece of design and some combinations of

hardware and software are never going to work together no matter how hard you pray.

More intractable problems occur with the operating systems. PCMCIA drivers take up too much memory and if you also want to run network drivers, SCSI drivers, and CD-ROM drivers as well, you will have trouble using DOS/Windows. Card and socket services suppliers such as SystemSoft, Award, and Phoenix are doing much to reduce the memory footprint, and although they're not there yet, Award's upcoming DPMS-enabled software looks promising.

You can also escape the memory crunch by moving to OS/2 Warp, Windows NT, or Windows 95. The trouble is, OS/2 Warp's PCMCIA support is a little unwieldy and it won't be easy to use with a wide variety of PCMCIA cards until an update ships in October. Windows NT 3.51 is just out and is the first version of Windows NT to support PCMCIA devices. So it may be wise to wait a while before placing your faith in either OS/2 Warp or Windows NT to resolve the PCMCIA dilemma.

Windows 95, of course, is going to solve everyone's problems and no doubt reduce world aggression too. But it has only just come out and as OS/2 Warp and Windows NT demonstrate so well, it takes time for an OS to become a finely-honed object of desire.

**Callunacard 130Mb**

**C**allunacard makes Type III PCMCIA hard disks of 130Mb and 170Mb, and a 260Mb device is due out soon. Like all the Type III hard disks, the Callunacard works provided you have card and socket services software configured for ATA drives. This often isn't the case with PCMCIA-enabled hardware and the ATA driver will make further inroads into your conventional DOS memory when it loads.

Otherwise, the Callunacard works just fine. Included with the PCMCIA hard disk are a few useful additional utilities: PASSWORD.EXE and POWER.EXE. These allow the user to set the card's default power-saving options independently of the system's utility and to enforce password security — well worth having on a PCMCIA hard disk.



**GameCard II**

**T**his is a Type II PCMCIA joystick interface for games players. Supporting dual joysticks it has an adaptor cable ending in a standard 15-pin D-type connector. To connect two joysticks for multi-player games you'll need a two-way (Y) adaptor which you must buy separately.

The dual-channel card supports multi-function joysticks as well. Designed by JC Designs of Essex and manufactured in the UK, the GameCard II comes with installation software but requires third-party card and socket services software which isn't supplied. The GameCard II needs a 2byte I/O port which must start at 200h.

If there's a conflict with existing hardware you will need to modify the PCMCIA services software before the GameCard II's driver will enable the games port.



**Kingston DataPak 260**

**T**his Type III PCMCIA hard disk is compatible with the PCMCIA-ATA interface specification. Our review item was one of the newest 262Mb devices, made in Singapore. A 170Mb drive is also available.

The card comes with CardSoft PCMCIA card and socket services software. ATA PCMCIA drives need an extra DOS driver which allocates disk letters. Like all PCMCIA hard disks, which are delicate pieces of equipment, it is provided with a protective slip-case.

Type III drives require a PCMCIA slot 10.5mm thick which usually means that they fully occupy standard twin-socket PCMCIA hardware. A few notebooks separate Type III and Type II sockets, allowing you to use two PCMCIA devices simultaneously.



**PCW Details**

**Callunacard 130Mb**  
 Price £269  
 Contact Portable Add-ons 01483 440777

**PCW Details**

**GameCard II**  
 Price £43  
 Contact JC Designs 01371 874478

**PCW Details**

**Kingston DataPak 260**  
 Price £399  
 Contact Datrontech 01252 303500

**SunDisk ATA FlashDisk 10Mb**

**T**ype II solid state ATA FlashDisks have a hardware controller and don't need special flash memory file system software. Smaller, and more expensive per megabyte than conventional hard disks, FlashDisks are faster and more rugged. They have no moving parts and can survive much greater shocks than PCMCIA hard disks. FlashDisks are sparing of power compared with hard disks except when they're being written to. They are as fast as SRAM, yet don't require a continual power supply to retain data.

SunDisk ATA FlashDisks appear to the operating system as hard disks: the range runs from 1.8Mb up to 20Mb and is supplied with Stacker compression software. This can double the amount of data each SunDisk can store. The cost of a FlashDisk may be justified by its robustness and by the value of the data you plan to store on the disks.



**SMC EliteCard PCMCIA Ethernet Combo**

**T**he SMC Type II PCMCIA Ethernet adaptor can be connected to either BNC (10Base-2) or a UTP (10Base-T) network cabling. A module on the flexible cable houses RJ-45 and BNC connectors; a third connector is for an external power supply plus power and transmission LEDs.

While there could usefully be a few more LEDs on the cable module, the rest of the SMC package is neatly done with both SystemSoft card and socket services software, and a decent manual for the hardware and software. The warranty is for five years. The software supplied includes an SNMP agent to which you can append a small amount of asset data about the local PC and video card. The SMC adaptor requires a 16Kb RAM address for a dual-ported memory buffer which delivers better throughput than an I/O mapped card.



**PAO Ethernet+**

**T**he Ethernet+ network adaptor PCMCIA Type II card from supports ODI and NDIS (Novell, Microsoft, LANtastic, Banyan, NFS) networks. It works well with Windows for Workgroups and NetWare but, as yet, lacks specific OS/2 driver support.

The installation routine is fairly easy to work through but sometimes needs manual tuning. The card comes with an enabler which must be used in conjunction with card and socket services. SystemSoft CardSoft software is supplied. The enabler also allows the system to be booted without the card. This takes you into the area of plug-and-play, which requires perfect harmony between all the various components, not just the Ethernet+.

10BaseT and 10Base2 Ethernet connections are supported via separate cables. Properly set up, the card is fast and can be successfully hot-plugged.



**PCW Details**

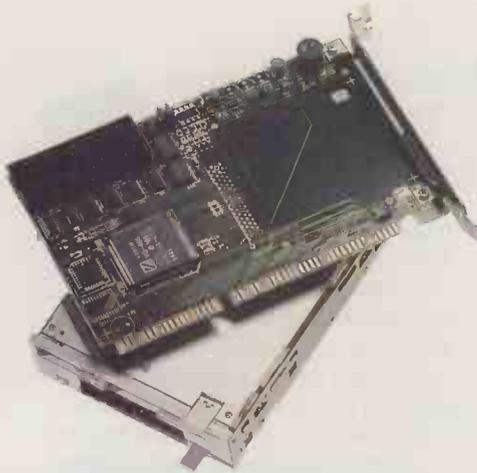
**SunDisk ATA FlashDisk 10Mb**  
 Price £460  
 Contact Portable Add-ons 01483 440777

**PCW Details**

**SMC EliteCard PCMCIA Ethernet Combo**  
 Price £175  
 Contact SMC 01344 418800

**PCW Details**

**PAO Ethernet+**  
 Price £135 (10BaseT), £155 (10Base2)  
 Contact Portable Add-ons 01483 440777



**SCM SwapBox Floppy Combo**

**IBM/DIP IR Wireless Card**

Infra-red LAN adaptors manufactured by IBM and sold by DIP are PCMCIA Type II cards which can be used to establish wireless LANs. They employ diffused infra-red signals generated by a small infra-red transceiver attached to the end of a short cable.

With diffused infra-red there's no need to have the networked devices in line of sight but the system works better when it can bounce the signal off the ceiling. Low ceilings are best if you want to communicate over a reasonable distance, say 30 feet, so you might have to cosy up if you work in a high-ceilinged Victorian building.

The card is supplied with software supporting most ODI or NDIS networks for both server and client and it can be set up to bridge an infra-red system to a wired NetWare LAN. ISA and MCA Infra-red adaptors are also available. Setting up a small two-station Windows for Workgroups LAN proved to be easy.

**PCW Details**

**IBM IR Wireless Card**  
 Price £299  
 Contact DIP Systems 01483 202070



**Grey Cell Ethernet II Gold — Combo**

**Grey Cell Ethernet II Gold — Combo**

Grey Cell's PCMCIA Type II Ethernet adaptor supports twisted pair (10Base-T) and BNC (10Base-2) cabling through a single Combo connector attached to the PCMCIA card itself. Grey Cell has taken up the fixed connector as it is less fragile than the usual "rat's tail" cable adaptor for PCMCIA network cards, which often breaks at the point of attachment to the card.

However, if placed in the lower PCMCIA slot of a pair the adaptor blocks access to the upper socket. And it is not immune to accidental breakage: a little pressure on the adaptor exerts an enormous force on the point of connection to the PCMCIA card.

The Grey Cell card is supplied with a good range of drivers for DOS, Windows, OS/2, and Unix.

**PCW Details**

**Ethernet II Gold — Combo**  
 Price £169  
 Contact Grey Cell 0181 902 8998

**SCM SwapBox Floppy Combo**

You probably need a SwapBox if you don't have any spare storage bays in your PC and you must have a PCMCIA socket. The SwapBox is a single unit the size of a standard 3.5in floppy drive but it houses a Type III PCMCIA card slot plus an ultra-slim 3.5in floppy diskette drive.

There are several SwapBox models, with up to four PCMCIA sockets per Installation, in units which support two rear-mounted sockets in the adaptor backplates. However, the Floppy Combo version restricts you to one PCMCIA socket.

The adaptor is a 16-bit ISA card which requires minimal configuration. A pair of cables connects the adaptor to the SwapBox unit mounted in its bay. A speaker is included for fax/modems. SCM supplies Award CardWare 2.0 software for PCMCIA card and socket services.

**PCW Details**

**SCM SwapBox Floppy Combo**  
 Price £175  
 Contact International MicroTech 01793 784480



**New Media Multimedia Combo**

**New Media Multimedia Combo**

A Type II PCMCIA card, the New Media Corporation's Multimedia Combo combines a 16-bit stereo sound adaptor and a SCSI-2 interface.

For notebooks without sound and SCSI it is an excellent mix. The only fly in the ointment is the rather cumbersome cable which carries the SCSI wiring and the audio connector module with headphone, microphone, line in, and CD-Audio jacks; it's a hefty load for the truly mobile notebook user to tote around.

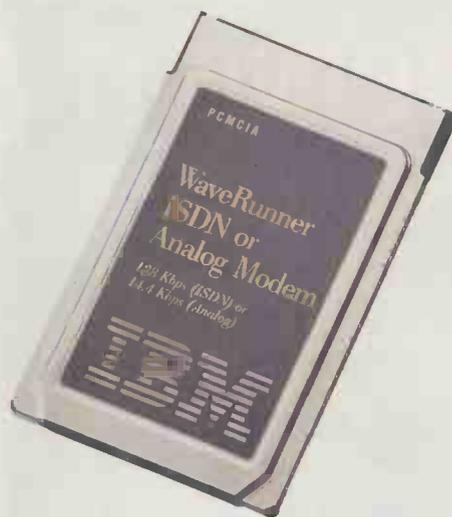
The package comes with plenty of software including SystemSoft card and socket services, Microsoft Sound System and Corel SCSI. Configuration is easy: the card's enabler driver simply interfaces with card and socket services as a client driver. Both sides of the combo will work side by side and the sound system is compatible with Adlib FM audio as well as supporting the Windows Sound System.

**PCW Details**

**New Media Multimedia Combo**  
 Price £479  
 Contact Portable Add-ons 01483 440777

**IBM WaveRunner ISDN Digital/Analogue Modem**

WaveRunner is a PCMCIA Type II card with multiple communications modes. It is an ISDN interface, an ISDN terminal adaptor, and even an old-fashioned 28.8K analogue modem with V42 compression. IBM was still getting all the software together when we started using it and it could only be used from Windows and DOS, but the OS/2 software should be ready by now. Two separate line connectors are supplied for ISDN and analogue modem access and the software won't initialise unless you are connected to the WaveRunner. You have to start a driver for each mode but you can do this in Windows without having to restart. SDN support is very flexible, offering unrestricted basic rate (64Kb/sec) over one (64Kb/sec) or two (128Kb/sec) B-channels as well as V.120 rate adaption with or without V.42 compression over one or both B-channels.



**IBM WaveRunner ISDN Digital/Analogue Modem**

**NogaVision Digital Video Model NV-256**

NogaTech's digital video card is a PCMCIA Type II card supporting video capture, frame grabbing, and full-motion video at up to 25fps. Live video, including stereo sound, can be displayed on screen and captured to file in Video for Windows AVI format.

The system supports PAL and NTSC standards and composite and S-Video inputs. You can connect VCRs, camcorders, TV or even laserdisk players to the card. However, to get the best displays you need a notebook with a colour TFT active matrix LCD and good, reliable 256-colour drivers as a minimum.

When tried on a second-tier notebook with a passive matrix dual-scan colour LCD the video worked but the picture was indistinct and the colours muddy. Make sure your notebook model is supported; if it is, the kit installs without fuss and works well.



**SecureData/PCMCIA**

**PCW Details**

IBM WaveRunner  
Price £541  
Contact IBM 0181 818 4454

**PCW Details**

NogaVision Digital Video Model NV-256  
Price £385  
Contact Portable Add-ons 01483 440777

**SecureData/PCMCIA**

Nanoteq's Type II card uses the Cares encryption system to encrypt and protect data, on a notebook hard disk, from unauthorised access. The PCMCIA card is part of a family of similar security adaptor products.

The card tested had early revision software which has some limitations in respect of the flexibility of its security options. The earlier version of the software will only encrypt at the partition level but there is new software on the way, including a Windows utility, which will allow partitions, directories and files to be protected.

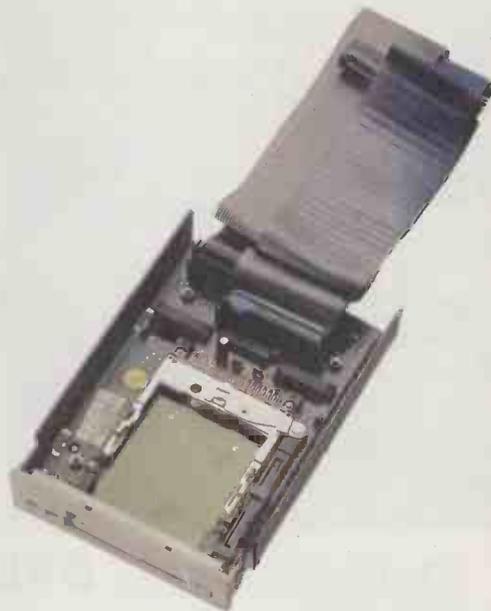
The software also allows floppy disks and serial and parallel ports to be secured against unauthorised access. A single card can be used by several users each securing their own files, directories or partitions on the same machine or on separate systems. It's dead easy to set up, easy to use, and very effective against access.

**Chase CARDport ISA**

A PCMCIA card drive for desktop PCs, the Chase CARDport comprises a half-length 16-bit ISA adaptor, with a Type III PCMCIA socket in the adaptor backplate, and a front-mounting reader with another Type III slot which needs to go into a 3.5in drive bay.

It's less flexible than the Cardwell card reader from Datrontech because you would have to add two Cardports to a system to get four PCMCIA sockets. On the other hand, the CARDport expansion adaptor is much smaller than the Cardwell and therefore more useful on a cramped desktop.

Like the other card readers the CARDport needs one I/O port address. Otherwise, apart from the remote possibility of an I/O conflict, installation is a simple case of fitting the hardware and running the software install utility.



**Chase CARDport ISA**

**PCW Details**

SecureData/PCMCIA  
Price £199  
Contact SecureTeq 01376 500614.  
Fax 01621 893599

**PCW Details**

Chase CARDport ISA  
Price £165  
Contact Portable Add-ons 01483 440777

# OPUS TECHNOLOGY... DOING IT RIGHT FOR 15 YEARS

## RIGHT PRODUCT

We offer an outstanding range of personal computer systems to meet your requirements. Our desktop systems have won awards and the reviews about our Pentium processor based systems speak for themselves.

## RIGHT QUALITY

Our commitment ensures we exceed exacting standards to guarantee your system is of the highest quality. All OPUS Technology systems conform to the latest European Directives on Electromagnetic Compatibility (EMC).



With full compliance to British Standard Institute (BS5750), International Standards Organisation (ISO 9002) and Health & Safety standards we ensure you get peace of mind right from the start.

## RIGHT SERVICE

From the moment you call we are ready to help. Whether you speak to our friendly sales team, technical support or our customer services representatives; we are all committed to helping you.

## RIGHT SUPPORT

OPUS Technology provide a 1 year On-site warranty on all systems. You can rest assured that you have the best level of support available - and there's no extra to pay. Help is always on hand from our dedicated and highly trained technical support team through our FREE lifetime telephone "Support Line".

**1  
ON-SITE  
YEAR**

## RIGHT ON TIME EX STOCK AND READY-TO-RUN

Advertised systems are available immediately. We deliver when we say we will and all systems are insured in transit. When you receive your system it's fully tested and ready-to-run with all the software pre-loaded and accompanied by the relevant manuals and master disks.



## THE RIGHT WAY TO PAY

You can pay by cheque, credit card, 0% finance or through our "Easy Plan Payment Scheme". For business and Public Sector customers we offer credit account terms, early settlement discounts and a Lease Rental Scheme.

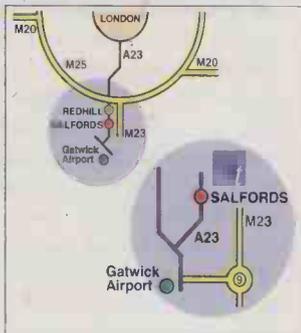


## ALL AT THE RIGHT PRICE

The right price means the best value for money. We know you want a reliable, quality system at no extra cost - real value for money.

## THE RIGHT COMPANY THE RIGHT PEOPLE

OPUS Technology plc is the longest standing direct PC manufacturer in the UK with over 15 years experience and a group turnover exceeding £100 million. Our objective is to provide a range of personal computers that set the standard for quality, reliability and safety whilst incorporating innovative technology. Our commitment to this objective means that you benefit from the *best products* at the *best prices*.



## RIGHT AT THE LEADING EDGE

By using the latest proven technology and industry standards in ALL our systems we do more to protect your investment and provide you with a computing solution built to last for years.

All our PC's incorporate the latest *PCI architecture*, being *Plug'n'Play* compatible and ready for *Windows '95* - something you don't get from all manufacturers.



Processor upgrades are simple and all systems have an *Enhanced IDE Controller* built into the motherboard, increasing system performance by 20%.



*Energy Star* compliant power management reduces the power consumption - providing more environmentally friendly computing.



A lot goes into an OPUS Technology PC today - ready for tomorrow.



## PAYMENT OPTIONS

- CREDIT ACCOUNTS
- CREDIT CARDS
- EASY PAYMENT PLAN
- BUSINESS LEASING



## ORDER RIGHT NOW

**TEL: 01293-821555**

**FAX: 01293-782663**



**OPUS  
technology**

**PC'S NOTEBOOKS & NETWORKS DIRECT**

OPUS Technology PLC, Redhill Business Park, Bonehurst Road, Salfords, Redhill, Surrey RH1 5YB

Prices and specifications subject to change without notice. E. & O.E. OT is a registered trademark of OPUS Technology PLC. Pentium and Intel Inside are registered trademarks of Intel Corporation. Credit subject to Status, available to private purchasers only. OPUS Technology PLC is a Licensed credit broker. Written quotations available on request from Chartered Trust. Payment Protection Plan available for redundancy and sickness protection, with Merchandise Insurance. All trademarks acknowledged.

OPUS  
Technology

WHAT  
PC?  
Awards '95

SERVICE  
& SUPPORT

WHAT  
PC?  
Awards  
WINNER '95

PCI  
NATIONAL  
ASSOCIATION  
OF CERTIFICATION  
BODIES



# AWARD WINNING DESKTOP PC OF THE YEAR

"OPUS has put together a fine system which offers everything you might need in a PC"

... this makes the PCI 4D2/66 a perfect machine for those who want value for money now, and who may want to expand their system in the future."

What PC? - June '95"

What PC? - June '95"

### ENTRY LEVEL 486

- 486DX2/66 or 486 DX/4 100 Mhz Processor
- PCI Motherboard (Plug 'n' Play)
- 128k Cache
- 8MB RAM
- 540MB Hard Disk Drive
- PCI Enhanced IDE Controller
- 3.5" (1.44MB) FDD
- 14" SVGA Colour Monitor, .28 Low Rad & Energy Star Compliant
- 1MB PCI Windows Accelerator Card
- 102 Key UK Keyboard
- MS DOS 6.22
- MS Windows 3.11
- Serial Mouse

Desktop Case Style  
Free Diagnostic Utilities  
12 Months ON-SITE, Parts and Labour Warranty  
Lifetime Telephone Technical Support  
Immediate Delivery  
Windows® 95 ready

EXRESS DELIVERY

PCI  
NATIONAL ASSOCIATION OF CERTIFICATION BODIES

1  
ON-SITE  
YEAR

WINDOWS 95  
READY

Speakers supplied may differ from those illustrated.

DX4/100 - 45% more performance

DX2/66 **£799**  
Exc Carr & VAT  
Product Code: EL66 S

DX4/100 **£839**  
Exc Carr & VAT  
Product Code: EL100 S

### MID RANGE 486

- 486DX2/66 or 486DX/4 100 Mhz Processor
- PCI Motherboard (Plug 'n' Play)
- 256k Cache
- 8MB RAM
- 540MB Hard Disk Drive
- PCI Enhanced IDE Controller
- 2MB Diamond Stealth Accelerator Card
- 15" SVGA Colour Monitor, Microprocessor Controlled, Low Rad, Non Interlaced & Energy Star Compliant
- 3.5" (1.44MB) FDD
- 102 Key UK Keyboard
- MS DOS 6.22
- MS Windows® 3.11
- Serial Mouse
- Desktop Case Style
- Free Diagnostic Utilities
- 12 Months ON-SITE, Parts and Labour Warranty
- Lifetime Telephone Technical Support
- Immediate Delivery
- Windows® 95 ready

Desktop Case Style  
Free Diagnostic Utilities  
12 Months ON-SITE, Parts and Labour Warranty  
Lifetime Telephone Technical Support  
Immediate Delivery  
Windows® 95 ready

EXRESS DELIVERY

PCI  
NATIONAL ASSOCIATION OF CERTIFICATION BODIES

1  
ON-SITE  
YEAR

WINDOWS 95  
READY

DX4/100 - 45% more performance

DX2/66 **£979**  
Exc Carr & VAT  
Product Code: MR66 S

DX4/100 **£1019**  
Exc Carr & VAT  
Product Code: MR100 S

### MULTI-MEDIA EXTRA

Multi-Media - Multi-media opens up a whole new world for you to explore with your PC. The combination of sound, video and interactive programs brings your PC alive. A fantastic array of CD based software that makes learning easy and fun is supplied with our Multi-Media systems.

- Quad Speed, Multi Session CD ROM drive
- 16 Bit Sound Card
- Separate Stereo Speakers
- MS Family Pack of Software: MS Works (CD), Encarta 25 (CD), Dangerous Creatures (CD), Money, MS Scenes & Best of Windows Entertainment pack

MULTI-MEDIA EXTRA **£169**  
Exc Carr & VAT

Software is supplied with full documentation and disks are Included.

### WINDOWS 95 HERE NOW!

Start now and unlock the power of your PC with Microsoft's Windows 95. With Windows 95 everything you do on your PC will be Faster, Easier and more Fun!

Call Now for a Special Price

### MS CONSUMER OFFICE

Limited offer while stocks last, a superb software pack including: MS Works, MS Golf, MS Publisher, MS Money.

Save over £150 - NOW ONLY **£55**  
plus VAT

### INTERNET READY

Internet - Everything you need to get on the "Net" - a fast internal fax/modem card, a Free subscription to CompuServe and everything configured and ready to go "surfing". Catch this new and exciting wave with OPUS Technology and open up a whole new world.

- Internet Fax/Modem Card 14,400 bps/v32 bis, Hayes compatible & BABT approved
- FREE CompuServe Membership for 1 month
- FREE access to the Internet (3 hours)
- FREE WinCim software
- Unlimited use of basic services

INTERNET READY **£59**  
Exc Carr & VAT

FREE COMPUSERVE MEMBERSHIP TO A WORLDWIDE WEB

### PAYMENT OPTIONS

CREDIT ACCOUNTS  
CREDIT CARDS  
EASY PAYMENT PLAN  
BUSINESS LEASING

Access  
VISA

### ORDER RIGHT NOW

TEL: 01293-821555  
FAX: 01293-782663

PC'S NOTEBOOKS & NETWORKS DIRECT

OPUS Technology PLC., Redhill Business Park, Bonehurst Road, Salfords, Redhill, Surrey RH1 5YB  
Prices and specifications subject to change without notice. E. & D.E. OT is a registered trademark of OPUS Technology PLC. Pentium and Intel Inside are registered trademarks of Intel Corporation. Credit subject to Status, available to private purchasers only. OPUS Technology PLC is a Licensed credit broker. Written quotations available on request from Chartered Trust. Payment Protection Plan available for redundancy and sickness protection, with Merchandise Insurance. All trademarks acknowledged.

• OPUS TECHNOLOGY • OPUS TECHNOLOGY • OPUS TECHNOLOGY •

**Chase CARDport ISA**



**Cardwell PCMCIA SCSI-2 Card**

The Cardwell SCSI adaptor is a Type II PCMCIA card with a SCSI-2 interface. The cable adaptor is available with a choice of Centronics or high-density SCSI connectors.

DOS and Windows support software including a Windows configuration utility is included in the package. Support for Windows 95 and OS/2 Warp is promised. The supplied software also includes an ASPI enabler which interfaces with the PCMCIA client driver and ASPI drivers for SCSI CD-ROM, hard disk, optical, and removable drives.

The card was very easy to set up and put to work. The ASPI enabler only needs 5Kb of memory but as there isn't a direct enabler it has to be loaded on top of card and socket services, which needs a lot more memory. The CardWell's CardMaster utility installs the SystemSoft card and socket services software and basic ASPI services. Corel SCSI software, which is more fully-featured, is offered as an optional extra.

**PCW Details**

Cardwell PCMCIA SCSI-2  
Price £149  
Contact Datrontech 01252 303500

**Mitsubishi Melcard SRAM 1Mb**



**Mitsubishi Melcard SRAM 1Mb**

The Mitsubishi Melcard PCMCIA Type II SRAM card is mainly for handhelds and notebooks with no floppy disk drive. Like FlashDisks, SRAM cards are solid-state with no moving parts. They're faster and far more robust than PCMCIA hard disks. Like floppy diskettes, the Mitsubishi card has a write-protect switch.

RAM is particularly aimed at systems where low power consumption is vital; it has a much lower power requirement than a Type III rotating hard disk and, until 3.3V devices and notebooks turn up, a much lower power drain than Flash EEPROM disks which run 5V and consume 12V while being written to. Mitsubishi has 20Mb FlashDisks but its 4Mb SRAM card is the largest SRAM available.

SRAM cards require a battery to maintain the memory. It's recommended that the battery be changed annually. You'll need the miniature screwdriver supplied and a battery from the jeweller's, costing a few pounds.

**PCW Details**

Melcard SRAM 1Mb  
Price £139  
Contact Mitsubishi 01707 278899



**Maxtor MobileMax 131Mb**

**Maxtor MobileMax 131Mb**

MobileMax hard disks are PCMCIA Type III devices. Maxtor hasn't yet released its 262Mb drive and has put Type III developments on hold. We looked at a 131Mb drive. It's a standard ATA interface requiring the card and socket services and the PCMCIA ATA driver. With compression software (not supplied) you can increase the usable disk space; it's usually OK to compress these drives provided you have a good backup system.

Maxtor is holding back on Type III drives because it believes that Type II with single platters is the way forward. Maxtor now has Type II PCMCIA single-platter hard drives at 85Mb and 121Mb capacities which can run on 3.3V power supplies. Future notebook design is unlikely to favour increasing use of the relatively large Type III cards. Also, one cannot insert another PCMCIA card into the second socket of a dual-socket while a Type III hard drive is inserted.

**PCW Details**

MobileMax 131Mb  
Price £160  
Contact Maxtor 01483 747356

**Cardwell CardBay-AT Card Drive**

The Cardwell CardBay-AT is a PCMCIA card drive containing two PCMCIA sockets in a 3.5in form factor housing. A 3.5in fitting kit is supplied; but for 5.25in bays you'll need a manufacturer's mounting kit. The drive is easily mounted in a storage bay with front access and cabled to a Cardwell expansion card which requires one free 16-bit expansion slot.

Some Cardwell adaptors, but not the one in the review kit, host a single PCMCIA socket which is accessed via the backplate on the rear of the PC. Up to four PCMCIA slots can be added to a desktop if a Cardwell daughterboard containing one PCMCIA socket is added in an expansion slot adjacent to the primary Cardwell adaptor.

The Cardwell PCMCIA drive also has a speaker for fax/modem card support. The software is installed via Cardwell's CardMaster installer but appears to be CardSoft software from SystemSoft.

**PCW Details**

Cardwell CardBay-AT  
Price £99  
Contact Datrontech 01252 303500



**Cardwell CardBay-AT Card Drive**

**Elonex PC-500R/I**

Desktop PCs with PCMCIA sockets, though not commonplace, are available from HP, IBM, Apricot, Escom and Elonex.

The Elonex PC-500R/I is a compact desktop with two PCMCIA sockets, room for a CD-ROM drive, three internal PCI expansion slots, an NCR SCSI-2 interface and a 100MHz Pentium CPU.

Along with a Toshiba T2400CT, the Elonex was a test-bed for the PCMCIA cards. The card readers were installed in a Compaq Deskpro. The Elonex runs Microsoft Windows NT Workstation 3.51, IBM OS/2 Warp, and Microsoft Windows 95 (June Test Release), all of which support the PCMCIA 2.0 specification.

The CD-ROM and PCMCIA sockets are housed on the right-hand side of the system box with the CD-ROM at the front. This arrangement is awkward unless you have at least a foot of free space on that side. Apart from that this is a conveniently small desktop with expansion catered for via PCMCIA.

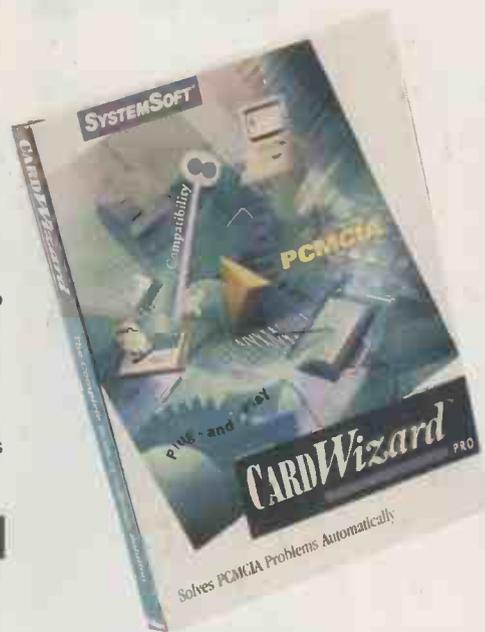
**SystemSoft CardWizard Pro**

CardWizard Pro is the latest wheeze from a card and socket services provider. Basically a Windows front end for the configuration of the DOS-based PCMCIA software, CardWizard will probably end up bundled with most PCMCIA-enabled notebooks because SystemSoft has a big following among PCMCIA OEMs in the US.

Rival PCMCIA suppliers, such as Award and Phoenix, have also recently upgraded their card and socket services software in an effort to make configuration of multiple cards easier by providing a Windows interface. Award's CardWare is very easy to use but SystemSoft's CardWizard goes further in the amount of information it provides and how it makes that information available to savvy users who want to fine-tune the detail. While easier configuration is a priority for PCMCIA devices, the amount of memory the card and socket services drivers require under DOS/Windows is as important. Let's hope that gets fixed next.



**Elonex PC-500R/I**



**ESystemSoft CardWizard Pro**

**PCW Details**

**Elonex PC-500R/I**

Price £1,935 (100MHz Pentium, 16Mb RAM, SCSI CD-ROM, PCMCIA, 15in SVGA)  
Contact Elonex 0181 452 4444

**PCW Details**

**SystemSoft CardWizard Pro**

Price £69  
Contact Portable Add-ons 01483 440777

TABLE OF FEATURES PCMCIA CARDS

Product	Description	Manufacturer	Type	Price	Supplied by	Phone	Fax
Callunacard 130Mb	Hard disk	Calluna	III	£269	Portable Add-ons	01483 440777	01483 452304
GameCard II	Joystick adaptor	JC Designs	II	£43	JC Designs	01371 874478	01371 874300
Flashdisk 10Mb	ATA FlashDisk	SunDisk	II	£460	Portable Add-ons	01483 440777	01483 452304
EliteCard PCMCIA Combo	Ethernet adaptor	SMC	II	£175	SMC	01344 418800	01344 418814
DataPak 260	Hard disk	Kingston	III	£399	Datrontech	01252 303500	01252 303444
Ethernet +	Ethernet adaptor	New Media	I	£135	Portable Add-ons	01483 440777	01483 452304
IR Wireless card	Infra-red LAN adaptor	IBM	II	£299	DIP Systems	01483 202070	01483 202023
Ethernet II Gold — Combo	Ethernet adaptor	Grey Cell	II	£169	Grey Cell	0181 902 8998	0181 903 4318
SwapBox Floppy Combo	Floppy Disk/PCMCIA drive	SCM	I, II, III	£175	International MicroTech	01793 784480	01793 784470
Multimedia Combo	Sound/ SCSI-2 card	New Media	II	£479	Portable Add-ons	01483 440777	01483 452304
SecureData/PCMCIA	Security card	NanoTeq	II	£199	SecureTeq	01376 500614	01621 893599
WaveRunner	ISDN Digital/Analogue modem	IBM	II	£541	IBM	0181 818 4454	0181 818 5494
Nogavision NV-256	Digital video	Nogatech	II	£385	Portable Add-ons	01483 440777	01483 452304
CARDport ISA	PCMCIA card drive	Chase	I, II, III	£165	Portable Add-ons	01483 440777	01483 452304
MobileMax 131Mb	Hard disk	Maxtor	III	£160	Maxtor	01483 747356	01483 751208
CardBay-AT	PCMCIA card drive	CardWell	I, II, III	£99	Datrontech	01252 303500	01252 303444
PCMCIA SCSI	SCSI-2 adaptor	CardWell	II	£149	Datrontech	01252 303500	01252 303444
PC-5100R/I	PCMCIA-enabled desktop	Elonex	I, II, III	£1,935	Elonex	0181 452 4444	0181 452 6422
Melcard SRAM 1Mb	Battery-backed SRAM card	Mitsubishi	I	£139	Mitsubishi	01707 278899	01707 278837
CardWizard Pro	Card and socket services	SystemSoft	N/A	£69	Portable Add-ons	01483 440777	01483 452304

# Feel The Power Of FreeHand 5



Feel the flexibility with dozens of new plug-in tools and palettes. Even use existing Illustrator plug-ins right within FreeHand!

Feel the power of page layout with text style sheets, spelling checker, columns, search & replace, copyfitting, linked text blocks, even multi-page support!

Feel the speed of working in the fastest WYSIWYG preview mode—faster than Illustrator and all the others!

Feel the possibilities of special effects like Fisheye Lens, 3-D Rotation, Multi-colour gradients, Calligraphy Pen, even Drag & Drop colour!

Feel the precision of "snap-to" grids, guides, and points—plus magnification of up to 25,600% on a massive 22" x 22" pasteboard!

Upgrade to the power of FreeHand 5 for just £99, or crossgrade from Illustrator, Coral Draw or Microworld Designer for just £149\*. Call the upgrade hotline for details.

## New FreeHand 5

Includes 500 URW fonts and 10,000 pieces of clip art.

32-bit native  
Supports Windows 3.1,  
NT and Windows 95.

£450 SRP



Can you feel it? Ultimate power and unlimited freedom in design and illustration. It's all here in the new FreeHand™ 5 the professionals choice. Every copy of FreeHand 5 ships with the amazing Showcase CD which is designed for digital designers

just like you. You'll see cutting edge work from artists, designers, desktop publishers, illustrators and the world of multimedia that will not only show you what's possible, it'll inspire you to turn your vision into reality.

So go ahead, take a leap into the future and feel the power of FreeHand 5 for yourself.

FOR UPGRADES AND INFORMATION  
☎ 0181 358 5855

\* For a limited period only. Macromedia is a registered trademark and FreeHand is a trademark of Macromedia, Inc. Other names are trademarks of their respective holders. © 1995 Macromedia, Inc. Prices exclude VAT and handling.



# MACROMEDIA®

## Conclusion

Picking an outright winner from such a disparate range of items is impossible but the group does include a number of interesting products.

First in line are the hard disks from Maxtor, Datapak and Calluna. These just work and although expensive compared to desktop megabytes they do exactly what they set out to. It is possible that PCMCIA removable media drives (just about to appear from SyQuest and others) will offer a better price-per-megabyte for infinite amounts of storage, but in the meantime, provided you treat them carefully, PCMCIA hard drives are a great way to revive an under-resourced notebook.

Of the network cards, we liked the SMC card best because it is so widely supported and easy to use. And among the card readers, the SMC Floppy SwapBox stood out because, like PCMCIA hard disks, it provides expansion for compact desktops, avoiding the necessity to buy a new PC. Not well known in the UK, SMC is big in Germany and has been involved in PCMCIA since the start.

The NogaVision Digital Video card is another good piece of equipment. Unlike a number of oddball PCMCIA cards we tried, this one installs and works quickly and

easily. We were also impressed by the SecureTeq security card; as notebook storage is so vulnerable to thieves it's almost a necessity.

Lastly, we picked out two excellent items manufactured by IBM: first the IBM WaveRunner digital/analog modem, and second, DIP's Wireless LAN adaptor. The WaveRunner bridges the existing analogue dial-up world and digital ISDN, while the infra-red wireless LAN adaptor cuts out the problem of dealing with cables when you need to roam around.



## PCMCIA standards

The road to PCMCIA started in 1985 when the Japanese Electronic Industry Development Association (JEIDA) set its first standard for 68-pin memory cards in 1985.

The Personal Computer Memory Card International Association (PCMCIA) was formed in 1989 and in September 1990 had arrived at the PCMCIA 1.0 standard. PCMCIA 1.0 imposed some order on memory cards, but PCMCIA members started coming up with non-memory applications for cards. In 1991, PCMCIA standard 2.0 laid down specifications for the large variety of PCMCIA cards we have today.

One set of PCMCIA standards defines three sizes: Type I at 3.3mm, Type II at 5mm, and Type III at 10.5mm.

PCMCIA 2.0 is a fairly loose standard as anyone will attest to who has used more than one card or has had to configure them manually. A point update in July 1993 to the PCMCIA specification brought it up to PCMCIA 2.1 with the addition of more clearly defined interfaces between the user application and the PCMCIA hardware via socket services and card services.

Finally, PCMCIA cards had a standard definition for physical, electrical, and software requirements, but the rest of the PC world had moved on. PCMCIA cards are 16-bit and the bus width is moving to 32-bit via PCI (peripheral component interconnect). PCs are also moving to 3.3V operation while most PCMCIA cards run at 5V and occasionally 12V. And PCMCIA card manufacturers still manage to come up with fairly loose adherences to the card information structure (CIS); a data set embedded in the card to inform the card and socket services software of the card's capabilities.

The most recent PCMCIA standard as finally set in March 1995 (PC Card 3.0) is supposed to deal with many of the remaining problem areas. At the same time the PCMCIA took the opportunity to change the name to PC Card because most People Can't Memorize Computer Industry Acronyms (such as PCMCIA).

PC Card Standard 3.0 introduces a high-performance 32-bit bus which can operate at either 5V or 3.3V. Called CardBus, it adds to the 16-bit bus rather than replacing it. CardBus will support busmaster PCMCIA cards

which can control the I/O bus independent of the CPU. This will enable high performance PCMCIA cards to use DMA (direct memory access) transfers to speed throughput on I/O-sensitive tasks such as networking, sound and video.

PC Card 3.0 also specifies a standard method for multi-function cards sharing a socket and tightens up the software interfaces so that the problem of plug-and-play cards which won't configure properly should disappear in time.

Most of the benefits of PC Card 3.0 won't appear for some time yet, however. The PCI-PCMCIA interconnect status will probably require adjustments to the PCI/PCMCIA bridge chips. The software to support card and socket services for PC Card 3.0 has yet to be written. Operating systems need to be provisioned with the revised PCMCIA standard. And there are as yet few PC systems capable of supplying 3.3V to PCMCIA sockets and few cards that will run on 3.3V now.

The transition to PC Card 3.0 will take some time and it's likely that the current muddled situation will get worse before it gets better; probably in mid- to late-1996.

# Make your accounting faster & easier with

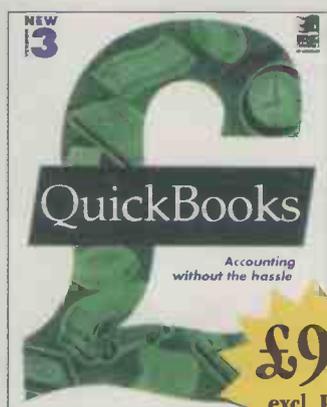
*Making your small business a success is a tough challenge nowadays.*

*Although no-one can make the challenges easier, new QuickBooks can make it easier for you to meet them.*

*By eliminating your accounting hassles and giving you the information that's crucial to your business, QuickBooks is the software breakthrough you've been waiting for.*

**“QuickBooks is a terrific buy. Put this one at the top of your shopping list”**

*Tim Woodward, Computer Buyer, July '95*



**£99**

excl. P&P & VAT

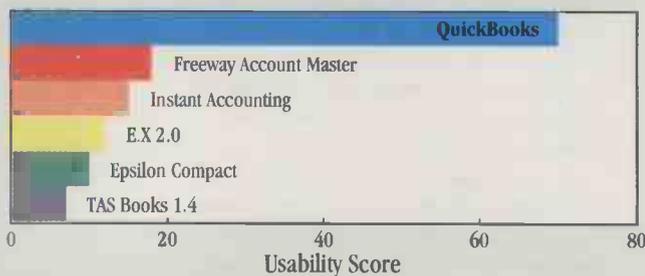
## ✓ The UK's easiest accounting software



'Usability' measures how easy it is for you to get to grips with new software and start boosting your productivity. In PC Magazine's highly-respected Usability Test for accounting software (performed by real business people not computer wizards), QuickBooks was awarded the coveted 'Seal of Approval'.

**“QuickBooks is the best solution... Our tests show that there's a large gap between it and the next most usable product”**

*PC Magazine May 1995*



*PC Magazine May 1995.*

## ✓ QuickBooks really saves you time

QuickBooks eliminates 95% of your data entry by memorising the details of your customers, vendors, products and services. Next time you begin to type these details, QuickBooks automatically fills them in for you.



**“Extremely easy to use. Other packages seem like lumbering giants compared to QuickBooks. Leave the dinosaurs behind”**

*P. Nuttall, Consultant*

In June 1995, readers of Personal Computer World voted QuickBooks the most valuable piece of software a business could buy in order to make it more productive!

## ✓ QuickBooks doesn't force you to learn accounting jargon

With QuickBooks there's no new jargon or complicated mathematics, just the plain English you already understand. You just work with familiar forms like a cheque book or invoice which appear on your computer screen.

**“Apply logic and imagination to accountancy and you get QuickBooks”**

*E. Cetintas, Film Production*

## ✓ QuickBooks forgives your mistakes

Because QuickBooks is designed for business people, not accountancy experts, we've made sure that it's easy to correct the mistakes that we all inevitably make. Just like a word processor, you can simply amend your mistake there and then.

**“QuickBooks makes it a simple matter to correct your mistakes. All you need do is trace your original transaction and correct it”**

*Tim Woodward, Computer Buyer, July '95*

## ✓ QuickBooks puts you in control of key business information

With the routine accounting done automatically, QuickBooks gives you critical-up-to-the-minute business information. Its vast range of highly customisable reports and graphs give you the information you need to be more in control of your business.

## ✓ QuickBooks ends the hassle by doing the accounting for you

With QuickBooks you focus on the tasks key to your business; creating invoices, writing cheques and paying bills, receiving payments and making deposits. Whilst you work with familiar on-screen forms, like an invoice, a bill or a cheque, QuickBooks does all the necessary 'double-entry' behind the scenes for you. Quite simply, you run your business and QuickBooks does the accounting for you automatically.

**“Hands on in 5 minutes!**

**Never looked at the competition since I tried QuickBooks.”**

*Helene Ryding,*

*Mail Order Plant Club Manager*



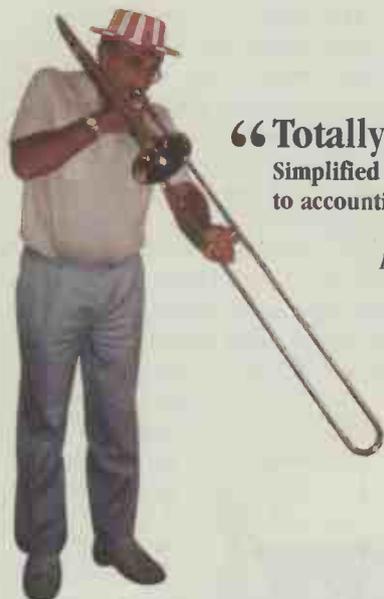
## ✓ QuickBooks lets you get started immediately

Unlike traditional accounting software, QuickBooks doesn't force you to set up all your accounts, balances and customer details before you can begin. You simply add all the critical details as you need them. It's so simple you'll be creating your first invoices in less than five minutes – guaranteed!

**“Its easy – you get started with the simple things and pick up all the features along the way”**

*JER Davis, Tree Harvesting*

# New QuickBooks – or your money back!



**“Totally in tune!  
Simplified our whole approach  
to accounting operations”**

*Peter Richardson,  
Entertainment Consultant*

## QuickBooks makes VAT automatic

QuickBooks calculates and tracks complete VAT information automatically for each invoice and bill using customisable VAT rates. Updating your VAT position with each transaction, the VAT Report gives you all the information you need for your quarterly VAT Returns.

**“QuickBooks has released us from the pressures of the VAT man”**

*J. Binstead, Forwarding Services*

## QuickBooks has everything you need to manage your entire business

- Invoicing
- Bill Paying
- Cheque Printing
- Bank Reconciliation
- Sales Reports
- Business Management
- Cash Flow Forecast
- Cash Management
- Reimbursable Expenses
- Project & Job Costing
- Budgeting
- Stock Reports
- Profit & Loss
- Comprehensive VAT
- Purchase Orders
- Fully integrated Stock Control
- Admin. Reports
- Balance Sheet

And much more including over 60 key business reports & graphs

**“For the business that needs to track more than just cash flow, budgets and VAT, QuickBooks is the best solution”**

*PC Magazine, May 1995*

## QuickBooks meets the needs of your accountant

The built in Audit Trail gives you a complete record of all the changes you make so your accountant can be secure in the knowledge that your books are always accurate. And you can even save your accountant time when checking your records as QuickBooks can immediately find all the transactions that make up a report.

**“QuickBooks is very impressive - it makes manual ledgers redundant”**

*Alistair Summers, Chartered Accountant*

**“Accountability is QuickBooks greatest asset”**

*B. Dowdall*

## UK's Best Selling Software for Small Business Accounting\*

QuickBooks was launched in June 1994. Designed specifically to be used by UK businesses, it has now become the UK's best-selling small business accounting software.

\* Romtec Software Market Monitoring Service March, April, May 1995.

## QuickBooks comes from the World's No 1 producer of Accounting Software

With over 1 million customers world wide QuickBooks is the world's best selling accounting software. And with the backing of 10 years experience and a \$400 million company specialising in finance and accountancy software, who better to rely on when choosing software to make your business successful.

## Only QuickBooks gives you FREE, unlimited technical support

Besides a comprehensive User Manual, a simple Getting Started Guide, a built in graphical tutorial and complete on-line Help throughout. And if you ever need it, there's free unlimited technical support if you want to call and speak to a trained operator.

## QuickBooks is backed by an unconditional 60-day money-back guarantee.

We're so confident that QuickBooks will take the hassle out of your accounting and put you more in control of your business, that we provide a no-quibble guarantee. If you are not 100% satisfied just return QuickBooks with a dated receipt to the place of purchase for a full refund. And with 60 days in which to try out QuickBooks you've got plenty of time to check it out against what you do now – be that bookkeeping by hand, using a computer or paying an accountant!

**“We were encouraged by the 60 day guarantee to try QuickBooks – and thank god we did!”**

*E. Cetintas, Film Production*

Try QuickBooks risk-free for 60 days and find out how it can help your business succeed. Order your copy today – choose QuickBooks for only

**£99**  
excl. P&P & VAT

Order by phone: Call us on

**0800 585058**

today quoting your credit card details.

- **Order by fax:** Fill in this coupon with your credit card details fax it to us on 0181 759 2077.
- **Order by Post:** Return this coupon with your cheque or credit card details to: Intuit Ltd, Manor Court, High Street, Harmondsworth, West Drayton, Middlesex. UB7 0AQ.
- **Ordering from Overseas:** If ordering from outside the UK call +44 181 990 5500 to confirm shipping charges.

Name \_\_\_\_\_

Statement Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Telephone: \_\_\_\_\_

\* Please give details on a separate sheet (and attach) if delivery address differs from billing address. Please allow 14 days for delivery. 98% of deliveries occur within 3 days. Total £128.08 Inc £10 UK Postage & Packing & £19.08 VAT.

Please charge £128.08 to my:  Visa  Access  American Express  Delta

Card No.: \_\_\_\_\_

Expiry Date: \_\_\_\_\_

Card Holder Name: (if different) \_\_\_\_\_

- Tick this box if you do not wish to receive future mailings from Intuit
- Tick this box if you do not wish to receive future mailings from third parties

file PCWI.EXE in the root directory of the CD-ROM.

### Using the CD-ROM from DOS

If you don't have Windows, or if you experience any problems running some of the DOS software from Windows, exit to DOS and run the program DOSMENU.BAT which you'll find in the root directory of the CD-ROM. DOSMENU displays a simple menu, from which you can select any of the DOS programs and demos using either the cursor keys and Return, or a mouse.

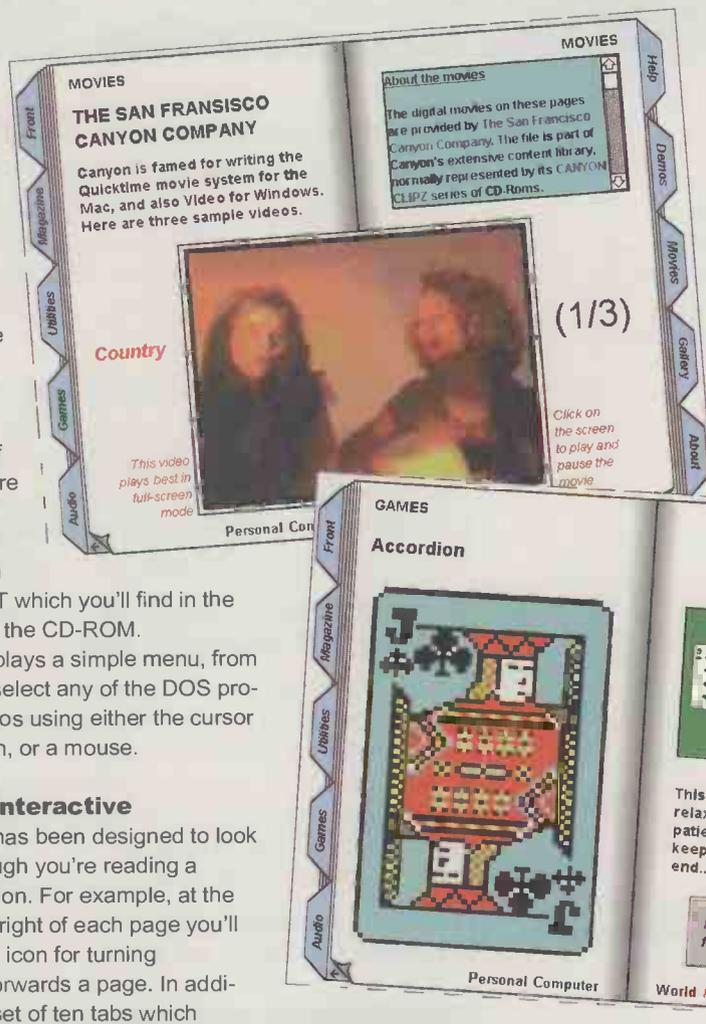
### Using PCW Interactive

The magazine has been designed to look and feel as though you're reading a printed publication. For example, at the bottom left and right of each page you'll find a page turn icon for turning backwards or forwards a page. In addition, there is a set of ten tabs which appear down the left- and right-hand side of each page. Clicking on any of these will take you directly to the page in the magazine where the indicated section begins.

Throughout PCW Interactive you'll have the opportunity to run or install programs, get further details on a particular program, try out demonstrations of programs, play videos, listen to audio files and much more. When any of these options is available, an icon will be displayed indicating the fact. All you need to do is click once on it to activate the choice.

### PC Tax Advisor

Please note that after duplication we discovered that the PC Tax Advisor attempts to write a temporary file to the drive from which it is run. Therefore, it will not run directly from the CD-ROM as it will generate an error when the write attempt fails. The easiest way for you to run this program is to run the file \COVERDSKPCW.EXE from Windows which will install all the floppy disk programs on your PC. You can then run PC Tax from a new icon which is added to Program Manager.



Top From the Country & Western movie  
Above Relax with Accordion Solitaire

### Mac Software

This month we have started including Mac software on the CD-ROM. To kick off there are three superb demos comprising over 50Mb of software. They are two great children's interactive stories from Oxford Multimedia, "A Christmas Story" and "The Fish Who Could Wish", which we know your kids will love, and a stunning trailer for "Deadalus". To use them, insert the CD-ROM in your Mac's drive and, using Finder, run the programs that interest you (remembering to read all accompanying documentation first). Unless you have a PC emulator, you should ignore all the other folders that you see.

### Video for Windows Enhanced Setup

On the first page of PCW Interactive you'll have the opportunity to install the latest version of Video for Windows runtime, so that you can view the digital movies on the CD. If you haven't installed Video for Windows from a PCW Interactive CD before, then you should install this new

version as it contains the latest drivers which deliver higher quality, a larger size and a faster playback rate. If you don't install the new version, some videos will display the message "Cannot display this video", or similar warnings.

There are also some extra buttons on the Video for Windows page, which allow you to fine-tune your PC's performance without having to leave PCW Interactive or restart Windows. In particular you can choose to have digital movies played back on your PC at full screen resolution!

That's right, without having to recourse to hardware add-ons such as MPEG cards, you can have full screen digital videos when you run the PCW Interactive CD-ROM.

But please remember that when you exit from PCW Interactive, if you leave the option for full screen video selected, then all video in

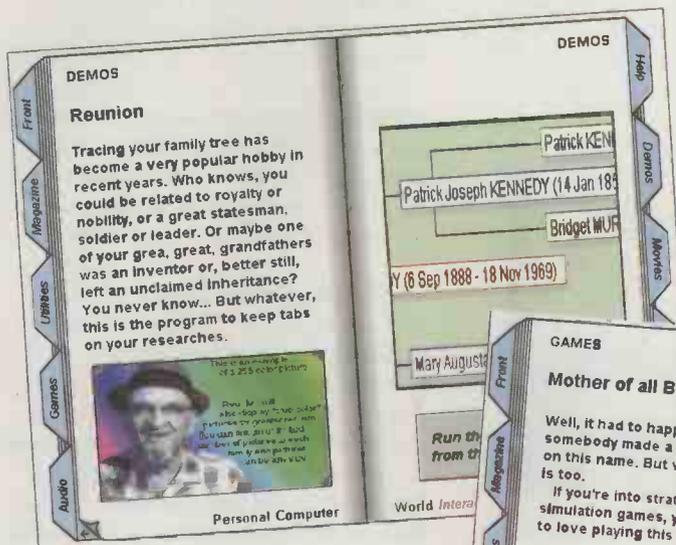
other applications will also be full screen. If you don't want this, then re-run PCW Interactive and select the "Windowed" option and quit again.

### MSCDEX

Microsoft's CD-ROM extensions (called MSCDEX.EXE) provide the interface between your PC and your CD-ROM drive. There are two versions in common use, 2.22 and 2.23. If you are using 2.22 you'll find that data is pulled off your CD-ROMs much more slowly than with version 2.23. Also, slightly faulty discs can be read using version 2.23, which 2.22 (with less sophisticated error correction) often can't read.

We recommend you upgrade to the new driver as it will enable you to run most CD-ROM programs you may have had trouble with. And as an added bonus you should find that most digital videos are less jerky, while loading data and running programs will be much quicker.

To upgrade to the new driver using this CD-ROM, run the PCW Interactive front-end and step through the on-screen magazine until you reach the MSCDEX page. Then click on the Run button, and follow the simple instructions.



Left Trace your family tree with *Reunion*

Below Oh mother... a battle game for you to get embroiled in

**\* Video for Windows installs fails**

If the Video for Windows installation fails and you receive an error such as "XXXXXXXX.YYY cannot be updated as it is a shared file", the answer is to delete the file "XXXXXXXX.YYY" (or whatever it is called) and try reinstalling Video for Windows.

**\* PCWI is slow to load or runs slowly**

You need at least 4Mb of RAM and a 4Mb permanent swap file to use PCWI. You are also advised to enable read caching of your CD-ROM by adding its name to the SMARTDRV line in your AUTOEXEC.BAT file. You should also allow MSCDEX to set up its own buffers by adding a line such as /M:10 to the MSCDEX line,

also in your AUTOEXEC.BAT file. Please refer to your manuals for full details.

**\* Windows NT, OS/2 and Windows 95** Unfortunately, Macromedia Director, the program used to create PCWI, is incompatible with Windows NT. However, you can run PCWI from OS/2 by simply calling up PCWI.EXE from the command line. Please note that we cannot guarantee that PCWI will work with any of the beta versions of Windows 95, and we can only offer support to users of the final release version.

**Advice & Contacts**

The PCW CD-ROM and cover disk are virus checked at every stage of production. However, neither VNU nor Ultimedia will accept liability for any problems arising from its use. You are advised not to install software on a networked PC before checking the disk. While PCW maintains a high standard of quality control, floppy disks may be damaged in transportation. Check the disk's shutter before inserting it in the drive by sliding it to the left and allowing it to spring back.

For technical support on the CD and the programs on it, call the Support Line on 01233 665800. Initially this is a voice service manned by technical support staff. All calls are charged at the standard rate. You can also email [nixon@cix.compulink.co.uk](mailto:nixon@cix.compulink.co.uk), or CompuServe: 70007,5547.

This will then automatically install the new driver on your hard disk in the directory MSCDEX\_2.23. Your AUTOEXEC.BAT file will also be modified. However, the old MSCDEX driver will remain on your hard disk should you wish to return to it, while a backup copy of your AUTOEXEC.BAT file will be saved as AUTOEXEC.SAV.

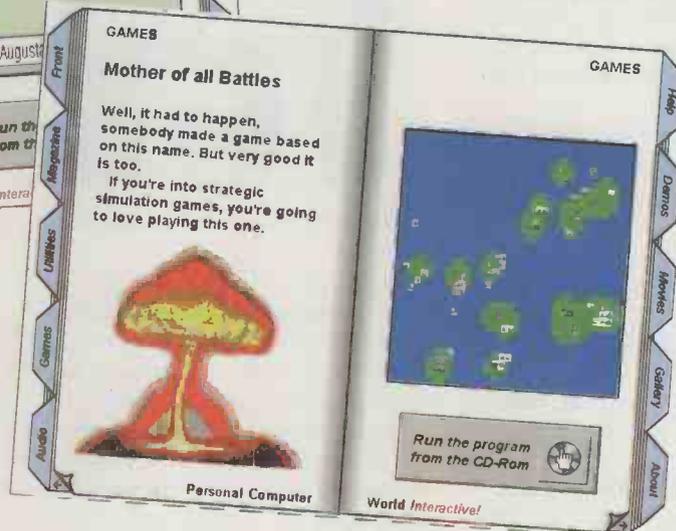
**Testing your CD-ROM**

If you suspect your CD-ROM may actually be faulty or damaged, you can run the file CDTEST.EXE in the SYSTEM directory of the CD-ROM (or from its page in PCW Interactive). The program will then examine every byte of data on the disc to see if it can be correctly read. The process takes up to 35 minutes and generates a verification code if the disc passes the test. If the CD-ROM fails this test, try cleaning it with a light solution of washing-up liquid and dry it with a lint-free cloth and run the test again. If it still fails, return your CD-ROM to the magazine for a free replacement.

You are free to copy the CDTEST.EXE program to your hard disk in order to test other CD-ROMs, as long as it is not distributed in any way. If you are running CDTEST from your hard drive, you need to specify the CD-ROM drive to test, as follows:

CDTEST D:

*Note: We offer this tool "As Is" purely as an aid to diagnosing possible faults, some of which may occur because an older version of MSCDEX.EXE is in use and not because of a faulty CD-ROM, and disclaim any responsibility for any erroneous error reports that it may generate.*



**IMPORTANT — READ THIS!**

**\* General Protection Faults**

If you receive General Protection Faults when running PCWI or playing any digital videos, it is probably because your graphics display driver may not be entirely 100% Microsoft compatible. The answer is therefore to install one of Microsoft's own drivers, as follows:

- 1). Run "Windows Setup" from File Manager, then select "Options" followed by "Change System Settings".
- 2). Scroll through the list of displayed graphic drivers until you get to the final entry "Other Display (Requires Disk from OEM)", and select it.
- 3). Insert this month's CD-ROM into the drive and replace the "A.:" prompt with "D:\SYSTEM\SVGA256" (changing the D: to the correct letter if your CD-ROM is not in drive D:), then press Return.
- 4). Scroll through the new drivers until you find the ones beginning "Super VGA..." and select the one for the resolution you prefer to use. The driver will then be installed and Windows restarted. PCWI and Video for Windows should then have no further problems.

If this works (which it should in 95% of cases) you may wish to contact the supplier of your graphics card to see if they have an updated graphics driver. If Microsoft's drivers don't work you will need to contact your graphics card supplier anyway.

# Superscape

**[Minimum requirements: 8Mb RAM, 486or Pentium processor with SVGA-capable graphics card, monitor and mouse]**

On this and next month's CD-ROMs there will be four more stunning virtual worlds for you to explore, all created by Superscape's VRT system, a virtual reality authoring package.

This month there are two virtual worlds, and a program called a Visualiser which you need in order to explore these worlds, or any virtual world created in Superscape's VRT.

To use the Superscape system you will need to exit from Windows (if it is running) and change to the SUPERSCP directory of the CD-ROM. Then run the program INSTALL.EXE which will copy the visualiser and virtual worlds to your hard disk.

Please note that this will require a modification to your AUTOEXEC.BAT file where a line similar to

```
SET VIS=C:\SUPERSCP\PROGRAMS
```

is added, which sets the environment variable VIS to point to the SUPERSCP directory. However, this means that you will need to restart your PC in order for this change to take place, before you can run the visualiser.

The installation program will update your AUTOEXEC.BAT file at the end of the installation procedure, if you request it to do so when prompted.

If the visualiser fails to run, it is likely that you do not have enough environment space free for the SET VIS= command to work. Check that the directory containing the Superscape visualiser program is in your path statement within the AUTOEXEC.BAT file.

You may need to edit your



CONFIG.SYS file and find the line that begins

```
SHELL=
```

and look along it until you find an option such as /E:512. When you have found it, change it to /E:1024 (or a number that is 512 bigger than the previous setting).

If you don't have a SHELL= command or there is no /E: option, you should add the following line to the end of your CONFIG.SYS file:

```
SHELL=C:\COMMAND.COM C:\DOS /P  
/E:1024
```

The /E:1024 tells DOS to hand over 1024 bytes of space to the environment, and the /P command tells DOS to make this new setting permanent for this session.

Remember to replace the two C:s with the correct letter if your boot drive is not C:, also replace \COMMAND.COM with the correct command if your shell program is not the same, and replace the \DOS with the correct directory if you do not have DOS installed in \DOS.

## The Watchman Virtual World

The Watchman demonstration illustrates how a product might be visualised or designed using Superscape VR. Not only

can the proportions and visual design be represented and edited, but any features, mechanical or electrical, can be simulated.

Once you load the Watchman file, you will be presented with two default tapes and a prompt to select one. Both tapes contain an animation; one is a lower resolution than the other to allow users with low memory systems to use this demo.

## About the Rubik Cube

This demonstration illustrates the ability to interact with an object.

### Foreground buttons

The six larger buttons in the foreground correspond to the centre face of the same colours on the Rubik Cube (except the light green button which corresponds to the cyan face colour). Click on one half of the button to rotate the face of the cube one way, click on the other half to rotate it the other way.

Clicking on the top right button (olive colour) toggles cube rotation — on off.

Clicking on middle right button (black) generates a random move. Click and hold mixes up the cube.

Click on the bottom right button (white) to solve the cube automatically.

### Rubik cube

Clicking on a layer of the cube rotates it in one direction only.

## About Superscape

If you would like to explore more Superscape Virtual Worlds, access their home page at <http://www.superscape.com> or contact Superscape on 01256 745745.

## Your chance to win a copy of Superscape VRT

This month our special prize is Superscape VRT, a complete suite of authoring tools for creating virtual worlds. It comes with twenty virtual worlds and two hundred virtual clip-art images. To win a copy of Superscape VRT, all you need to do is tick the boxes to the correct answers to the questions below and send the coupon to the address shown.

### The Questions

1) In the Watchman, what video scene can you see on the Watchman when you press the play button?

(a) A battle (b) A windsurfer (c) A driver

2) In the Rubik Cube, how many faces can you see on the Rubik Cube in the panel?

(a) 3 (b) 4 (c) 5

## SUPERSCAPE COMPETITION ENTRY FORM: OCTOBER PCW INTERACTIVE

Answer 1 \_\_\_\_\_ Answer 2 \_\_\_\_\_

Name..... Title.....

Company.....

Address.....

Postcode..... Telephone.....

Return To: PCWI Competition (October), Superscape Ltd, Cromwell House, Bartley Wood Business Park, Hook, Hampshire RG27 9XA.

**"LET ME MAKE IT QUITE  
CLEAR WHO'S RUNNING THIS  
COMPANY."**



intel  
inside  
pentium  
PROCESSOR

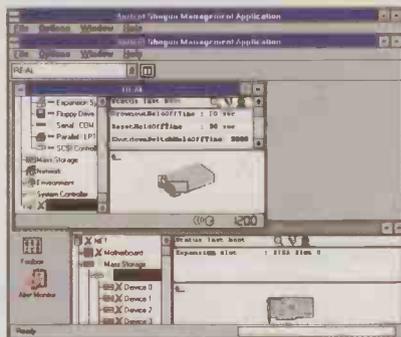
# THE NEW SHOGUN WHAT EVERY COMPANY AND ST

In an industry where superlatives come cheap, Apricot's new Shogun will have everyone grabbing for the dictionary.

Principally because Shogun is the product of a unique marriage between Apricot's market-leading PC Server capability and Mitsubishi's mainframe technology.

The result is an Unshakeable SuperServer™ designed for mission-critical applications and built with industrial-strength engineering to match. So much so, in fact, that Shogun carries a LifeTime™ warranty.

Look at the specifications opposite and you begin to see why.



*Windows interface for Apricot's Systems Management Controller*

Shogun has been future-proofed to accommodate all foreseeable technological developments.

Its multiprocessor bus supports from one to four Pentium processors and up to 768Mb of memory.

Shogun's disk subsystem supports up to 20 SCSI-2 drives, configurable up to a total capacity of 160Gb. These drives are hot-pluggable, with a two-stage removal mechanism that protects the data integrity of each drive.

Even relatively "minor" components like fans have been designed to anticipate potential increases in power and heat of future processors: they sense ambient temperature and speed up or slow down accordingly to maintain correct cooling over a wide range of environmental conditions.

Riding shotgun on all this is Apricot's integrated Systems Management Controller, a completely separate processor subsystem which operates independently of the main CPUs and power supply, monitoring every aspect of the system.

We've also given Shogun support to match its superiority. A number of our resellers have been specially trained as Shogun consultants, enabling them to give the best advice on the server's suitability across a whole range of applications.

So if you're serious about staying in front, take a long, hard look at the server that leads from the front and call us today.



*Hot-pluggable hard drives with data integrity protection*



*Fans that sense temperature and vary speed accordingly*



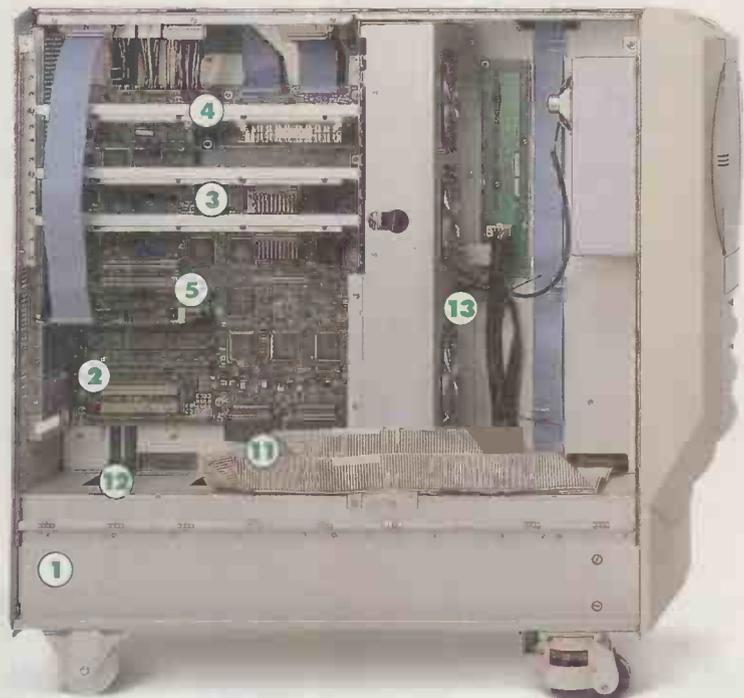
## GET IN FRONT. GET IN FRONT OF AN APRICOT.

All trademarks acknowledged. Intel Inside and Pentium processor Logos are trademarks of Intel Corporation. LifeTime™ warranty covers typical commercial life with five years parts and three years on site service.

# SERVER FROM APRICOT. YOU NEEDS TO GET IN FRONT. GET THERE.

## KEY

- ① 1000 watt integrated uninterruptible power supply
- ② 4 x PCI & 6 x EISA expansion slots
- ③ Up to four 100MHz Pentium processors
- ④ Up to two memory cards each supporting twelve 32Mb SIMMS, total 768Mb
- ⑤ Dual PCI bus
- ⑥ Disk subsystem supporting up to 20 drives
- ⑦ Hot-pluggable drives with two-stage removal to protect data integrity
- ⑧ Systems Management Controller for fault monitoring, security and remote diagnostics
- ⑨ Tamper-proof cabinet
- ⑩ Exchangeable media bays
- ⑪ Floating backplane & woven SCSI cables to guard against the torque effect of drives
- ⑫ Power distribution through heavy duty copper bus-bars to guard against voltage drop
- ⑬ Variable-speed, temperature-sensing fans



For further information about the Shogun SuperServer, and details of your nearest accredited reseller call now:

**CALL FREE ON 0800 212 422**

Worldwide Web address <http://www.apricot.co.uk>

Type this in at 1:00...

Order system

Get price quotes.

Is money in the budget?

(Yes)

Fill out Purchase Requisition Form #P\*27\*.

(No)

Fill out Purchase Requisition Form #P\*95\*.

Purchase amount:

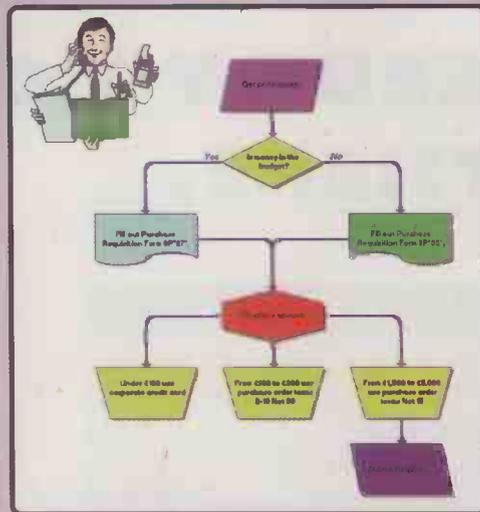
(Under £100 use corporate credit card)

(From £100 to £999 use purchase order terms 2-10 Net 30)

(From £1,500 to £5,000 use purchase order terms Net 15)

Submit Requisition.

..Print this out at 1:03.



# If you're not flowcharting with allCLEAR™ you're wasting your time.



Are you responsible for documenting your company's policies and procedures?

Are you preparing your company to meet

**"It would take me hours to redesign my procedure if I were limited to graphic tools only"**

**Rob Piersielak, Xerox Corp.**

Even revisions are a snap with allCLEAR. Simply edit your text or drop in a few boxes and allCLEAR automatically re-draws, re-routes, and re-sizes. No drawing-based flowcharter will allow you to make

ISO9000 or other standards? If you are, you need an intelligent flowcharter, not drawing software in disguise.

We've got a simple solution that will cut your flow charting time by as much as 90 percent. **Introducing allCLEAR — the only intelligent flowcharter that's truly automatic.**

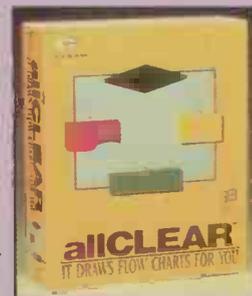
With allCLEAR create presentation-quality flow-charts, process flows, deployment charts, fishbone diagrams and others in a fraction of the time you're spending now, simply by describing your process in plain English. Or, if it's graphics you prefer, use the intelligent drag and drop templates.

allCLEAR allows you to easily customise your diagrams. Choose from over 180 shapes, multiple diagram and line styles. Select fonts, control colors and shading. Place text or images any where you like.

changes as quickly.

Make allCLEAR an essential part of your 'working together' strategy with full Lotus Notes support and the unique CLEAR Viewer which lets others in your company view and 'walk-through' your charts.

allCLEAR retails for £249, but if you already own a flowcharting or drawing program you can upgrade to allCLEAR for just £99.95\*.



**Don't waste another minute. Call now for your free Info Pack 01923 246 427**

**Please send me:**

- Further information on allCLEAR
- allCLEAR Trade In @ £99.95 + VAT = £117.45\*

Please add a £10 delivery charge (UK only).

I enclose a total of £.....

Access  Visa  Expiry date.....

Card no.....

Cheques payable to FastTrak Software Publishing.

\*PROOF OF PURCHASE REQUIRED - DISK 1, RECEIPT,

OR FRONT COVER OF THE MANUAL.

Name.....

Company.....

Address.....

.....

Postcode.....

Tel. no.....

Please return to:

FastTrak Software Publishing

FREEPOST 479, WD1 8WD

Fax: 01923 228796

PCW 10/95





# It's all worked out beautifully

**A** motor racing team is just that; a team. No one person makes it but a poor link in the chain can break it. Everything must represent the best possible solution to a problem, from the aerodynamics to the engine, suspension, braking, electrics and, of course, the electronics. The Williams racing team has expertise in all these areas but in others it looks to outside suppliers, a case in point being Adams Technology, the Manchester-based PC supplier.

...for Adams Technology, helping the Williams Renault team to maintain the revs in its motor-racing success. Simon Rockman outlines the benefits of computerised data, and the link between the team and its PC supplier.

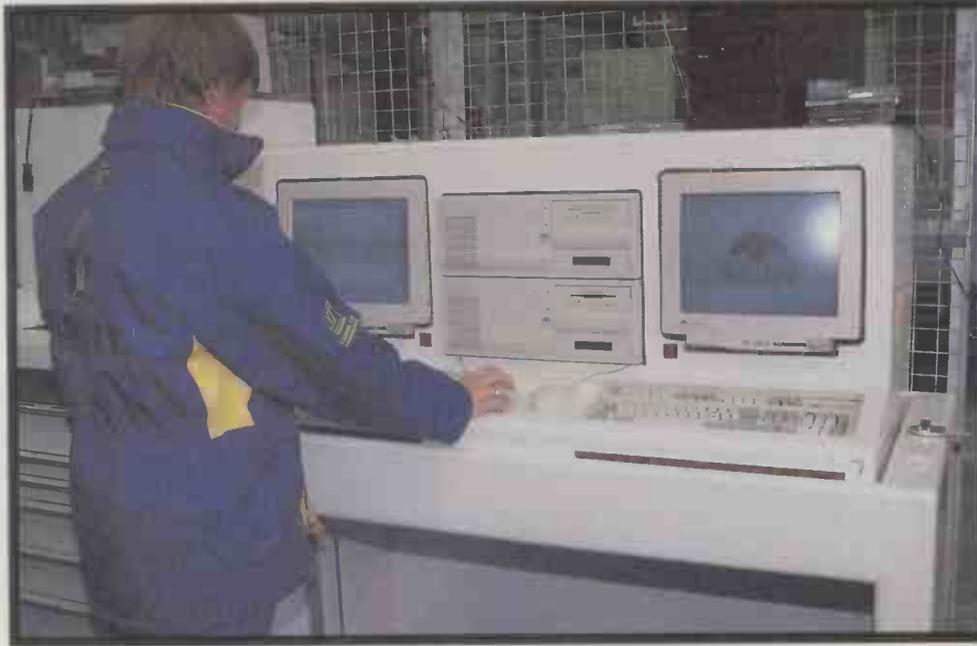
Despite being based hundreds of miles from Williams' Didcot HQ, Adams manages to work closely with Williams.

Williams recently branched out to run the Renault Laguna team in the British Touring Car Championship (the BTCC). No team can expect to win straight away, and Williams has always said that it would be mid-season before its drivers Alan Menu and Will Hoy could expect to be regular visitors to the podium. Computer systems play a vital role here and while other teams use off-the-shelf solutions, Williams uses hardware and software developed in-house by the Formula One (F1) team.

In most respects the F1 and BTCC teams are run separately but Frank Williams and technical director, Patrick Head, both take an active interest and will soon see some of the work that Adams has done for Williams, filter into the F1 team. They both attend the BTCC races whenever possible but if there is a Grand Prix taking place over the same weekend it's Damon (Hill) and David (Coulthard) who get the attention rather than Alan and Will.

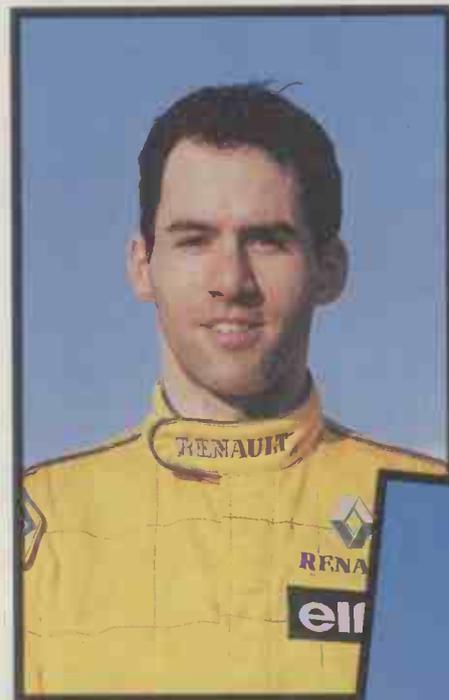
The engineers fill the car with sensors and monitor such things as damping, wheel travel, acceleration and g-forces. The engineers look at how the car behaves over different parts of the track and then tweak the performance. The rules prohibit the teams from using a radio link for the data, so all the information is collected by a Williams-designed and built device called the VCM (Vehicle Control Module) which saves the data to a flash memory card. In the pits, this is whipped out of the car and slotted into one of the Adams Technology 486 machines in the pit garage. These have been installed in a unit called the Whirlitzer — a cabinet which springs up, with the monitors and both machines in one unit. There is a special slot on the front for the flash card. The design currently uses a 64Kb card in a Fujitsu proprietary slot. There are plans to change this to PCMCIA, although given the small amount of data means that this is not a pressing need and the current system has proved reliable. But moving to PCMCIA will also allow a switch to notebook PCs.

The same VCM is used in other forms of motorsport. Williams uses it in Formula One where wireless telemetry is allowed and this is what produces the statistics you see on TV on a Sunday evening. Keke Rosberg's Opel team has bought the Williams computer equipment for use



*Above It is a challenge for Adams to build systems for a specialist customer*

*Left Computer data helps racing team mates to modify their driving*



The Datamill Windows software written by the Formula One team gives a detailed breakdown of the information gathered by the system. There are 160 pins on the bus which can be attached to any kind of sensor but the software is set up to monitor speed and distance,

in the German DTM: a no-holds barred equivalent of the BTCC where the cars are substantially changed from the road-going versions. In this application the VCM controls the active suspension — a technology which has been banned from BTCC and F1 partly on the basis of cost. Whatever the data gathering mechanism, the important information is fed into the computers in the pits in the shortest possible time.



brake pressure and bias (the setup of the suspension), and battery voltage. Depression of the four dampers, acceleration, roll, gear and a number of other criteria are also monitored from lap to lap. Statistics can be given for any point on any lap — a map of the circuit shows at which points the stats change. If one driver is faster than the other through a particular complex, they can compare what is going on and modify their driving to copy the quicker route.

By monitoring the performance of all these parts of the car, the engineers can look for those extra improvements which

could make the fractions of a second difference in lap time — ultimately perhaps, the difference at the end of the race between getting to soak other people in champagne or being soaked yourself.

Adams Technology has found it an interesting



### The BTCC car

Formula One racing cars are built from the ground-up. BTCC (British Touring Car Championship) cars are ostensibly the same as those available in your local car sales showroom, except that they're tuned up a bit before being let out on the track.

The Renault Laguna production line in France is stopped while a special run of bodysells is made for the Williams team. These are then stored at Didcot (and hopefully not needed) — the team takes three cars to the track and only builds up extras if the rough and tumble of BTCC takes its toll. If a new body is needed it is sent back to France to be seam welded and a

roll cage built in (massive steel pipes which buttress the insides of the car). The cages are far more substantial than most racing car roll cages, and given the frequency with which BTCC cars

collide with each other it's a sensible precaution. At the end of the season the surviving cars are scrapped, although one or two might be used as mules for developing the following season's cars.

Inside, the car bears very little resemblance to a standard Laguna. Apart from the "climbing frame" decor there is nothing which isn't needed. All the seats, padding and panels have gone, the carpets, seat runners and anything which smacks of creature comforts hasn't just been removed; it was never there in the first place. The single bucket seat is fixed, a couple of feet back from the standard position to give better weight distribution. Since no driver has arms two feet longer than usual, the dashboard has a pod which extends the vital controls and the steering

wheel. But regulations stipulate that the car be fully functioning, so even the indicators work — although indicating your intentions in BTCC is about as likely as Van Halen doing an unplugged album. The extended dashboard is made of carbon fibre. A row of lights along the top of the dash provide other indications (including a speed of 80mph which is the limit when driving in the pits). The inside of the Laguna is blue painted metal and what distinguishes it from lesser racing cars is how neat everything is: all the internal cables are neatly routed and there is a television camera on the roll cage. BTCC

races are not shown live but are taped using an 8mm video recorder in every car and the footage amalgamated before broadcast.

The major change in BTCC since last year is the introduction of

aerodynamic aids. Touring

cars now have a very low spoiler on the front and a wing at the back, helping to make them faster through the bends. But because this makes them look less like road cars the move has proved unpopular with some fans who consider that the cars should look right, even if they are quite unlike the real thing in actual construction. The wings are all made of carbon fibre. They are expensive, and built to be light which makes them fragile and the front spoilers rarely last long. Limits to the overall dimensions and the advantages of adding a wing have meant that the Volvo team has had to switch from the estate version, which proved reasonably competent, to the saloon cars of this year.

The whole lot is designed to be pulled apart quickly, not just for race-repair but because the racing cars are mobile test-



*Being able to monitor the performance of important parts of the car affects the split-second difference between a winner and a runner-up*

challenge to build systems for such a specialist customer and sees it, additionally, as a way to hone its own organisational skills: Williams works with scrupulous efficiency, so meeting the demands of such an exacting customer has been good for everyone within Adams.

There is also the opportunity to explore new technologies. Motor racing is often a game of numbers and getting the telemetry information distributed around the pits helps everyone to learn what's going on. At present data is carried from the pits to Frank Williams in the motor home, using "sneakernet" (a runner in specially-branded Williams training shoes) on floppy but Marcus Adams is keen to experiment with WaveLAN to provide a 2Mbit link between the network in the pits and the PC in the motorhome. All these developments won't directly make for a race win, but then motor races are won and lost by fractions of one percent and only by having the very best equipment can you be sure that nothing will go wrong.

A more immediate benefit for Adams Technology is that the latest advertisements from Renault show the race-winning Laguna with the Adams fig leaf to the fore. As the season has progressed, so the Lagunas have moved up the rankings. Will Hoy started off badly but is now finding his form, and Alan Menu is climbing up the points table. Next year will see the first car designed by Williams from the stage of initial development work, through to the track — Adams is planned to be a more active part of that project and the result should be heavier computerisation of the pits lane. **PCW**

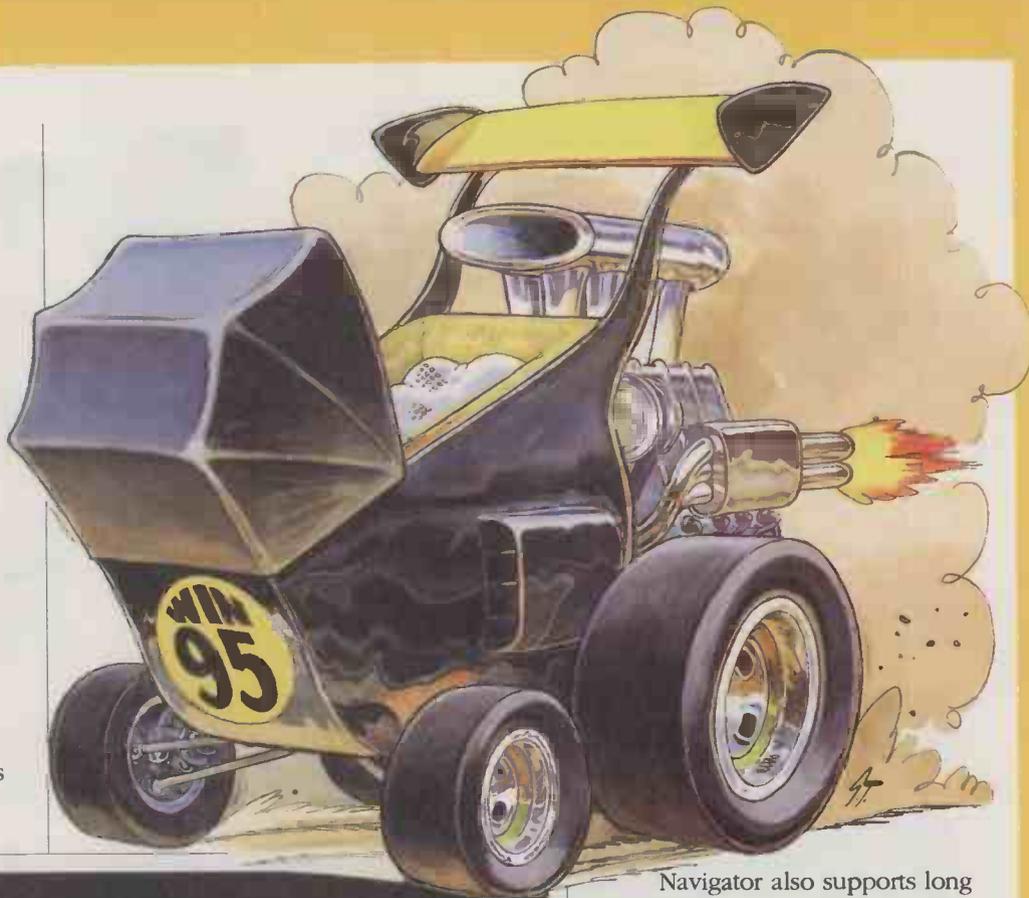
**W**indows 95 has been delivered.

You've experienced the increase in speed and power this new generation operating system offers, but you want more, much more - you want ease of use to match the record breaking performance.

**YOU NEED NORTON NAVIGATOR FOR WINDOWS 95.**

Norton Navigator allows you to create a different desktop for each project and find your work in seconds.

There's no more going up and down, and to and from the start menu to launch your favourite files, folders or applications - with Norton Navigator



**MAKE MICROSOFT'S NEW BABY GO THAT MUCH FASTER.**

you simply hit a button on the Taskbar.

You can locate text strings within a file at least ten times as fast as in Windows 95.

You open a file with one click instead of five, copy a file from one directory to another in one step instead of eleven, and access recently opened files or folders from any application in one click without wasting time wading through folders.

But that's not all. You'll save a minute each time you delete, move, zip or encrypt from any application's open or save dialogue box, and save minutes



when you compress files with Navigator's PK.ZIP compatible compression.

**NORTON NAVIGATOR FOR WINDOWS 95**

*Norton Navigator accelerates your file management in Windows 95.*

*Norton Navigator puts file management at your fingertips with Norton File Manager, Explorer Extension and FileAssist.*

*Norton Folder Navigator lets you open, copy, move or create a shortcut for any folder with just one mouse click.*

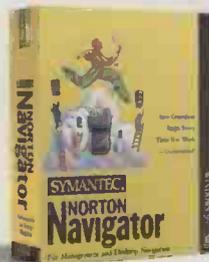
*Norton Taskbar features multiple desktops that let you organise your files and find your work faster.*

*Norton FastFind performs specific text string searches at least ten times faster than Windows 95.*

Navigator also supports long file names, so all your documents can be filed and found at maximum speed with a minimum of fuss.

And, using File Transfer Protocol, Norton Navigator lets you plug into your internet connection directly from your file manager so you can retrieve files in a third of the time it would take if you were using a separate application.

Take this opportunity to make Microsoft's new baby really move. For more information on this exciting new product, call 0800 526459.



Also available from Symantec for Windows 95 are Norton AntiVirus and Norton Utilities. Outside the UK, please call (0) 1734 662969.

**SYMANTEC.**

☎ To find out more about this exciting new product, call 0800 526459

✂ Or simply return the completed coupon

☒ Or fax it to 01734 662979

PCW R/7/9



**TRADE-UP EDITION NOW ON SALE FOR JUST £39**

**Sixty day money-back guarantee**

Name \_\_\_\_\_  
Job Title \_\_\_\_\_ Company \_\_\_\_\_  
Address \_\_\_\_\_  
Postcode \_\_\_\_\_  
Telephone \_\_\_\_\_ Fax \_\_\_\_\_

# The global shopping trip

World Wide Web offers the potential to turn our so-called nation of shopkeepers into international mail order traders. Fact or fantasy? Wendy M Grossman takes a look at British and US online businesses already up and running.

**T**he Internet seems to hold many platinum promises: not least of these is the vision that small companies will be able to find a worldwide market via this relatively new and inexpensive medium.

Just as desktop publishing turned, potentially, every laser printer owner into a small press the World Wide Web (in theory) could turn every back room business into an international mail-order outfit at low cost — but not yet. It's a compelling fantasy for both vendors and consumers. Particularly to an expatriate, like myself, the notion of being able to sit at a desk in London and have instant access to the familiar goods of home is a powerful one.

Moreover, anyone who's fed up with having 26 places in which to buy copies of Pulp Fiction and Home Alone, yet nowhere to find the much-loved and delicate seventies cult film King of Hearts, or who lives in a small rural town with no good bookshop and a tiny grocery store that's never heard of Gouda cheese, will welcome the idea of being able to use the Internet to gain access to a world of wider choices. But again; not yet. But like they always say, it's coming Real Soon Now.

People who are interested in becoming net vendors have, essentially, two choices: to go it alone, or join one of the electronic shopping malls that are beginning to pop up across the net. CompuServe's internal US Electronic Mall is probably the oldest online shopping service: it's been going for more than ten years. The UK Shopping Mall, however, only started up in May 1995.

Both services are due to change fairly

soon as CompuServe is moving to open them up on the Web, giving those merchants broader net accessibility than they have now. It's already facing Web-based competition from Barclaycard's "BarclaySquare" as well as the somewhat differently orientated "Britnet".

No one will release sales figures and CompuServe's Keith Arnold, who runs the US Electronic Mall, is no exception. His assessment of the market is candidly mixed: "For all the hype that it gets, it's not exactly a medium that has many huge success stories. I'm not saying people aren't making money, but this is the wild, wild west. Although we've been doing it longer than anyone else, it's still in its infancy." So: "A lot of companies make a nice profit on their online sales,

but a lot of companies are just at the break-even point."

Like many involved in net commerce, Arnold compares the costs and returns with the many forms of advertising rather than to sales outlets: "We don't have companies saying we'll pull money out of, and back way off, traditional advertising and plough into online because the return is equal or greater. But we do see a lot of companies saying that consumers are changing — they're not passive like they used to be. They want more control over their money and their destiny." So many companies answer these perceived changes by "driving into every possible channel."

Both CompuServe and Barclaycard's BarclaySquare, launched at the end of last May, aim at bigger companies with nationally known names. So CompuServe's UK shopping mall houses: WH Smith, Virgin, and Tesco (wine). BarclaySquare invites you into: Argos, Blackwell's, Toys 'R' Us, Sainsburys and Innovations.

"We do strongly communicate that the Internet is not secure," says Sebastian LaPorta, the commercial manager for Barclaycard's Emerging Markets Unit, adding that besides the Netscape secure server technology Barclaycard has its own back-office security that authenticates transactions and validates



customer addresses and post codes. This is something that many telephone ordering outfits don't do, points out LaPorta.

CompuServe can claim a similar level of security: it uses its own proprietary network, so as long as you access CompuServe by direct dial-up, your transaction should be completely secure. Web users visiting the CompuServe site from outside, though, face the same problems as any Web users.

Selling via both CompuServe and BarclaySquare is priced to exclude small businesses. Barclaycard, which believes its name will give online customers a feeling of security about the businesses with which they're dealing, didn't charge the first raft of vendors rent, since the value and demand were unknown. In mid-July, it was still finalising its price structure for its full roll-out in 1996: roughly, says LaPorta, companies will have to pay to develop the site and there will also be varying rental levels, depending on position and prominence on the service. BarclaySquare doesn't expect to impose transaction charges.

By contrast, CompuServe quotes US rates of \$50,000 plus two percent of online sales for joining its roster of merchants. This includes developing the site for a couple of hundred products, online promotions, features in CompuServe's in-house magazine and so on. This may seem disappointing, but Arnold and his UK counterpart, Paul Stanfield, both say that the US experience shows that the smaller merchants simply don't have the available resources to devote to building up the online presence, in the way that's needed, for the venture to be a success.

Being a big name helps, he says, pointing to the almost immediate success of the US (and now UK) clothing direct seller Land's End. But it's not enough by itself: "Slapping static Web pages up on a server is not going to make you a true interactive marketer. You have to understand the medium and know how to create a site that's engaging and all those things, and put the resources behind it and have people who really know it. There are so many projects where the vice-president and president of marketing are really excited, and then within 12 months you have a college intern running the whole interactive show between making coffee and photocopies." There has to be one person who really "lives the business", rather than someone who has a

**d-Comm**  
Personal Info Server

**d-Comm Contents**

**News**  
A round-up of all the latest news from around the world. This section is updated as the news happens, so check it frequently, or add topics to your hotlist

**Insights**  
The eternal quest: software that works first time  
Windows 95 is finally here - we hope - but will it work?  
Fighting for freedom of speech  
It would be one of the supreme ironies of our generation if, having more or less successfully exported the First Amendment, we are now to follow it up by exporting Senator Exon - but believe me, folks, you can have him. Please

**Electronic publishing ventures like d-Comm avoid delivery problems**

note taped to his computer reminding him to "download this file every day and take it to Jane."

Britnet, a new service backed by the five-year-old Online Entertainment, aimed specially at small British businesses, quotes much lower costs: as little as £5,000 to develop the site and do some marketing for it, plus a percentage that varies from five to 15 percent. The vendors on its site so far provide travel insurance (you can fill out a form, get a quote and even a cover note online), London theatre tickets and information on mortgages. "We're slowly trying to bring some structure to British Internet trading," says Graham Higginson, Britnet's managing director. The company expects to have 25 to 30 participants at its site by autumn this year, having installed a secure server last July.

Concurrently, it's undertaking a market research programme run by CMT, the company that carries out the national shopper survey, to find out who really does visit the site so that it can provide its participants with detailed information. Like his counterparts at Barclaycard and CompuServe, Higginson likens online marketing to a new form of advertising and

**Computer Manuals**  
On-Line Bookstore

Welcome!

Free CD-ROM demonstration disk offer!

Special U.S. deal on the Oxford English Dictionary  
420 Pounds, including DBL delivery!

Check out our  
Windows 95 Special

Computer Manuals takes orders by  
Internet but confirms by phone

believes the opportunities are best for companies with an existing mail-order infrastructure, although he admits it wouldn't be that difficult to set up fulfilment arrangements for small businesses.

The one exception to this delivery problem is, of course, publishing. *The Economist* magazine's new specialist electronic IT publication, *d-Comm*, says it has a very low break-even point because electronic publication has done away with the expenses of

production and distribution. Higginson says he's getting 15 to 20 calls a day from companies who want to join the site. "Some of these people will be disappointed," he says, "certainly the smaller ones," with all the hype, "it's almost panic." But for a small company, "It's painful if they set up and get no response for six months."

Nonetheless, at least a few people are beginning to take advantage of the reach of the Internet to start small online businesses. One example is Giftnet, a sort of brokerage service that rents space on Demon's web server and offers an unusual collection of gifts, including helium balloons with your choice of greeting, coffee, fruit cake, tequila, and cacti. The site's owner, Denise Spreag, says she's set it up as an experiment to see what the hype was about and whether it would work. She spent several months going to gift and trade fairs and sampling merchandise. "Waddling home" afterwards, she approached a few small traders with what she believed were interesting items and proposed the venture. Orders are taken by email or fax with no credit card information. She then calls back to confirm and arrange payment. The traders then send the goods and pass on a small commission.

Spreag has managed to keep this to a low-cost venture. Space on Demon is inexpensive. The Web pages, which have been deliberately kept simple and text-only, were written by a friend, Simon Sherlock, who works in computing and saw the experience as an opportunity to learn HTML. It's low-cost for the retailers, too, because it's so experimental and Spreag isn't charging them rent. She has skipped some frills: for instance, the page has no graphics (for speed reasons) and

# Buy PerfectOffice™ from £165<sup>†</sup> and cut the cost of a Windows® 95 upgrade in half\*



PerfectOffice™ 3.0 – voted “Best-buy suite” by PC User magazine – delivers a great choice of applications and offers unparalleled integration. What’s more, for a limited period, when you buy PerfectOffice™, we’ll go halves with you on the cost of a Windows® 95 upgrade.

Simply buy PerfectOffice™ and the Windows® 95 upgrade by 30th September 1995 from a participating dealer, send us the proof of purchase

and we’ll send you a cheque.\* Average upgrade price for PerfectOffice™ Standard is £165<sup>†</sup> and for a limited period all Windows® users qualify for a competitive trade-up, which has an average reseller price of around £195.†

**So chop chop – talk to your dealer about Novell PerfectOffice™ today, or call Novell on 01344 724 100 for more information.**

 **NOVELL**

†Prices are subject to change at point of sale. \*Redemption will be by way of a rebate. Offer applies to a maximum of five rebates per customer address. A maximum rebate of £45.50 inc. VAT will be redeemed for each copy of Windows® 95 upgrade. No carriage costs will be refunded. For VAT registered businesses the refund is given on a net value basis only. The purchase of PerfectOffice™ must be made between 1st July 1995 and 30th September 1995. Windows® 95 must be purchased by 30th September 1995 or, if later, within 30 days of Microsoft Corporation's end user ship date of Windows® 95.

Novell is a registered trademark and PerfectOffice™ is a trademark of Novell, Inc. in the USA. Windows® is a registered trademark of Microsoft Corporation in the USA and/or other countries. © 1995 Novell, Inc. All rights reserved. If you are interested in bulk purchases of PerfectOffice™, then please contact your local reseller for details of Novell's Volume Licence Agreement (VLA).

PLEASE NOTE: This offer is not sponsored by Microsoft Corporation in any way. It is a promotion from Novell UK for use in the UK and Eire only.

PCW 10/95

the product line is small enough that everything fits onto a single page.

Somewhat more expensively, but still low-cost, is the approach taken by Birmingham-based Computer Manuals, one of the major retail and wholesale suppliers of computer books. Like Giftnet, Computer Manuals' Web server takes orders but confirms later by telephone and then takes details of payment. When you've ordered once, you're assigned a customer number which you can quote on email or form-based Web orders. The company also accepts PGP-encrypted orders, but says these are rare.

Nick Challoner, who handles online sales for Computer Manuals, advises those interested in setting up their own online sales presence to shop around for space, checking not only prices but the speed of the provider's own connection to the Internet. Smaller providers, who resell larger companies' services, often have relatively small bandwidth available which has to be shared with all of the company's users — at popular times of the day, this can slow your service to a crawl. Net users react like London drivers who have just spotted an opening in traffic: they click, and then zoom elsewhere. Even BarclaySquare experienced this as it went online with what LaPorta admits was too small a pipe to its site (managed by Jersey-based Interactive Telephony), so last July the company upgraded to a two-megabit pipe to improve the speed of service.

Every business is different, but based on his experience Challoner estimates 100 hours for developing a medium sized site from scratch. Most Web consultants charge approximately £500 a day, but as he says, HTML is not difficult to learn and at those rates there's a lot of money to be saved by doing the basics in-house.

Computer Manuals' site incorporates a search engine — a piece of freeware sourced from the University of Edinburgh. Installing that, and making it work, is more complex than simple HTML formatting: the sort of thing for which you could hire someone for a couple of days, to carry out if you didn't have the necessary programming experience in-house.

Challoner disagrees with the idea that only large companies, or those with an existing mail-order infrastructure, can succeed on the net. When you're starting up, he says, "The volume is low enough, compared with normal mail order, that if a shop decided to sell products on the Web it wouldn't be inundated with orders it would be unable to fulfil." Instead, he

## Netscape 1.1

One of the reasons that we're seeing a spurt in the growth of commercial services on the net is the release of the latest version of Netscape's World-Wide Web browser and server software, which incorporates security in the form of a Secure Sockets Layer (SSL). Netscape claims that this provides data encryption, server authentication, message integrity, and optional client authentication between applications like FTP, Telnet, and Web software. The specification, developed by Netscape, is available on the company's Web server (<http://home.mcom.com/home.html>) along with relevant technical and reference material.

For the online shopper, it's easy to tell if you're interacting with a secure site or not: if you are, the bars at the top and bottom of your screen turn to blue (or whatever colour you set in your configuration options). As Netscape's information warns, this doesn't mean you can believe what's in the document, just that it was transmitted to you using encryption. A key icon at the bottom left corner of the document also shows whether the current document is secure: if the key is broken, it's not. More importantly, Netscape will tell you if you're about to submit a form, possibly bearing credit card and other personal information, insecurely.

You can get more information about the encryption used, and the remote server, from the dialogue box that comes up if you choose Document information from the File menu. From the vendor end, the HTTP server negotiates the connection with the browser, and thereafter all information in both directions is encrypted in transmission — not just credit card details submitted via forms, but access authorisation information (user IDs and passwords), and even URL requests and the data transmitted in response. The encryption used is RC4 using a 40-bit key — as usual, due to

the International Traffic in Arms Regulations and the international character of the Internet, there are limits on the strength of encryption that can be used. A US-only version of both the server and browser using 128-bit keys is planned.

Secure servers — which Netscape refers to as HTTPS (for HTTP plus SSL) — use a different protocol from insecure servers, and typically use different ports, too (443 instead of 80, for the technically minded). The upshot is that a single server system can support both types of access. This is useful if, for instance, you want to allow any passing browser to examine the shop window and take a look at your product offerings, switching to the secure server for ordering and payment purposes. At the same time, the difference in the protocols means that people using insecure browsers won't be able to transmit their public information over the network: the connection will be refused from the outset.

Security on the net is still in development. There are other proposed protocols, and these are being studied by the W3C working group on security. More information on all these topics is available via Netscape's home page.

Both vendors and customers should be aware however, that security of data in transmission is only one part of a security system: protecting your Web server won't be enough if, at the same time, your accounting system automatically spits out a statement to go with each consignment that lists all the credit card and personal information and then sends it to the delivery address instead of the billing address. No less a company than W.H. Smith, in its first days on CompuServe's UK Shopping Mall, sent out credit card slips wrapped with books that had been ordered — as gifts to third parties.

thinks it would start slowly enough so that a business could keep pace as the numbers grew. But smaller companies are still at a disadvantage. The \$2,000 to \$3,000 cost of Netscape's secure server software is a big investment for a small company — particularly for a medium which is still unproven. The smallest companies, like Spreag's Giftnet, have to hope that service providers renting space will choose to install secure servers, and sell secure services, as part of their Web site. Medium-sized companies have to look at setting up their own Web sites, which is what Computer Manuals is planning. But even then, the company will wait to install a secure server until the technology set-

ties down and is proven to offer the security that's been promised. That's the key that will turn the Internet from a new kind of advertising medium into a genuine marketplace.

## Resources

- **BarclaySquare**

<http://www.it.net/barclaysquare> >Britnet:  
<http://www.britnet.co.uk>

- **CompuServe**

<http://www.compuserve.com>

- **Computer Manuals**

<http://www.easynet.co.uk/compman.html>  
>d-Comm: <http://www.d-comm.com>

- **Giftnet**

<http://www.demon.co.uk/giftnet> >

# TEXTBRIDGE

PROFESSIONAL EDITION

Call our upgrade centre on  
01734 810500  
and ask about our special competitive  
upgrade offer for £199 (RRP £349)



## True document understanding

In any OCR package the true test is accuracy.

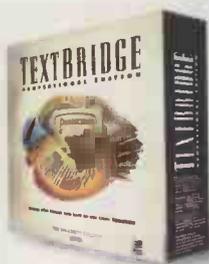
TextBridge Professional Edition not only delivers the highest quality of accuracy but also does much more besides. It actually re-constructs your documents just as if they had been re-typed – that goes for tables, columns and graphics as well as text – so not only do your scanned documents look the same, but you can edit them as well!

That's *true* document understanding.

- Advanced technology from Xerox delivers true accuracy

- One key stroke is all it takes to recognise faxes, photocopies and dot matrix pages
- Exclusive DocuRT™ technology re-creates cell tables to match the original, and even allows you to edit them
- Instant Access OCR™ enables you to use TextBridge from within your current Windows™ application

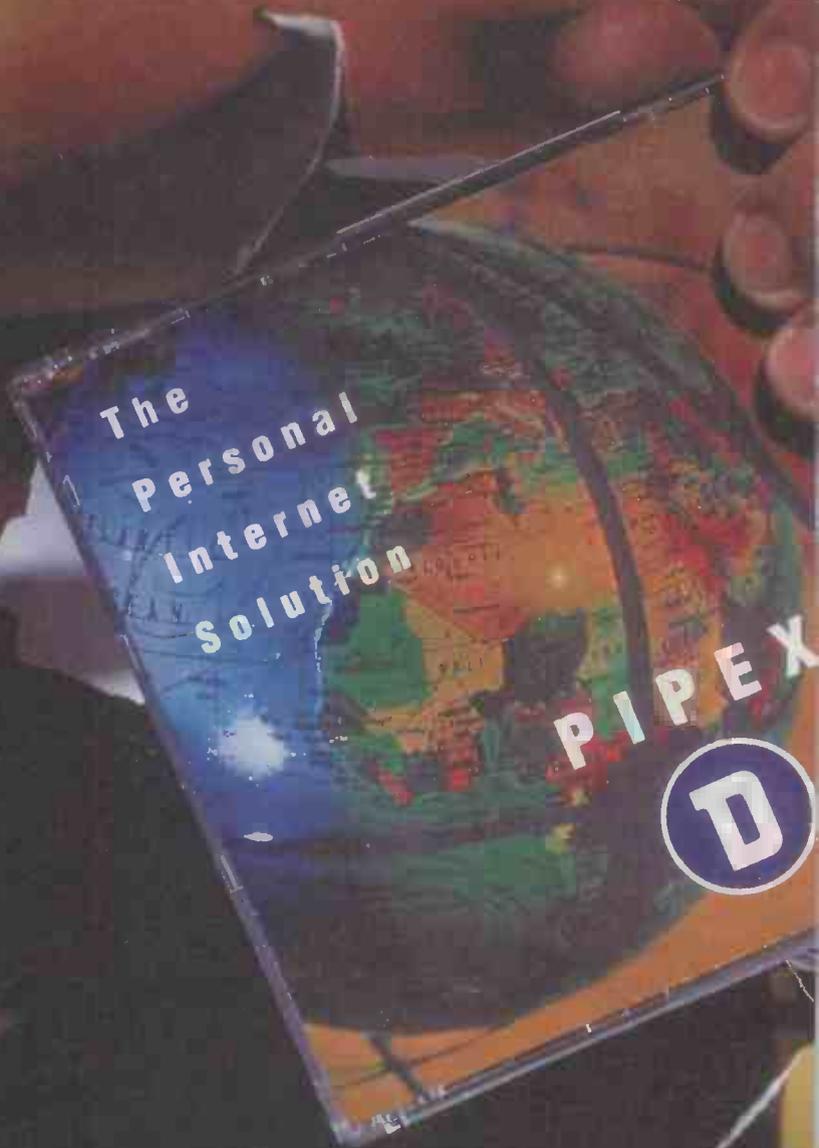
Call now on +44 (0)1734 668421 to learn about the latest OCR technology from Xerox.



THE DOCUMENT COMPANY  
XEROX

Unit 8, Suttons Business Park, Reading RG6 1AZ  
Tel: +44 (0)1734 668421 Fax: +44 (0)1734 261913

# THE ULTIMATE IN PERSONAL



## PUT YOUR FOOT DOWN,

We all need to get onto the Internet –

and not quite all there?

the 'information superhighway'.

With so much information available, and anything from CDs to cars on sale via secure online payment systems (being introduced by Unipalm PIPEX this year), what you're really looking for is a personal Internet solution.



So why is it until now, everything that's been on offer for the individual user has resembled nothing more than a kit car: do-it-yourself

PIPEX Dial is precisely what you've been waiting for: a perfect combination of essential Internet applications and fast Internet access, seamlessly integrated into one package by Europe's acknowledged TCP/IP experts, Unipalm PIPEX: the company

who brought the Internet to Europe, and provider to organisations like Barclaycard, Sainsbury's and H M Treasury.



# NAL INTERNET ACCESS.

# AND MAKE IT PIPEX DIAL

#### Easy to use

Point-and-click all the way, using familiar Microsoft Windows applications (Mac version available Summer 1995)

#### Fast and cost-effective

Local call Internet access around the UK at 28.8kbps / V.34 throughout (via intelligent PIPEX vPOP dialup network)

#### Quality software

Fully licensed and supported, including Web and News browser Netscape Navigator, multimedia email package, telnet and FTP (File Transfer)

#### Total support

Benefit from Europe's premier commercial Internet network, legendary support and free online software upgrades.

#### Flexible payment

Choose a discount on a year in advance, or spread the cost by monthly Direct Debit.

**Put your foot down, and make it PIPEX Dial. Call our special FreeCall number now for details on the best thing that's happened to the Internet since Al Gore.**

**0500 4-PIPEX  
(0500 47 47 39)**

 **Unipalm PIPEX**

All trademarks acknowledged. For information on total Internet business solutions from Unipalm PIPEX, please call 0500 64 65 66.

# Active Service

PROVIDING THE BEST SERVICE

Which is the best way onto the Internet with the plethora of service providers offering access? Wendy M Grossman is your pathfinder, reviewing the established providers, scouting out the best newcomers and summarising the hardware and software considerations.

It's astounding just how much the Internet services provider market has changed since our first round-up a year ago. Then, there were just seven services to review, but this year it's not even possible just to list them all. For this guide we've picked the established national providers, plus a selection of interesting newcomers. We have left out BBSs and the smaller, regional services, most of which are resellers for larger providers already reviewed here.

Forget the hype about the information superhighway — what you're buying when you sign up for Internet service is a communications tool. In most cases the Internet you gain access to is the same, just as you buy access to the same telephone network whether your service comes from Mercury or BT. But a few services, notably Research Machines, the BBC Networking Club, and UK Online, specifically aim to block material parents might find objectionable for their children.

And like the telephone network, the Internet is the conduit for a variety of services. Just as the phone network offers the chance to talk to people, use fax machines and modems, and call up chat

lines, the Internet offers email, FTP, Telnet, IRC, and the Web. Each service requires a different piece of software, known as a "client".

There are two main types of Internet access: direct or "IP" (Internet Protocol), and gateway. With a gateway service, the various types of client software run on the service provider's computer, and all you need on your computer is a general communications package — even Windows Terminal will do. With IP services you run the client software on your own computer.

Until recently, gateway services were the simplest method for an inexperienced user, as IP connections for direct IP services were generally harder to configure. This is less true now that most providers supply installation routines to do the tricky stuff for you.

Once you've installed the "stack" that loads the Internet protocols onto your computer, adding client software is extremely easy: just unpack them into the directory of your choice and start them up. This has definitely shifted the ease-of-use balance, since the Windows-based clients now available require you to learn far fewer complex commands than the text-based Unix interface you'll

find on most gateway services. On top of that, direct IP services allow you to run concurrent multiple sessions, so that you can browse the Web or Telnet to a remote computer while a file transfer is in progress.

However, gateway services still have a lot to offer. Unlike direct providers, gateway providers typically offer a coherent interface, online help, and local services such as access to the main commercial news wires (Delphi and CompuServe) or local conferencing (Delphi, BBC Networking Club, CompuServe, CIX, and Almac). CompuServe also sells access to a wide range of information services at varying prices.

Because gateway services are all different, the trend now is for them to sell software tailored to their systems that will make navigation easier. Some such software, like Ameol for CIX or Apollo for Delphi, automates logons so that you spend the minimum amount of time online and do the time-consuming work of reading and writing messages offline, where there are no phone bills adding up. The one disadvantage to this approach is that if you subscribe to more than one service you wind up with a different piece of software for each one.

There are a couple of hardware considerations, too: gateway services tend to be less demanding. For a direct IP connection, get the fastest modem you can afford, definitely no less than 14,400bps. To run under Windows you also need a serial port with a buffer chip called a 16550 UART in it. Most new PCs from reputable manufacturers will already have one on the motherboard. Otherwise a serial board containing one is a fairly cheap upgrade.

The various software clients don't need the fastest PC in the world, but it helps to have a reasonable processor and amount of memory, so that Windows (or OS/2, Mac System 7, or whatever you're using) itself runs smoothly. We tested most of the ISPs' supplied software packages for this review on an IBM Value Point Pentium P60 machine, but we routinely access even the most demanding part of the net, the Web, with all types of software on a 486SX/25 with 8Mb RAM.

By far the most common use for the Internet is exchanging email. If that's all you want to do, any provider will do the job at a reasonable cost; your primary consideration should be making sure you'll have access to your email when and where you need it.

A year ago, the second most common use was electronic conferencing, either locally or worldwide on Usenet. Either way, conferencing is a way to interact with people who share your interests and to find technical or miscellaneous help. If this interests you, make sure you can get an offline reader (OLR), as this is the area where phone bills and usage hours really add up.

By now, though, the second most common interest is probably the fast-growing World Wide Web. The Web is pretty hopeless via a gateway, as typically the client software will be text-only; with a direct IP provider you can use far more attractive Windows software that can handle graphics, audio, and even video. However, you need a high-speed connection to enjoy any of this. Even at top modem speeds the Web can be maddeningly slow.

For most of the remaining commonly used services — FTP, Telnet, and IRC — there's little difference between gateway and direct providers, and the same is true of Gopher servers. The exception, FTP, is usually easier and more efficient via a direct service provider and a Windows package; on some gateway systems (CIX) you have first to retrieve the file to

the provider's computer, and then send it to your own. If you dream of an all-in-one package, it's not there yet, although Web browsers like Netscape support both FTP and Gopher.

Within these broad categories there are fine differences between ISPs. Some services offer free trials — a good way to get your feet wet before making a final decision. Bear in mind, though, that no provider will do more than get you started: you will have to do some active learning to get the best out of the net.

## BBC Networking Club

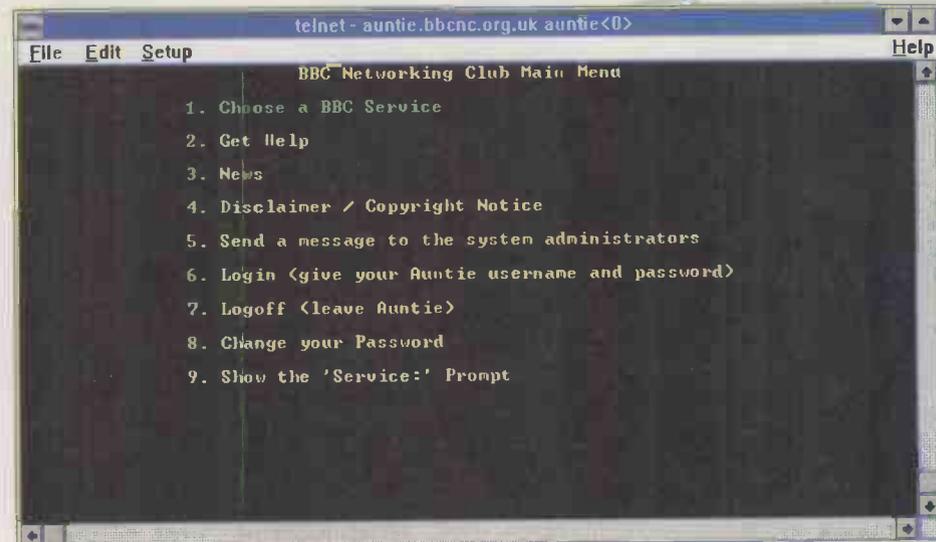
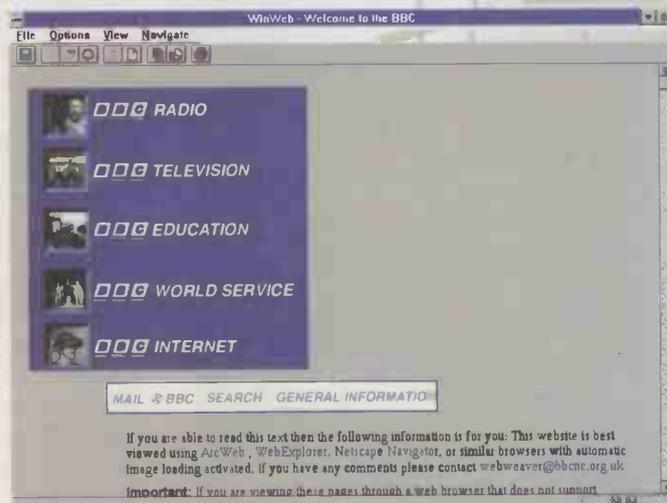
The BBC Networking Club is part of the BBC's education unit, and its use is restricted to home users and schools. It has the slowest procedure for opening an account of any of the services reviewed here: you fill out an application

● *The BBC Networking Club is limited to home and education, but its users seem happy with it*

and post or fax it back, and then have to wait for a set of disks to arrive by mail. Most regular users we've come across, however, say they're happy with the service and that it's reliable.

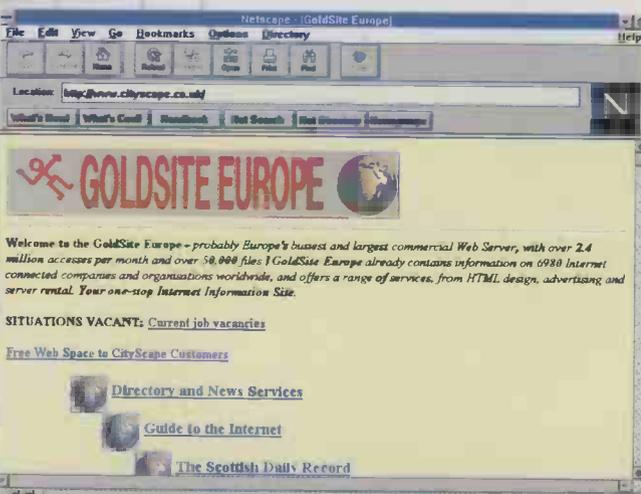
Once you've filled out the application and sent it back you're sent an A4 guide to getting online, two disks full of software, and two IDs and passwords — two, because one is for the IP service and the other is for the BBC's own BBS, Auntie. Like the Direct Connection and some others, the BBCNC is really two services: a login service for local conferencing, mail, and news, and an IP service. We were disappointed to see that the software supplied is another collection of unregistered shareware; the guide says that the BBC had expected to deliver new software to its users in February this year, at a cost of £5 to £6, along with a £35 offline reader for Auntie which was still in beta as we went to press.

We were very impressed, however, with the manual, which is a very good guide to the software. You may have



noticed there's no newsreader in the package; a sample FTP session in the manual sends you to download WinVN — the best way to learn, by doing something useful.

The setup procedure you follow asks your user IDs, but not your password. Trumpet Winsock demanded this information after a false start at logging on. Once we'd entered it, things went smoothly. Most of the software is straightforward, and the manual covers the configuration routines needed to troubleshoot your connection. Anyone who's been around the net much will probably want to replace at least a couple of the supplied components, particularly WinWeb, which although it's a nice browser is somewhat behind in development. Unfortunately, the service has discontinued the Web-based shareware registration scheme it directs you to in the manual. You are expected to register direct with the developers, whose addresses are in the manual rather than linked from the Web page.



All the packages are configured to log directly onto the BBC's site, especially the Telnet client, which takes you to Auntie's opening screen. This part of the service is menu-driven; follow the numbers and letters to get to Auntie's local conferencing.

#### **BBC Networking Club**

**Price** Sign-up £25; £12/month

**Contact** BBC Networking Club 0181 576 7799

**Good Points** BBC content, on Pipex vPoP network, inexpensive, good manual.

**Bad Points** Delays in delivering OLR, administration seems slow, not for business use, shareware fees payable.

**Conclusion** Users seem happy with this service, but it's limited to home and education; parents may like its attempt to block some newsgroups.

## CityScope

Cambridge-based CityScope, which like most services started up last year, has had a confusing relationship with Pipex, for which it used to supply the consumer service. These days, CityScope's IP Gold service competes directly with Pipex Dial; nonetheless, Pipex supplies CityScope's Internet feed and network of PoPs. But CityScope has changed its software from Unipalm's Dial package to a more standard group of software.

The £25 sign-up fee you pay includes a fully registered suite of software, as one of the company's directors believes more people should realise when they compare its sign-up fees unfavourably with those of some other providers. With services like IBM and CompuServe supplying free, registered IP software, even this price is beginning to seem high, especially if you later decide you prefer other packages. On the other hand, CityScope is a flat-rate provider and one of the trade-offs

tends to be that free sign-up and software often presages higher, or per-hour, connection fees. Overall, CityScope is very good value and seems to have

*Cityscope is good value and seems to have escaped the problems suffered by other, larger services*

escaped the problems that have plagued some other, larger, services.

CityScope's package comes with a streamlined installation routine that completely flummoxed us because we couldn't figure out how to load our details. It turned out that this window routinely opened with the OK button disappeared off the bottom of the screen. Once you've found that, it's very simple, since all you have to input is your user ID and password, plus details of your modem and communications setup. Your IP number is allocated dynamically.

Like several other services, CityScope has required users to call in to change their passwords. Recently, however, it's been working with the British Computer Society (BCS) on building BCSNet, and it's changed its procedure in answer to BCS specifications that users had to be able to change passwords at will. This is good news in one way, since you can change your password in a hurry if you need to. But this puts the onus on you not to choose stupid passwords like your login, real, or company names, or a part of your address.

Like a number of services, CityScope gives users a free half-megabyte of Web space in which to express themselves, and also hosts some outside folks like London's ICA. It also has an interest in Britain's first cyber pub, which you can get a look at via its Web server.

Long-standing users seem generally happy with the service: but in our experience the office tends to be very busy, and getting help can be difficult.

#### **CityScope**

**Price** Sign-up £25; £180/year or £15/month

**Contact** CityScope 01223 566950

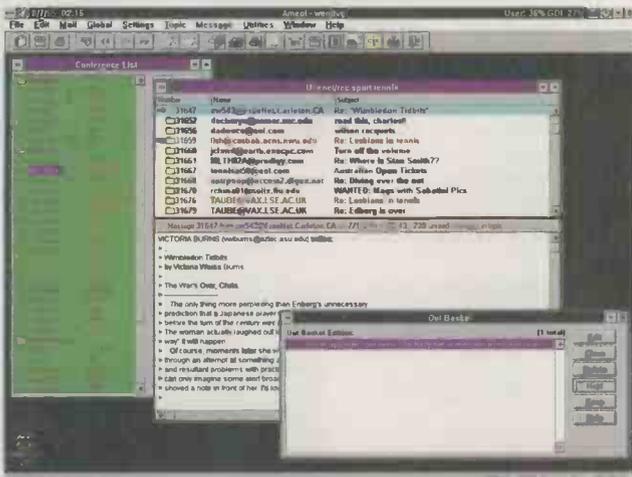
**Good points** Sign-up fee includes registered software, reliable service

**Bad points** Staff tend to be busy

**Conclusion** A strong choice for UK-only access

## CIX

Surbiton-based CIX, for CompuLink Information Exchange, is probably Europe's oldest conferencing system: it has literally thousands of its own discussion groups (conferences), as well as gateways to Usenet and the Internet. The Internet gateway gives you access to FTP, Gopher, Telnet, IRC, the various Internet utilities, and the text-based Web browser, Lynx. Most of this is nicely designed, so you simply type "gopher" or "www" and you're instantly in the system.



Online help is available.

Most users access CIX with one of its many offline readers — there is at least one for almost every type of computer imaginable. CIX's own official OLR is Ameol, which supports most Internet activities through scripts and also works via Telnet. The Ameol/CIX combination is probably the fastest way to handle Usenet downloads as CIX simply bundles up all your waiting messages into a single file for Ameol to swallow whole and digest into threaded topics. If you log on using an ordinary comms package you'll find that CIX's interface is confusing at first, but quick, consistent, and flexible once you get used to it.

CIX's IP service was originally planned for early 1995. It is still in beta as of this writing, but due for launch in mid-August with a £30 licensed software package. Pricing has been set at £15 per month for 30 hours off-peak, or 20 hours anytime. The £6.25/month minimum will be waived for IP users. There are plans to introduce new PoPs.

The system has had reliability problems in 1995 — the worst was on a recent Friday afternoon, when the system went down without warning at 2pm and didn't come back up for nearly 15 hours. When it did, some conference messages were missing. Some staff have blamed the glitches on the efforts to get the IP service ready.

CIX's strong points are the many offline readers,

*CompuServe is the oldest commercial on-line information service in the world*

*CIX is probably Europe's oldest service. It's nicely designed and busy, with a strong community feel*

the facility that lets users set up their own (even private) conferences, and the speed of its Usenet feed. But the batch files it creates to download Usenet have a 2Mb size limit,

so if you subscribe to many groups you may have to reconnect to get all the material down. CIX's best feature, the community feeling fostered by having a large group of British users who log on daily, is probably so far unmatched in the UK. It's mostly a techie crowd so if you want to mix with a wider variety, try Delphi or CompuServe's UK forums.

**CIX**

**Price** £25 sign-up; £3.60/hr peak, £2.40/hour off-peak; £6.25/month minimum  
**Contact** Cix 0181 296 9666

**Good points** Wide range of OLRs, community feel, fast interface especially for Usenet

**Bad points** Unreliability problems in spring and summer 1995

**Conclusion** Good, local service; business users should have a back-up system for email

## CompuServe

Overnight, CompuServe became the largest ISP in the UK when it launched its IP service in May, 1995. It started in 1979 as a time-sharing company and is based in Columbus, Ohio. It is the oldest commercial online information

service in the world.

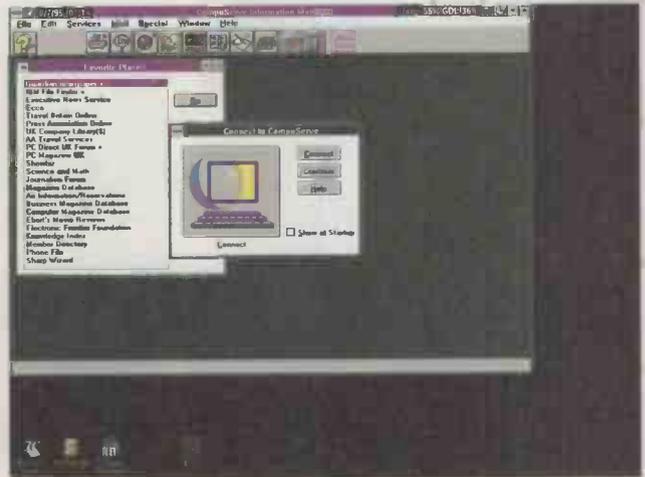
CompuServe's information service can be accessed using either a standard comms package, or one of CompuServe's own navigation packages (CIM), or one of several OLRs. The service provides you with mail, many discussion and technical support forums, and a shoal of information services including British and American encyclopedias, magazine and other periodical databases, and the commercial news wires as well as access to FTP, Telnet, and Usenet.

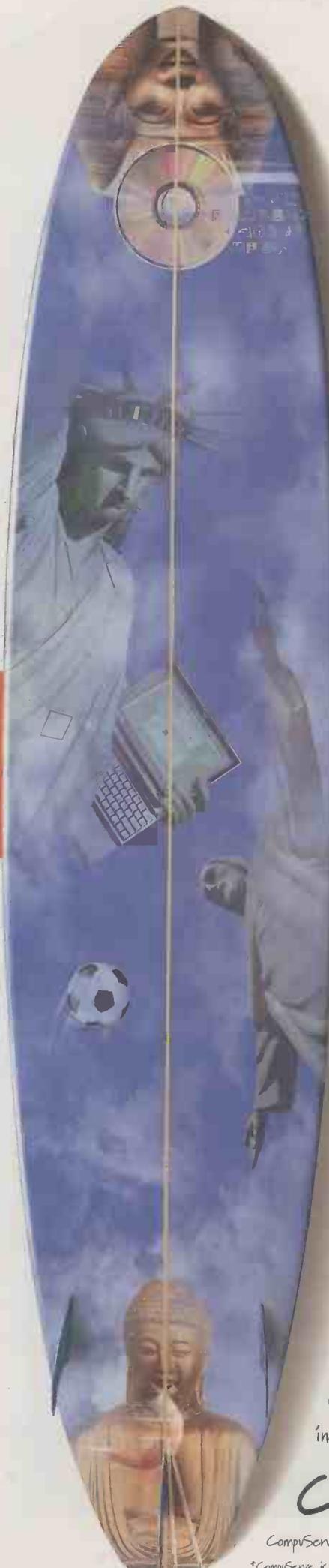
In addition, CompuServe gives away a NetLauncher package which includes a dialler that takes the settings from your existing CompuServe setup, a Winsock, and Spry Mosaic. CompuServe's version (the company bought Spry earlier this year) includes customisable hotlists organised by subject. Once you've got all this set up, there's nothing to prevent you adding FTP, Telnet, and other clients as you wish. You are allocated an IP number dynamically each time you log on.

Many of CompuServe's nodes still run at 14,400bps; however, its entire network is due to be upgraded to v.34 by May next year. CompuServe lists a mass of access numbers; some of which are supplied by networks like Tymnet or Sprint-net which cost extra in communications surcharges. In general, you'll probably find it cheaper to pay the long distance phone bill to the nearest of CompuServe's own network nodes.

CompuServe's strengths are its consistent reliability, global access points, the breadth of the information services, and the relatively easy to use software. But you wouldn't want to use its online newsreader to access Usenet on a daily basis — it's just too expensive and clunky.

Just as we went to press,





Fancy a spot of Net surfing? Sure – but isn't it a bit tricky? Well no, actually, because right now CompuServe is offering free membership and the simplest way to get on the Internet. Thanks to some rather brilliant and completely free software called NetLauncher™, you just pop a disk into your PC and you're ready to dive in.

With the help of one of the best Web browsers around, you'll be exploring the wonders of the World Wide Web in next to no time – pages of fascinating hypertext-linked information – including pictures from the Hubble space telescope, electronic magazines and virtual museums.

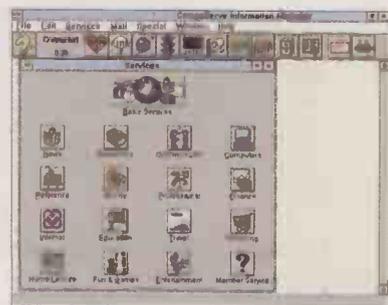
Whether you're new to the Internet or not, CompuServe gives you all the software you need to take a trip around cyberspace, and your first 10 hours are absolutely free. If you ever feel out of your depth, there's full



SPRY Mosaic: one-step access to the World Wide Web

*free.net.surfing@compuserve*

Customer Service Support (Freephone or online), as well as CompuServe's very own New User Forum and Internet Resources Forum. As if all that wasn't enough, your CompuServe membership also gives you access to over 3,000 CompuServe services. So get on the line and get online.



User-friendly CompuServe Information Manager

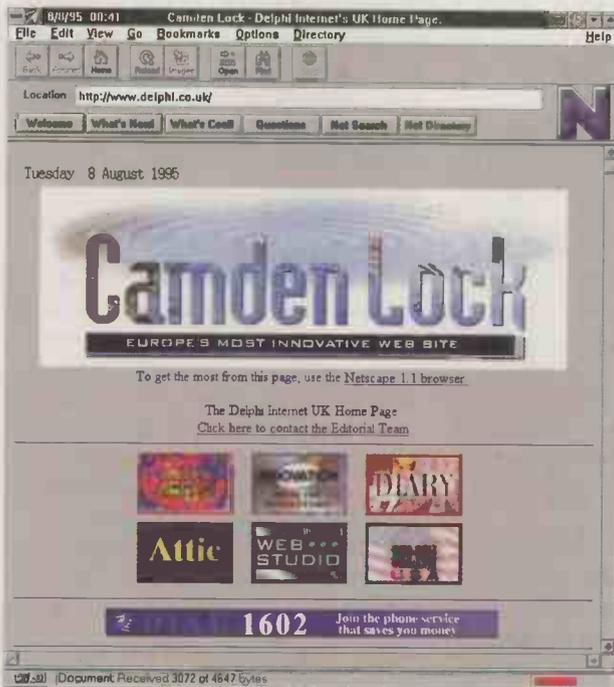
**FREE** CompuServe Information Manager software for Windows, DOS or OS/2. **FREE** NetLauncher™ software for Windows – including SPRY Mosaic Web browser. **FREE** CompuServe membership for first month including 10 hours **FREE** access to CompuServe and the Internet, **FREE** personal Internet address, **FREE** subscription to the CompuServe Magazine. Successive months membership (£6.20\*) includes 5 hours **FREE** online time.

**CompuServe®**

**CALL FREE: 0800 289378**

CompuServe UK, 1 Redcliff Street, PO BOX 676, Bristol BS99 1YN. Open 9am to 9pm weekdays, 10am to 5pm Saturdays.

\*CompuServe is a global information service and all prices are set in \$US, however you will be charged in your local currency based on the prevailing exchange rate. Offer effective from 10 September 1995.



CompuServe announced it was completely revamping its pricing structure as of 10th September. From then on, \$9.95 a month buys you five hours' use of almost anything on the service, with extra hours charged at \$2.95. A second pricing plan costs \$24.95 for 20 hours, plus \$1.95 per additional hour. There have been lots of complaints about this plan because many users rely heavily on the unlimited access to basic services, that it wipes away.

CompuServe has also announced plans for a new interface which will integrate the information service with the Web so you can switch seamlessly between them. Finally, the company plans to launch a consumer-orientated online service aimed at less experienced users, sometime in early 1996.

#### CompuServe

**Price** Membership kit £29.95; monthly rates start at \$9.95/month (including five free hours — no VAT added)

**Contact** CompuServe 01734 725 555

**Good points** Reliable, global access, broadest range of information services available

**Bad points** Can become expensive

**Conclusion** If we could have only one service, it would be CompuServe

## Delphi

Delphi was the first nationwide US service to offer Internet access when it set up its gateway in November, 1992. The UK service was launched in early

*Delphi was the first nationwide US service to offer Internet access, in November 1992. Its new interface could make or break it*

1994 following the system's purchase by Rupert Murdoch's News Corporation (in 1993). The UK headquarters are in London's Camden Lock and the US headquarters has just moved from Boston to New York. As we went to press, News Corporation had just announced the merger of Delphi and its interactive games company, Kesmai,

with the US phone company MCI's Internet operations.

Delphi's naked interface is intended to be easy to use: it's all text-based menus from which you access your choice by typing the first couple of letters. This is easy for newcomers but you get very tired of it, very quickly. Worse, the structure is so unpredictable that the one shortcut feature of the service — type-ahead — is virtually unusable. The one good thing about Delphi's interface is that the Internet services aren't segregated; you can access them from anywhere on the system. So if you ask for Sports, you get a listing of services that include the AP news wire, local sports conferences, the Usenet newsreader, and a selection of other Internet resources all listed together.

There are several packages available to put a better face on Delphi including a couple of navigator packages and an offline reader, Apollo, from Ashmount Research. You can order these on Delphi itself, to be sent electronically or on disk. Apollo's functionality is also included in Ashmount's multi-service PowWow Professional package.

Delphi's gateway includes the full range of Internet services: Telnet, FTP, Ping, Finger and the Web, via a text-based browser. Besides this, like CIX, Delphi has a range of local conferences, some of them hosted by the same people. Having initially been a US service, it has a large range of US conferences as well. And there are a few information services, such as the AP

newswire, headlines from the Times, and an airline reservation service, that also appear on CompuServe. Unlike the latter, Delphi segregates the US and the UK to some extent: to encourage its development as a British service in the early days, the UK service didn't appear on the US menus.

Delphi has stagnated somewhat in the last year, but it's clearly planning better things: it has announced a new interface (developed jointly with Netscape) and is due to be rolled out in the UK later this year. From the sounds of it, it may be somewhat like UK Online's Web-based service.

#### Delphi

**Price** No sign-up fee; £10/ four hours or £20/30 hours plus £3/ additional hour

**Contact** Delphi 0171 715 7080

**Good points** Reliable, own conferences can be set up, mail can be stored online permanently

**Bad points** Old interface, UK forums still underpopulated

**Conclusion** Delphi's new interface could make or break the future of the service

## Demon Internet

Demon was the company that created the domestic Internet access market in Britain and it set the price target that all other ISPs try to reach. It hasn't raised its prices since it started in late 1992, charging a tenner a month. Traditionally the trade-off for this low cost was surviving the experience of configuring its DOS software; a cobbled-together group of programs including a dialler (originally designed to let people send data over packet radio), and an offline reader which downloaded rather slowly. More recently there have been evenings full of busy signals: a victim of its own popularity. Its worst troubles arrived this Spring when it had problems with its news and mail servers. These have since been fixed, and the system seems to be back to its reliable self.

Evening access has also improved since the company signed a deal with Energis and acquired a lot of new phone lines. Better than that, it's come up with a new Windows package which includes a full set of Internet utilities, installs smoothly, and brings Demon's usability more into line with the other suppliers'. At the same time, Demon hasn't

compromised: unlike almost all the others, the Windows-based newsreader is an offline reader and the package is one of the most complete currently available, even including implementations of Ping, and Finger!

This means that Demon's software remains more complicated than some others, but this doesn't reflect badly on the company since it's offering a complete service. For instance, the Telnet client, which has been written by Demon staff, has scripting facilities — rare, and very useful. And Demon is one of the few services that gives all its users their own permanently allocated IP numbers. This means users can set their machine up so that other people can access it, or retrieve files from it, from across the Internet.

Signing up for Demon involves phoning or faxing the company to choose a node name and password, and to get your IP number. You can then either log on to the company's server and download the software you need, or ask for it to be sent on disk. You can have as many mailboxes per account as you wish, but there are restrictions on how you use the Demon service on a network. Demon rents Web space: it hosts The Electronic Telegraph.

Demon's strong points are low prices and a full service; it helps to be technically literate, but its Windows package makes this less important.

#### Demon Internet

Price Sign-up £12.50; £10/month.

Contact 0181 371 1234

**Good points** Cheap, full-featured, UK-wide access

**Bad points** Has had some news and mail problems during 1995

**Conclusion** Good value, but periodically suffers from growing pains

## The Direct Connection

This seven year-old company operates two types of services: gateway (they call it "login") and IP. But the IP service is the more popular of the two and it's the one the company is promoting. In some ways this is a pity as there's a lot to be said for local conferencing, but as the company itself points out; people are now more used to graphical interfaces, while the login service is text-based. TDC (The Direct Connection) is a Pipex reseller. It's a particularly good deal for Videotron customers, who can call it for free during some off-peak times.

Joining TDC used to be a matter of setting up your account and then logging on to the gateway service as a guest, to download the software. However, the service will send you a couple of disks containing a complete package — all unregistered shareware. It's up to users to pay the fees for a legal license or switch to other packages after the shareware evaluation period is over.

Direct Connection has some of the most helpful technical support people around — they even wrote us a little routine to let a single Winsock share multiple configurations so our existing ones wouldn't get overwritten. But that's assuming you can get through to a human: Direct Connection has one of the worst voice mail systems ever devised and its help lines are often too busy to let you through to a person. However, the company's business manager, Trevor Diamond, has sworn to throw away the voice mail and adds that TDC fully intends to push itself into the ranks of the bigger providers.

The service as a whole demands

a certain amount of self-reliance and technical intelligence. Although the software package is almost the same as Easynet's (only the newsreader and Telnet client are different) there is no unifying menu. The installation routine simply unpacks the whole thing into a window full of icons and then it's up to you to do the configuring.

Direct Connection seems to have stagnated a little since last year. While it's a perfectly good service — in the early part of this year, when Demon was busy, you could almost always get through to connect in the evenings — performance seems a little slow, and the service doesn't seem to be growing as fast as some others. Unlike some of the larger providers, Direct Connection doesn't seem to be making moves towards creating or buying in its own package.

The Direct Connection

Price Sign-up £7.50; £10/month and upwards

Contact Direct Connection 0181 297 2200

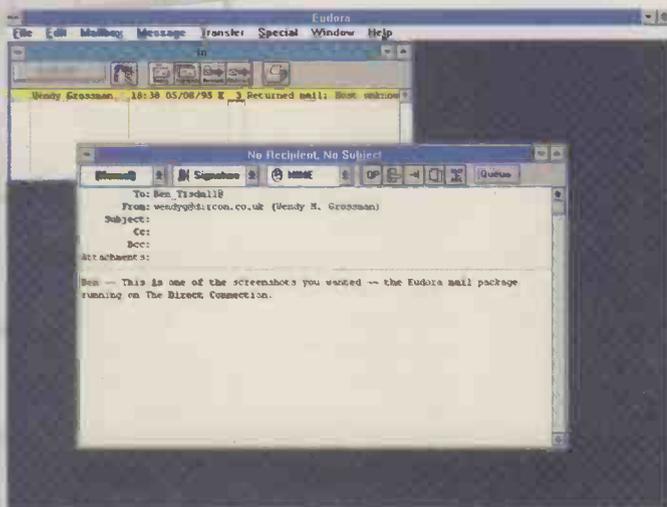
**Good points** Inexpensive, especially for Videotron customers

**Bad points** Extra fees payable for shareware, technical knowledge needed, voice mail system

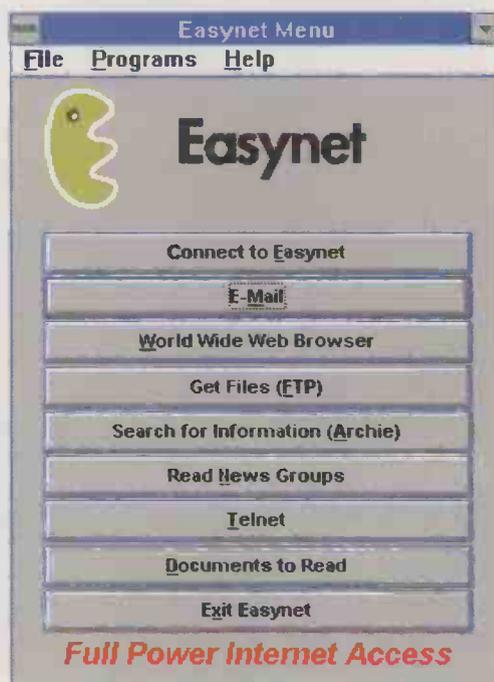
**Conclusion** Inexpensive, undifferentiated service that needs better software and setup in order to grow

## Easynet

This is the company that supplies Internet access for Cyberia, London's cyber cafe, and is also a majority shareholder. Its



Left Direct Connection is inexpensive and has good technical support, but overall it needs some attention. Right EasyNet supplies Internet access for Cyberia. It's a reliable service, with a classy set of software installation instructions.



commercial Web customers include the Birth Control Trust, Computer Manuals' online bookstore, and Channel One.

Easynet's software is supplied on two disks with the best set of installation instructions we've seen, including a personalised screen showing how to fill in your user ID, IP number and modem information — you know it's just fancy mail-merge, but it is very classy.

However, seeing the password written on a piece of paper raised an interesting question: are you prompted to change it when you log on for the first time? The answer is no — to change your password on Easynet, you must call them and request that they do it. For security reasons, this is a bad policy: it's safest if no one knows your password, and a standard protection is to change passwords regularly — and immediately, if you think it could have been cracked. Immediacy is difficult in the middle of the night, since Easynet's technical support hours are Monday to Friday 10am to 9pm, and Saturday and Sunday 10am to 6pm.

Once we had installed the software though, and tried running our first connection, we discovered we couldn't do anything. It turned out that we hadn't compared the setup screen with the instruction sheet quite closely enough. A mistake in the IP number meant that although we were able to log on, we didn't register as a legitimate user. Technical support had no trouble figuring this out quickly, and we had no problems thereafter, either with getting onto Easynet whenever we tried, or with connections (once we were on).

Our only criticisms of the package are two small usability points. Firstly, while you can easily send mail from Eudora at any time it isn't obvious how to get mail, and it doesn't just arrive. It turns out you have to request it by picking a menu choice; when you do, Eudora asks you to type in your password before it will connect. Secondly, it isn't obvious how to disconnect without exiting the menu system. Since Trumpet Winsock can be fussy if you exit without hanging up properly, the package would be far less trouble if this were rectified so the "Connect to Easynet" button changed to a "Disconnect from Easynet" button after logon.

Overall (except for the password problem) Easynet seems to be a good, reliable, if undifferentiated service. Its biggest limitation is that at present it only has PoPs in London and Edinburgh.

### Easynet

**Price** Sign-up £25; £11.90/month or £118.80/year

**Contact** Easynet 0171 209 0990

**Good points** Single-menu interface, great setup procedure

**Bad points** Change password by calling office; few PoPs

**Conclusion** Has to stay up and running or the whole world will know, because of Cyberia

## eWorld

Apple's Mac users-only service is due to be opened up to the world of PC users some time towards the end of the year. Meanwhile, Mac users can tour around a service that includes shopping, local forums, and Internet access using the latest version of the client software 1.1. It doesn't take much of a Mac to do all this: we did our visiting on an old SE/30 with 4Mb of RAM and a 40Mb hard disk attached by special cable to the same external Hayes Optima we used for the other reviews. (You need System 6.0.8 or later to run version 1.1).

eWorld remains a staunchly US product. The menu system that guided us through eWorld technical support (a freephone number) routed us to an inept MCI operator who thought that York and Aberdeen were in London. She was also unaware that the 081 area code had been changed to 0181. Back at the very busy eWorld help desk (also handled in the US), they found 9,600 and 14,400bps numbers — we then had trouble with flaky connections.

But once you get on, the interface is beautiful and what every online service should be emulating. The opening screen is a little village: you click on the "building" you'd like to enter; financial services, computer centre, news-stand, and so on. Each choice you make puts up a selection of services: you click on the ones you want — from Reuters news, to downloading the eWorld Web browser as a prelude to moving into the wider net.

But at \$9.95, with only one hour of use included per month and additional hours also priced at \$9.95, the service is expensive. Except for the service's own Info Booth and software download area, nothing is free — not even the shopping. Mac users should therefore bear in mind that eWorld is not their only choice. Many of today's graphical Internet packages — everything from Web servers to the Internet videoconferencing package, CU-

SeeMe — were originally developed on all those Macs that Apple sold cheaply to US educational users. Demon, IBMNet, and CompuServe all have Mac packages readily available, so Mac users should remember that the choices do exist. However, Apple says its high costs are almost entirely due to communications surcharges, necessary to route UK users via Spring, MCI, and BT to the service's home in the US. If you already have IP service and you access eWorld via Telnet, the price drops to \$29.95 an hour.

### eWorld

**Price** No sign-up fee; \$9.95/hour (\$2.95 via Telnet), free trial available (two hours)

**Contact** eWorld 0800 896206

**Good points** Beautifully designed Mac interface, online news, shopping and events

**Bad points** Expensive, US-based with little UK content

**Conclusion** Mac users should consider their many other options: if you need eWorld, sign up with an IP provider and go in via Telnet

## Frontier

As if the Internet market weren't confusing enough already, there are two "Frontiers": Frontier Internet Services specialises in Web design and sells Internet connections on the side; Frontier Communications International sells videoconferencing capacity and UNIX connections. In the few months since the latter launched its PC-based Internet service it has installed PoPs all over Britain, to the point where the company says its ratio is as high as 15:1 in Truro — that is modems to users, rather than the more usual other way around. Its Gloucester node is even worse. But Frontier believes the market is there and in the meantime on a busy night in Edinburgh, it can route the excess traffic to Gloucester where the ratio is 30:1 and sometimes there's only one person online.

Frontier's US parent is currently beta-testing a software package for the service which when it's finished, probably some time in late September, will be given free to old and new subscribers. In the meantime, new users have the choice of sourcing their own software or buying a full suite of registered programs for £99. Frontier's cybersalesman, Justin Roger, believes that distributing shareware unregistered for use on a commercial service contravenes the established conditions of shareware distribution.

What Frontier provides for your £25

sign-up fee is a live human on the other end of the phone line who guides you through installing and configuring your software via a first, successful login. You pay £4 extra per month if you want a permanent IP address; otherwise you get one dynamically assigned to you when you log on. Thereafter, Frontier provides 24-hour technical support. We told our human we were a Demon user trying to change our software configuration to use it with Frontier, but we weren't sure we would sound convincingly inexperienced. In the end, we dealt with several humans. The first sent us a full set of instructions, by email, specifically geared to our stated needs including a script we could simply paste into Winsock. A second called some hours later to check we were getting on OK. A third, we called, to let the company check we were logging on properly. All were pleasant and helpful, and seemed to be fully informed: Frontier's tracking system obviously works. That's more than we can say for Winsock, which took several calls to trouble-shoot (not Frontier's fault).

#### Frontier

**Price** Sign-up £25; £8.50 or £12.50/month (dynamic or static IP address)  
**Contact** Frontier 0500 468376

**Good points** Lots of PoPs, 24-hour 7-day top-quality technical support

**Bad points** Relatively unknown

**Conclusion** Cheap, well-supported, with good coverage; all it needs is decent software and a UK track record

## IBMNet

People first heard of IBMNet when OS/2 Warp was released with a bonus pack including all the software needed to log on to the Internet. IBM also gives away Windows packages and has a deal with Mac software publisher, Ventana, for a Mac package. Under OS/2, we found the system somewhat frustrating as it seemed as if every time we dialled in, the software needed to be updated. Nevertheless, regular users do not report such problems and say the service is excellent and reliable.

Until recently, IBM was handing out a shareware package that was pretty much



*IBMNet offers reliable, global access and has the perfect software for anyone using more than one system*

the same as several other services reviewed here: Eudora, WinVN, and so on. But now it's got a licensed package that's much better, and it's free.

What the company gives you is almost the perfect software for anyone using more than one system. The control panel includes options for adding connections to a wide variety of services including the UK's Demon and Direct Connection, and you can add any extras you like. It's all well-designed and attractive with big, fat, colourful, clearly labelled buttons. There's no manual, but you don't even miss it.

The snake in this paradise is that you can't configure the software, so it doesn't automatically close all your Internet applications when you disconnect. Have these people never heard of downloading a large Web page and disconnecting to read it offline? If you could do that, and then click on a link to reconnect, the software would be our choice for some kind of prize. Parts of it, particularly the mail package, were bought from Netmanage, maker of Chameleon and other Internet software — the rest is IBM's own.

IBM is continuing to build its own network, much as CompuServe has, rather than sign a deal with outside companies to provide nodes. The intention is that by owning the network IBM can better control speed and reliability. Instead of following the typical Internet pattern of routing packets of data all over the place, IBM aims to route them directly to the nearest point to your actual target destination before handing them over to the Internet proper. If this actually works, the trade-off for the much smaller number of UK nodes (nine, as opposed to the 90 percent coverage promised by some other systems) may be worth it. And you get global access, with 110 nodes already in place

in Europe. Additionally, as we went to press IBM had announced a new product to support Lotus Notes over the network.

#### IBM Global Network

**Price** No sign-up fee; £10/3 hours or £20/ 30 hours plus £3/additional hour  
**Contact** IBM 0800 973000

**Good points** Reliable, global access, great software

**Bad points** Hours above 20/month could add up

**Conclusion** A strong choice, especially if you want IP-only worldwide access

## Pipex Dial

Wherever you look in the UK Internet service market, Pipex is there. It's part of the software distributor Unipalm (now renamed Unipalm Pipex) which has recently signed a deal to distribute Netscape in the UK. It supplies the Internet feed for about 30 resellers nationwide, including several reviewed here: CityScape, the PC User Group, the BBC Networking Club and The Direct Connection. On top of that it made a deal with Mercury earlier this year, to create a virtual PoP network to which it also sells access. Users get local call access via the many numbers nationwide and Pipex gets cheaper maintenance, since the calls are re-routed to one of only two banks of modems.

Pipex Dial (launched late last year as Pipex Solo) is Pipex's consumer service. You get a package of Unipalm software including a control panel-cum-configuration routine, Mail-It, and a couple of other utilities, but no FTP client or newsreader. While it's nice to see a different software package once in a while, we weren't too impressed with this one. Mail-It is fussy — it won't send messages if it's loaded before you connect. Pipex's technical support says that this is to enable your writing messages offline, which is always welcome, but it's hard to see why you shouldn't be able to log on and send your output when you've finished. The Telnet client has no facility for remembering sessions.

All the software feels rather "corporate"; as if it were designed for use by the technically literate. This impression is reinforced by there being no documentation — bad news for a consumer-oriented service. You could replace it with something you like better of course, but you'll have paid £50 for it first. As we went to press, a new version

# SOFTWARE

Microsoft's 32 bit multi-tasking PC operating system HAS ARRIVED!

**MICROSOFT WINDOWS 95**

WIN3 Upgrade price - **£62.00**  
CD or 3.5"

DOS Upgrade - **£118.00**

Also available  
Microsoft Windows 95 Plus! Pack  
- **£29.00** CD or 3.5"

**ORDER YOUR COPY NOW!**

**BORLAND DELPHI FOR WINDOWS**

Visual Component-Based Design  
+ Fast Optimising Compiler  
= Rapid Application Development

**£179.00** CD  
**£129.00** Upgrade

Also available  
Borland Delphi RAD Pack  
**£129.00** CD ONLY

**QUICKBOOKS UK 3 FOR WINDOWS**

Hassle free accounting,  
The UK's best selling  
accounting package for  
small businesses

**£82.00**

Upgrade **CASHBACK £20.00**

**NEW QUICKEN UK 4 FOR WINDOWS**

The fastest, easiest way  
to organise your  
home and small  
business finances

**£28.00**

Upgrade **CASHBACK £5.00**

**MICROSOFT OFFICE FOR WINDOWS 95**

STANDARD EDITION CONTAINS

- \* MICROSOFT EXCEL 7.0 for Windows 95
- \* MICROSOFT WORD 7.0 for Windows 95
- \* MICROSOFT POWERPOINT 7.0 for Windows 95

\*each available Full - **£244.00** Upgrade - **£89.00**  
separately at Competitive Upgrade - **£119.00**  
and \*\*MICROSOFT SCHEDULE+ 7.0 for Windows 95  
\*\*available separately at: **£79.00**

	Full	Upgrade	Comp. Upgrade
STANDARD EDITION (CD/3.5")	<b>£355</b>	<b>£148</b>	<b>£173</b>
*PROFESSIONAL EDITION (CD/3.5")	<b>£479</b>	<b>£244</b>	<b>£284</b>
MICROSOFT ACCESS 7.0 for Wins. 95	<b>£244</b>	<b>£89</b>	<b>£119</b>

\*includes all Standard Applications, plus MS ACCESS 95

**NEW QUICKEN DELUXE 4 VERSIONS For Windows**

**HOME PACK & BUSINESS PACK**  
Organise more of your finances

**£45.00** each

Upgrade **CASHBACK £10.00**

**IBM OS/2 WARP VERSION 3**

**FREE BONUS PACK**  
Upgrades also available  
- please call

**£42.00** CD  
**£50.00** 3.5"

**ALSO AVAILABLE**

**NEW! MS VISUAL BASIC 4** ..... **£349.00**

MS VISUAL C++ Std(v1.52)..... **£74.00** Pro (v2.0) **£289.00**

MS VISUAL FoxPro 3.0 Std..... **£159.00** Pro **£339.00**

MS PROJECT for Windows 95 ..... **£324.00**

MS PUBLISHER for Windows 95 ..... **£69.00**

CORELDRAW 6 CD.....**£309.00** Upgrade from V5 **£159.00**  
Upgrade from V3/4 **£254.00**

QUICKTAX RETURN 95..**£29.00** Upgrade Cashback **£5.00**

NORTON ANTIVIRUS for Windows 95 ..... **£98.00**

NORTON UTILITIES for Windows 95 ..... **£64.00**

CRYSTAL REPORTS Pro 4 ..... **£290.00** Std **£140.00**

GRAPHICS SERVER 4.0 ..... **£235.00**

**OS/2 PRODUCTS**

OS/2 WARP CONNECT CD ..... **£134.00**

OS/2 WARP + Win OS/2 CD..... **£84.00** 3.5" **£64.00**

OS/2 WARP + Stacker 4.0 CD..... **£59.00** 3.5" **£84.00**

OS/2 WARP + Lotus SmartSuite 3.5" ..... **£225.00**

*With the arrival of Windows 95 there are too many new releases to list them all here. CALL SYNTENIC NOW for competitive prices on all PG Software Products and Upgrades.*

**NEXT DAY DELIVERY SERVICE**

Anywhere in mainland UK ONLY **£5 + VAT** per order

For deliveries outside UK please ask for delivery charges before placing order. Orders from EC countries please include your VAT No. if applicable. All prices exclude delivery and VAT at 17.5%.

**PAYMENT: BY CHEQUE** - Please send a cheque for the full amount inc. delivery & VAT. Please allow 5 working days for cheques to clear (n.b. this does not apply to payment by bankers draft or building society cheques).

**BY CREDIT CARD** - At Syntenic we do not add a surcharge to credit card orders or debit your card until your order has been despatched. Please include the cardholder's name as it appears on card, cardholder's billing address, delivery address, card number, the commencement and expiry dates and a daytime telephone number.

All offers subject to availability. Next day delivery applies to orders received before 3pm and items being in stock. Prices subject to change.

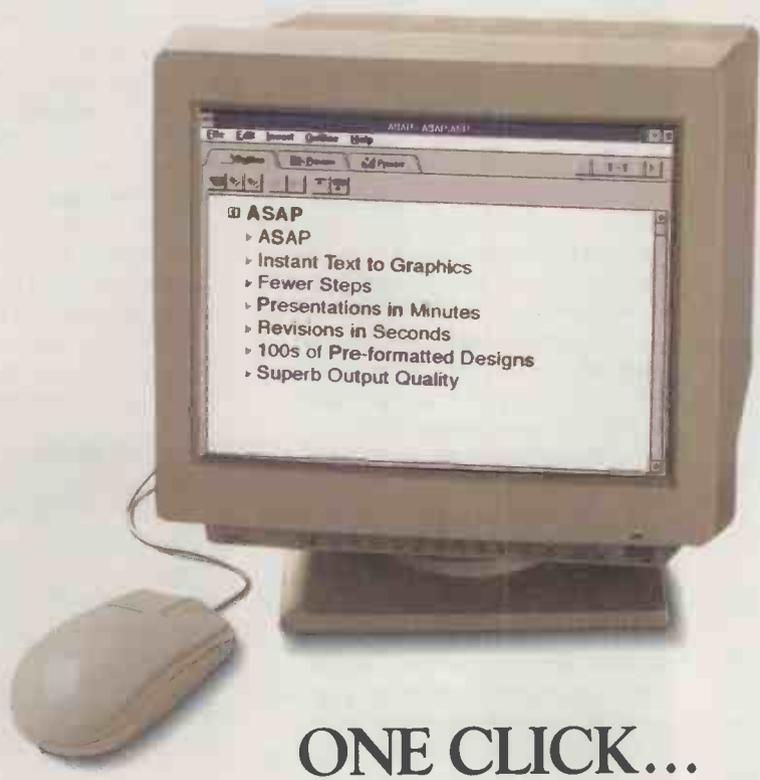
**TELEPHONE LINES OPEN MON-FRI 8am-8 pm. SAT 10am-5pm**

## SYNTENIC Limited

Suite 2, Dolphin House, Sutton Harbour, Plymouth, Devon PL4 0DW

**FAX ORDERS (24 Hrs) : 01752 263 942**

**TELEPHONE : 01752 256 473**



**ONE CLICK...**

## Real-life cyber spaces

Mike H. peers at a screenful of actresses' names that he's found, all by himself, on a server somewhere in America's Bible belt. He hesitates among Nicole Kidman, Audrey Hepburn ("she's old enough to be grateful, but she's dead") and Liz Hurley. He goes for Kidman, even though by now his companion has ruined her for him by mentioning that she's married to Tom Cruise. The pictures that come up aren't of great quality, but never mind, she still looks terrific.

Mike, a long-term Mac user, seems unimpressed when he's told that the pictures are coming from a continent away: "It looks like HyperCard." Afterwards, he washes his hands with some distaste: "When do you suppose that keyboard and mouse were last cleaned?" Mike, 51, has discovered "Cyberia", London's cybercafe.

Huddled in Whitfield Street, behind London's Goadge Street tube station, Cyberia is cool, even if it didn't appeal to Mike whose relative disinterest is partly due

to the fact that he was selling email and time-sharing systems 15 years ago. But his visit hasn't been wasted as it's only cost him £2.50 (and a half hour) to find out that he doesn't want to be on the Internet, which his brief acquaintance with the Web leads him to describe as "about as user-friendly as a cornered rattlesnake." Most people have to spend a lot more time and money to reach the same conclusion, so he's doing well. If you get hooked, Cyberia will sell you a training course for about £30.

At an adjacent terminal, a couple of Dutch guys (who look like university students) seem to be enjoying their time on the system a lot more. They have seen Cyberia on TV, they say. They haven't got access themselves at home, so they have come to see the place.

It's pretty well full at 7p.m. on a Monday. What's interesting if you think of computing as a solitary business, is that everyone perched precariously on the stools fronting the terminals has friends peering over their

shoulders and arguing about which site to visit next. The tables are full of people with laptops, computer magazines, and £1 cups of coffee awaiting their turn.

If all this sounds to you like an appealing way to try out the net without the expense of buying hardware and fighting with Winsocks, Cyberia might be a low-cost way to try things out. The London cafe is not the only one: there are others in Edinburgh, and Kingston upon Thames, Surrey. During this year's Edinburgh Festival, the Edinburgh cybercafe is running a Web service that includes Festival listings, reviews from the Guardian newspaper, and tourist information. The latter helps the disorganised find places to stay in a city where the last bed was booked for the month sometime back in April.

The latest addition to the roster of real-life cyber spaces is Cambridge's cyber pub, Cyberia as someone on CIX recently joked. Mike H. would have preferred this approach — at least he could have had a pint.

of Pipex Dial, 2.6, had just been released (not quite in time for our review) with built-in filtering of email, improvements to Telnet, and an FTP client added. One nice feature about Dial is that you can check an option to have the software notify you when there are upgrades, and you download these directly from the service.

Ironically enough considering its position in the industry, Pipex was one of only two services (eWorld was the other) which gave us trouble with dropped lines. Once safely connected, however, performance seemed to be the best of the group reviewed here.

### Pipex Dial

Price £50 sign-up, £15/month  
Contact Pipex Dial 0500 474739

**Good points** Performance, source company for other ISPs

**Bad points** Software, lack of documentation

**Conclusion** Corporate focus persists, but it's a strong service

## Research Machines

Abingdon-based Research Machines is known for supplying many machines to British schools. This year it's moved into offering Internet services to the same clientele, as well as to parents and others

who want the service. The company says it has about 900 users so far, 700 of which are schools.

Because of this educational focus, RM (Research Machines) is continually conscious that no school principal wants to be the one whose school gets written up in *News of the World* because its pupils have been caught trading the URLs of pornographic Web sites. Accordingly, RM is making more efforts than most to block such material: besides cutting its Usenet feed to eliminate groups like the alt.sex and alt.binaries.pictureserotica hierarchy, RM blocks some Web sites via its router. As RM's product manager Tim Clark points out, the disadvantage to this is that you can't block just part of a Web site; you have to block the whole thing. So in the days when the University of Delft had a pornography archive (it closed down due to the burden it placed on network traffic), blocking access to that meant blocking off its fine art archive, too.

But the system is secure, according to Clark: "It can't be gotten around — yet." Long-term, though, he says the company doesn't see itself acting as a censor; it looks towards products like the SurfWatch (currently Mac only) which will block Web sites, and a virus checker (updated regularly), to do this sort of work. The one drawback to this approach is that it's difficult to block everything that could possibly offend anyone, so parents who care about this sort of thing will still

need to exercise some supervision.

The software package is supplied with a streamlined installation routine that gave no trouble — another day, another copy of Trumpet Winsock. There's no FTP or Telnet client, although you can source these yourself through the Web or via FTPmail. You have to register the software yourself: RM says educational users shouldn't have to pay more than £17 in total. Both the Gopher and Web clients are set up to display some of the Internet's many educational resources and RM itself is compiling lists of such things: take a look at its Web site <http://www.rmplc.co.uk> for examples.

RM's biggest selling point is probably its generosity with Web space: ordinary users can have up to 5Mb, and schools can have "almost as much free space as they want". A number of schools have already started putting up Web sites jointly constructed by pupils and staff.

### Research Machines

Price £25 setup, £120/year payable in advance  
Contact Research Machines 01235 826868

**Good points** Strong educational focus

**Bad points** After initial troubleshooting technical support is by email only, pay a year in advance, shareware fees

**Conclusion** Best suited to educational users and parents who care about blocking access to parts of Usenet and the Web

Did you know that Mel Blanc, who provided the voice of Bugs Bunny was allergic to carrots?

Did you know that Avery Inkjet Labels are specially designed not to smudge?



And that's not all.

Use the wrong label in your printer and you could regret it. Avery Inkjet Labels are guaranteed to give you trouble-free printing.

Use Avery White Inkjet Labels for letters and mailshots. Use Avery Clear Inkjet Labels for envelopes that need an individually-typed appearance. Liven up your mailings by printing

colour on our special colour printable Inkjet Labels. We even have labels for 3.5" disks and mini-addressing. And for no-fuss formatting, Avery Inkjet Label templates are preformatted in most popular software packages.

The result? No feather, no run and a fast, professional finish. For more details and free samples, call 0800 80 50 20.

Avery Office Label  
Gardner Road  
Maidenhead, Berks SL6 7PU  
Tel: 0800 80 50 20  
Fax: 01628 764040



A Division of Avery Dennison

FF27/PCW10

## Motion Picture



Put yourself in the picture with a Motion Picture video capture card at £49(+VAT)

If you own a PC and a Camcorder, Motion Picture can put you in the picture! The Motion Picture pack contains a 16 bit ISA interface card and Windows software which, once installed in your PC gives you the power to grab a still picture or capture an AVI movie from any video source. Suitable video sources include; Camcorders, TV's, VCR's, Satellite Receivers, Canon Ion Cameras....etc.

Once images or movies have been captured they can be used in DTP and multimedia authoring tools. This means you can produce work like this advert from your desktop without the need for a film camera and all the costs of processing and scanning. Call us now to receive a Motion Picture information pack and full stockists list.



HCCS Associates Ltd, 575-583 Durham Rd, Gateshead, Tyne & Wear NE9 5JJ  
Tel: (0191) 420 0425 Fax: (0191) 491 0431



If your presentations are taking you longer to produce than it's taking you to write them, you're ready for the ASAP™ revolution.

At a stroke, ASAP's Intelligent Formatting™ has taken the drudgery out of creating professional presentations. It's uncomplicated to use, there's no system to learn, no multiple disks to load, and no problem updating your presentation at literally the last second. Nothing gets your ideas across faster, better and easier than this.

ASAP for Windows lets you concentrate on content by taking care of the visuals.

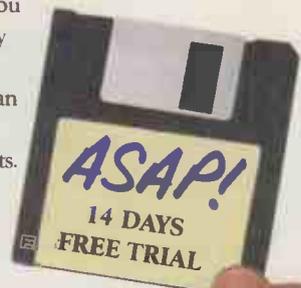
If you can type, you can create great reports, presentations and handouts. That's all there is to it!

One call and it's yours free for 14 days!

Tel: 0800 220977

Fax: 0131 4586990

Internet: <http://www.spc.com>



POWASAP10

# ...AND YOU'RE THERE!

© 1995 Software Publishing Corporation. All rights reserved. The Harvard and Software Publishing Corporation logos are registered trademarks and ASAP and Intelligent Formatting are trademarks of Software Publishing Corporation. The Harvard product line is a group of products from Software Publishing Corporation and has no connection with Harvard University. Windows is a trademark of Microsoft Corporation. All trademarks referenced herein are the property of their respective owners.



# Professional Quality Workstations

## ACT NOW! SAVE £££'S

ALL OFFERS END 6TH OCTOBER 1995



### PC HOLDALL

From a Special Offer £69  
Choice of 3 sizes in 4 finishes

WAS £119  
SPECIAL OFFER PRICE  
£99  
LIMITED PERIOD ONLY

2 SHELF HEIGHT OPTIONS

How is it that you can buy a quality workstation direct from Budget Workstations for as little as £69? The secret is that we sell direct to you the user, cutting out middlemen and retailers adding their 40% or 50% mark-ups.

### Fast Delivery, Wide Choice

We manufacture a wide range of computer workstations, every one in a choice of no less than four colour finishes.

And when you order from us, we'll deliver to your door fast from stock held at our factory. That's a promise.

### The Triple Guarantee

Our triple guarantee of quality lets you buy with confidence.

**30 DAYS MONEY BACK GUARANTEE**  
No hassle refund if you return goods complete and as new within 30 days

**QUALITY ASSURED**  
Our British Standards Quality Certification virtually guarantees you won't need our guarantees

**12 MONTHS NO QUIBBLE GUARANTEE**  
Any fault will be promptly and courteously rectified at our expense

### Experience Counts

For over a decade we have made nothing but workstations, and our experience shows in features like strong 18mm worktops with extra thick 3mm edging with a rounded profile for comfort and safety.

Plus easy-glide runners for sliding shelves, braked twin-wheel castors, and rigid tubular steel frames. It's the difference you only get at Budget.

### Act Now

Why not get your computer organised right now by calling 0181-871 4322 to place your order.

You could be computing in comfort tomorrow. Hurry and you can take advantage of our special offer prices.

### Choose your colour



Colour reproduction is not exact. Dimensions are approximate. Goods are flat packed, prices may vary without notice, and non-refundable p&p is for mainland UK (excluding Highlands). Please ask about suitability if your system differs from those shown. Our Standard Terms of Sale (available on request) apply to all orders. Special Prices for payment with order only.

### HOW TO ORDER

■ BY PHONE ■ BY MAIL ■ IN PERSON

Delivery to your Door Carriage Costs:

One large item plus any attachable accessories: £10+VAT (£11.75 inc VAT). Additional large items: £7+VAT (£8.23 inc VAT) each

### Budget Workstations

Units 13-14, Glenville Mews Industrial Estate, Kimber Road, London SW18 4NJ

Call now (24 hours) to order

**0181-871 4322**

Fax: 0181-870 7986



Personal Callers Welcome - Monday-Friday 9am-5pm

Above: PC Holdall 900 (36") in Mid Teak.  
Inset: PC Holdall 600 (24") in Dark Mahogany with extension and mouse board, and PC Holdall 750 (30") in Soft Grey.



Choose from three sizes in four finishes to create your ideal workstation. Plenty of knee-room and a comfortable keying posture are ensured by the separate keyboard/mouse shelf, which glides neatly away on its smooth roller runners.

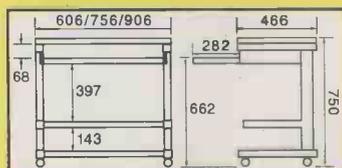
The printer shelf (optionally 75mm higher than standard position shown\*) is also on roller runners for easy access, and there is a spacious stationery shelf below.

Space saving robust folding extensions (306mm wide) and a sliding mouse board can be added either side to tailor your workstation precisely to your needs.

There is thick (3mm) rounded safety edging on the full 18mm thick worksurfaces to eliminate painful sharp corners, and braked twin-wheel castors are standard.

Every detail has been designed to save you space, time and hassle.

But the best news of all is that by buying direct you can have a professional quality workstation for as little as £69!

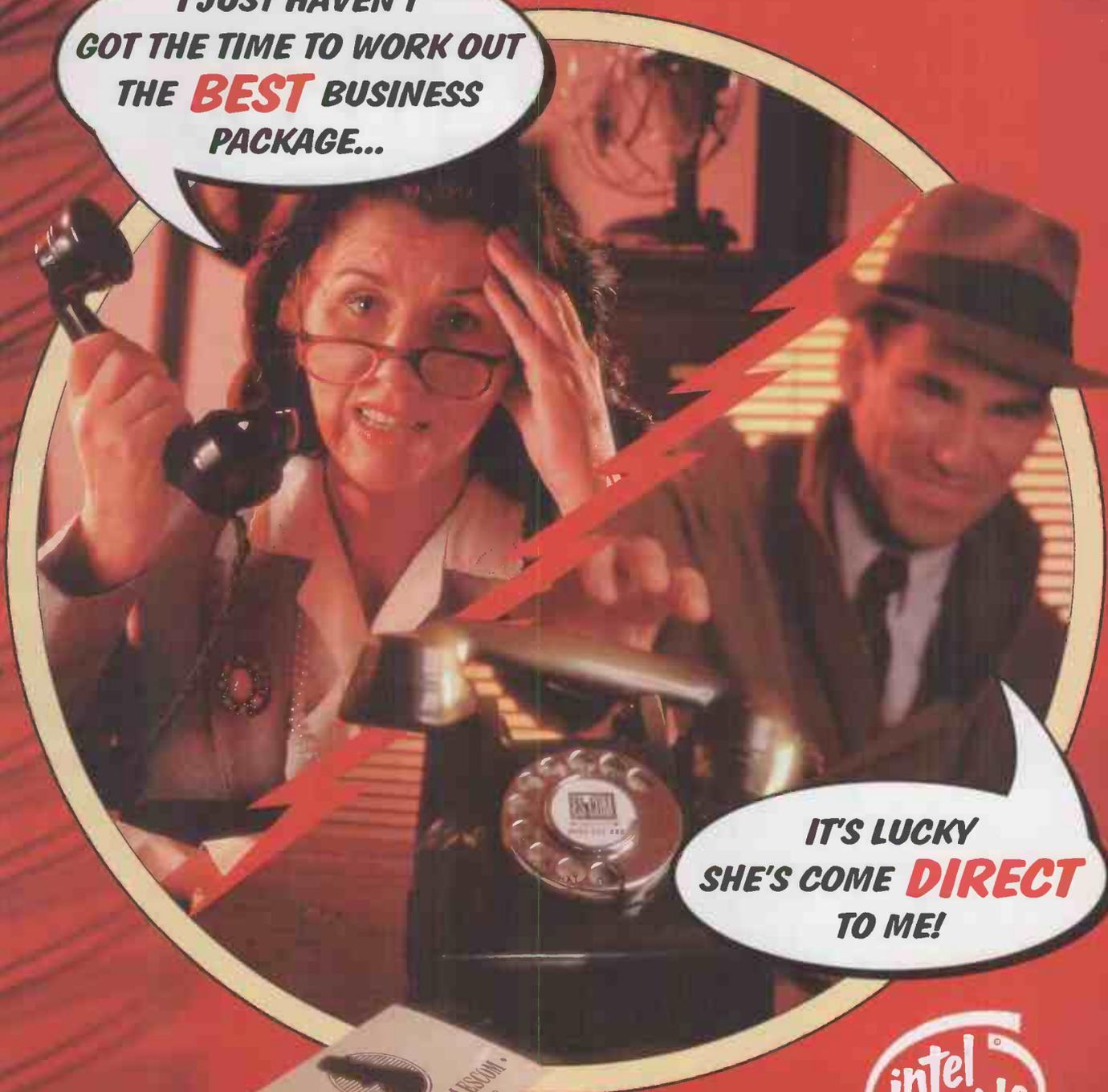


Model	Code	RRP	Offer Price	inc VAT
PC Holdall 600	H90	£84	£69	£81.08
PC Holdall 750	H75	£104	£89	£104.58
PC Holdall 900	H60	£119	£99	£116.33
Extension	HX	£15	£13	£15.28
Mouse Board	MB	£15	£13	£15.28

\*Only supplied if requested when ordering

ALL OFFERS END 6TH OCTOBER 1995

I JUST HAVEN'T  
GOT THE TIME TO WORK OUT  
THE **BEST** BUSINESS  
PACKAGE...



IT'S LUCKY  
SHE'S COME **DIRECT**  
TO ME!



pentium®  
PROCESSOR

EUROPE'S LARGEST PC  
RETAILER NOW OFFERS YOU  
AN ALTERNATIVE BUYING SOLUTION...

easyware



▶ **DIRECT** ◀

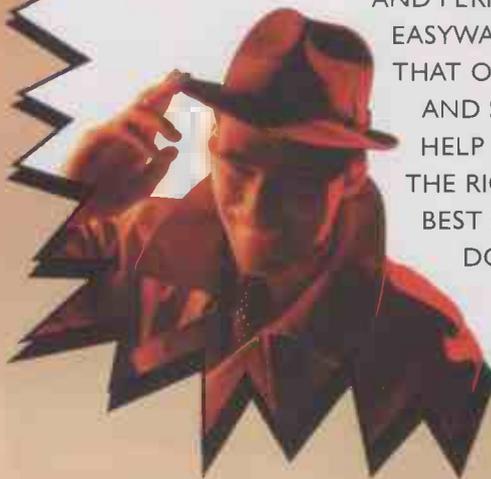
FOR GREAT VALUE PCs AND SERVICE SUPPORT  
PHONE DIRECT ON 0990 555888

# Notes

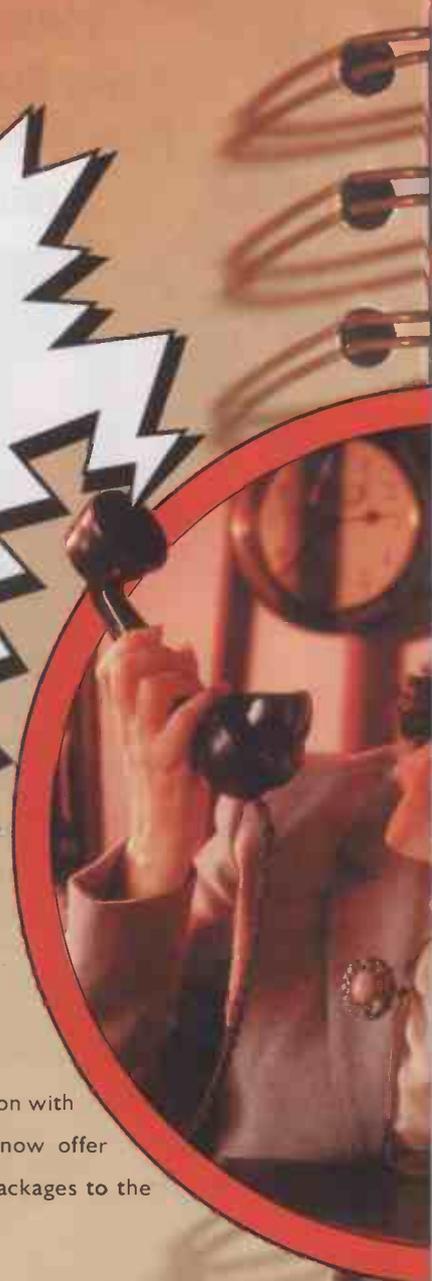
## **THE ANSWER TO ALL YOUR PROBLEMS, IS JUST A PHONE CALL AWAY!**

WHATEVER YOUR BUSINESS NEEDS, JUST TALK TO ME - THE MAN FROM ESCOM, AT ESCOM DIRECT.

THERE'S NO QUICKER AND EASIER WAY TO CHOOSE FROM AN UNBEATABLE RANGE OF OFFICE PCs, PRINTERS, SOFTWARE AND PERIPHERALS. AND THANKS TO EASYWARE, THE UNIQUE PACKAGE THAT OFFERS TOP QUALITY HARDWARE AND SOFTWARE, PLUS PERSONAL HELP AND ADVICE, YOU'LL GET THE RIGHT PC SYSTEM, AND THE BEST SERVICE - ALL THE WAY DOWN THE LINE.



*The Man from Escom*



### **ESCOM DIRECT**

ESCOM Direct is a quality service designed to meet the needs of today's demanding business user. Your call will be answered by one of our experienced operators who are trained to advise on our customers' requirements. We offer a range of payment terms including most credit cards, with business account facilities and leasing terms available. Furthermore we can customise systems to suit your business. You can select from a range of large screen displays; high capacity storage and back up devices; memory upgrades and enhanced video cards. These options will then be installed and configured by our dedicated technical team, ready for you to use straight out of the box.

ESCOM Direct is the fast, efficient alternative to the high street, now open for business 7 days a week. Call us now for an instant quotation.

**STOCK ITEMS DELIVERED WITHIN  
2 WORKING DAYS.**

### **LEASING**

ESCOM Direct, in conjunction with Schroder Leasing Limited, now offer a range of flexible leasing packages to the business community.

Leasing preserves working capital and is the tax efficient method of meeting your I.T. requirements in the years ahead.

### **CUSTOMER REPAYMENT SCHEDULE**

£	3 YEARS		5 YEARS	
	WEEKLY	MONTHLY	WEEKLY	MONTHLY
50	0.41	1.80	0.28	1.24
100	0.83	3.60	0.57	2.49
250	2.08	9.01	1.43	6.02
500	4.16	18.02	2.87	12.04
1000	8.32	36.05	5.75	24.09
2000	16.64	72.10	11.50	48.18
5000	41.60	180.25	28.75	120.46
10000	83.20	360.50	57.50	240.93

Quarterly payments by Direct Debit. All leasing packages are subject to acceptance. All prices are exclusive of VAT.

... Phone ESCOM DIRECT on 0990 555888 for details...

# Notes

## Pentium®-Processor Based Systems

### ESCOM 486 DX2/66i VESA

- Intel 486 DX2/66MHz Processor
- 540Mb Hard Disk Drive ■ 4Mb RAM
- 3.5" Floppy Disk Drive ■ 1Mb PCI Graphic Card
- 14" NI Monitor ■ Mini Tower Case
- Keyboard ■ PC DOS 7.0 Start Up,
- Microsoft Windows for Workgroups 3.11, OS/2 Warp, OS/2 BonusPak (IBM Works, Internet Super Highway, Person-to-Person), Lotus SmartSuite for OS/2, CorelDraw v.4 (no clip art), Microsoft Works v.3, Scenes - Undersea, Entertainment Pack IV
- 12 Months On-site Warranty
- 12 Months Telephone Support

**£549.00**  
+VAT

£645.08 inc. VAT

**BUSINESS LEASING OPTION**  
**£3.33 PER WEEK** over 5 years

UPGRADE TO ESCOM 486 DX4/100 PCI FOR **£50.00 + VAT** £58.75 inc VAT.

**ESCOM 486 DX2/66i VESA and HP Deskjet 600 Printer Bundle**

**£749.00**  
+VAT **£880.08**  
inc. VAT

**BUSINESS LEASING OPTION**  
**£4.54 PER WEEK** over 5 years



### ESCOM P60 PCI MINI TOWER

- Intel 60MHz Pentium® Processor
- 540Mb Hard Disk Drive ■ 8Mb RAM
- 3.5" Floppy Disk Drive ■ 1Mb PCI Graphic Card ■ 14" NI Monitor
- Mini Tower Case ■ Keyboard
- 12 Months On-site Warranty
- 12 Months Telephone Support ■ Now available with Microsoft Windows '95 P60 PCI W95 - OR PC DOS 7.0 Start Up, Microsoft Windows for Workgroups 3.11, OS/2 Warp, OS/2 BonusPak (IBM Works, Internet Super Highway, Person-to-Person), Lotus SmartSuite for OS/2, CorelDraw v.4 (no clip art), Microsoft Works v.3, Scenes - Undersea, Entertainment Pack IV



**£749.00**  
+VAT

**£880.08**  
inc. VAT

**BUSINESS LEASING OPTION**  
**£4.54 PER WEEK** over 5 years

### MULTIMEDIA OPTIONS

- 1 ■ Double Speed CD ROM **£99.00**  
+VAT **£116.33**  
inc. VAT
- 16 Bit Soundcard ■ Speakers
- 2 ■ Quad Speed CD ROM
- 16 Bit Soundcard ■ Speakers

**£149.00**  
+VAT **£175.08**  
inc. VAT

**ASK IN-STORE FOR DETAILS**



The Intel Inside® logo and Pentium® Processor logo are registered trademarks of Intel Corporation. Mouse available at additional cost. See In-store for full details of our range of mlce. Software is pre-loaded on all systems. Diskettes and manuals are available for an additional charge.

*...Also available in nearly 200 stores nationwide...*

Pentium®-Processor  
Based Systems

# Notes



## ESCOM P75 PCI MINI TOWER

- Intel 75MHz Pentium® Processor ■ 850Mb Hard Disk Drive ■ 8Mb RAM ■ 3.5" Floppy Disk Drive
- 1Mb PCI Graphic Card ■ 14" NI Monitor
- Mini Tower Case ■ Keyboard
- 12 Months On-site Warranty
- 12 Months Telephone Support
- Now available with



Microsoft Windows '95 P75 PCI W95 - OR

- PC DOS 7.0 Start Up, Microsoft Windows for Workgroups 3.11, OS/2 Warp, OS/2 BonusPak (IBM Works, Internet Super Highway, Person-to-Person), Lotus SmartSuite for OS/2, CorelDraw v.4 (no clip art), Microsoft Works v.3, Scenes - Undersea, Entertainment Pack IV

**£899.00** +VAT  
£1056.33 inc. VAT

**BUSINESS LEASING OPTION  
£5.45 PER WEEK** over 5 years

## ESCOM P90 PCI MINI TOWER

Specification as P75 but with:

- Intel 90MHz Pentium® Processor

**£999.00** +VAT  
£1173.83 inc. VAT

**BUSINESS LEASING OPTION  
£6.06 PER WEEK** over 5 years

## ESCOM P100 PCI MINI TOWER

Specification as P75 but with:

- Intel 100MHz Pentium® Processor

**£1099.00** +VAT

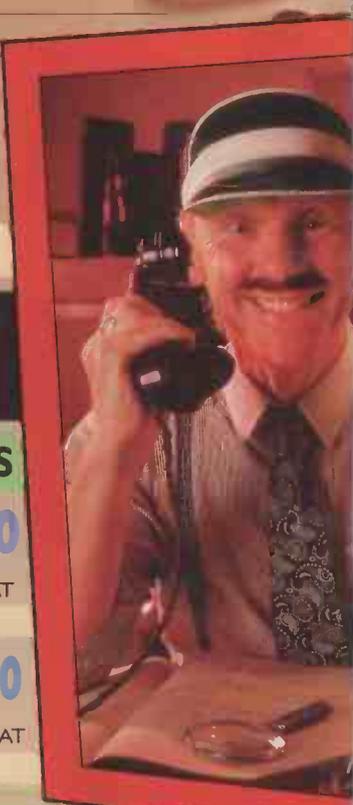
£1291.33 inc. VAT

**BUSINESS LEASING OPTION  
£6.33 PER WEEK**  
over 5 years

## MULTIMEDIA OPTIONS

1 ■ Double Speed  
CD ROM **£99.00** +VAT  
■ 16 Bit Soundcard  
■ Speakers £116.33 inc. VAT

2 ■ Quad Speed  
CD ROM **£149.00** +VAT  
■ 16 Bit Soundcard  
■ Speakers £175.08 inc. VAT



## MULTIMEDIA BUNDLES

### ESCOM P60 PCI MULTIMEDIA MINI TOWER

Specification as P75 PCI but with:

- Intel 60MHz Pentium® Processor ■ Double speed CD ROM Drive ■ 16 bit Sound Card ■ Speakers

**£848.00** +VAT  
£996.40 inc. VAT

**BUSINESS LEASING OPTION  
£5.14 PER WEEK** over 5 years

### ESCOM P90 PCI MULTIMEDIA DESKTOP

Specification as P75 PCI Desk Top but with:

- Intel 90MHz Pentium® Processor

**£1098.00** +VAT  
£1290.15 inc. VAT

**BUSINESS LEASING OPTION  
£6.32 PER WEEK** over 5 years

The Intel Inside® logo and Pentium® Processor logo are registered trademarks of Intel Corporation. Mouse available at additional cost. See in-store for full details of our range of mice. Software is pre-loaded on all systems. Diskettes and manuals are available for an additional charge.

... State of the art technology...

Notes

Pentium®-Processor Based Systems

I'M LOOKING FOR THE BEST **PRICES**, ALL THE WAY DOWN THE LINE...



pentium® PROCESSOR

**ESCOM P75 PCI DESK TOP**

- Intel 75MHz Pentium® Processor
- 850Mb Hard Disk Drive
- 8Mb RAM ■ 3.5" Floppy Disk Drive
- 1Mb PCI Graphic Card
- 14" NI Monitor ■ Desktop Case
- Keyboard ■ 12 Months On-site Warranty ■ 12 Months Telephone Support ■ Now Available with Microsoft Windows®95 P75 PCID W95 - OR

- PC DOS 7.0 Start Up, Microsoft Windows for Workgroups 3.11, OS/2 Warp, OS/2 BonusPak (IBM Works, Internet Super Highway, Person-to-Person), Lotus SmartSuite for OS/2, CorelDraw v.4 (no clip art), Microsoft Works v.3, Scenes - Undersea, Entertainment Pack IV



£949.00 +VAT £1115.08 inc. VAT

**BUSINESS LEASING OPTION £5.75 PER WEEK** over 5 years

**MULTIMEDIA OPTIONS**

- 1 ■ Double Speed CD ROM ■ 16 Bit Soundcard ■ Speakers **£99.00** +VAT £116.33 inc. VAT
- 2 ■ Quad Speed CD ROM ■ 16 Bit Soundcard ■ Speakers **£149.00** +VAT £175.08 inc. VAT

**ESCOM P90 PCI DESK TOP**

Specification as P75 PCI but with:

- Intel 90MHz Pentium® Processor

£1049.00 +VAT £1232.58 inc. VAT

**BUSINESS LEASING OPTION £6.04 PER WEEK** over 5 years

**ESCOM P100 PCI TOWER CASE**

Specification as P75 PCI but with:

- Intel 100MHz Pentium® Processor
- 1Gb Hard Disk Drive ■ Tower Case

£1199.00 +VAT £1408.83 inc. VAT

**BUSINESS LEASING OPTION £6.90 PER WEEK** over 5 years

**ESCOM P120 PCI TOWER CASE**

Specification as P75 PCI but with:

- Intel 120MHz Pentium® Processor
- 1Gb Hard Disk Drive ■ Tower Case

£1299.00 +VAT £1526.33 inc. VAT

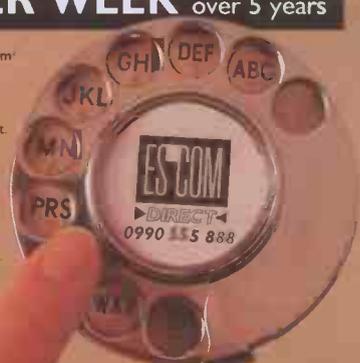
**BUSINESS LEASING OPTION £7.47 PER WEEK** over 5 years

The Intel Inside® logo and Pentium® Processor logo are registered trademarks of Intel Corporation.

Mouse available at additional cost.

See in-store for full details of our range of mice. Software is pre-loaded on all systems.

Diskettes and manuals are available for an additional charge.



... at your fingertips ...

# Notebooks & Accessories Notes

## ESCOM SUB-NOTEBOOK (MONO)

- Intel DX2/66 Processor ■ 170Mb Hard Disk Drive
- 4Mb RAM ■ 3.5" Floppy Disk Drive

**£599.00** +VAT **£703.83** inc. VAT

**BUSINESS LEASING OPTION**  
**£3.63 PER WEEK** over 5 years

## ESCOM SUB-NOTEBOOK (COLOUR)

- Intel DX2/66 Processor ■ 170Mb Hard Disk Drive
- 4Mb RAM ■ 3.5" Floppy Disk Drive
- Built-in Trackball ■ PCMCIA II & III Slots
- Power Management ■ Size 260x200x45mm ■ 1.9Kg

**£999.00** +VAT **£1173.83** inc. VAT

**BUSINESS LEASING OPTION**  
**£6.06 PER WEEK** over 5 years

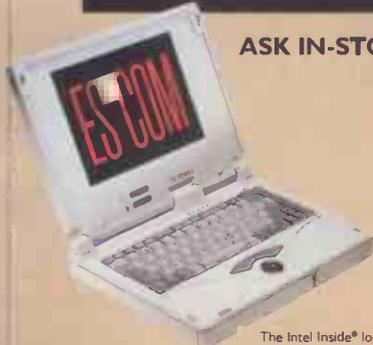
Specification as above but with;

- 510Mb Hard Disk Drive

**£1199.00** +VAT **£1408.83** inc. VAT

**BUSINESS LEASING OPTION**  
**£6.90 PER WEEK** over 5 years

ASK IN-STORE FOR UPGRADES  
AND ACCESSORIES



The Intel Inside® logo and Pentium® Processor logo are registered trademarks of Intel Corporation. Mouse available at additional cost. See in-store for full details of our range of mice. Software is pre-loaded on all systems. Diskettes and manuals are available for an additional charge.

... Top quality hardware and software ...

WHEN YOU NEED THE  
**LATEST TECHNOLOGY**  
YOU KNOW JUST WHO  
TO CALL!

## MULTIMEDIA BUNDLES

FROM

**£598.00** +VAT

**£702.65** inc. VAT

- Intel 486 DX2/66 MHz Processor

## ESCOM P100 PCI MULTIMEDIA FULL TOWER

Specification as P60 PCI (see page 3) but with:

- Intel 100MHz Pentium® Processor ■ Quad speed CD ROM Drive ■ 16 bit Soundcard ■ Speakers

**£1348.00** +VAT **£1583.90** inc. VAT

**BUSINESS LEASING OPTION**  
**£7.76 PER WEEK** over 5 years

## HARD DISK DRIVES

- 540Mb Hard Disk Drive

**£99.00** +VAT **£116.33** inc. VAT

- 1Gb Hard Disk Drive

**£159.00** +VAT **£186.83** inc. VAT

## CD ROM DRIVES

- Double speed CD ROM

**£49.00** +VAT **£57.58** inc. VAT

- Quad speed CD ROM

**£99.00** +VAT **£116.33** inc. VAT



## HP DESKJET 600

The perfect printer for the home - everything you want and colour when you need it

- 600x600dpi black and 300x300dpi colour, HP's Resolution Enhancement and ColourSmart technology
- 4 pages per minute
- 14 Scaleable Typefaces
- Optional colour cartridge and storage container
- HP PrintSmart for Windows
- 3 years Warranty



**NEW**

hp HEWLETT PACKARD

**£229.00**  
+VAT

**£269.08**  
inc. VAT

## HP OFFICEJET LX

Print, fax, copy your text images and pictures with the HP OfficeJet LX printer, fax, copier.

- Inkjet printing at 600x300dpi
- Plain paper faxing
- PC fax - convenience copier - all in one box!



**NEW**

**£499.00**  
+VAT

**£586.33**  
inc. VAT



HP SUPPORT PACK AVAILABLE. ASK IN-STORE FOR DETAILS.



## HP LASERJET 4L

Affordable, entry level laser printing solution with excellent print quality.

- 300dpi with HP's Resolution Enhancement technology
- 4 pages per minute
- One Year Warranty
- HP Memory Enhancement technology
- Energy saving intelligent on/off and instant warm up

WAS £399.00 +VAT £468.83 inc.VAT

**NOW ONLY**

**£379.00**  
+VAT

**£445.33**  
inc. VAT

## HP LASERJET 5P

Outstanding print quality for text and graphics, plus versatile paper handling means the LaserJet 5P is ideal for small businesses and users in workgroups.

- 600 dpi
- 6 ppm
- 110 Scaleable Typefaces

**£699.00**  
+VAT

**£821.33**  
inc. VAT

## CANON BJ-200EX

The affordable, personal, black & white, bubble jet desktop computer printer.

- Increased Print Speed
- User-friendly functions

**£189.00**  
+VAT

**£222.08**  
inc. VAT

**NEW AT ESCOM**

## CANON BJC-4000

The quality colour and black & white bubble jet personal printer.

- Low cost, 2 in 1, personal printer

**£279.00**  
+VAT

**£327.83** inc. VAT

**Canon**

**NEW AT ESCOM**



... plus full service support ...

## MESSAGES:

Pick-up the best PC deals..  
..pick-up the phone!



• **THE MAN FROM ESCOM** •  
PC TROUBLESHOOTER

easycare **FROM ESCOM** and **ICL**

Working with ICL, ESCOM are offering a choice of comprehensive warranties.

### STANDARD COVER

12 months on-site support for ESCOM PCs on top of your standard manufacturer's guarantee\*. 12 months telephone Service Hotline support.

### SERVICE HOTLINE

Call our Service Hotline at any time during your warranty period for instant solutions to your problems. For more information on our warranties and hotline, ask in-store.

### EXTENDED COVER 3 YEAR WARRANTY

**OPTION 1** - PC hardware value up to £750 inc.VAT  
**£99.00+VAT** £116.33 inc.VAT

**OPTION 2** - PC hardware value from  
£751-£1,000 inc.VAT  
**£129.00+VAT** £151.58 inc.VAT

**OPTION 3** - PC hardware value over £1,000 inc.VAT  
**£149.00+VAT** £175.08 inc.VAT

\* On-site and extended warranties are not available for ESCOM's notebook PCs.

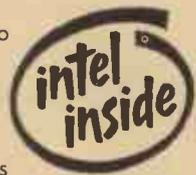
easyware **FROM ESCOM**  
**DIRECT**

The PC, peripheral and software products in this magazine are available to business users by phoning direct on

**0990 555888**

**BUSINESS USERS...Phonelines open...**  
Mon-Sat 9.00am-6.00pm...Sat 9.00am-5.00pm...  
Sun 10.00am-5.00pm.

- ESCOM Direct is a telephone order line designed to cater specifically for the needs of our business users.
- It is the fast, efficient alternative to purchasing from the high street.
- With business account facilities, business leasing, instant quotations and customised systems and packages - choosing the right system and peripherals for your business has never been easier.



pentium®  
PROCESSOR



CREDIT CARDS ARE DEBITED ON DAY OF DESPATCH



Make purchasing from ESCOM even easier with our new Charge Card.

Your card's unique customer number gives you priority service

with flexible terms, allowing you to make payments from as little as £10 per month. You'll also receive monthly statements, keeping you up to date on your repayments, and access to our free advice technical helpline.

For further details and an application form for an ESCOM Charge Card, call into your local store.

The Intel Inside® logo and Pentium® Processor logo are registered trademarks of Intel Corporation. Prices and details are correct at time of going to press. Offers are subject to availability, price and specification changes without notice.

Extended warranties and credit facilities available subject to status. The photographed product may not always match the specifications quoted.

Monitor sizes refer to tube dimensions and not visible diagonal. E+OE.

Prices valid from August 23rd 1995.



ESCOM UK LTD., 3 RIVERSIDE WAY, RIVERSIDE BUSINESS PARK, IRVINE KAII SDJ.

TEL: 0990 555888 FAX: 01294 223223. Registered in Scotland Reg No. 137446

PHONE 0990 100888 FOR DETAILS OF YOUR NEAREST STORE.

BUSINESS USERS PHONELINES 0990 555888

OPEN...MON-FRI 9.00AM-6.00PM...SAT 9.00AM-5.00PM...SUN 10.00AM-5.00PM.

## A guide to the software

The packages that direct ISPs give or sell you generally contain one of a number of commonly available programs. Some are legally licensed copies; others are shareware which you are expected to register for an additional fee. So when you compare setup costs between providers, you should add in any such extra fees. Before you pay, however, try the software: once you're on the net you can get substitutes for software you don't like; the list below should give you some idea of alternatives. A comprehensive selection of Winsock-compatible software is available from the Web site <http://cwsapps.texas.net/>.

**Chameleon:** A fully-featured commercial mail package from Netmanage. A cut-down version called Sampler turns up on lots of cover and book disks.

**Eudora:** A freeware mail package produced by Qualcomm. The commercial

version has many more features. Named after American writer Eudora Welty.

**Ewan:** Telnet shareware. Nice, although it tends to crash; can memorise session settings but no scripting facility.

**Free Agent:** A commercial offline newsreader; free for personal, educational, or non-profit use.

**Mosaic:** A Web browser. Supplied under licence by some ISPs including CompuServe, which in 1994 bought one of its publishers, Spry.

**Netscape:** Currently the most common Web browser. Version 1.1 added security features which you'll need for sites which have implemented secure transaction procedures. Netscape's printing facilities are flaky, but it can run multiple sessions, so you can read one set of Web pages while downloading another.

**News Xpress:** An online newsreader.

**Winsock:** WINSOCK.DLL is a dynamic

link library file. It does two things: it loads the Internet protocols, TCP/IP, on your system, and it runs a script to log you onto your service. There are a number of widely available Winsocks, of which the most common is shareware from Trumpet. In general, you should stick to the one supplied by your provider, as configuring one of these things isn't fun (although a number of services now cover up the ugliness with an easy-to-configure face). Once Winsock is installed on your system, you can run any compatible applications you like with little trouble.

**WinVN:** An online newsreader.

**WSFTP:** Windows-based FTP client that gives you a File Manager-style display of the file directories on a remote computer.

**WSGopher:** Now that most Web browsers can display Gopher menus, you probably don't need this client. But you may find it faster and more convenient in some cases.

## Glossary

**Archie:** Archive server. An Archie search gives you a list of files and locations. The main one for the UK is at [archie.doc.ic.ac.uk](http://archie.doc.ic.ac.uk).

**Finger:** Utility for finding out who is a particular user on a given system, either from either ID or a portion of their real name.

**FTP:** File Transfer Protocol. You use FTP to send or retrieve files from distant computers. To log on to services that maintain public archives, type "ftp" or "anonymous" where it asks for your ID, and your email address as your password.

**Gopher:** Menu-based, indexed information server, easy to use and search.

**IP:** Internet protocol.

**MOO:** Multi-User Object-Oriented environment. Essentially, a themed MUD; for example, Zen or post-modernist.

**MUD:** Multi-User Dungeon. Co-operative, text-based role-playing games you access via Telnet.

**NNTP:** Network news transfer protocol. Used on Usenet servers.

**OLR:** Offline reader. Automates logging on so you can read and write offline where it's cheaper.

**Password:** A good password is easy to remember but hard to guess. CompuServe and eWorld let you pick two words linked with a special character: most systems limit you to between five and eight characters. One good method is to pick a memorable word, capitalise a letter somewhere in the middle, and add a special character such as "%" or "?".

**Ping:** Tests whether a site is alive and

connected.

**PoP:** Point of Presence. In other words, a local phone number you can dial to reach a particular system.

**POP3:** Post Office Protocol 3; an alternative to SMTP. Less flexible, but the available software is easier to configure and use.

**PPP:** Point-to-Point Protocol. The most common type of direct IP account.

**SLIP:** Serial line Internet Protocol. Older type of IP access replaced in most cases by PPP.

**SMTP:** Simple Mail Transfer Protocol. Alternative to POP3; more flexible but more difficult to configure.

**TCP/IP:** Transmission Control Protocol / Internet Protocol, the networking protocols in common use on the Internet. To connect, you need to load these protocols on to your computer.

**Telnet:** Lets you log on to remote computers and operate them. Use Telnet to access certain types of games servers (MUDs and MOOs), library catalogue services, free-nets, and the Netherlands' Digital City.

**Usenet:** Worldwide bulletin board; individual conferences are called newsgroups. Some of these, particularly the alt.sex hierarchy, contain material parents may find objectionable but services targeting families tend to filter these out.

**UUCP:** UNIX-to-UNIX Copy Program. A dial-up computer-to-computer method of transferring mail and news that doesn't involve the Internet.

Camden Lock  
EUROPE'S MOST INNOVATIVE WEB SITE

To get the most from this page, use the Netscape 1.1 browser

The Delphi Internet UK Home Page  
Click here to contact the Editorial Team



1602

Join the phone service that saves you money

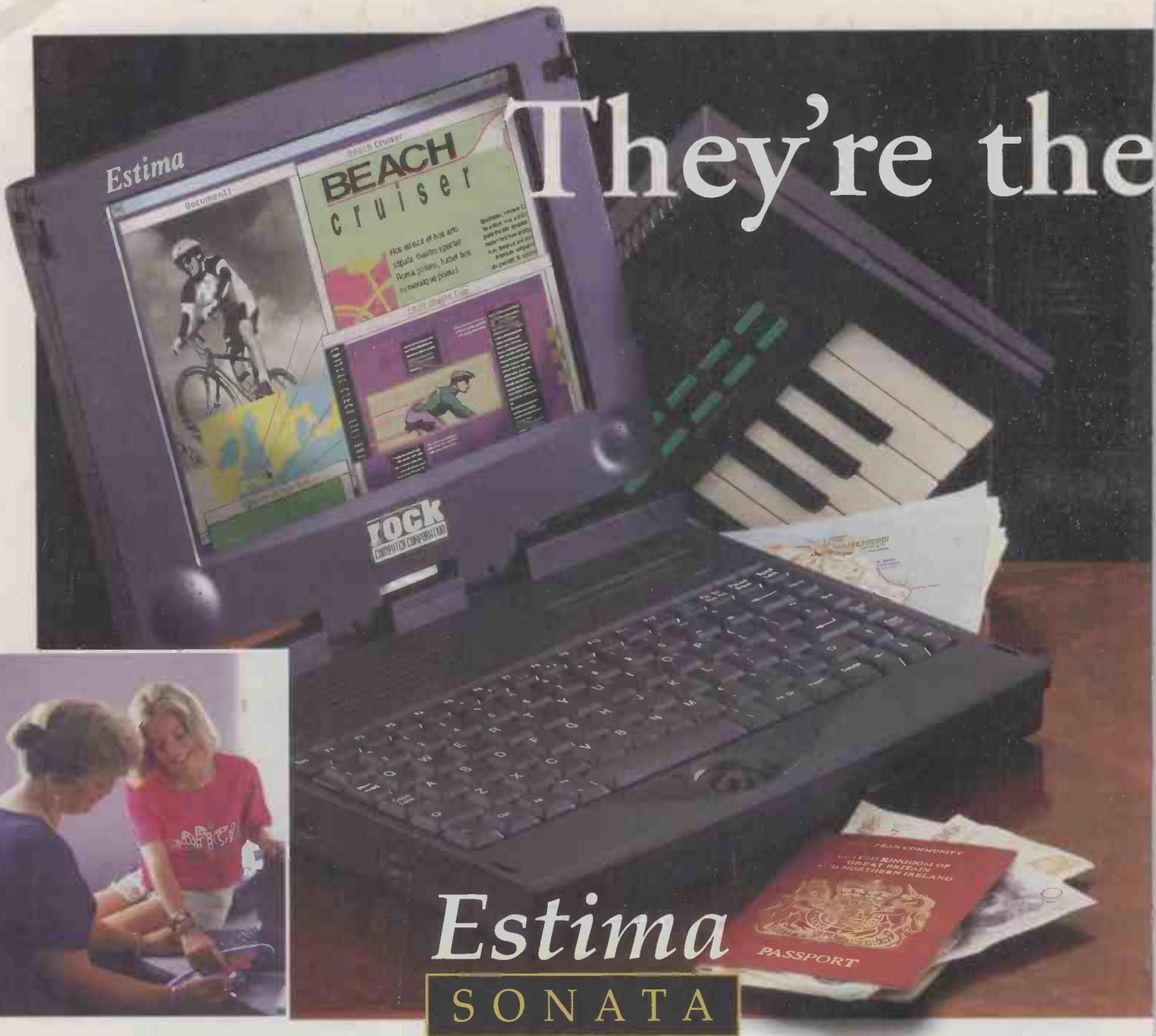
**UUencode:** The routine for converting program, or "binary" files into gibberish-like text so that they can be transmitted across the Internet. To run the programs, you must first UUdecode the file.

**Veronica:** Search facility for Gopher servers.

**vPoP:** Virtual Point of Presence. That is, a PoP you can call but whose physical modems are located elsewhere on the network. Demon claims to have invented the term.

**World-wide Web:** A system of hypertext links that let you jump from computer to computer with no more difficulty than following the links in a Windows Help file. You access the Web using a browser such as Mosaic, Netscape, Cello, or WebExplorer.

# They're the



## Estima SONATA

### VERSATILITY - AT WORK AND AT HOME

WHEN HOME IS OFTEN YOUR PLACE OF WORK, IT'S NO WONDER SO MANY PEOPLE LIKE YOU CHOOSE THE BEST-SELLING SONATA 486 MULTIMEDIA NOTEBOOK WITH ITS PROVEN TRACK RECORD FOR HIGH PERFORMANCE, QUALITY AND AFFORDABILITY. THE SONATA HAS THE POTENTIAL FOR UNLIMITED POSSIBILITIES FROM PERSONAL HOME COMPUTING, BUSINESS APPLICATIONS RIGHT THROUGH TO A LITTLE LIGHT ENTERTAINMENT - FOR YOU OR THE KIDS.

Slim and stylish the Sonata features an ergonomically designed centrally located 19mm trackball for easy and accurate fingertip control and utilises 32 bit VESA Local Bus, coupled with a windows accelerator chip to display 256 vivid colours on either the 10.4" Dualscan or 9.5" TFT Screen. For the added dimension and excitement of sound, the internal speaker and microphone provide all the high quality sound you need to enhance your multimedia presentations or computer games. The PC Card Slots offer unlimited expansion via two Type II slots or a single Type III and when you want to go on working, replace the floppy disk drive with a second battery that provides for up to six hours non stop use. The Sonata, quite simply, is the most affordable high speed Multimedia 486 Notebook that fits comfortably within your lifestyle at work or at home.

- Intel SL Enhanced CPU
- 4/8Mb RAM (Exp to 16/20/32Mb)
- VESA Local Bus Windows Accelerator
- 1Mb Video RAM (Ext. CRT 1024x768x256 Col)
- 10.4" DualScan or 9.5" TFT Screen
- Simultaneous LCD / External Monitor Support
- VESA Local Bus 340Mb or 510Mb HDD
- 3.5" 1.44Mb FDD (Interchangeable with 2nd Battery)
- 2 x PC Card 2.0 Type II Slots or 1 x Type III
- Soundblaster Compatible Sound System
- Digital Status LCD Indicator with Graphical Icons
- In-Built Logitech 2-button Trackball
- High Power NiMH Battery Pack
- Serial, Parallel, VGA & Keyboard Ports
- Optional Multi-Media Docking Station
- 285mm x 230mm x 48mm & 2.8Kg
- High Quality Carry Case
- Windows 95 or DOS v6.22 & Win v3.11

#### ROCK SONATA - PRICE GUIDE

75MHz 486DX4 DualScan (4Mb)	£1,399	75MHz 486DX4 TFT (4Mb)	£1,799
100MHz 486DX4 DualScan (8Mb)	£1,599	100MHz 486DX4 TFT (8Mb)	£1,999

#### OPTIONS

510Mb HDD Upgrade	£100	20/32Mb RAM Upgrade	£Call
4 to 8Mb RAM Upgrade	£199	Docking Station	£349
8 to 16Mb RAM Upgrade	£398	FAX / LAN PC Cards	£Call

ROCK COMPUTERS IS ONE OF THE LARGEST SUPPLIERS OF NOTEBOOK COMPUTERS IN THE UK AND AS A FOUNDER MEMBER OF THE PERSONAL COMPUTER ASSOCIATION WE ADHERE TO A PROFESSIONAL CODE OF PRACTICE. PERSONAL BUYERS PAYING BY CHEQUE ARE ASSURED OF FINANCIAL SECURITY THROUGH THE PCDMA PAYMENT PROTECTION SCHEME.

For further information call Rock Computers

**0% INTEREST FREE CREDIT**  
On ALL Notebooks



Typical Example

Cash Price	£1,643.00
10% Deposit	£164.30
6 Installments	£246.45

\* Subject to availability. \*\* Notebook Only. Excludes Delivery Charges & must be returned in 'as new' condition. Specifications may be subject to change without notice. All Trademarks acknowledged E & OE. All Prices Exclude VAT, Finance available subject to status

875 Plymouth Road Slough Berkshire SL1 4LP

**Tel: 01753 567899**

Fax: 01753 567007

Authorised Dealer P.C.P Ltd. - Preston, Lancs Tel: 01706 861101

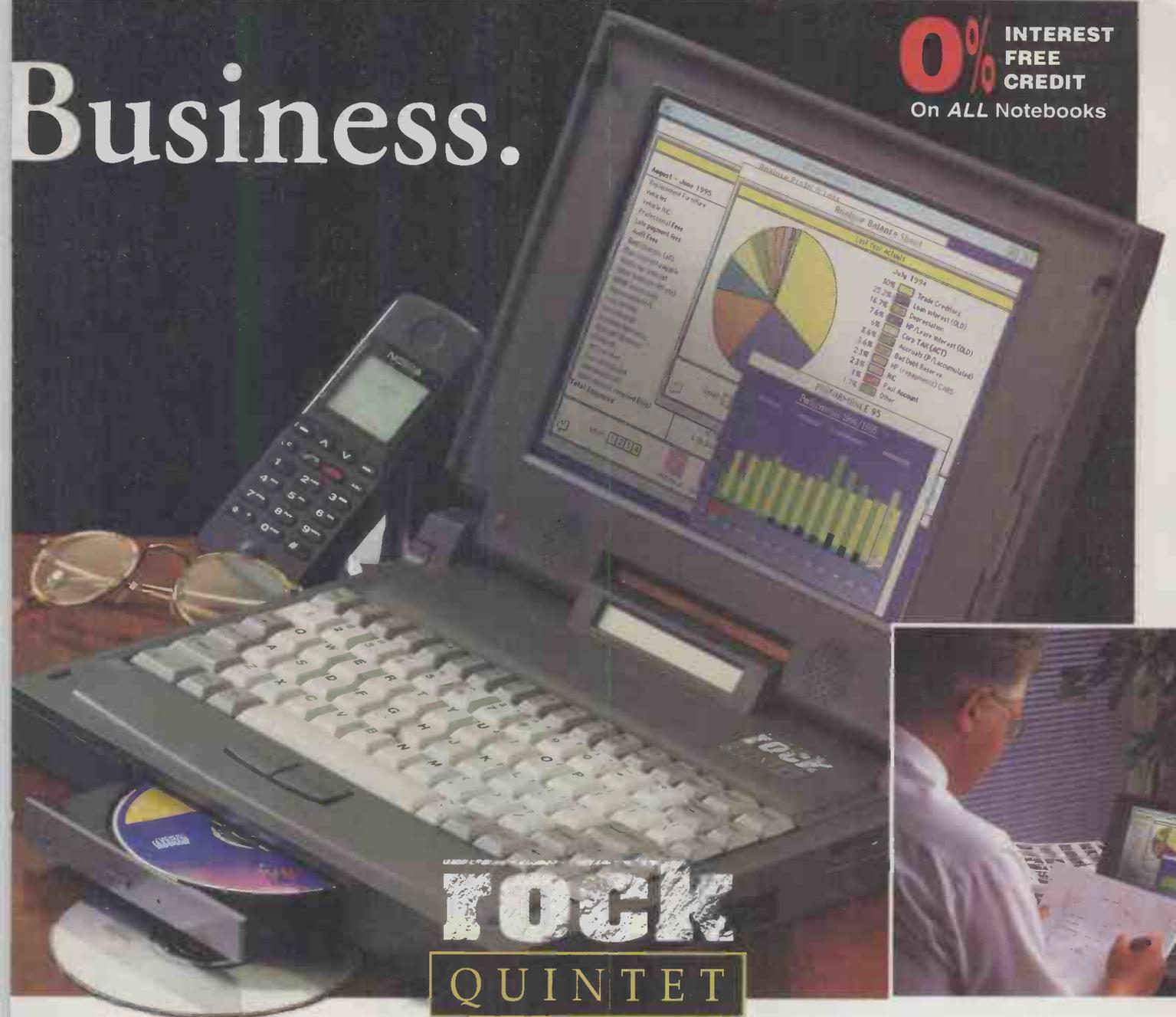
121 Regent Street, Leamington Spa Warks CV32 4NU

**Tel: 01926 832291**

Fax: 01926 832279

# Business.

**0% INTEREST FREE CREDIT**  
On ALL Notebooks



**ROCK  
QUINTET**

## THE ULTIMATE BUSINESS NOTEBOOK

**BUSINESS IS GETTING FASTER AND THE EXPECTATIONS YOU INCREASINGLY HAVE TO MEET ARE NEVER ANYTHING LESS THAN SKY HIGH. WE KNOW THAT - THAT'S WHY OUR NEW QUINTET IS THE ULTIMATE BUSINESS NOTEBOOK WITH THE PERFORMANCE TO DELIVER ALL THE SPEED AND POWER YOU NEED YET CONTAINED IN A LIGHTWEIGHT AND STYLISH PACKAGE.**

The compact Quintet incorporates a Pentium CPU and offers full-size CD-Rom capability with a built-in 5.25" Dual Speed Drive, 16 bit Soundblaster Pro compatible sound system and the ability to play MPEG movie CD's. The Quintet is able to bring a stimulating new quality to business presentations, seminars or sales opportunities. Naturally The Quintet can be linked into other peripheral equipment including monitors, printers and modems to offer an exciting world of audio/visual possibilities. Utilising either the 10.4" DualScan or 10.4" SVGA TFT Colour Display for crystal clear imagery to bring your multimedia information brilliantly alive, The Quintet becomes a persuasive communicator of the ideas and information that you wish to convey. When you're constantly on the move, but expected to deliver the ultimate business presentations which count for so much, you'll be surprised at how affordable the Quintet Multimedia Notebook Computer is - and how much it can do for you.

### ROCK QUINTET - PRICE GUIDE

75MHz Pentium DualScan	£2,299	75MHz Pentium SVGA TFT	£2,999
90MHz Pentium DualScan	£2,499	90MHz Pentium SVGA TFT	£3,199
100MHz Pentium DualScan	£2,599	100MHz Pentium SVGA TFT	£3,299

### OPTIONS

Upgrade to 16Mb RAM	£398	1.08Gb HDD Upgrade	£400
Upgrade to 32Mb RAM	£Call	MPEG Module	£Call
810Mb HDD Upgrade	£200	Mini Docking Station	£199

THE 'ROCK SOLID' SUPPORT PROGRAMME IS AVAILABLE WITH ALL MODELS AND MEANS \*24 HOUR DELIVERY \*7 DAY MONEY BACK GUARANTEE \*3 YEAR LABOUR WARRANTY \*LIFETIME TECHNICAL SUPPORT \*BRITISH COMPANY

- Intel Low Power Pentium CPU
- 8Mb RAM (Exp to 16 or 32Mb)
- PCI Local Bus Windows Accelerator
- 1Mb Video RAM (Ext. CRT 1024x768x256 Coils)
- 10.4" DualScan or 10.4" SVGA TFT Screen
- Simultaneous LCD / External Monitor Support
- Internal Full-Size Dual Spin CD-ROM Drive
- Removable PCI Bus 540 / 810Mb or 1.08Gb HDD
- 3.5" 1.44Mb FDD (Interchangeable with 2nd Battery or MPEG Full Screen Movie Video Module)
- 2 x PC Card 2.0 Type II Slots or 1 x Type III
- 16-bit Soundblaster Pro Compatible Sound System & Stereo Speakers
- Digital Status LCD Indicator with Graphical Icons
- Keyboard Embedded 2-Button Trackpoint Device
- Infrared Transceiver (IrDA Compliant)
- Optional Mini Docking Station
- 299mm x 236mm x 55mm & 3.2Kg
- Windows 95 or DOS v6.22 & Win v3.11

GOVERNMENT, EDUCATIONAL & FTSE100



**ROCK  
COMPUTERS**

Handheld data capture... asset tracking... point of sale...  
stock counting... market research... order entry...

the  
answers are in

Handheld computing, often coupled with bar code technology, is the most cost-effective solution to an enormous variety of organisational requirements. When you are looking for help in this specialist area, Paradigm Technology should be your first choice. We provide hardware, software and complete integrated systems with all the support you need, whether you are seasoned users or first-time buyers. Our 1995/96 catalogue is packed with information on every aspect of this technology – call us today for your free copy, for latest prices or just for a preliminary discussion about your specific needs.



BAR  
CODES

and  
handheld  
computing

### Business solutions

Our systems development team can create complete solutions tailored to meet your needs exactly and based on industry leading hardware such as Psion's HC and their sensational new Workabout handheld computers. Alternatively, your objectives may be met by one of our own off-the-shelf software products. These include the new Windows version of Questor, our highly versatile, low cost user-configurable data collection system. Whatever your line of business, if your problem is data collection and manipulation, we have the experience and expertise to provide the solution. Call us for free demo disks, literature or just a preliminary discussion.



**NEW**  
Psion  
Workabout  
from **£240**

**Combined Workabout/Questor packages from £475!**



“Help, I don't know anything about bar codes!”

**NO PROBLEM!** We have published a practical guide which answers all the most frequently asked questions. Phone for your **free** copy today!



### Psion Series 3a – best deals

We have the very best deals on Psion Series 3/3a and Organiser II computers, plus a huge range of accessories and peripherals for both models. Our stock includes Datapaks/Solid State Disks, PC links, S3a fax-modems and the most popular software titles. Call for prices and details of special offer packages.



### Bar coding solutions



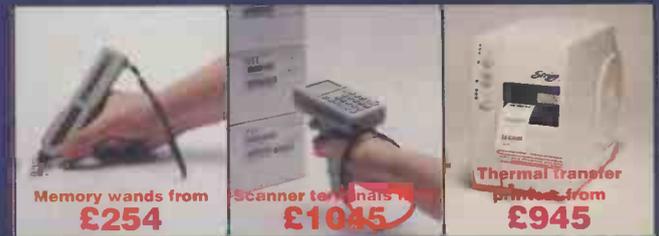
CCD scanners from  
**£175**

Laser scanners from  
**£252**

Wands from  
**£39**

● PSION ● OPTICON ● FUJITSU ● SYSTEL ● ZEBRA ●

We stock market leading hardware, peripherals and accessories with packages designed to get you up and running without delay.



Memory wands from  
**£254**

Scanner terminals from  
**£1045**

Thermal transfer  
printers from  
**£945**

**PHONE NOW FOR FREE CATALOGUE!**



**01235 862400**

**Fax: 01235 861061**

### Paradigm Technology Limited

121a Milton Park Abingdon Oxon OX14 4SA

VAT should be added to all prices which were correct at time of going to press. Delivery free on orders over £100. Products offered subject to availability. **All major credit cards accepted.** All trademarks acknowledged. Trade enquiries welcome. E&OE.

**PARADIGM TECHNOLOGY**

## UK Online

This is a new service, in beta at present but looking very promising. Announced in mid-1994, the service should be launched by the time you read this.

UK Online isn't like any of the other services on the market. Everything on the service is managed through a Web browser interface: mail, local conferences, and Usenet access. The supplied software is a very simple package consisting only of a dialler and a Web browser called "Tiber"; both come from California-based Distinct Software (another unfamiliar name). You install the software, double-click on the UK Online icon, and Tiber loads up and logs on for you, starting you off at UK Online's home page on the Web. To enter the UK Online service itself, you click on the icon to take you to your home page; the software prompts you for your user ID and password.

From there, everything continues to look like the Web: mail, local conferences, Usenet and so on. Sending mail or posting a Usenet message is done through forms which come up when you click on the appropriate button. Conferences are displayed in threaded format on a Web page. It's less clunky than it sounds, even for very busy newsgroups like alt.religion.scientology, particularly in early August, when the service was still only being used by about 700 beta testers. It's hard to predict how it will perform under a heavy load.

Once you've got UK Online up and running, it works like any other IP connection. You are free to load up Telnet, FTP, or other clients as you like, although you need to source the software yourself. So far, the service doesn't supply hot lists of sites to visit. You do get access to the Press Association newswire.

*WinNET has very clear instructions and the system is set up to minimise the amount of time you spend online*

The service's main interest, though, is the UK family market. To this end, every account includes four mailboxes and parents can block Internet access for their kids or limit the amount of time spent online. The service itself cuts newsgroups it thinks may be objectionable, or about which there are complaints. It's also focusing on building up a series of special-interest clubhouses intended to promote a feeling of community.

### UK Online

Price £9.99/month 10 hours; £14.99/month unlimited inc VAT

Contact UK Online 01749 333333

Good points Easy interface, inexpensive, local conferencing, free trial

Bad points Untested under load

Conclusion A very good prospect

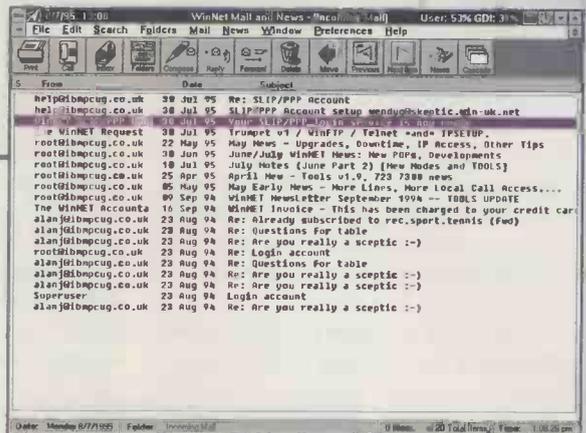
## WinNET UK (PC User Group)

The package you get when you sign up for mail and news is WinNET, which is used by a number of other service providers around the world. It's easy to install and use and it has folder facilities for filing messages.

Joining the service involves completing an on-screen form with details of your name, hardware settings, and billing information, and then waiting while the software logs on to the service and transmits it all. A few minutes

later, it logs back on to receive confirmation and downloads introductory messages to get you started. The service keeps you up-to-date on new facilities by sending you an electronic newsletter.

*UK Online isn't like any of the other services on the market. Everything is managed through a Web browser interface*



Joining the IP service is similar: you send a mail message to a specific address (included in one of the instructional messages), and you get back an attached file with Trumpet Winsock, an installation routine, and WSFTP, for which you need to pay your own registration fees. A selection on one of WinNET's menus ("Detach file") turns these files back into a zip file. You unpack this software and run a setup routine that helps you configure Winsock. The same method gets you a copy of Netscape and updates to the WinNET software as well.

Another message to the help desk, which you can either send separately or via the configuration routine, gets you a separate ID and password for the IP service. We were impressed: a request sent late one Sunday afternoon, was processed within half an hour, with the account being active at one o'clock the following morning. A welcome message for the IP service gives you installation instructions.

This all requires a certain amount of self-reliance — it's not as easy as getting a whole package on a set of disks. Nonetheless, we were impressed with the clarity of the instructions and with the way the system is set up to minimise the amount of time you spend online.

The PC User Group has made a deal with WinNET in the US, to enable British travellers in America to access mail in the UK via a 1-800 number.

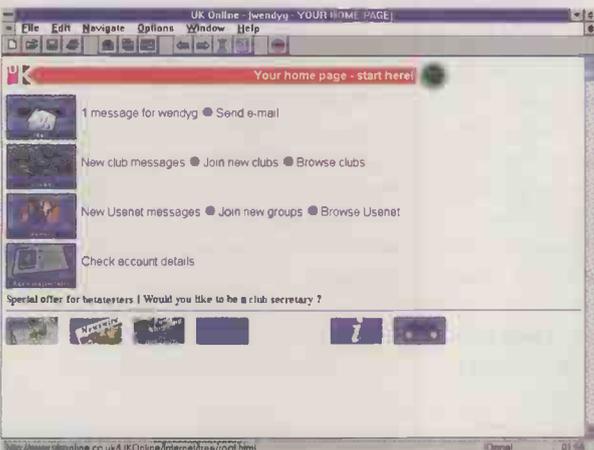
### WinNET UK (PC User Group)

Price No sign-up fee; £6.75/month for mail and news plus £8.25/month for IP

Contact WinNET 0181 863 1191

Good points Easy mail package, well designed service to maximise offline time, good instructions, access deals with US WinNET services. Bad points Shareware fees payable, two-service structure.

Conclusion An obvious choice if you're already using the WinNET service.



## Editor's Choice

ISPs divide into roughly three groups: direct IP, gateways with local conferencing, and services intended to help parents control what their children see. In the latter category go for UK Online, BBC Networking Club, and Research Machines. The Internet is not as much of a sewer as they say but if the prospect worries you, look at one of these.

In the gateway category go CIX (until its IP service is launched) and Delphi. Take a

look at these if you have old, slow hardware and are interested in local chat.

The one service with a foot in all categories is CompuServe: it's a gateway service; it limits access to some adult areas of its own system; it has information services and conferencing; and it also has an IP service, albeit without mail handling. If money were no object CompuServe would probably be our choice for a single service because of its global access, long track record and con-

sistent reliability. The costs add up rapidly, even with the new pricing, so heavy users should look at the cheaper flat-rate providers, particularly Demon (assuming it can keep its capacity expanding in line with its growth rate), or CityScape. Frontier is a very promising newcomer with excellent freephone technical support and by the time you read this, a licensed, free software package. For worldwide access, also look at IBM.

**Personal  
Computer  
World**  
**EDITOR'S  
CHOICE**

**Personal  
Computer  
World**  
**EDITOR'S  
CHOICE**

## Miscellaneous services

There are many other providers worth consideration. Firstly, there are regional service providers — often resellers for the national ones like Sussex's Pavilion Internet, a reseller for Pipex. There are already a surprising number of these in areas as widely separated as Nottingham and Lerwick, Shetland. The Manchester service, Poptel, is widely used by the Labour party. For more information about services in your area (if you are already on the Web or know someone who is), try <http://www.limitless.co.uk/inetuk/providers.html>. In the Irish Republic your best bet is Ireland Online, which has added a number of PoPs to its original access points in Dublin and Galway.

There is also a variety of special-interest services, of which GreenNet is the most notable. This is a BBS, focused on the environment, peace and human rights which links to similar services around the world. GreenNet, which is owned by a charity and keeps its prices low, offers its 2,000 users email and fax services and 800 local conferences, as well as PPP/SLIP access to the Internet and Usenet.

On a global scale, Microsoft Network is due to launch with Windows 95 on 24th August. Although US customers are expected to have Internet access at that point, it is not due to be offered in the UK until Christmas, and even then it will be accessible only by

Windows 95 users.

Also of interest is Tel-Me, particularly for small businesses who need directory information, stock prices, CCN company profiles, Infocheck, and Thomson Directories. Tel-Me combines a custom software package with a specially set-up modem to give you fast access to just those things, plus Internet mail. When it was first launched in 1994, the service was rather expensively priced; the launch of version 2.0 cut prices to affordable levels. Sign-up costs £49.95 for the Tel-Me software, or £99.95 if you want a modem included. The FastConnect modem that Tel-Me supplies, can be used to access other services. But when used in conjunction with Tel-Me, connection is almost instant because it is pre-configured for the service's modems and the handshaking sequence is eliminated. Payment is per transaction for directory inquiries, Press Association headlines over two hours old, and so on. Internet e-mail is free. Tel-Me is a much more impressive service than you'd think. With directory enquiries, for instance, Tel-Me accesses BT's PhoneBase using parallel techniques so that it can retrieve many records, per query of yours, using fuzzy matching techniques. The software takes up a lot of disk space, though.

Also worth trying, if only as a way of seeing what the Internet is like, is Spud's Xanadu which is a completely free service based in Canvey Island, Essex.

You get no technical support or other help: what you do is dial the BBS using a standard comms package, login as "new", and answer the questions. The modem number is 01268 515441.

Expect to see many more announcements in the coming months. America Online is said to have made a deal with the German publishing conglomerate, Bertelsmann, for a European information service, and Demon has announced a partnership with Europe On Line to create a Europe-wide service.

### Cybercafés in the UK

**Bath**, Hub Intercafé (01225 427441)  
**Belfast**, Bytes (012332 242050)  
**Birmingham**, The Custard Factory (0121 604 7777)  
**Brighton**, Zap Club (01273 202407)  
**Cambridge**, Six Bells (01223 566056)  
**Edinburgh**, Cyberia (0131 220 4403)  
**Kingston upon Thames**, Cyberia (0181 974 9650)  
**Liverpool**, Café Internet (0151 255 1112)  
**London W1**, Cyberia (0171 209 0983)  
**Manchester**, Wet (at the Hacienda Club) (0161 236 5051)  
**New Mills (Stockport)**, Peak Art Cybercafé, (01663 747770)

**Cybercafé Web site** is at  
<http://www.easynet.co.uk/pages/cafe/ccafe.htm>

# LapLink for Windows



## gets you there and back.

If you ever need to communicate between a PC running Windows™ 3.1 and one with Windows 95™, you could run into a major roadblock – because there's nothing in Windows 95 that lets you communicate with Windows 3.1 users. No small problem, but LapLink for Windows™ clears the way, offering a lifesaving link between Windows 3.1 and Windows 95 machines.

### Remote Control between 3.1 and 95

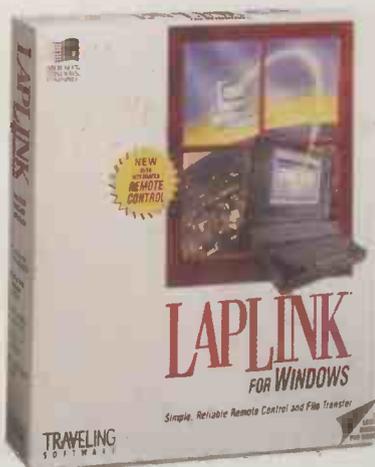
LapLink for Windows is the ideal remote control tool for IT managers. It allows you to look at exactly what other users are experiencing on-screen in real time in either version of Windows, then fix problems or train users without needing to be on-site. And, when access to applications and data from home or portable PCs is needed, LapLink for Windows effortlessly connects to the office, even if both PCs are running different versions of Windows.

### Transfer files to and from 3.1 and 95

LapLink for Windows still features Traveling Software's simple, reliable file transfer, moving anything to and from your new Windows 95 PC. (As always, high-quality serial and parallel cables are provided.) Then, when you update files, new SpeedSync™ transfers only the changes – making time savings of up to 80%!

For more information on managing your transition to Windows 95, call 01753 736112 or send off the coupon now. And let LapLink for Windows be your Win/Win solution.

**TRAVELING**  
SOFTWARE



I want my computers to communicate between Windows 3.1 and Windows 95.  
Please send me more information on LapLink for Windows:

Name \_\_\_\_\_

Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Postcode \_\_\_\_\_

Telephone \_\_\_\_\_

Send to:

3.1 to 95, Traveling Software, PO Box 1101, Slough, Berks. SL1 4AT  
or fax 01753 736114

# No one puts a together quite

## INTEREST FREE MULTIMEDIA

### 0% FINANCE FOR 12 MONTHS ON

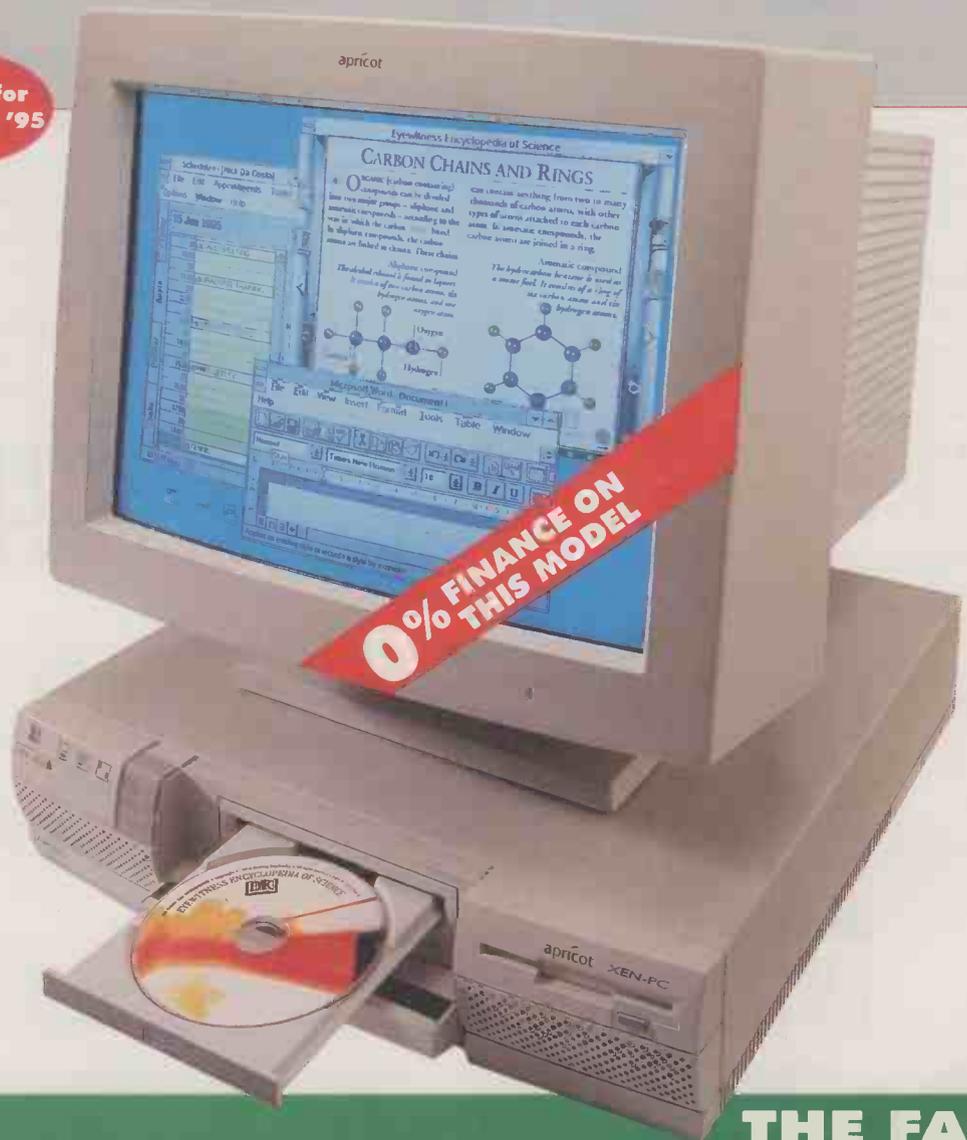
**XEN-PC<sup>M</sup> 486 DX2-66 £1099**+handling and VAT

- 8Mb RAM • 365 Mb HDD
- Sony high speed CD-ROM
- SoundBlaster Vibra 16 sound card
- Integral stereo speakers
- 14" SVGA monitor
- 6 Multimedia titles from Microsoft: Encarta '95, Works, Money, Golf, Musical Instruments and Scenes.



**Other monitor configurations available**

Designed for Windows<sup>®</sup> '95



**THE FASTEST**

The Intel Inside and Pentium logos are registered trademarks of Intel Corporation. All trademarks acknowledged. All prices exclude handling and VAT. Handling charge including mainland delivery is £10. The Apricot Connection is a licensed credit broker. Interest-free credit is only available on models specified above. Packaging supplied may be cosmetically different. The Apricot XEN-PC is a registered trademark of Apricot Computers Ltd.

# deal or computer like Apricot.

Nobody buying a new PC wants to spend a penny more than necessary.

But there's a difference between simply finding the lowest price - and getting the best deal.



And you'd have to travel a long way to beat the deals on these two pages.

First, because these deals are the most exciting we've put together since The Apricot Connection began. Like our unique "new for old" trade-in offer. Like our high-spec multimedia system for just £1099. Like interest-free credit on our selected systems.

Second, because the Apricot XEN is a different class of computer altogether from the mass of clones you'll find scattered through this magazine. Principally because Apricot is one of a short and very exclusive list of companies who design and manufacture their own systems (others include IBM and Compaq.)

Add to this the worldwide backing and resource of Mitsubishi and you begin to understand why The Apricot Connection has sold literally thousands of systems to buyers who range from major corporations to home users.

What attracts them beyond this is a combination of three key factors:

1. Seamless performance over the widest range of applications thanks to a highly integrated design.
2. Remarkable value-for-money (not always the lowest price, but almost always the best deal.)
3. The award-winning speed of response and quality of service of The Connection itself.

So go on: make our day and yours by picking up the phone and calling us now.

## Premier Club

Call for details of our exclusive Premier Club including substantial membership benefits for all Apricot Connection customers.



### NEW SYSTEMS FOR OLD

**JUST £499**

+ handling and VAT  
FOR A NEW

#### APRICOT XEN-PC DX2-50

- Trade in your old PC system unit with keyboard and mouse
  - Any system or processor with hard disk accepted, provided it works
  - Keep your VGA monitor
- Limited offer • 4MB RAM • 365MB HDD
- WFW 3.11 • (or £549 with 540MB HDD)

### PENTIUM SYSTEMS

**FROM £1249**

+ handling and VAT

75Mhz, 90Mhz and 120Mhz intel Pentium processors

- Internet ready models • Multimedia models
- Call for details

### AWARD-WINNING SERVICE



A survey conducted by PC PRO showed that out of a field of 20 companies, Apricot Connection supplied a PC the quickest. What's more, our quality management systems are registered to BS5750.

Computer Shopper readers also nominated us for a Best Service award.

Which makes our service second to none. So call the Apricot Connection.



### THE STRENGTH OF THE CONNECTION

- Delivery from stock
- 12 months on-site warranty on all models
- Technical hotline support
- Built in UK, backed by Mitsubishi

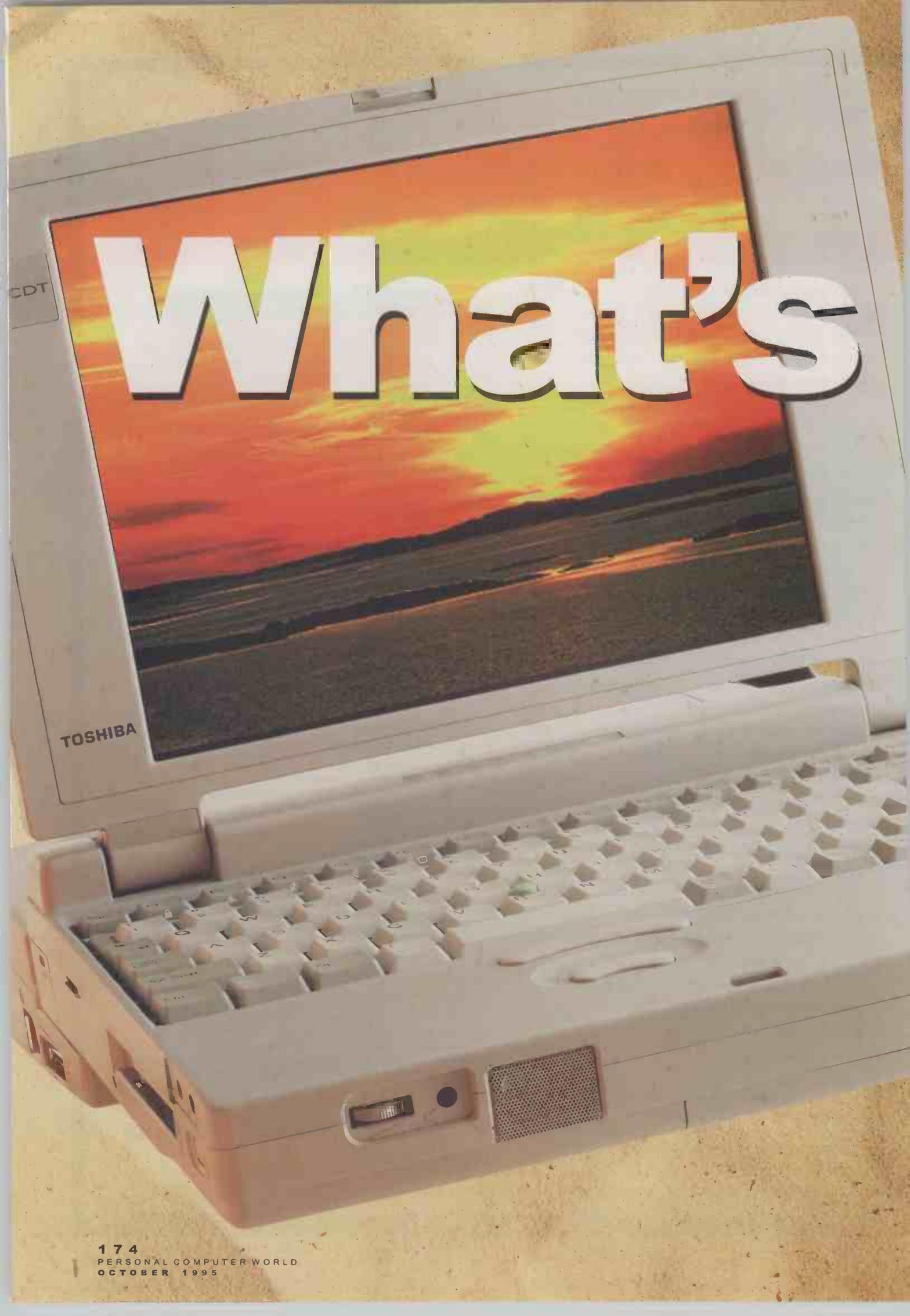
apricot **THE APRICOT CONNECTION**

**0345 486 486**

1PWB

World Wide Web address <http://www.apricot.co.uk>

## WAY TO GET IN FRONT OF AN APRICOT



CDT

# What's

TOSHIBA

# Up, dock?

PCW Photography by David Whyte

**A notebook equipped with a docking station can give you the best of both worlds — computing on the move and power on the desktop. Steven Helstrip rounds up the PCW reviewers to put 15 dual-action systems through their paces.**

all essentially perform the same job. There's the full-scale docking station that provides everything you'd expect from a desktop — ISA slots and drive bays for extra devices such as a CD-ROM drive and a hard disk, for example. Extra I/O ports for video, comms and built-in sound are also not uncommon.

A port replicator, on the other hand, does only what it says: it has exactly the same facilities and connectors as the portable itself, including serial, parallel and external keyboard/mouse connectors. For the mobile worker calling into the office it has the advantage of saving time and effort expended on plugging and unplugging external units, plus it reduces wear and tear on connectors. Port replicators are much smaller than docking stations and rarely add expansion capabilities.

For this round-up we asked over 20 manufacturers to provide a highly-specified notebook system with either a docking station or a port replicator. Of those, 15 did, although the machine from

Gateway came without a docking station but with IRDA capability and desktop receiver. Each system varies significantly in terms of build quality, usability, features, size and looks. However, all are capable of comfortably running several Windows applications simultaneously so processing power should not be your only concern. More important, it now seems, is the quality of keyboard, screen and overall design.

## Notebooks Contents

- 176** ACI 7600 Pentium
- 176** Adams Accura 5000
- 176** Compaq Centura 430CX
- 177** CTX Ezbook
- 177** Dell Latitude Xpi
- 177** Evesham Vale Voyager
- 181** Gateway 2000 Liberty
- 181** IBM 755CX
- 181** NEC Versa P75/S
- 182** Olivetti Edios 48
- 182** Rock Estima Sonata
- 182** Texas Instruments 4000M
- 186** Toshiba Satellite Pro 400CDT
- 186** Twinhead Slimnote 5100T
- 186** Viglen Dossier P5 AS
- 187** The secret of longer life
- 187** What to look for in a portable
- 189** Mobile communication
- 189** Dual-scan and TFT compared
- 190** Performance results
- 191** The IRDA specification
- 192** Top Ten buying tips
- 192** Table of features

In the corporate UK, notebooks now account for 35% of the number of PCs sold. Nearly half of those are shipped with either a docking station or a port replicator, making them good for both portable and desktop use.

Just as notebooks come in all shapes and sizes, so do docking stations, although there are two distinct types and

## ACi 7600 Pentium

**R**ounded edges and a charcoal grey finish make this one of the more stylish notebooks on test. The docking station provides four ISA slots and two drive bays, one of which is accessible from the front panel. At the rear there are ports for parallel, serial and SCSI.

The keyboard is light to the touch and benefits from a deep wrist-rest. The trackball has buttons positioned either side and slanted inwards, making it easy to use and steady to the touch. At 9.5in the TFT screen is modestly sized, but images do appear



sharp and high in contrast, particularly when displayed true colour. The Ni-MH battery sits under the wrist rest and is removed by releasing two catches, although this can be quite fiddly. Equally tricky to remove is the hard disk, which requires you to use two hands to undo the catches. Power management features a suspend-to-disk option, letting you power down completely and power up in exactly the same place.

The ACi is not supplied with software as standard, although McAfee VirusScan and several audio applets were bundled with the review machine. DOS 6.22 and Windows 3.11 will cost you £75 for the disks and the manu-

als, or you can pay £99 and get Top Level Complete Works.

This was a pleasant machine to use and despite the rather poor performance, for a P90 it represents excellent value for money.

AJP offers what looks like the same machine. It has a larger hard disk, however, at 520Mb against the 320Mb in the ACi, and the RAM has been doubled to 16Mb. The price is £2,987.

Adele Dyer

## 7600 Pentium

Price P90 8Mb/320Mb TFT £2,768  
Contact ACi 0181 830 1958

**Good Points** Pleasant to use, good expandability in the docking station.

**Bad Points** Smallish hard disk, no bundled software.

**Conclusion** User friendly and good value.

## Adams Accura 5000

**T**he first thing you notice about this notebook is how noisy it is when you power up. It sounds like a jet engine with a stone in the turbine, but since it is a fairly powerful machine, maybe that is appropriate.

The display is a 10.3in quad-scan, although there are no dedicated controls for brightness and contrast; settings are altered using a special key combination. The wrist-rest is just as deep as the keyboard. Within this area are built-in speakers, microphone and trackball, arranged in such a way that makes



notebook.

The on-off switch is stiff too, and it takes a good jab to finally turn the machine off when you go to power down. All very non user friendly, you might think, but there are redeeming features such as the IRDA port fitted as standard.

you think they have been thrown down without much thought.

In use the Adams is hard work. Both the trackball and the keyboard are sticky in feel, especially the trackball whose buttons are stiff. With its industrial grey and purely functional design, it feels as if you are using a piece of industrial machinery rather than a

Considering the functionality of the notebook design, the docking station was one of the more attractive ones on test. The fixing device, however, looked a bit tacky and didn't look as though it would stand up to too much misuse. Unusually, the Adams had a floppy drive and one free front-facing slot. Inside, there are two expansion slots and room for a hard disk.

Adele Dyer

## Accura 5000

Price P90 8Mb/720Mb Quad Scan £3,068  
Contact Adams 0181 877 8822

**Good Points** Large screen, large hard disk.

**Bad Points** Plain design, unpleasant keyboard.

**Conclusion** At the cheaper end of the market, styling has been sacrificed to performance.

## Compaq Contura 430CX

**C**ompaq launched the Contura 420 and 430 range of notebooks in June this year. The 430CX sits at the top of the range with a 720Mb hard disk and 8Mb of RAM as standard. Our review model was supplied with 16Mb.

The eye-catching curvy design of this notebook makes it stand out in the crowd. The trackball in the centre front of the base is indented into the plastic, with right and left mouse buttons above and below. The keyboard takes up about three quarters of the base, leaving little room for a wrist rest. The general



appearance is stylish, but the lack of a wrist-rest ultimately makes for some discomfort. And as the indented mouse buttons are stiff, it's difficult to work smoothly in Windows.

A status panel in between keyboard and the screen provides indicators for various system features as well as a battery gauge. The battery itself is an industry

standard Duracell which allows up to five hours' use when fully charged.

The docking station comes in two parts — a base providing hardware connectors, and a cover which fits on top to support an external monitor, allowing you to use the docking station whether you've got a spare external

monitor or not. The docking base provides an Ethernet connection as well as a battery charging facility and extra security features which allow you to lock the whole unit to the desk.

Eleanor Turton-Hill

## Contura 430CX

Price DX4/100 16/720Mb TFT £3,560  
Contact Compaq 0181 332 3888.  
Fax 0181 332 3409

**Good Points** Stylish design, nice big screen.  
**Bad Points** Stiff trackball buttons and lack of wrist-rest make the keyboard uncomfortable to use.

**Conclusion** Overpriced for a DX4/100, even when you consider that the standard model with just 8Mb of RAM and no docking station costs £2,995.

## CTX Ezbook

The Ezbook DX4/100 has a standard system design, with the keyboard condensed towards the far end of the base leaving plenty of wrist room, and a trackball placed centrally near the front.

The right and left mouse buttons are placed above and below the trackball, which is awkward at first but does become quite comfortable.

In between the screen and the keyboard is a small indicator panel displaying the status of various system features in the form of small icons. A dripping tap denotes power consumption for example, and two battery



shapes display the status of the main battery and the hot-swap battery.

Inside there's a 524Mb detachable hard disk, 16Mb of main memory and a local bus VGA card fitted with 1Mb video RAM. When using an external monitor it is possible to display resolutions up to 1024 x 768 at 60Hz. The built-in TFT display will manage 64,000 colours at

640 x 480 and colours are clear and sharp. Brightness and contrast can be altered using four keyboard function keys.

A huge docking station provided allows you to transform the Ezbook into a complete desktop system. The entire notebook is inserted inside the docking station with its screen

down, forming a desktop unit for an external monitor. A built-in amplifier enhances the audio signals from the notebook's Sound-Blaster card, and built-in multi I/O supports basic serial and parallel ports as well as an IDE hard disk drive, CD-ROM and network card.

**Eleanor Turton-Hill**

### Ezbook

**Price** DX4100 16/524Mb TFT £3,048  
**Contact** CTX 01923 818461. Fax 01923 818643

**Good Points** Designed for practicality rather than style. Comfortable to use.

**Bad Points** Small screen (9.4 inches). Poor performance results.

**Conclusion** Not as stylish or as well specified as some of the notebooks in this round-up, and slightly overpriced for what you get.

## Dell Latitude Xpi

In typical Dell style, this notebook comes with lots of "Getting Started" help including a large chart explaining how to unpack and assemble the various parts. Another "Getting Started" facility appears on bootup, offering the option to make backup system diskettes, and

in Windows you'll find an on-line user's guide containing tips on travelling with your notebook and conserving battery power.

Other utilities have been pre-installed in Windows under the group heading "The Dell Control Centre", which allow you to configure the display, speaker volume,



power conservation and password security as well as remap port settings.

Inside there's a P90 processor, 16Mb of memory (upgradable to 40Mb) and a 810Mb hard disk. Despite an extra 256Kb of SRAM cache, performance results were not stunning but did rank above average among the P90s. The XPI uses lithium

ion batteries which take an hour and a half to charge and last a maximum of four hours on the road. You can change the batteries without having to power down as an internal battery has enough power to keep the system going while you swap them over.

The XPI's keyboard takes up only half of

the base of the machine leaving a comfortable amount of room for a wrist-rest towards the front. A port replicator fits neatly to the back, providing Ethernet or Token Ring connections as well as a SCSI interface.

**Eleanor Turton-Hill**

### Latitude Xpi

**Price** P90 16/810Mb TFT £3,918  
**Contact** Dell 01344 720200

**Good Points** Well designed and easy to use with lots of guidance for novice users and 12 months warranty.

**Bad Points** Heavy and expensive.

**Conclusion** This machine comes from a reliable source, produced reasonable test results and is well designed, but its high price compares badly with similarly specified machines in this round-up.

## Evesham Vale Voyager

One of the most irritating aspects of the Voyager is its on/off switch — or should I say, the lack of one. Two key combinations (which cannot be changed) turn it on and off. It's virtually impossible to switch off accidentally, though.

There's nothing striking about the Voyager's looks but its usability is among the best. The keyboard is a good size and laid out well, with key combinations to adjust contrast/brightness and audio output level. Both the keyboard and the trackball have a good feel, and the TFT display resolves text and graphics clearly



although a touch small for my liking. The build quality of the case is poor and unlikely to stand up to any misuse.

The Voyager was the only system in this round-up to be supplied with its maximum 20Mb RAM. In Windows 3.1 there didn't appear to be a noticeable difference in speed when compared to those fitted with 16Mb, although

there would be some performance difference running Windows 95. Power management features are plenty but can only be accessed through the BIOS setup program. A nice feature is the ability to automatically suspend to disk when the battery level gets dangerously low. Since 20Mb is installed, this takes

around 10 seconds to complete.

The docking station is much larger than it needs to be. Inside there's lots of empty space even with devices installed. There's room for three full-length 16-bit ISA cards, one 3.5in and two 5.25in drives. All are accessible from the front panel. The rear of the docking station has ports for video, comms, mouse and keyboard.

**Steven Helstrip**

### Voyager

**Price** DX4/100 20/528Mb TFT £2,957  
**Contact** Evesham 01386 765500

**Good Points** Great keyboard and trackball.

**Bad Points** Ordinary looks, poor build quality.

**Conclusion** A great notebook for the serious typist, but not for the enthusiast.

# NETWORK SOLUTIONS FROM OPUS TECHNOLOGY, MAKE ALL THE RIGHT CONNECTIONS

## NOVELL AUTHORISED CONSULTANCY

We are a fully Authorised Novell Network Reseller offering a range of solutions from simple low cost peer to peer networks involving 5 users right through to Local and Wide Area Networks (LAN's & WAN's) up to 500+ users.



## NETWORK SERVICES

- Consultancy
- Free On-Site Survey
- Design
- Planning
- Project Management
- Installation
- Approved Training
- Support
- Maintenance

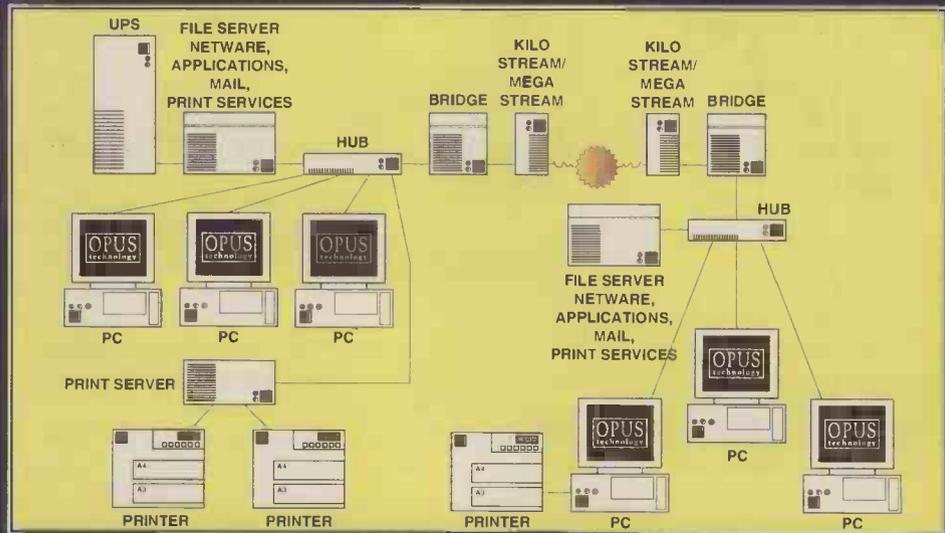
## HARDWARE

- RAID Fileservers
- Pentium Fileservers

- Workstations
- Disk Arrays
- UPS's
- Tape Backup Systems
- 100 Mbps Hubs

## INFRASTRUCTURE

- Structured cabling
- Communications Hardware
- Gateways, Bridges, Routers, Hubs, Modems



CALL OUR NETWORK DIVISION FOR EXPERT ADVICE. 01293 821555

## SOFTWARE

- Windows for Workgroups 3.11
- Windows NT
- Novell Netware

## JUST SOME OF OUR SATISFIED CUSTOMERS

- NE Colleges Consortium,
- British Rail, GEC, Mobil
- Shipping, Philips,
- Birmingham City

- London Ambulance Service, NE Essex
- Mental Healthcare NHS Trust, NHS Supplies Central.
- Council, Dorset Police,
- Essex Fire and Rescue,
- Open University,
- Harrogate College,

## PRESTIGE FILESERVER

- Intel Pentium® 75 or 90Mhz Processor
- PCI Motherboard Triton performance, Windows® 95 ready (Plug 'n' Play)
- 256k Cache
- 16MB RAM
- 1GB SCSI Hard Disk Drive
- Quad Speed SCSI CD ROM
- PCI SCSI Controller
- 32 Bit PCI Ethernet Adaptor
- 3.5" (1.44MB) Floppy Disk Drive
- 14" SVGA Mono

- Monitor, Energy Star Compliant
- 16 Bit Graphics Card
- 102 Key UK Keyboard
- MS DOS 6.22
- Full Tower Case Style
- 12 Months ON-SITE, Parts and Labour Warranty
- FREE Diagnostic Utilities
- Lifetime Telephone Technical Support

Intel Pentium® 100, 120 & 133 Mhz processor options available



1 ON-SITE YEAR

P75 £1399 Exc Carr & VAT

Product Code: PFS75

P90 £1479 Exc Carr & VAT

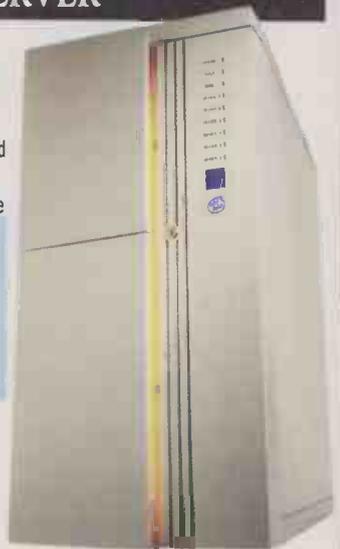
Product Code: PFS90

## PRESTIGE RAID FILESERVER

- Intel Pentium® 75 or 120Mhz Processor
- PCI Motherboard Triton performance, Windows® 95 ready (Plug 'n' Play)
- Dual Pentium Motherboard also available
- 3x2GB Hard Disk Drives in Hot Swappable, Removable Drive Cradles
- RAID Level 5 Controller with 486 processor & 4MB Cache (expandable to 64MB)
- 256k Cache
- 32MB RAM
- 32 Bit PCI Ethernet Adaptor
- Quad Speed SCSI CD ROM
- 3.5" (1.44MB) Floppy Disk Drive

- 14" SVGA Mono Monitor, Energy Star Compliant
- 16 Bit Graphics Card
- 102 Key UK Keyboard
- MS DOS 6.22
- King Tower Case Style
- 12 Months ON-SITE, Parts and Labour Warranty
- FREE Diagnostic Utilities
- Lifetime Telephone Technical Support

Intel Pentium® 100, & 133 Mhz processor options available



pentium PROCESSOR

1 ON-SITE YEAR

P75 £4849 Exc Carr & VAT

Product Code: PRFS75

P120 £5149 Exc Carr & VAT

Product Code: PRFS90

## PAYMENT OPTIONS

- CREDIT ACCOUNTS
- CREDIT CARDS
- EASY PAYMENT PLAN
- BUSINESS LEASING



## ORDER RIGHT NOW

TEL: 01293-821555

FAX: 01293-782663



OPUS technology

PC'S NOTEBOOKS & NETWORKS DIRECT

OPUS Technology PLC., Redhill Business Park, Bonehurst Road, Salfords, Redhill, Surrey RH1 5YB

Prices and specifications subject to change without notice. E. & O.E. OT is a registered trademark of OPUS Technology PLC. Pentium and Intel Inside are registered trademarks of Intel Corporation. Credit subject to Status, available to private purchaser's only. OPUS Technology PLC is a Licensed credit broker. Written quotations available on request from Chartered Trust. Payment Protection Plan available for redundancy and sickness protection, with Merchandise Insurance. All trademarks acknowledged.



## 20% MORE POWER WITH OUR PENTIUM® PROCESSOR BASED SYSTEMS

"... great performance and great value for money"  
*Computer Buyer - June '95 OPUS Pentium Triton P75*

"The OPUS P75 performed extraordinarily well ... with the high-performance Triton Chipset and ultrafast EDO RAM behind it, the OPUS is a machine to be remembered."  
*PC Pro June '95 - OPUS Pentium Triton*

### PRESTIGE TRITON PERFORMANCE

- Intel Pentium® 75 or 90Mhz Processor
- PCI Motherboard Triton performance (Plug 'n' Play)
- 8MB RAM
- 256k Cache
- 540MB Hard Disk Drive
- PCI Enhanced IDE Controller
- 3.5" (1.44MB) Floppy Disk Drive
- 14" SVGA Colour Monitor, .28 pitch & Energy Star Compliant
- 1MB Windows Accelerator Card
- 102 Key UK Keyboard

- MS DOS 6.22
- MS Windows® 3.11
- Serial Mouse
- Desktop Case Style
- FREE Diagnostic Utilities
- 12 Months ON-SITE, Parts and Labour Warranty
- Lifetime Telephone Technical Support
- Immediate Delivery
- Windows® 95 ready

Intel Pentium® 100,120 & 133 Mhz processor options available

Speakers supplied may differ from those illustrated.

**P75 £939**  
Exc Carr & VAT  
Product Code: PT75

**P90 £1019**  
Exc Carr & VAT  
Product Code: PT90

### PRESTIGE PLUS TRITON PERFORMANCE

- Intel Pentium® 75 or 90 & 100Mhz Processor
- PCI Motherboard Triton performance (Plug 'n' Play)
- 256k Cache
- 8MB RAM
- PCI Enhanced IDE Controller
- 3.5" (1.44MB) Floppy Disk Drive
- 1GB IDE HDD
- 15" SVGA Colour Monitor, Microprocessor Controlled, Low Rad Non Interlaced & Energy Star Compliant
- 2MB Diamond Stealth Accelerator Card
- 102 Key UK Keyboard
- MS DOS 6.22

- MS Windows® 3.11
- Serial Mouse
- Desktop Case Style
- FREE Diagnostic Utilities
- 12 Months ON-SITE, Parts and Labour Warranty
- Lifetime Telephone Technical Support
- Immediate Delivery
- Windows® 95 ready

Intel Pentium® 120 & 133 Mhz processor options available

**P75 £1179**  
Exc Carr & VAT  
Product Code: PT+75

**P90 £1259**  
Exc Carr & VAT  
Product Code: PRES P90 J

### MULTI-MEDIA EXTRA

Multi-Media – Multi-media opens up a whole new world for you to explore with your PC. The combination of sound, video and interactive programs brings your PC alive. A fantastic array of CD based software that makes learning easy and fun is supplied with our Multi-Media systems.

- Quad Speed, Multi Session CD ROM drive
- 16 Bit Sound Card
- Separate Stereo Speakers
- MS Family Pack of Software: MS Works (CD), Encarta 95 (CD), Dangerous Creatures (CD), Money, MS Scenes & Best of Windows Entertainment pack

**MULTI-MEDIA EXTRA £169**  
Exc Carr & VAT

Software is supplied with full documentation and disks are included.

### WINDOWS 95 HERE NOW!

Start now and unlock the power of your PC with Microsoft's Windows 95. With Windows 95 everything you do on your PC will be Faster, Easier and more Fun!

Call Now for a Special Price

### MS CONSUMER OFFICE

Limited offer while stocks last, a superb software pack including: MS Works, MS Golf, MS Publisher, MS Money.

Save over £150 - NOW ONLY **£55**  
plus VAT

### INTERNET READY

Internet – Everything you need to get on the "Net" - a fast internal fax/modem card, a Free subscription to CompuServe and everything configured and ready to go "surfing". Catch this new and exciting wave with OPUS Technology and open up a whole new world.

- Internet Fax/Modem Card 14,400 bps/v32 bis, Hayes compatible & BABT approved
- FREE CompuServe Membership for 1 month
- FREE access to the Internet (3 hours)
- FREE WinCim software
- Unlimited use of basic services

**INTERNET READY £59**  
Exc Carr & VAT

FREE COMPUSERVE MEMBERSHIP TO A WORLDWIDE WEB

### PAYMENT OPTIONS

- CREDIT ACCOUNTS
- CREDIT CARDS
- EASY PAYMENT PLAN
- BUSINESS LEASING

VISA

### ORDER RIGHT NOW

**TEL: 01293-821555**

**FAX: 01293-782663**

**OPUS technology**

PC'S NOTEBOOKS & NETWORKS DIRECT

• OPUS TECHNOLOGY • OPUS TECHNOLOGY • OPUS TECHNOLOGY •

# VISION MASTER™ 17

*New*

High resolution. On-Screen Display menus with clear symbols and text. Full geometry, colour, convergence and moiré control

VESA-DPMS, Energy Star and NUTEK power saving

Compact cabinet design to save desk space

3 button user panel for ease of set-up and adjustment via OSD

## VISION MASTER PRO 17

Up to 1600x1200 at 72Hz, 1280x1024 at 85Hz flicker-free refresh DiamondTron 0.25mm AG tube 27-92KHz, 50-160Hz

**£619<sup>+</sup>**



Windows 95 Plug-and-Play (DDC) compatible

Anti-Reflect, Anti-Static Coating for clear, crisp display

CE mark

Ecologically manufactured, fully recyclable

Easy to operate tilt and turn base

## VISION MASTER 17

Up to 1600x1200 at 69Hz, 1280x1024 at 80Hz flicker-free refresh Advanced FST 0.26mm DP tube 27-86KHz, 50-160Hz

**£549<sup>+</sup>**

## POWER • PERFORMANCE • QUALITY

Just when the competition thought it was catching up *iiyama* announces the **BRAND NEW VISION MASTER 17** and **VISION MASTER PRO 17** colour monitors. Both models have top-end performance and features but at prices that won't make your eyes water. To date *iiyama* has won 17 major UK computer magazine awards in as many months for its current **VISION MASTER** range. No other manufacturer has come even close to matching this unique achievement. Building on this fantastic success the engineers at *iiyama* have redesigned the family, added new models and many advanced features, making them perfect for today's demanding GUI based applications. All backed with an unrivalled 3 year warranty, 30 day money-back guarantee and free technical support from *iiyama direct*.

See the 15", 17" and 21" VISION MASTER models for the complete picture

## THE AWARD WINNING 17 & 21 TEAM



Computer Buyer  
Sept 1994



Personal Computer  
Feb 1995



What Personal Computer  
July 1994



PC Plus  
June 1995



PC Magazine  
April 1995



Windows User  
June 1994



What PC?  
July 1994  
March 1995



Computer Shopper  
May 1994  
May 1995



PC Pro  
January 1995



PC User  
August 1995

**Colorific**  
Colour matching software

## contact your nearest authorised iiyama dealer for more information

AVON COMPUADD <sup>+</sup> 0117 988 6600	01908 221252 <b>CAMBRIDGESHIRE</b> REDBOX 01480 405541	01621 744500 SOLIDISK 01702 354674	MICROSYSTEMS <sup>+</sup> 01256 817007	LONDON CARRERA TECHNOLOGY 0171-830 0586	WESTERN SYSTEMS 0181-842 0071	COMPUTERS DIRECT 01675 464450	SCOTLAND ALIPA COMPUTING 01506 635100
<b>BEDFORDSHIRE</b> GRAPHIC EXPRESS 01582 450525	01480 405541 COUNTY ANTRIM BIC SYSTEMS <sup>+</sup> 01232 233278	TEXATRON 01206 561550	MANITEK COMPUTER SERV 01489 576176	DISCOUNT DIRECT 0171-252 0000	SUFFOLK COMPUTER CONNECTION 01473 232282	DISCOUNT DIRECT 01203 673666	COMPUTERS DIRECT 01506 635100
MENTOR 01582 483381	DERBY MONITOR'S DIRECT 01332 205552	GLoucestershire MONITOR MAN 01453 885599	BEEBUG LIMITED <sup>+</sup> 01727 840303	EURO-ASIA 0171-498 7816	DATAFACTORS 01449 774044	WEST YORKS AIREDALE BUS COMPUTERS 01274 737277	COMPUTERS DIRECT 0141 636 6866
<b>BERKSHIRE</b> GRAPHICS DIRECT 01635 873000	DORSET MICAL-DATA LIMITED <sup>+</sup> 01425 271243	GREATER MANCHESTER ADAMS TECHNOLOGY LIMITED <sup>+</sup> 0161 8778822	LANCASHIRE TERMINAL DISPLAY SYSTEMS 01254 676921	PINEAPPLE 0181-795 0971	SURREY CD REVOLUTION 01932 562000	AIREDALE BUS COMPUTERS 01274 737277	WALES GENESIS TECHNOLOGY 01222 522212
<b>BUCKINGHAMSHIRE</b> COMPUSYS 01296 395531	ESSEX FOX COMPUTERS 01296 395531	HAMPSHIRE TARAN 0116 2511000	LEICESTERSHIRE CITY BUSINESS SYS 0116 2511000	AZOE LTD 0181 943 2299	TAYSIDE TAYSIDE COMP TECH 01382 203965	GOLF COMPUTERS 01924 499366	GAIA TECHNOLOGIES 01248 352459
PC WAREHOUSE					WARWICKSHIRE 01386 765500	WORCESTERSHIRE EVESHAM MICROS, 01386 765500	

CAD SUPPLIERS = +

PC OEM SUPPLIERS = \$

ACORN SUPPLIERS = \*

RESELLERS REQUIRED THROUGHOUT THE UK

+Average buy prices are indications of end-user pricing and exclude VAT and carriage. Depending on circumstances actual prices may be higher or lower. Specifications and prices subject to change without notice. E&OE. All trademarks and registered trademarks acknowledged.

iiyama UK Limited, 6-8 Viewpoint, Babbage Road, Stevenage, Herts, SG1 2EQ. U.K. Tel: 01438 745482 Fax: 01438 745483

**iiyama**

## Gateway 2000 Liberty

Although it's the smallest notebook in this round-up, the Liberty has one of the largest and sturdiest screens. It is dual-scan with controls for brightness and contrast to the right. It is possible to display resolutions up to 1024 x 768 by creating a virtual desktop, although you can only view 640 x 480 pixels on screen at any one time.



"enter" key and a little trickier to use, and almost useless if you're left-handed.

There is no docking station option; instead, the unit comes with an IRDA port and infra-red receiver that connects to the serial port of a desktop PC. The IRDA port can send print jobs to

compatible printers, and copy or move files to a desktop PC.

With only the standard 8Mb installed, the Liberty is capable of running just about any application you throw at it. Switching between Word and Excel was surprisingly fast, as was the overall speed. The most remarkable

aspect of this system though, other than its size, is its suspend-to-disk facility. It takes just about one second to dump the entire contents of memory to disk, leaving you to carry on from where you left off when you return to work. Returning from a suspend, again, takes only a few seconds.

**Steven Helstrip**



### Liberty

Price DX4/100 8Mb/720Mb Dual Scan £2,499  
Contact Gateway 2000, 0800 602000

**Good Points** Compact, powerful and light, with IRDA and good suspend mode.

**Bad Points** Pointing device may not suit everyone.

**Conclusion** The compact nature of the Liberty belies its performance and feature set.

## IBM 755 CX

This is IBM's latest gem based on a 75MHz Pentium processor. The sound card is DSP-based and is SoundBlaster compatible. It can also double up as a fax-modem, although you will first need to add the telephony kit which costs an extra £115. This can be fitted easily, or so we're told.



button. The full-size Lexmark keyboard is excellent.

The 10.4in TFT display is superb and capable of resolutions up to 800 x 600 in 256 colours. DOS boxes, however, run at 640 x 480. The review machine was supplied with a 540Mb hard drive with two partitions for OS/2 Warp and

Windows 3.11. You can select which operating system to use at boot. If, like most people, you only need the one OS, any partition can be deleted using the built-in utility.

The 755CX was supplied with the Dock I docking station. This adds a further two type II PCMCIA slots (or one type III), SCSI, one

16-bit ISA slot and double-speed CD-ROM drive. Stereo speakers are built into the base of the unit and are more powerful than those in the notebook. IBM also offers the Port 1 for £80 that provides basic port replicator features; Port II adds further PCMCIA slots and costs £220.

The 755CX is a solid performer and has a wealth of upgrade options. If only it was cheaper.

**Steven Helstrip**



### 755CX

Price P75 8/540Mb TFT £5,580  
Contact IBM 0345 727272

**Good Points** Just about everything. Most notably, the screen and keyboard.

**Bad Points** A bit on the expensive side.

**Conclusion** The typist's and power user's dream.

## NEC Versa P75/S

The NEC's power switch is a pull lever, which pulls the same way for on and off, and the trackball is on the front of the machine, at 90 degrees to the usual position, it is surprisingly comfortable when typing as you can let your thumb hang down and use the trackball without having to move your whole hand.



floppy disks are removable, allowing you to plug in extra PCMCIA cards, a hard disk or second battery.

The MediaDock has been designed to expand the adaptability of the Versa and is obviously meant to be portable, having a handle on the front.

As a multimedia machine it comes with a double-speed CD-ROM and four speakers, but there are a couple of niggles. The MediaDock considerably raises the level of the notebook, so each time you plug in the notebook, you also need to connect a mouse and keyboard. There are no keyboard and mouse ports on the

MediaDock, so you have to plug them into the notebook.

The docking station itself is of more standard fare. There are two free ISA slots and three free front-facing bays, two of which are half-height. If you put in an extra hard disk, it will have to go in one of these slots.

**Adele Dyer**

### Versa P75/S

Price P75 8Mb/810 Mb TFT £4,680 (with MediaDock)  
Contact NEC 0181 993 8111

**Good Points** Adaptable due to the removable floppy drive. Good screen.

**Bad Points** No wrist-rest, mediocre docking station.

**Conclusion** The adaptability is useful, especially with the MediaDock.

The keyboard was too clicky for my liking, but the keys themselves are large and well spaced. There is no wrist-rest.

The 9.5in display can display resolutions up to 800 x 600. Graphics and text are clearly defined and contrast is high. The hard and

## Olivetti Echos 48

The Olivetti stands out here not only for being the most radical in terms of design, but for its build quality. The casing is solid, the hinge for the display is firm and the trackball has an air of quality about it.

The power switch is positioned beneath the 10.4in TFT display and cannot be accidentally switched on while the lid is closed. To the right of this are five LEDs to show drive activity, power and battery status. The keyboard is a good size but the keys have a short travel. The palm-rest is reasonably sized and has a rubbery surface keeping your hands from slipping



around. The trackball is suitable for both left- and right-handed users.

Round the back there are ports for video, parallel and serial along with two PCMCIA slots capable of doubling up as one type III. The battery sits beneath the palm-rest and is easily removed. While working with Windows, I managed

to get a good three hours' use from this machine. Power-management facilities are good allowing you to power individual components including hard disk, screen and processor after a set period. A suspend-to-disk facility allows you to save the entire contents of RAM to disk.

The port replicator supplied with the Echos simply duplicates ports for comms, video, mouse and keyboard and has no expansion facilities. The Echos attaches easily to it by means of a connector beneath the machine.

The Echos may seem a touch overpriced at £3,307, but when you consider its stylish looks, build quality and usability, you'll agree it's worth every penny

**Steven Helstrip**

**Echos 48**

Price DX4/100 16/540Mb TFT £3,307  
Contact Olivetti 0181 785 6666

**Good Points** Solid build, solid performance.

**Bad Points** No docking station or infra-red port.

**Conclusion** Excellent.

## Rock Estima Sonata

Despite the oversized look of the Estima, it has one of the smallest displays featured in this round-up. But thanks to the TFT screen, resolution is clear and easy on the eye. Drivers supplied are capable of displaying up to 800 x 600 on a virtual desktop and 1024 x 768 on an external monitor.

The docking station is large and inside it's tidy with plenty of room for expansion; there's room for three full-length cards together with a CD-ROM or hard disk. The stand for the external monitor is secure and removable. If the notebook's keyboard is



used when the Estima is in the docking station, the machine tends to wobble, but there is no danger of it coming loose since it gets locked-in with a key.

The keyboard feels springy and the Home, End and Page keys are a touch too small. Unless the keys are hit precisely they tend

to tilt, so you hit more than one key at a time. This is especially noticeable with the "a" and Caps Lock keys. The trackball, on the other hand, is comfortable and the buttons are well positioned for right- and left-handed users alike.

Underneath the machine are feet for raising the rear, thereby creating a tilt for typists

working on a flat surface. The power-saving features are good, with the option of suspending to hard disk or RAM. There is also the ability to change power-saving settings "on the fly" without having to reboot.

**Melvyn Mildiner**

**Estima Sonata**

Price DX4/100 16Mb/510Mb TFT £2,946  
Contact Rock Computers 01753 567889

**Good Points** Lightweight; trackball and power-saving features; the price.

**Bad Points** The keyboard.

**Conclusion** One of the best pointing devices, but the keyboard is awkward and uncomfortable. The specification is good and the price is reasonable.

## Texas Instruments 4000M

Unlike every other notebook in this test, the docking station for the TI4000M has the option of being battery powered as well as from the mains. The advantage is CD-ROM and sound portability, though the combined weight of notebook and docking station means that you won't be using

the two together on your lap on the train.

The screen on this machine is good. It's a TFT with just one control to adjust brightness. The maximum resolution is 800 x 600 in 256 colours on a virtual screen, but on an external monitor the TI4000M delivers up to 1280 x 1024, albeit in 16 colours. Inserting



a disk into the floppy drive is a little awkward because it's also necessary to insert about 1cm of finger.

The keyboard was good on the whole, although the cursor and function keys were too small for my liking. The IBM-style "nipple" was responsive, marred only by the keys which were a little

too close together and, again, a tad too small.

The docking station is what really sets the TI apart from the rest. It has a built-in double-speed CD-ROM drive, 16-bit sound card, stereo speakers (with an option for a wide or narrow stereo field), microphone,

headphones, and SCSI II port. It also came with its own mouse.

• Before going to press, TI announced an updated model which incorporates a new 10.4in TFT screen. There will be no change in price.

**Melvyn Mildiner**

**4000M**

Price DX4/100 16/500 9.5in TFT £3,897  
Contact Texas Instruments 01932 761599

**Good Points** Docking station, display, world-wide guarantee, SCSI II.

**Bad Points** Some keys are too small; limited power-saving features.

**Conclusion** Great docking station. A very capable machine at a reasonable price.

# Atlantic Systems

## PRESENTS THE WINDOWS PRO 95

### Atlantic Pro 95

- Intel 90Mhz Pentium Processor
- Plug & Play BIOS Intel Triton chipset
- 16Mb RAM, 256k cache
- 540Mb PCI E-IDE Hard Drive
- 15" 0.28 LR NI Monitor
- PCI motherboard - 3 PCI slots
- 2Mb 64bit Graphics Accelerator
- Quad Speed CD-ROM Drive + stereo speakers
- 16 bit Soundcard
- Microsoft Windows 95
- Desktop or Mini Tower Case
- Desktop Active Speakers
- 3.5" HD Diskette Drive
- CPU Fan
- 102 Key UK Enhanced Keyboard
- 3 Button MS Compatible Mouse
- 5 Yr Warranty, 1st Year On-Site
- Lifetime Technical Support
- Lotus Software Bundle
- Multi-Media software



**PCI**  
LOCAL BUS



**£1599** Excludes delivery & V.A.T @ 17.5%



# RIDE THE TIDE WITH ATLANTIC

## Atlantic Systems



Atlantic are one of the biggest computer systems manufacturers in the country and the people who have put Atlantic where we are today are our

customers, who have benefited from buying direct from the manufacturer, guaranteeing the best value around. In the last five years Atlantic systems have grown as has our customer base, and as part of our ongoing commitment to quality we are fully on target to achieve British Standard BS5750 / ISO 9000 before the end of 1995. We give you the choice to select the system that meets your exact needs, now and in the future.

## 5 Year Warranty - First Year On-Site!



At Atlantic we believe that quality is paramount- our technology works for you. We guarantee it. Comprehensive on-site warranty support is standard for the first year on every new Atlantic system, and we cover you for a further four years for any labour needed on your system, giving you peace of mind for the future. Only top quality components are used throughout our range, ensuring both compatibility and reliability throughout, and reassurance if you want to add-on or upgrade your system in the years to come.

## After Sales Technical Support



A lifetime technical support is offered too, so you can be sure of getting answers to your questions direct from the experts, who are on hand to advise on the best configurations for your needs, and help out with the increasing demands that the future will bring.

## Delivery

Our standard systems are available for immediate despatch, with other configurations available within five working days from your order. When you need the power of today's technology, we don't believe you should have to wait for it.

## Finance



We now offer finance deals on all Atlantic Systems, allowing you to buy your ideal system today and spread the payments over a period convenient to you.

**Atlantic Systems - Technology You Can Rely On.**

**PCDirect**  
"...you get a lot of power for your money."



## Atlantic DX4-100

- PCI motherboard - 3 PCI slots
- Pentium upgradeable
- 540Mb hard drive PCI E-IDE
- 8Mb RAM, 256k cache
- 1Mb PCI graphics accelerator
- Desktop or Mini Tower Case
- 14" SVGA 0.28 PureColor™ LR Monitor
- 3.5" HD Diskette Drive
- CPU Fan
- 102 Key UK Enhanced Keyboard
- 3 Button MS Compatible Mouse
- 5 Yr Warranty - 1st Year On-Site
- Lifetime Technical Support



# £689

Excludes delivery & V.A.T @ 17.5%

**DX2-66 Value / 4Mb RAM\***

# £499

\*DX2-66 as above but with 250Mb hard disk drive and ISA graphics card.

## Multi-Media Upgrades



Multi-Media Systems fully configured.

### Option One

- Dual speed CD-ROM
- 16 bit soundcard
- Desktop stereo speakers
- Microsoft family pack.



- Encarta 95 / Works / Money / Dangerous Creatures / Golf.

# £139

### Option Two

- Quad speed CD-ROM
- 16 bit soundcard
- Desktop stereo speakers
- Lotus multi-media office
- Organiser / Approach / AMI Pro Lotus 1-2-3 V5 / Freelance Graphics.
- Grolier Multi-Media Encyclopedia
- Mega Race, FIFA International Soccer, Theme Park, Dragon Lore.
- Pilot MultiMedia: Inc: Interlude & Get Organised.
- Professor Windows - Multi-Media, Training Suite & Type Tutor + EasyNet & Internet 1 month Compuserve subscription.



# £225

**Option Two + Internet**

Add **£339**

Option Two Internet ready Multi-Media System fully configured with 28,800 bps internal Fax/Modem.

# E OF CHANGE IC SYSTEMS.



## Atlantic P75 Premiere

- Intel 75MHz Pentium processor
- Intel Triton chipset
- PCI motherboard - 3 PCI slots
- 540Mb hard drive - PCI E-IDE
- 8Mb RAM (128Mb Max), 256k cache
- 1Mb PCI SVGA graphics accelerator
- Desktop or Mini Tower Case
- 14" SVGA 0.28 PureColor™ LR Monitor
- 3.5" HD Diskette Drive
- 102 Key UK Enhanced Keyboard
- 3 Button MS Compatible Mouse
- 5 Yr Warranty - 1st Year On-Site
- Lifetime Technical Support
- CPU Fan

**£799**

Excludes delivery & V.A.T @ 17.5%



**pentium 90MHz £859**

**pentium 100MHz £929**

## Atlantic P120 Pro

- Intel 120MHz Pentium processor
- Intel Triton chipset
- PCI Motherboard - 3 PCI slots
- 540Mb hard drive - PCI E-IDE
- 8Mb RAM (128Mb Max), 256k cache
- 1Mb PCI SVGA graphics accelerator
- Desktop or Mini Tower Case
- 14" SVGA 0.28 PureColor™ LR Monitor
- 3.5" HD Diskette Drive
- CPU Fan
- 102 Key UK Enhanced Keyboard
- 3 Button MS Compatible Mouse
- 5 Yr Warranty - 1st Year On-Site
- Lifetime Technical Support

**£1069**

Excludes delivery & V.A.T @ 17.5%



**pentium 133MHz £1199**

## Popular Add ons & upgrades

### Storage & Memory Upgrades

Memory upgrades per 4Mb .....	ADD £110.00
Upgrade from 540Mb to 850Mb HDD .....	£69.00
Upgrade from 540Mb to 1 Gigabyte HDD .....	£129.00
Iomega Tapestreamer 250Mb internal.....	£99.00
Iomega Tapestreamer 420Mb internal.....	£129.00
Dual Speed CD-ROM drive .....	£69.00
Quad Speed CD-ROM drive .....	£110.00

### Graphics & Display Upgrades

15" SVGA Colour .28 NI (1024x768)LR .....	ADD £99.00
17" SVGA Colour .28 NI (1024x768)LR .....	£349.00
2Mb 64Bit SVGA Graphics Card DRAM/VRAM.....	£75.00/£145.00
4Mb 64Bit SVGA Graphics Card VRAM .....	£339.00

### Printers

OKI 300c Colour Bubblejet Printer (300dpi).....	ADD £249.00
OKI 400ex Laser Quality LED Printer (300dpi) .....	£299.00
OKI 410 Laser Quality LED Printer (600dpi text quality) .....	£410.00
OKI 810ex Laser Quality LED printer (600dpi graphics & text) .....	£699.00
Parallel Printer Cable 1.5 Metre .....	£3.00

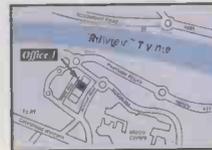
### Add-On Cards

Soundcard, 16Bit SB compatible.....	ADD £49.00
Soundcard, 16Bit Soundblaster Original .....	£69.00
Soundcard Wavetable 32 SB compatible.....	£99.00
Soundcard, 32 AWE-32 Soundblaster Original.....	£199.00

Fax/Modem 14.4 Baud Full Duplex V.32Bis .....	£79.00
Fax/Modem 28.8 Baud Full Duplex V.34.....	£159.00
PC Television Tuner - Record & Replay on your PC !.....	£249.00
<b>Other Items &amp; Software</b>	<b>ADD</b>
Extended 3 Year On-Site Warranty .....	£139.00
Dual Infra-Red Cordless Joysticks.....	£39.00
Active Powered Speakers 10W/20W/80W .....	£19/£25/£40
Full Tower Case Upgrade (250Watt) .....	£49.00
MS DOS 6.22 & Windows WFWG 3.11 .....	£69.00
Microsoft Works V3 .....	£39.00
Microsoft Windows 95 .....	£99.00



**Eastgate Centre**  
Eastville  
Bristol BS5 6XX  
Junction 2 M32  
Behind Tesco



**Cameron Retail Park**  
Metro Centre  
Gateshead NE11 9YS  
Next To TOYS'R'US



**Regent Retail Park**  
42 Ordsall Lane  
Salford  
Manchester M5 3TP  
Next to Sainsburys

Atlantic systems are available at branches of Office One: Bristol, Manchester and Gateshead.

**SALES HOTLINE 01792 700 002**

After Sales Technical Support 01792 700220 / Sales Faxline 01792 792888

Corporate, Local Authority and Educational orders welcome. Telesales : 9.00am-6.00pm weekdays. 10.00am-4.00pm Saturdays. Administration & Accounts 01792 792999,



Atlantic Systems, Atlantic Close, Llansamlet, Swansea, SA7 9FJ



### Toshiba Satellite Pro 400CDT

The Toshiba Satellite Pro 400CDT is no ordinary notebook. It is the only current notebook to boast a Pentium processor and a CD-ROM drive as standard, thus it is designed for the most demanding of road warriors.

The CD-ROM drive is a quad-speed, the battery is a top-of-the-range lithium ion, and the built-in sound system is fully compatible with the SoundBlaster Pro. The RAM comes in the form of EDO for better performance, although the cache is asynchronous, rather than synchronous which is faster.

The TFT screen is 10.4in, and Toshiba's



supplier will soon be turning out 11.3in screens in production quantities; because of the way TFT screens and CRTs are measured, 11.3in TFT screens will have almost the same viewing size as a 14in CRT monitor. This TFT can display true colour, or on an external monitor the Chips & Technologies graphics chip can cope with up to 1024 x 768 x 256, thanks to its 1Mb RAM.

The IRDA-compatible infra-red capability provides a convenient way of getting files between machines, or you could use a PCMCIA network card thanks to the two Type II slots (configurable as one Type III). The port

replicator (with an RRP of £250) is set a little apart from other port replicators by its additional two Type II slots.

Toshiba already has a vast share of the UK notebook market — somewhere around the 40% mark — and this model looks set to capture the market among those who need all the extras. It's not cheap, but then, the closest notebooks offered by IBM are a good deal more expensive.

**Nick Lawrence**

#### Satellite Pro 400CDT

Price P90 16/700Mb TFT £4,440

Contact Toshiba 01932 841600

**Good Points** All the extras.

**Bad Points** No ISA or PCI slots in the docking station.

**Conclusion** Excellent.



### Twinhead Slimnote 5100T

The Slimnote 5100T's pointing device is made by Alps, is completely flat and operated by moving your finger along its surface. The keys are not too small, with sufficient travel, and there is a suspend-to-disk option. The Phoenix BIOS allows you to save the contents of RAM to

disk and pull them out again when you turn the computer on, to carry on working where you left off.

The built-in sound is fully SoundBlaster compatible and the speakers and microphone are built-in as well, though for presentations the sound quality would



naturally be better with external speakers.

The screen is a TFT model, and the Cirrus Logic graphics chip has 1Mb RAM, sufficient to display 1024 x 768 x 256 on an external monitor. If the NiMH battery does not supply enough juice, you can swap the floppy disk drive for a second battery. Further expansion comes in the form of two

Type II PC card slots, which can be configured as a single Type III instead. The docking station allows you to put in three ISA cards, though the design is rather poor and there is a lot of wasted space.

Raw horsepower is taken care of by the

DX4/100 processor. 8Mb RAM comes as standard, and though the memory chips are of proprietary design, the upgrade to 16Mb (as this machine has) should cost you only £320. The hard disk comes in three sizes, 340Mb, 500Mb and 810Mb. Since the machine reviewed has the largest, its cost works out at a total of £3,554.

**Nick Lawrence**

#### Slimnote 5100T

Price DX4/100 16Mb/810Mb TFT £3,949

Contact Twinhead 01256 811366

**Good Points** All the extras; the trackball (for most people).

**Bad Points** The docking station is not too well designed; the trackball (for some)

**Conclusion** Well worth a look.

### Viglen Dossier P5 AS

Viglen, now owned by Amstrad, likes to play it safe with notebook design. This particular model has been designed and manufactured in Taiwan, and is similar to the notebooks offered by Adams Technology and Opti.

The spec is good: a P90 processor complemented by 16Mb RAM and a 530Mb hard disk. The standard 8Mb memory is upgradable to 40Mb through proprietary memory in the form of two piggyback memory modules, of which an 8Mb upgrade will cost you £309. The built-in sound is fully SoundBlaster compatible and capable of playing both



digital audio and MIDI files. The docking station has stereo speakers built-in but you can play sounds on the move, although the built-in speakers aren't sufficiently powerful for group presentations. The infra-red port is fully IRDA compatible and capable of 100Kb/sec throughput.

The TFT screen is 10.4in and capable of displaying 640 x 480 in 256 colours, while viewing on an external monitor can be enjoyed up to 1024 x 768 x 256. The docking station can take two ISA cards and contains a second 3.5in floppy disk drive. Further expansion comes with the two Type II PCMCIA devices, also

configurable as a single Type III.

The pointing device is a trackball, which, despite a slightly dated look, does the job well. The keys have sufficient travel to be comfortable. The NiMH battery has power to last a couple of hours, and is safer but not as long-lasting as the newer lithium ion.

Supplied software includes Lotus Organizer and Cardsoft utilities to manage PCMCIA slots. This rounds off a safe but uninspiring package. **Nick Lawrence**

#### Dossier P5 AS

Price P90 16/530Mb TFT £3,716

Contact Viglen 0181 758 7000

**Good Points** Windows performance.

**Bad Points** On the expensive side.

**Conclusion** Unexciting.

## The secret of longer life

If there's one fundamental rule of portable computing, it's that the batteries will always start to run out at the vital moment. Fortunately, you should be warned by the PC when time is running out and you should save what you are doing and quit. As portables adopt faster processors, bigger hard disks and better screens, battery life becomes more of an issue. Thankfully the situation is improving as more efficient batteries and power management software begins to appear, but the battery that combines high capacity, fast recharge, low weight cells and low cost to both wallet and environment is still a long way off.

Nickel Cadmium (NiCad) batteries have a number of factors in their favour. Voltage levels remain relatively stable throughout the discharge cycle; repeated discharging and recharging does little damage; recharge cycles are short, and prices are falling. The main drawback for users is energy density. Size for size, they hold less charge than other types, which may mean carrying extra units around. The constituent materials are also bad for the environment when disposed of improperly.

Nickel-Metal Hydride (NiMH) batteries, on the other hand, may hold up to 80 percent more charge than NiCADs, but they charge more slowly and cost much more.

One drawback of both NiCADs and NiMHs is that they should be fully discharged before reuse. Failure to do this reduces the charge capacity of the battery and its effective life and is known as 'voltage depression'.

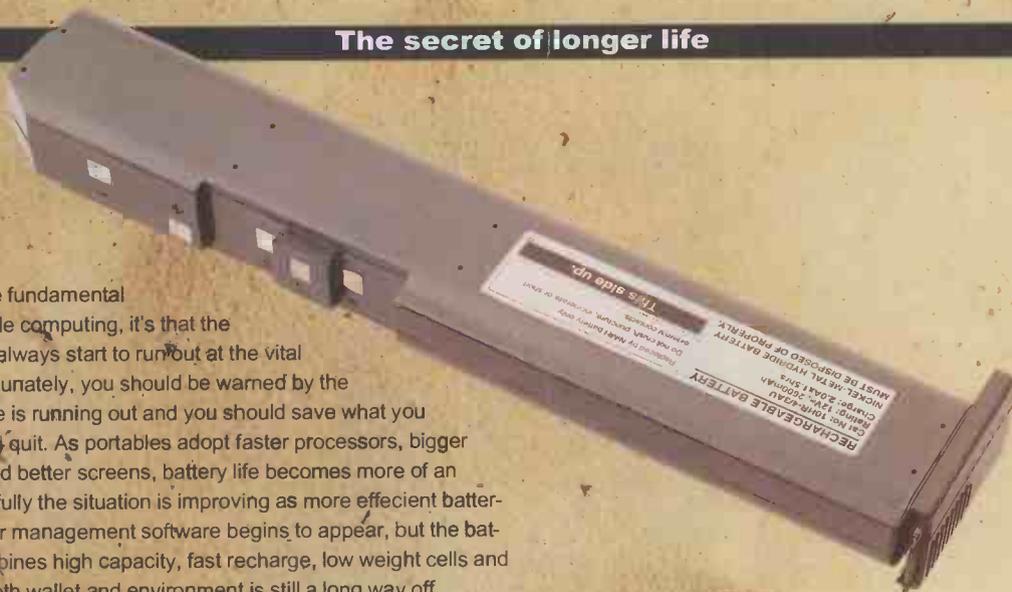
Other technologies such as Lead Sulphuric Acid have been tried but none have succeeded. Now, Lithium-ion (Li-ion) batteries are being promoted by prominent portable makers such as the industry leader Toshiba.

Lithium itself is highly dangerous but this Li-ion form is very

stable. Li-ion batteries are lighter, and cells can supply up to three times more power, display little voltage depression effect, and discharge less when stored. They are greener than nickel-based batteries when disposed of, and a longer life makes this less frequent.

All portables come with some form of power-management facility, whether it's built into the BIOS or controlled by software. These have various 'sleep' settings to suspend processor, screen and disk activity when the keyboard, mouse and serial port are not being used, which significantly extends battery life. In addition to this, processors are now using less power than before. \*\*\* Although hard disks are increasing in capacity, physically they are becoming smaller. The result is smaller platters that need less power to drive.

If you intend to spend most of your time running a notebook from batteries, it's useful to know if the batteries can be recharged without being connected to the PC. Where portables are pooled, this allows separate charging of spare batteries and quicker re-issue times. If you're going to use the PC mainly off the mains, then batteries aren't so important. For use on the move, though, close attention to weight, recharge times, life and other factors is essential.



## What to look for in a portable

In general, one desktop PC is often just the same as the next. When it comes to portables, though, the range of models is far more diverse. For light use, almost any decently constructed portable will do. When the notebook becomes your primary PC, though, the keyboard layout, pointing device and screen quality become more important.

Don't let anyone kid you that screen size and quality aren't important. The display is what you spend most of your time looking at, not the notebook itself, and therefore text, icons and graphics need to be clear. If you work with spreadsheet applications regularly, it's well worth considering one of the portables capable of displaying 800x600 as this will allow you to view more of your work on-screen. The majority of systems in this round-up will only display 640x480, but drivers that provide a virtual desktop are becoming more popular. The range of possible viewing angles differs between screens and for group use this is crucial. TFT screens, although often twice the price as dual scan, are better all-round and are worth the investment if your wallet can stretch that far.

Portables come with a large variety of pointing devices in place of the standard mouse, such as trackballs, mini-mice and the IBM-style "nipple". Of course, it's largely a matter of personal choice, so you should try out a few types before you buy. Also, check that the portable has two serial ports; one for a modem and one for an external mouse. As long as you have a flat surface to work on a standard mouse can make working with Windows much easier.

If there is one item that can make or break a portable (and its user) it is the quality and layout of the keyboard. There is an automatic trade-off between size and keyboard usability, so it is important to determine the type of use beforehand. For writing reports on the move, a larger keyboard makes more sense despite the increased shoulder-ache. Subnotebooks are easier to carry but aren't ideal for intensive typing.

Another problem of keyboard use is that the base unit of the portable is often quite deep and this can soon cause wrist-ache. Only one or two machines have thin bases but this usually means sacrificing the floppy drive or some other component.



# POWER TO THE PEOPLE

## ACi 7600 PENTIUM

8MB RAM, 340MB HDD, NiMh BATTERY

### DISPLAY

- **7600 Pentium -**  
Dual Scan (DSTN): 10.3" 256 colours  
TFT: 10.3" 256 colours
- **8500 Big Screen -**  
Dual Scan (DSTN): 11.3" 256 colours  
TFT: 10.3" 256 colours
- **Performer -**  
Mono: 10" 64 G/S 640 x 480 x 256 cols.  
DSTN: 10" 256 colours  
TFT: 10" 512K Colours
- Built in Speaker/ Microphone  
& 16 bit stereo audio card

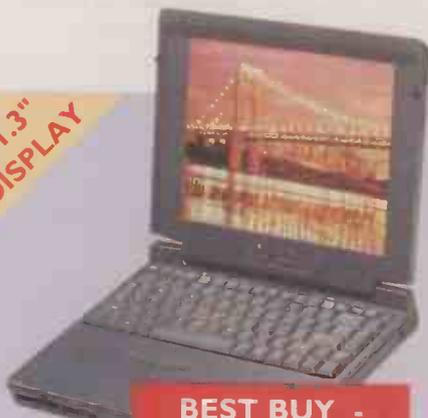


- CPU Intel Pentium™ processor P75 & P90 Mhz, 256 cache memory
- RAM Upgradable to 40mb
- HDD user interchangeable up to 810 mb
- 32 bit VESA local bus & 1mb VRAM windows accelerator
- PCMCIA type II and type III, NiMh battery, 19mm trackerball

7600 PENTIUM	DSTN	TFT
PENTIUM P75	£1,649	£2,049
PENTIUM P90	£1,799	£2,199

LEASE FROM £13.99 PER WEEK

11.3" DISPLAY

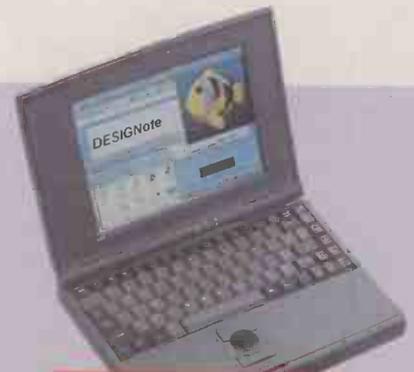


**BEST BUY -**  
What PC Aug '95

Built in Speaker/Microphone  
8500 Big Screen: 16 bit stereo audio card  
Performer: 8 bit Yamaha stereo audio chipset  
CPU Intel: DX2-66 DX4-75 DX4-100 MHz  
RAM Upgradable to 20mb  
HDD user interchangeable up to 810mb  
32 bit VESA local bus and 1mb VRAM  
windows accelerator  
PCMCIA type II and type III,  
NiMh battery, trackpoint

LEASE FROM  
£8.99 PER WEEK

BIG SCREEN	DSTN	TFT
486DX2-66	£1,299	N/A
486DX4-75	£1,349	N/A
486DX4-100	£1,369	N/A



**BEST BUY -**  
PC Today Aug '95

PERFORMER	MONO	DSTN	TFT
486DX2-66	£999	£1,299	£1,729
486DX4-75	£1,049	£1,349	£1,779
486DX4-100	£1,069	£1,369	£1,799

## ACi 8500 BIG SCREEN

4MB RAM, 340MB HDD, NiMh BATTERY

## AWARD WINNING ACi PERFORMER

4MB RAM, 340MB HDD, NiMh BATTERY

### UPGRADES AND ACCESSORIES

RAM per MB	£40	Car Adaptor/Charger	£45
Upgrade to 510Mb HDD	£149	PCMCIA Fax Modem 9600/2400	£149
Upgrade to 810Mb HDD	£299	MS DOS 6.22 and Windows for Workgroups 3.11	£75
Additional NiMH Battery	£95		



# ACi

ALLIED COMPUTER INDUSTRIES LTD

NORTHERN OFFICE: HSL House, Atlantic Street, Altrincham, Cheshire WA14 5DH. Fax: 0161 929 0779

SOUTHERN OFFICE: 82 Chaplin Road, London, NW2 5PR. Fax: 0181 830 1959

All trademarks acknowledged. All prices exclude VAT and carriage (£15) and are correct at the time of publishing. E&OE. Specification subject to change without notice. Goods are offered for sale subject to availability and ACI Ltd terms and conditions, copies of which are available on request.



VISA and ACCESS WELCOME.



# 0161 929 9444 • 0181 830 1958

## Mobile communication

A mobile phone provides an invaluable link for the travelling businessman, so it seems logical that it should be the solution for the portable computer user.

But it's not quite that simple. Mobile phone links will never be as good as bits of buried copper. Sending information — be it voice or data — over a wireless link is always subject to interference. The problem is also complicated by a lack of standards. There is no way to connect any mobile phone to any computer; it's always necessary to choose the right phone for the right computer.

Analogue, cellular and PCMCIA solutions work, but not that well. In practice, you'll see an unreliable 2400bps — unlikely to attract a flashing blue light as you steam down the digital super highway. More attractive are the digital networks. Current systems are operated by Orange, Cellnet and Vodafone. Until recently, using digital mobile phones for data was great in theory, but duff in practice.

Vodafone launched a special service in October last year, Cellnet a more comprehensive package in November with Orange following in June of this year. The Vodafone system has limited use, only allowing you to log into a remote computer. Cellnet, on the other hand, offers more advanced services, including the ability to send and receive faxes via your mobile phone. The Orange system is as comprehensive as Cellnet's, only much cheaper.

A standard known as SMS (Short Message Service) works like a pager. Even if you are on the phone a 160-character text message can be transmitted to the display on the handset. The

Vodafone system will receive these messages, but since linking digital phones to computers is quite new it's considered pointless to be able to allow phones to originate messages as that would necessitate typing messages, using combinations of keys on the numeric keypad.

Links to computers mean that sending and receiving SMS messages is a good, cheap, alternative to real data. You can establish a pretty reliable 9600bps link and use software compression. Not an amazing speed but tolerable for most applications, such as updating sales information or running an SQL enquiry. With the right hardware, speeds of 57,600bps are theoretically possible.

**Simon Rockman**



## Dual-scan and TFT compared

The earliest portables used traditional (but small) cathode ray tubes (CRTs), which had to be treated delicately. New technologies were clearly needed if portables were ever to catch on. A number of other technologies were introduced but fell by the wayside.

Scaled up from calculators, LCDs were soon seen as the way forward, but even they had drawbacks. The contrast was low, making outdoor use difficult, and viewing angles were restricted, which stopped groups from seeing anything on the screen.

Passive Matrix screens use a fine layer of crystalline liquid sandwiched between super-thin layers of glass. A grid or matrix of electrodes allows a current to be passed through lines on the screen. Pixels are formed where two intersect. A couple of polarising filters control how light passes through the screen. When the current is switched on, the crystals in that area change orientation and the filters block out the light, making the pixels appear dark.

To add colour, extra pixels and filters are needed. If you stare closely at your domestic TV screen you will see that each dot of colour is made up of three pixels corresponding to red, green and blue (RGB). Combining these three colours produces the spectrum.

Unfortunately, the imprecise nature of the LCD matrix means that it is impossible to turn a pixel on without affecting adjacent ones. "Crosstalk" reduces sharpness and clarity. Contrast is much reduced and the viewing angle greatly restricted. Colours are muted and



less discernible.

More recently, additional layers of liquid crystal have been added to create dual and triple-scan displays. These correct the original distortion to improve contrast, the number of greyscales and the viewing angle. The other side of the coin is that extra layers mean greater thickness and weight.

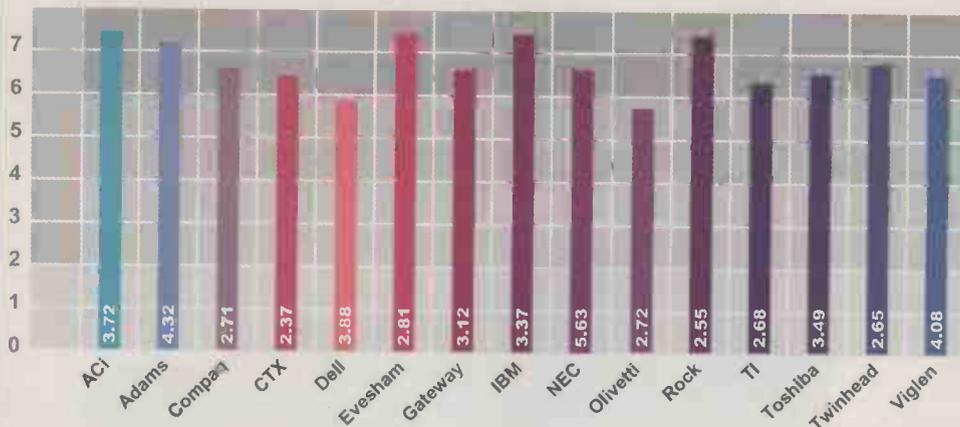
Many companies have adopted Thin Film Transistor (TFT) technology to improve colour portable screens. Microscopic resistors directly (or actively) control how each transistor works with the result that each pixel is independent of the adjacent ones, making contrast and clarity much better and the colours rich and vibrant. TFT screens can be made much thinner than LCDs and refresh rates now approach CRT speeds, making simultaneous connection to an external monitor possible.

When choosing a screen type, it's also important to look at the size of the palette. Even if a screen can only display 256 colours simultaneously, being able to choose from many more makes the effective screen quality much higher. Palettes of 64K and 256K colours enhance clarity enormously.

TFT screens are hard to manufacture, and can cost up to £500 more than their LCD equivalent. VGA screens need 921,600 transistors (640 x 480 x 3) and each has to be perfect. Early production techniques yielded only a 20% success rate. Today this is around 80% — better, but far from perfect.

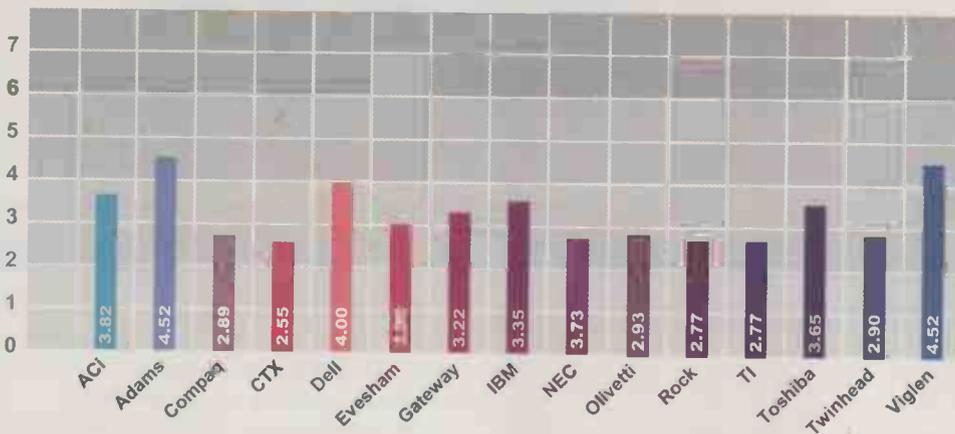
## Performance Results

### Overall



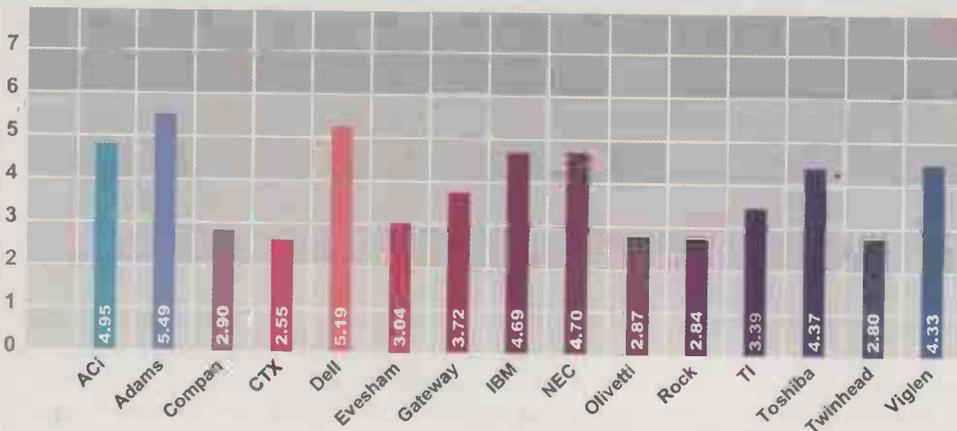
To calculate the overall score, the results from Windows and DOS tests are weighted according to their influence on overall system performance. All results are pitched against a score of 1 for an Apricot XEN-PC 486DX/25 with 8Mb RAM.

### Windows



The Windows tests take results from macros run in Word 6.0a, Excel 5.0, WordPerfect 6.0a and FoxPro 2.6, forming a result from their geometric mean.

### DOS



The DOS tests are based on WordPerfect 6.0b, Lotus 1-2-3 Release 3.4 and FoxPro 2.5, with individual results combined through a geometric mean.

## Editor's Choice



Each time we put a notebook group test together, the range of products increases substantially. This time around we looked only at those with docking-station options, but even so, we were presented with 15 vastly different systems. Not just in the way they look, but the whole thing: different displays, pointing devices, upgrade options... The list goes on.

It seems the most important consideration when choosing a notebook PC is no longer how fast the system performs: any 486 system is capable of running a word processor, spreadsheet and database. More important is how comfortable you are when using it, so it is well worth trying a few out before parting with your cash. Primarily you should pay close attention to the keyboard, display and trackball. It may

be that you have specific requirements — a network card, for example. These should also be weighed up before you make your purchase.

When we were considering products for Editor's Choice, the five areas we paid most attention to were usability, build quality, performance, features and cost. As there isn't a system that combines excellent features in all these areas, there has to be a trade-off.

The system that impressed us all (price excepted) was the Toshiba CDT400, which is our Editor's Choice. It has one of the best 10.4in TFT screens in this test (soon to be 11.3in), that produces high-contrasting colours and is viewable from wide angles. In true Toshiba fashion the keyboard is great, and features a surprisingly usable "nipple"-style pointing device. As for features, the Tosh just about has it all: quad-speed CD-ROM drive; masses of expansion capabilities, thanks to four PCMCIA slots when linked to the port replicator; IRDA-compatible infra-red port; and Sound Blaster-com-

patible audio. Although the CDT400 is one of the more expensive portables in this round-up, it comes from the largest and most popular notebook manufacturer. Excellent.

The IBM 755CX cannot go without a mention. Overall this system is superb and ideally suited to the power user. The keyboard, as per usual, is the typist's dream; the display is stunning and capable of resolutions up to 80 x 600, and the overall look and feel is polished. The 755CX is Highly Commended, although its £5,580 price tag could offend.

Another machine that impressed just about everyone who laid eyes upon it was the Gateway Liberty. Despite being subnotebook in size, the keyboard and display were surprisingly large and high quality. The pointing device proved to be a little awkward for some, but its size, price, excellent power management and overall charm just about outweighed this. The Gateway also walks away with the much coveted Highly Commended award.

## The IRDA specification

Linking computers together makes them more powerful. It also ties them to one place. Infra-red communications has the benefit of communication without the ties of a docking station or PCMCIA network card. In theory you can plonk your computer on your desk and instantly have access to your network, printer and modem. No wires, no fuss. All this is done by having the computer communicate by means of what is effectively Morse code. The computer flashes lights at the network which reads them and flashes a response. The light is invisible and the flashes incredibly fast but that is the principle. It's still only theoretically possible, but we're getting there.

Of course, for this to work you need a standard. There is a standard for infra-red TV remote controls to make sure that changing channels doesn't stop the video or open the curtains. For computer communications the devices need a better level of compatibility than just ignoring messages meant for another device. To this end Hewlett-Packard, which pioneered the Serial Infra-Red standard, organised the Infra-Red Data Association (Irda) which now has over 100 members, including chip makers, computer manufacturers, and printer manufacturers. This initial specification was launched in March 1994 and is just beginning to spread in popularity. It works at short range, and being light-based, is of course line of sight — with a speed of 115k bps. Since infra-red LEDs are very cheap and the switching is simple, the cost of adding Irda to a device is tiny, and the power consumption very low. It's a standard which is bound to take off, and IBM, Apple, HP, Digital Equipment, Texas Instruments and Gateway 2000 have at least one machine with an Irda port in the range. So expect Compaq and Toshiba to follow. There are also adapters which allow a standard serial port to transmit Irda. Adaptec, Lexmark and specialist company Extended Systems have such add-ons. Tulip even has a desktop machine with an Irda port.

Just as the new standards start to become popular, a new standard which allows faster rates of transmission — 1.5Mbps and beyond — is being written for the Irda specification. This is not quite as damning as it seems since the new specification allows backwards compatibility to run at the old speed. The first device to support the 1.15Mbps speed is the IBM ThinkPad. This can communicate with Irda devices at 115k and with devices like the Apple Newton and Sharp IQ using older standards at 9600bps. A disadvan-

tage of the standard is that there is no security. Irda relies upon the limited distance and line of sight transmission to stop unwanted snoopers from reading your beam. If you are concerned you can add software encryption.

The invisible network is still a little way off, but infra-red printing is a reality thanks to the Hewlett Packard LaserJet 5. This has an Irda port on the front in addition to the standard printer ports on the back and is supplied with the necessary driver software. There is a 30° field of view, so lining the notebook up is not critical. Though it has an effective range of three metres, keeping closer is more reliable, and the specification for Irda says that you should be within a metre. The LaserJet 5 is a PCL or PostScript printer, neither of which are particularly compact file formats, but in tests the slow transmission rate did not hamper the performance, even on a page with a lot of graphics. The software error-corrects so there is no degradation in image quality.

A peculiarity which seemed to hamper some devices was over-brightness. Getting too close could cause the transmission to break down.

While print speed might not be affected by the slow serial transfer rate the other uses for Irda will benefit tremendously from them. Chief among these is file transfer. A number of manufacturers provide machine-to-machine links by using the Tranxite, Laplink-llke, software. This allows files to be transferred from one machine to another as easily as if they were on the hard disk of a single machine by dragging and dropping, but it does not have some of the more advanced features of systems like LapLink.

Psion is working on a future version of the Gold Card modem which will have Irda in addition to the traditional cable link. Adding an LED to a device which already has many of the components necessary for a serial port peripheral makes sense, but the major problem is one of the viewing angle — most PCMCIA sockets are not in the best position for pointing at the printer.

We are bound to see (or not see) more infra-red devices. It's an inexpensive, flexible way of linking devices, which requires little power or board space. It's ideal for pocket computers and works well in an environment where a number of users want to share a printer without installing a network. It's not a universal solution — it doesn't replace the network just yet — but for many people it will be a better bet than a docking station.

### Top ten tips for buying and using portables

1. That old maxim "try before you buy" couldn't be more true when it comes to choosing a notebook PC. The variety of portables, in terms of design and performance, is astounding.
2. One of the best ways to test out a portable's suitability for Windows use is also one of the simplest. Fire up the included Solitaire and have a go. If you find it hard to move and position the cards in Solitaire, then it is likely to be difficult to move blocks of text and graphics around in more general use.
3. Don't be seduced by that faster processor or that better screen unless you really need them. If your needs simply involve word processing, look for the notebook with the best keyboard and pointing device. If you are likely to be dealing with graphics, only then does the screen become a big issue.
4. Make sure you choose a system with sufficient RAM. Although Word and Excel will run nicely with 8Mb under Windows 3.11, native applications running on Windows 95 and OS/2 require 12 or 16Mb to run at their best.
5. Build quality is important. Notebooks assigned to particular individuals for long periods will generally be treated better than those which pass through many hands regularly. In the latter case, it is important to buy portables that will take real hammering. This may be more important in the long term than a better screen or bigger disk.
6. Removable floppy disks allow longer times between recharges by giving space to a second battery, and the absence of the floppy can help avoid viruses and games which clog the disk and reconfiguration of the setup. File transfer can be done by the system's administration staff centrally.
7. With portables being so modular, it is tempting to buy a base model and then upgrade later as funds allow. The drawback is overall cost. Nearly all the major components of a portable are proprietary and considerably more expensive than their desktop counterparts. Look at the RAM prices, for example. You can be expected to pay upwards of £100 per megabyte, compared with around £30/Mb for standard SIMMs. Generally speaking, it works out cheaper to buy the spec you will need long term from the outset than upgrade later on.
8. Most of the models on test allowed the user to make the upgrade — sometimes this was easy, other times hard. Many manufacturers insist on processor upgrades through recognised engineers or

their own staff. Naturally, this will work out more expensive than doing it yourself. It is also an important issue for anyone needing to upgrade a whole batch of machines because of shipping costs and the loss of equipment for several days.

9. The display becomes very important if the notebook is to be used by large groups of people. The viewing angle is very much more restricted with a dualscan screen than with TFT screens, which allow more people to see the screen at once.

10. In the early days, many batteries could be recharged externally with a separate charger — a spare could be charged up while the main battery was in use and the two later swapped over. The trend today seems to be against this as none of the manufacturers supplied external chargers. For anyone managing a large group of portables, the logistics of keeping everyone supplied with power can easily become a nightmare, so talk to your supplier about this before you buy.

TABLE OF FEATURES

Manufacturer	ACI	Adams	Compaq
Model Name	7600 Pentium	Accura 5000	Contura 430CX
Phone No.	0181 830 1958	0161 877 8822	0181 332 3888
Fax No.	0181 830 1959	0161 877 8684	0181 332 3409
Price of Machine Reviewed	£2,768	£3,068	£3,560
<b>SPECIFICATION</b>			
Processor Type and Speed	Pentium 90	Pentium 90	DX4/100
RAM Supplied (MB)	16	16	16
RAM Maximum (MB)	40	40	32
Hard Disk Supplied (MB)	540	710	720
Floppy Disk (Int/Ext)	Internal	Internal	Internal
PCMCIA Slots	Two	Two	Two
Pointer Type	Trackerball	Trackball	Trackball
<b>CONNECTORS</b>			
Serial Port (Std/Enh)	Enhanced	Enhanced	Standard
Parallel Port (Std/Enh)	Enhanced	Enhanced	Enhanced
IRDA Option?	No	Yes	No
<b>DISPLAY</b>			
Display Type	TFT	Quad Scan	TFT
Screen Size (Inches)	9.5	10.3	10.4
On-screen Colours @ 640x480	256	256	256
External Colours @ 1024x768	256	256	256
<b>POWER SUPPLY</b>			
Battery Technology	NiMh	NiMh	NiMh
Claimed Battery Life (Hours)	2.5 hours	2.5 - 3 hours	3-5.5 hours
Claimed Recharge Time in use)	2 hours	3 hours	Not Supplied
<b>PHYSICAL SIZE</b>			
Dimensions (WxDxH) cm	28.3 x 23.2 x 5.3	27.9 x 21.8 x 5.15	22.6 x 30.4 x 5.4
Weight with Battery (Kg)	2.9	3.09	2.84
<b>DOCKING STATION</b>			
CD-ROM option	Yes	Yes	No
Hard Drive option	Yes	Yes	No
PCMCIA Slots	Yes	No	No
Network card, type	No	Optional	Ethernet compatible
Game port	No	No	No
Sound	Yes	Yes	No
Physical size (WxDxH) cm	37 x 36.7 x 12.6	38.2 x 37 x 11.9	22.83 x 3.49 x 30.29
<b>SOFTWARE</b>			
Operating System version	Not included	Windows 3.11	Win 3.1
Business Applications	None	None	None
Multimedia Titles	None	None	None
Other	Utilities	Utilities	Tabworks, Learning centre
<b>SALES AND SUPPORT</b>			
Basic Warranty Length	1 year	1 year	3 years parts and labour
On-site Service available (cost)	No	No	See dealers
Extended Warranty Available	Yes	Yes	Yes
Sold through Dealers or Direct	Direct	Direct	Dealer

TABLE CONTINUES ON NEXT PAGE

## MEDIAPro COLOUR

£1695+VAT

NOW with 8Mb RAM standard

486 \ HD	340Mb	520Mb	810Mb
DX4-75	£1695	£1795	£1995
DX4-100	£1745	£1845	£2045

- **Fast internal 14.4k fax-modem** with FREE BitFax and BitCom software
- **Built-in Multimedia**
  - 16-bit sound, SoundBlaster compatible
  - stereospeakers and microphone socket
- **Weighs only 6lb** 2.7Kg (including battery)
- **FREE upgradeable software** MS Works 3.0 for Windows – special upgrade price to MS Office & Office Pro
- **Faster Local Bus**
  - 1Mb Local Bus 32-bit video
  - Local Bus 32-bit disk control
- **10.3" dual-scan colour screen**
  - port for external SVGA monitor
- **Reliable NiMH battery**
  - lasts up to 4 hours, with built-in advanced power management
  - fast 1½hr recharge – worldwide adaptor
- **Removable Hard Disk & FDD**
  - FDD swaps with Video/SCSI module
- **PCMCIA slot**
  - fits 1 Type III or 2 Type II cards
- **Enhanced I/O**
  - 1 faster serial port (16550 UART)
  - 1 faster EPP/ECP parallel port
- **Luxurious executive carry case**
  - plenty of room for all your accessories

Also available

MONO screen, 8MB RAM ... from £1295



## FREE INTERNET ACCESS

- **Introductory offer from SpeedNet** Access to all Internet services for 30 days from the day you log on

## COLOUR SUPERMEDIA

£2195+VAT

486 \ HD	520Mb	810Mb	1.0Gb
DX4-75	£2195	£2395	£2595
DX4-100	£2245	£2445	£2645

Same as COLOUR Notebook  
**PLUS**

- **Video Capture/SCSI module**
  - Capture, watch, edit images in JPEG, GIF, TIFF, & many other formats
  - Plug up to 7 SCSI devices, e.g. DAT Streamer, Scanner, Optical Drive
- **Low-power 2-speed CD-ROM drive**
  - Convenient – use only when you need
  - No need for batteries or mains
  - Easy Plug-&Play via PCMCIA slot

## UPGRADES & OPTIONS

Screen	9.5" TFT colour .....	add £495
Memory	16Mb RAM .....	add £390
	32Mb RAM .....	add £995
Options	Docking station – 2 card slots + 2 drive bays .....	£275
	*Double-speed (PCMCIA) CD-ROM drive .....	£279
	*Video capture/SCSI module .....	£249

\*Included in SUPERMEDIA price

DELIVERY - overnight, UK mainland ... £15

All prices exclude VAT @ 17.5%

Obodex reserves right to change specifications & prices without notice. All trademarks acknowledged. E & OE

## YOUR PEACE OF MIND

With every MediaPro you get:

- GS & TUV International Safety standards
- Your 14-day Money Back Guarantee
- A full one year parts Warranty
- LIFETIME free labour Warranty
- A rapid Repair-While-You-Wait service
- Our 5 year expertise in notebook PCs

# Do you really need a desktop computer?

– when you can now get a versatile notebook...  
with 14.4k Fax-Modem... Local Bus Graphics... Multimedia...  
16-bit Stereo... Video Capture... SCSI... all built in

**T**HINK of the possibilities. A notebook with all the benefits of a high performance desktop PC. Bristling with over £400 of built-in 'extras'. Weighing only 6lbs.

Ready to fly. At a price you can afford.

### The world at your fingertips

Faster Local Bus graphics and disk control. Ample memory for today's demanding software. Faster printing. Plus many more features that make our new Colour mediaPro such a pleasure to use.

And what better to enhance your mobile Power Office than a fast 14.4k fax-modem?

Surf the Internet. Explore the World Wide Web. Send and receive your E-Mail. Or just use it for all your business correspondence – wherever you are.

Unlike others, our fax-modem is built in, so you're free to use the PCMCIA slot for other devices.

### Multimedia and a lot more

Plug in our low-power CD-ROM drive and you have a full-blown mobile Multimedia system.

With the Video Capture module you can watch your favourite video and edit the captured images, as well

as use advanced SCSI devices – like DAT Streamers, Flat-bed Scanners, and Optical Storage Drives.

You can even dictate to your Wordprocessor and Spreadsheet – just add a microphone and some inexpensive software and start talking!

### Making it easy for you all the way

Combine the MediaPro's features and price with our five year expertise in notebooks, and you'll be hard pushed to find a better deal. *Anywhere.*

And now you can get a MediaPro for as little as £10 a week. We can arrange approval of this flexible low-cost lease within 2 hours – you can have the machine on your desk within 48 hours.

Find out more, call us today on

**0181-841 3555**  
**fax 0181-841 3777**



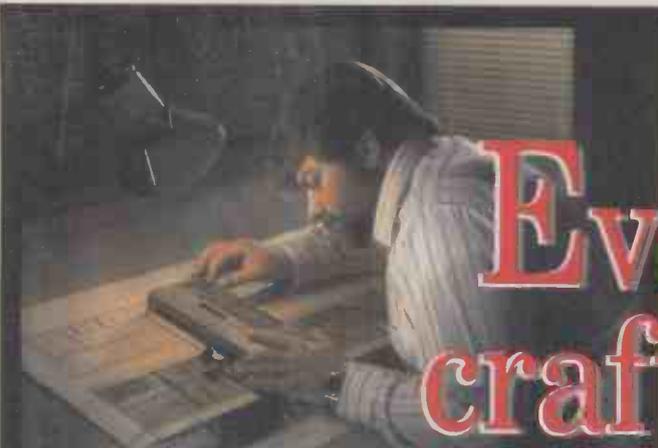
Obodex Computers Ltd, Unit 1, Belvue Business Centre  
Belvue Road, Northolt, Middlesex UB5 5QQ

TABLE OF FEATURES

Manufacturer	CTX	Dell	Evesham Micros	Gateway 2000	IBM	NEC
Model Name	EzBook	Latitude XPi	Vale Voyager	Liberty	Thinkpad 755 CX	Versa P75S
Phone No.	01923 818461	01344 720000	01386 765500	0800 60 2000	0345 727272	0181 993 8111
Fax No.	01923 818643	01344 860187	01386 765354	010 353 1 848 2022	0345 727272	0181 235 4945
Price of Machine Reviewed	£3,048	£3,918	£2,957	£2,499	£5,580	£4,680 (With MediaDock)
<b>SPECIFICATION</b>						
Processor Type and Speed	486DX4/100	Pentium 90	i486DX4/100	i486DX4/100	Pentium 75	Pentium 75
RAM Supplied (MB)	16	16	20	8	8	8
RAM Maximum (MB)	32	40	20	24	40	40
Hard Disk Supplied (MB)	524	810	528	720	540	810
Floppy Disk (Int/Ext)	Internal	Internal	Internal	External	Internal	Internal (&removable)
PCMCIA Slots	Two	Two	Two	Two	Two	Two
Pointer Type	Trackball	Trackball	Trackball	Nipple	Trackpoint III	Trackball
<b>CONNECTORS</b>						
Serial Port (Std/Enh)	Standard	16550 UART	Enhanced	Standard	Standard	Enhanced
Parallel Port (Std/Enh)	Enhanced	Enhanced	Enhanced	Standard	Standard	Enhanced
IRDA Option?	No	No	No	Yes	Yes	No
<b>DISPLAY</b>						
Display Type	TFT	TFT	TFT	Dual Scan	TFT	TFT
Screen Size (inches)	9.4	10.4	11	10.4	10.4	9.5
On-screen Colours @ 640x480	64,000	16,000,000	512	256	256	256
External Colours @ 1024x768	256	256	256	256	256	256
<b>POWER SUPPLY</b>						
Battery Technology	NiMh	Lithium Ion	NiMh	NiMh	Lithium Ion	NiMh
Claimed Battery Life (Hours)	3-6 hours	4 hours	2 hours	4 hours	3 hours	5 hours
Claimed Recharge Time (in use)	2 hours	2 hours	1.5 hours	System off: 2 hours	2-3 hours	2.7 hours
<b>PHYSICAL SIZE</b>						
Dimensions (WxDxH) cm	28.4 x 21.8 x 4.1	27.9 x 22 x 5.1	26.8 x 22.4 x 5.7	25.4 x 20.3 x 4.1	29.7 x 21 x 5	29.2 x 23.3 x 5.5
Weight with Battery (Kg)	2.68	2.77	2.7	1.9	2.9	3.22
<b>DOCKING STATION</b>						
CD-ROM option	Yes	No	Yes	N/A	Yes	Yes
Hard Drive option	Yes	No	Yes	N/A	No	Yes
PCMCIA Slots	-	No	No	N/A	1 x 16bit AT-Bus	No
Network card, type	Optional	No	Yes	N/A	Optional	N/A
Game port	Optional	No	Yes	N/A	Yes	No
Sound	16bit	No	No	N/A	Yes	Yes
Physical size (WxDxH) cm	30 x 10 x 14	-	34.2 x 42.5 x 14	N/A	410 x 250 x 102	43.6 x 41.6 x 13.4
<b>SOFTWARE</b>						
Operating System version	Windows 3.11	Windows 3.11	Windows 3.11	Windows 3.11	Windows 3.11, OS2	Windows 3.11
Business Applications	None	Office (optional)	None	MS Office 4.3 Pro	Organiser CCMail Mobile	None
Multimedia Titles	None	None	None	None	ScreenCam, VFW Runtime	None
Other	Dos 6.2	None	Utilities	Windows 95	Audiofile Talk, Works	None
<b>SALES AND SUPPORT</b>						
Basic Warranty Length	3 years	1 year	1 year	1 year	3 years	1 year
On-site Service available (cost)	Standard	£79	12.5% of RRP	N/A	12 Months free	£185 for 3 years
Extended Warranty Available	Yes	Yes	Yes	No	Yes	Yes
Sold through Dealers or Direct	Dealers	Direct	Direct	Direct	Both	Dealers



Olivetti	Rock Computers	Texas Instruments	Toshiba	Twinhead UK	Viglen	Manufacturer
Echos 48CP	Estima Sonata	TravelMate 4000M	400CDT	Slimnote 5	Dossier P5 Advanced Sound	Model Name
0181 785 6666	01753 567899	01784 212739	01932 828828	01256 811366	0181 758 7000	Phone No.
0181 780 8191	01753 567007	01784 212662	01932 852167	01256 811142	0181 758 7080	Fax No.
£3307	£2,946	£3,897	£4,440	£3,949	£3,716	Price of Machine Reviewed
						<b>SPECIFICATION</b>
i486DX4/100	i486DX4/100	i486DX4/100	Pentium 75	i486DX4/100	Pentium 90	Processor Type and Speed
16	16	20	16	16	16	RAM Supplied (MB)
24	32	20	40	32	40	RAM Maximum (MB)
540	510	524	770	810	540	Hard Disk Supplied (MB)
Internal	Internal	Internal	External	Internal	Internal	Floppy Disk (Int/Ext)
Two	Two	Two	Two	Two	Optional	PCMCIA Slots
Trackball	Trackball	Nipple	Nipple	Touchpad	Trackerball	Pointer Type
						<b>CONNECTORS</b>
Standard	Enhanced	Standard	Standard	Enhanced	Enhanced	Serial Port (Std/Enh)
Enhanced	Enhanced	Enhanced	Enhanced	Enhanced	EPP/ECP support	Parallel Port (Std/Enh)
No	No	No	No	No	Yes	IRDA Option?
						<b>DISPLAY</b>
TFT	TFT	TFT	TFT	TFT	TFT	Display Type
10.4	9.5	9.5	10.4	9.4	10.4	Screen Size (inches)
256	256	256	256	256	262,000	On-screen Colours @ 640x480
256	256	256	256	256	256	External Colours @ 1024x768
						<b>POWER SUPPLY</b>
NiMh	NiMh	NiMh	Lithium Ion	NiMh	NiMh	Battery Technology
4-6 hours	2 hours	3-5 hours	4.5 hours	3 hours	1.5-2 hours	Claimed Battery Life (Hours)
1.5 hours	2 hours	12-16 hours	2-3 hours	3 hours (not "in use")	8 hours	Claimed Recharge Time in use)
						<b>PHYSICAL SIZE</b>
28.6 x 21.6 x 4.4	28 x 23 x 5	21.6 x 27.9 x 4.9	29.9 x 23 x 5.5	30 x 39 x 10	27.8 x 22 x 4.9	Dimensions (WxDxH) cm
2.45	2.8	2.9	3.3	2.81	2.9	Weight with Battery (Kg)
						<b>DOCKING STATION</b>
Port replicator						CD-ROM option
No	Yes	Yes	No	Yes	Yes	Hard Drive option
No	Yes	Yes	No	Yes	Yes	PCMCIA Slots
No	No	Yes	Two type III	Two Type II	No	Network card, type
No	Option	PCMCIA Type II	PCMCIA	PCMCIA	Optional	Game port
No	Yes	Yes	No	Yes	No	Sound
No	Yes	Yes	No	Yes	Yes	Physical size (WxDxH) cm
-	41 x 34 x 16	19.9 x 11 x 7.3	29.9 x 23 x 5.5	32 x 40 x 13	38 x 36 x 14.5	
						<b>SOFTWARE</b>
Windows 3.11	Windows 3.11	Windows 3.11	Windows 3.11	Win 95 or 3.11	Windows 3.11 or Win 95	Operating System version
Lotus organiser	None	None	None	None	Works, Lotus Organiser	Business Applications
None	None	Jazz sound system	None	None	None	Multimedia Titles
None	Audio utilities	Utilities	Audio apps.	None	PCMCIA and Audio utils	Other
						<b>SALES AND SUPPORT</b>
1 year	3 years	1 year	3 years	1 year	1 year	Basic Warranty Length
On application	No	No	No	£39 : first year	£149	On-site Service available (cost)
Yes	No	No	Not from Toshiba	Yes	Yes	Extended Warranty Available
Dealers	Direct	Dealers	Dealers	Dealers	Direct	Sold through Dealers or Direct



# Every modern craftsman needs



the best  
tools  
for his work.....

In this world of ever changing technology, Opti is a constant leading force, with it's award winning portables such as the Platinum & Chameleon.

We are now proud to present the 90/75MHz OPTI PANTERA, which is a major leap in 64 bit portable technology. "A P90 Pentium machine that provided the fastest PC bench 95 figures we've ever seen, even beating 90MHz desktop Pentium fliers", according to PC Direct Magazine March 95. With such a machine it's potential uses are endless, from Research to Design, Education and Finance.



**OPTI**  
outside



intel  
**pentium**  
PROCESSOR



The OPTI Pantera series is structured around a 64 bit PCI Local Bus architecture, which compliments its 10.4" STN or TFT screen, both of which offer simultaneous display up to 1024x768 with 256 colours, or 24 bit true colour at lower resolutions. A built in Soundblaster Pro 16 compatible soundcard, giving 16 bit stereo recording & playback. For storage, options to upgrade the new enhanced IDE hard disc from the standard 360MB right up to an amazing 1 Gigabyte. It's 8MB ram is expandable in easy stages up to 40MB, add this to the endless PCMCIA plug & play options, and the PANTERA is a irresistible system for all users.

The Platinum 486 series is still our number one selling portable, and our new range of PCMCIA expansion cards offer greater expansion for any notebook. Our investment into Research & Development allow our technologies to be used in other products, such as the innovative flat screen display, eliminating the need for an external monitor, or our PCMCIA CD ROM that takes its power directly from your notebook.

All of OPTI's products are given a Peace of Mind, 3 Year Warranty. So when you're looking for the latest in upgradable technology at an affordable price, look no further than OPTI. You can view the complete range via our countrywide network of dealers.

For more details, simply return the coupon or call **0181 507 1818**. Our 24 hour Information center is also available on **0181 507 7070**.



**Yes, please tell me all about the new PANTERA.**

I'm also interested in other OPTI portables, PCMCIA products and other OPTI peripherals. (please tick)

Mr/Mrs/Ms (Initials) \_\_\_\_\_ Surname \_\_\_\_\_

Job Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_ WPC 09/95

We'd like to advise you of future products & offers. If you do not wish to receive these please tick here.

OPTI INTERNATIONAL LTD, FREEPOST RM 652,  
Barking, Essex, England, IG11 8BR



Products Only

**WHAT PC?**

"Opti's Pantera.. looks set to become the standard, Pentium 90MHz notebook with Dual-Scan Colour screen and a specification generous enough to match its powerful processor."



"The OPTI provided the fastest PC bench 95 figures we've ever seen, even beating 90MHz desktops Pentium fliers."



"performance of a Ferrari or a Porsche,"

**PC POWER**  
5/5 Value for Money

**PC PLUS**  
Value for Money Award



\* Subject to availability. All specifications subject to change without notice. All prices are subject to VAT & delivery. PANTERA is a trademark of OPTI International Ltd. All trademarks acknowledged. Terms are strictly checked payment prior to dispatch. Battery life is measured with power management enabled and may vary according to usage. Intel Inside is a trademark of Intel Corp. Unauthorised returns are not refundable and may be subject to a restocking fee. Stock items dispatched same day of order (before 4.00pm). All systems supplied with 3 year manufacturer warranty - 18 year parts & labour. 24 hour customer support and corporate welcome. All trademarks acknowledged. Logo above are either for illustration only. 60/100 network cards only to the advertised products. OPTI is not responsible. It is accepted by OPTI for any misprints with this advert. Uniclass & VARS welcome.

Whether you're just sketching outlines or mastering the art of serious 3D modelling, there's something here for you. Tim Nott is hit for six.

# 6 of the best

Last time we took a group look at CAD software, we covered almost everything currently available. This time we've been more selective, limiting the choice to just six applications chosen because they're either new, important or interesting. Prices range from under £100 to over £3,000, so there should be something for everyone.

## Contents

<b>AutoCad Release 13</b>	<b>198</b>
<b>Microstation 5.0</b>	<b>199</b>
<b>Microstation Powerdraft 5.5</b>	<b>200</b>
<b>Visual CADD</b>	<b>202</b>
<b>FloorPlan Plus 3D 2.0a</b>	<b>202</b>
<b>Drafix Quick Cad</b>	<b>205</b>
<b>Add-ons</b>	<b>206</b>
<b>Table of features</b>	<b>206</b>

### AutoCad Release 13

The big daddy of them all, AutoCad has been around since 1983, but only recently has it embraced the Windows interface. This version comes with both DOS and Windows versions on the same CD. Because of its longevity, one of the most important factors to Autodesk is backwards compatibility — ten years is several generations in terms of software development, but a short time in a large building or engineering project.

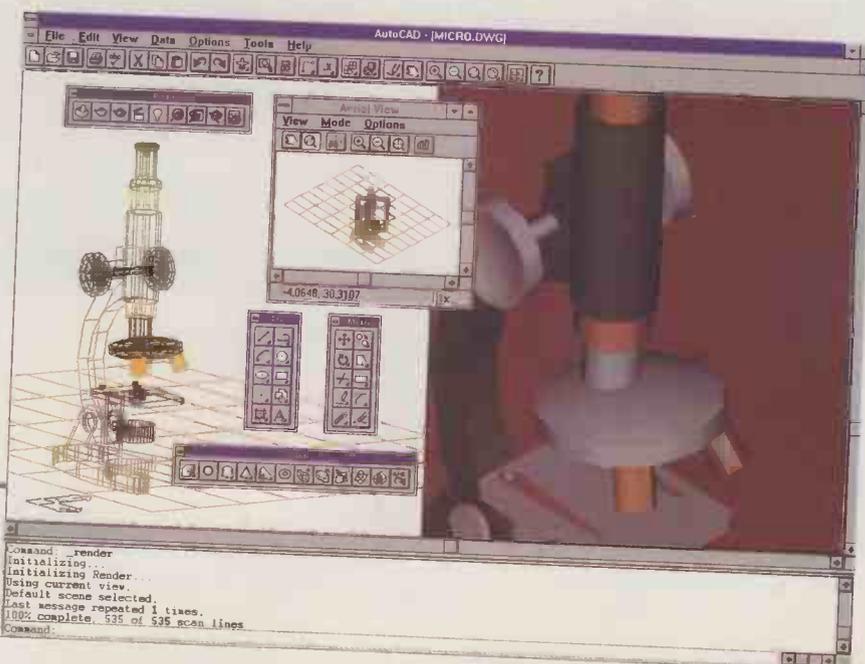
Compatibility is not just a question of file formats: there's the question of customisation, scripts and programming languages, and interface essentials, which is why you'll find — unusually in a Windows application — a command-line interface at the heart of the matter. A time-transported visitor from the 1980s could sit down at this version and type "LINE 2,2 2,3" and get the accustomed result. Though most, if not all, commands can be now accessed from buttons and

menus, it's still essential to be able to type in precise co-ordinates, and the command-line window also provides a 400-line scroll-back history of commands.

AutoCad is a huge and extremely powerful 2D and 3D modelling package, and a full feature list would take up

the whole of this article, so I'll confine myself to concentrating on what's new. Despite its cumbersome heritage, this release is a vast improvement over version twelve in terms of ease of use. There is a generous amount of on-line help and documentation, ranging from hypertext

Release 13's brand new Windows interface in action



"What's new" and "Getting started" overviews, through a series of detailed tutorials, to a complete reference on the CD, complementing several bookshelf-inches of printed material.

The first pleasant surprise is that there is now a thumbnail preview option in the "File/Open..." dialogue. Although this would seem a basic user right, consider that until recently DOS AutoCad veterans had to view a list of files, remember the filename they wanted, then clear the screen before typing in the filename.

There have been great leaps forward in toolbars. Version twelve heaped everything into one big messy palette. This time there are multiple, place-anywhere toolbars for drawing, modifying, dimensioning, zooming and so on. They all have tool-tip bubble help, and can all be customised by dragging and dropping from a palette of available commands. Autodesk has also discovered fly-outs, centre and radius, three points, and so on. An oversight here means the right mouse button, or digitiser "enter" button, which traditionally repeats the last command, reverts to the default, so if you've just drawn a three-point circle, you'll be

switched back to centre-radius.

Another welcome change, and the sort of thing that users of humble illustration packages take for granted, is that hatching (pattern fill) is now associative. The hatch command can now also automatically detect "holes" in an object without having to select the object and all its holes individually. Clicking on an object with no active tool selects it for editing, again a Windows drawing *de facto* standard.

Other things haven't changed. You can't have more than one drawing loaded at once, and the arrangement of views is still most un-Windows like. And there are still some aspects of the button-bar interface that have a way to go: buttons don't "stick down" to remind you of the current selected tool, and the interface for object snapping is still rather awkward. You can snap to the end or midpoint of a line, for example, on a one-off basis from a button bar. To set up running, multiple snaps — say you want to snap to ends of lines and centres of circles until further notice — you have to open and close a dialogue box. AutoCad's tiny sibling, Autosketch, does this much better, with one button bar with active snaps shown "pushed in".

Three-dimensional drawing is never easy, but view management has been made a lot easier by the inclusion of a simple visual protractor-style control for establishing the angle and elevation of the view point. Boolean operations — adding and subtracting intersecting solids — is now much easier, and rendering options now include Phong as well as Gouraud methods. Text can be handled in paragraphs, there's a spelling checker, and for real power drawing, multilines can now consist of up to sixteen parallel lines of various styles and colours.

### PCW Details

#### AutoCad Release 13

Price £3,150

Contact Autodesk UK 01483 303322

**Good Points** Vast improvements to both the Windows interface and the online help with this release. Powerful, flexible and accessible to third-party development.

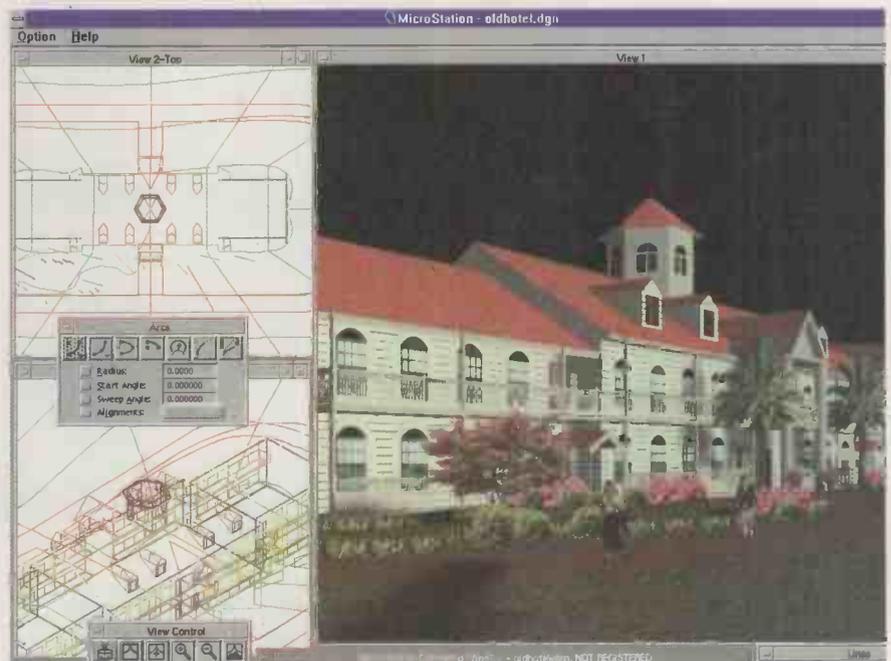
**Bad Points** Expensive and complex — still requires dedication and training.

**Conclusion** Undoubtedly the industry standard, but not for the casual user.

### Microstation 5.0

Formerly distributed by Integraph, Microstation's developers, Bentley Systems, have now taken control over their own destiny. Though not a native Windows product, the "Windows Connection" enables it to run under Windows 3.x. You get a choice of interfaces, with either Windows-style buttons and dialogues, or the more elegant Motif interface, which is surprisingly like Windows 95. The only radical difference for Windows traditionalists is that the menu bar and status line are enclosed in their own free-range window. Despite this eccentricity, the interface is superb. The main toolbox has fly-outs, in the usual manner, but these can be torn off and dragged elsewhere on the screen, so you can have the tools you want to hand in the area you're working. They also expand to show the options for the current tool — the number of sides to a polygon or numeric input boxes for line length and angle, for example.

Much use is made of "cells" — usually referred to as blocks or symbols elsewhere — that consist of small drawings grouped in libraries that can be used over and over again, such as nuts and bolts or standard architectural fittings. Cells have other uses, too: they can be



employed as a pattern fill, such as brickwork, or as line terminators. A special kind of cell is "dimension driven": when you place one of these you have a list of dimensions that you can change on the fly, so one cell of a gasket, for instance, could have a variety of hole diameters and spacings.

*Superb 3D visualisation and rendering in Bentley's Microstation*

Microstation excels in 3D construction and visualisation. Although you can only load one drawing at a time, you can have

up to eight views of it and switch between them seamlessly. Say you want to draw a truncated cone. You pick the appropriate tool from the 3D objects menu and define the base centre and radius in plan view. Move the pointer over to a side view and you can click in the height, before moving back to plan to define the top radius.

There's far more here, though, than drawing simple primitives such as boxes, spheres, cylinders, cones, wedges and tori. Say you want to draw some ducting. You draw the centre line, which can meander in three dimensions, then extrude the cross-section of the duct along the line. You can define surfaces from independent curves such as contour lines, weave a mesh between joined sections, or extrude a skin between two different shapes along a curve.

Having created 3D objects and surfaces, the range of things you can do with them is also rather impressive. You

have a similar range of editing tools as in 2D, so you can trim surfaces to an intersection, cut holes in surfaces, or stretch them to fit a new curve. Especially useful is the fillet tool: with this you can round off or bevel the intersection of two surfaces, to create, for example, a smooth joint between a pipe and a flange instantly.

For visualising a 3D design, the built-in rendering features are superb. You can assign "materials" to objects, control natural and artificial lighting, and cast shadows. You can even add bitmapped pictures to a model: the trees and figures in the screenshot are transparency-masked bitmaps projected onto simple transparent blocks. Further rendering options include a stereoscopic effect and the creation of animated "fly-throughs".

There's the essential facility to attach text or numeric data to objects for database export, import filters for DXF, CGM and AutoCad 12 DWG files, and special

consideration is given to workgroups with the use of reference files. Using these is like electronic tracing paper: you can draw "on top", and connect objects to those in the reference drawing, without modifying the latter. So members of a team can work, for instance, on various aspects of a building project, secure in the knowledge that no-one has moved the walls.

### PCW Details

#### Microstation 5.0

Price £3,495

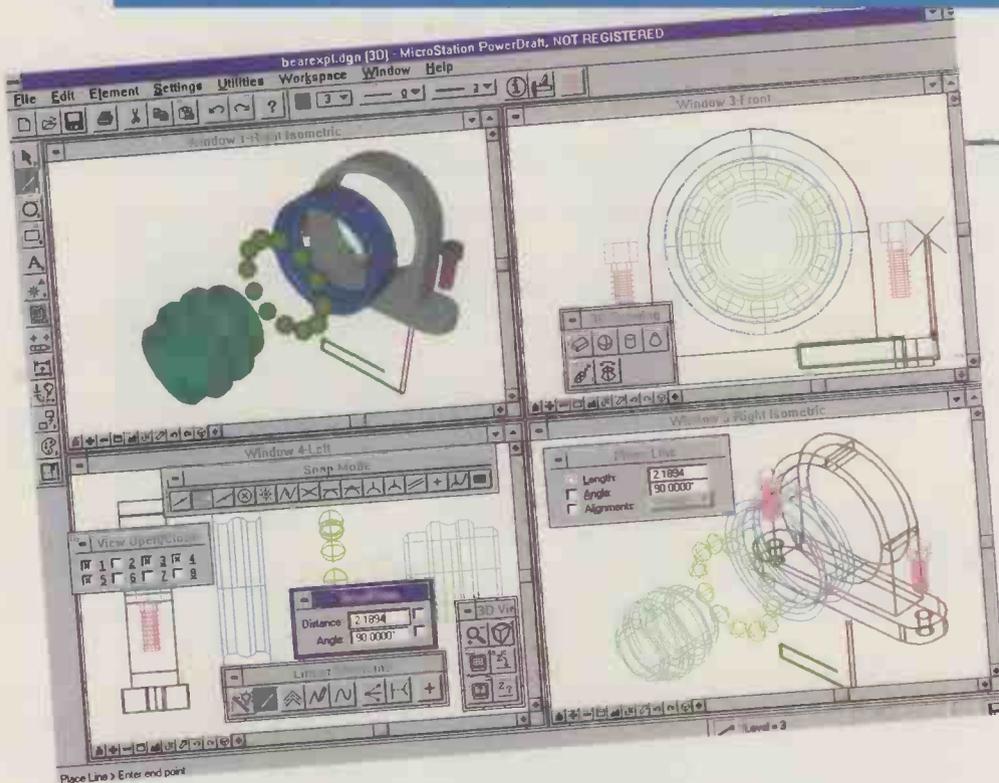
Contact Bentley Systems (UK)  
01344 412233

**Good Points** Well-designed interface, superb 3D modelling and visualisation features.

**Bad Points** Needs updating to stay with the 32-bit competition.

**Conclusion** Number two in the CAD market — but it does try harder.

### Microstation Powerdraft 5.5



*Powerdraft's Accudraw makes 3D drawing easier*

bottom scroll bar. As with Microstation you can have 63 levels and you can turn off the display of things such as dimensions or construction lines.

Every 2D drawing tool you could think of is here, including Smartlines. These let you switch between arc and straight segments on the fly, much like polylines elsewhere, but also let you chamfer or round off vertices automatically as you go. Snapping to objects takes a little getting used to: you have to press the "Tentative button" (both mouse buttons) then confirm, cancel or try again with a second click. You can either use the default or a one-off, and although you don't get the AutoCad flexibility of multiple running snaps, objects have keypoints — ends of lines, quadrants and centres of circles — which can be further subdivided to include midpoints and octants, for example.

Another great aid is Accudraw. With this active, you get a co-ordinate box that automatically has the keyboard focus, and the mouse is also affected — a cross appears and as you move to a near-right angle the line direction snaps. The really clever bit is that you can reset the axes of the cross on the fly to draw a series of lines at right angles to each other but rotated to the main

Also from Bentley Systems, Powerdraft is not so much a cut-down version of Microstation as a new application in its own right, despite the "5.5" tag. For a start, it's a true 32-bit Windows application — according to the documentation it runs under Windows 3.1, with the supplied Win32s extensions, and NT. It also ran under the beta Windows 95, and a DOS version is again supplied

on the CD. It has a similar fly-out and tear-off button interface, this time with bubble help, but the tool settings dialogue is a separate, context-sensitive box, which is somewhat more economical in terms of screen space. Like Microstation and AutoCad you can also key in commands. You can have up to eight windows on the same drawing, and — a good touch — each has a set of zoom and pan buttons tucked in beside the

# IS THERE A TAX REBATE WAITING FOR YOU?

Introducing QuickTax – the fast, easy way to do your Tax Return.

*You know exactly what you have to do. You've received your Tax Return from the Inland Revenue. You've been putting off completing your Tax Return and now the October 31st deadline is getting closer.*

With QuickTax Return 1995, the UK'S BEST-SELLING PERSONAL TAX SOFTWARE, all your apprehensions of completing your personal Tax Return will evaporate.

**Quick to get started.** Get started on filling in your Tax Return straight away. The extensive on-line guidance, brilliant on-screen program introduction, and simplified manual will show you exactly how to use QuickTax and what particular features will do for you.

**“The program and Manual for QuickTax are excellent. I was able to use it within minutes”**  
Roland Reid, Cheshire

**Fast and Easy Tax Returns.** QuickTax makes completing your Tax Return fast and easy, all in the comfort of your own home. Simply follow the step-by-step on screen interview, enter your information where you're asked to and leave QuickTax to do all the calculations for you.

**“QuickTax is extremely easy to use and... will hold your hand throughout your tax return”**  
PC Magazine, July 1995

**Like having your own personal tax expert by your side.** Each step of the way QuickTax gives you expert help in down-to-earth language and is full of easy to follow examples. You'll learn which allowances and deductions to claim, how to minimise the tax you pay on benefits like a company car. And if you've got investments like stocks and shares, QuickTax will speed through capital gains calculations for you.

**“The help menus are well structured, providing fast and direct routes to your answers”**  
PC Magazine, July 1995

**Free Unlimited Telephone Helpline.** If you find that you have a query when using QuickTax, then call our Free Technical Support service and speak to a trained operator.

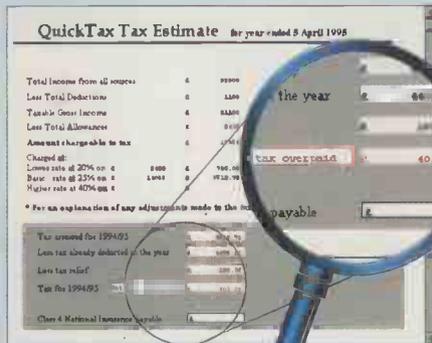
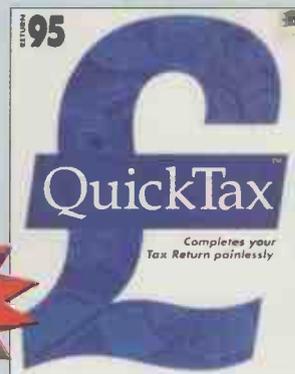
**Put an end to Inland Revenue paperwork.** QuickTax will thoroughly check your Tax Return to make sure there are no inaccuracies or omissions before you send it off. So now you can be certain that once you've sent your forms off to the Inland Revenue that will be the end of tax paperwork until next year.

**“An excellent idea... well-implemented and very user-friendly”**  
Peter Tyler, South Molton

**Learn the truth about your tax position.** Find out if the Inland Revenue owes you money by using the information which you have entered into QuickTax. At the click of a button QuickTax will instantly calculate your tax liability for you. So you will know if you need to save for a tax bill or can make a claim for a tax rebate.

**“QuickTax is excellent! And it saved me £600”**  
Alan Jordan, Glasgow

**£49.95**  
inclusive



**All QuickTax Forms are pre-approved by the Inland Revenue.** Once you're satisfied that you've entered all the necessary information just print out your QuickTax Return onto ordinary A4 paper and send it in to your tax office. The Inland Revenue approves QuickTax Forms – Form 11 for the self-employed and Form 11P for the employed.

### The latest Self-Assessment Information.

QuickTax will give you the latest information on who Self-Assessment affects and what you will need to do to be ready for it. For example – did you know that **you** could be obliged by law to keep records of your income from April 1996?



### Save time and money next year too!

QuickTax will be updated every year to take account of all the new tax rates in the chancellor's budget. So next year simply buy a cut price upgrade of QuickTax and you'll get your tax form completed in half the time at half the price. The annual QuickTax upgrade will read all the data you've already entered, help you to make any changes and check you are taking advantage of all the new tax allowances that could reduce your bill.

### Try QuickTax Return 1995 today! Risk Free!

QuickTax comes from the World's leading producer of tax software. We're so confident that QuickTax will make completing your Tax Return fast and easy, we offer a 60-day money back guarantee if you're not 100% satisfied.

Try QuickTax risk-free for 60 days and find out whether you are entitled to a tax rebate. Order your copy today – choose QuickTax for only £49.95 (inc. UK P&P & VAT).

Order by phone: Call us on

**0800 585058**  
and quote Ref QTINT

today quoting your credit card details.

- **Order by fax:** Fill in this coupon with your credit card details fax it to us on 0181 759 2077.
- **Order by Post:** Return this coupon with your cheque or credit card details to: Intuit Ltd, Manor Court, High Street, Harmondsworth, West Drayton, Middlesex. UB7 0AQ.
- **Ordering from Overseas:** If ordering from outside the UK call: +44 181 990 5500 to confirm shipping charges.

Name \_\_\_\_\_

Statement Address: \_\_\_\_\_

Postcode: \_\_\_\_\_

Telephone: \_\_\_\_\_

Please charge £49.95 to my:

Visa  Access  American Express  Delta

Card No.: \_\_\_\_\_

Expiry Date: \_\_\_\_\_

Card Holder Name: (if different) \_\_\_\_\_

- Tick this box if you do not wish to receive future mailings from Intuit.
- Tick this box if you do not wish to receive future mailings from third parties.

\* Please give details on a separate sheet (and attach) if delivery address differs from billing address. Please allow 14 days for delivery. 98% of deliveries occur within 3 days.

drawing axes.

Compared with Microstation, the 3D facilities are somewhat spartan. You are limited to "primitives" — spheres, cones and slabs created directly — or solids formed by extruding a shape in a straight line or round an arc. Although you can twist and scale the object along a line, you can't create more complex surfaces such as one defined by four 3D curves, like a car roof. On the positive side, view

management is simple and efficient with interactive "cube" controls for rotating the viewpoint and applying perspective. As with Microstation, you can start an object in one view and finish it in another, and the Accudraw feature is especially useful here. There's a more limited rendering feature, and though it doesn't support the Microstation Development Environment, there's a Basic-style macro language.

**PCW Details**

**Microstation Powerdraft 5.5**

Price £1,895

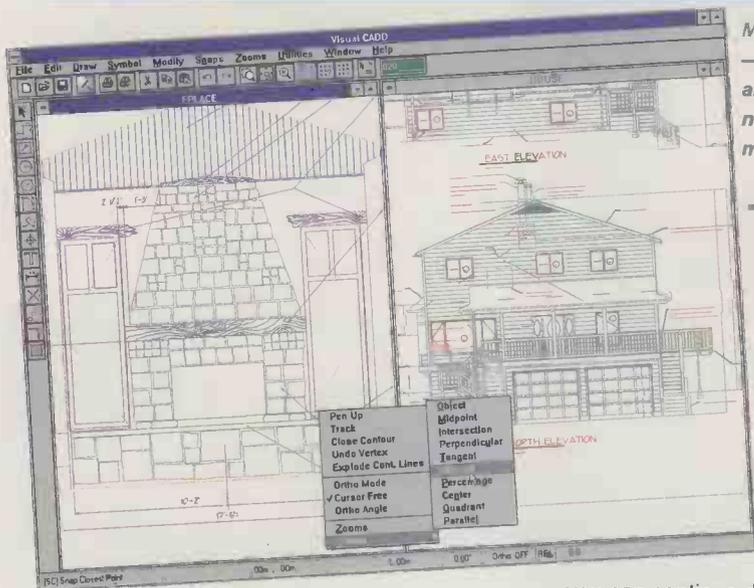
Contact Bentley Systems (UK)  
01344 412233

**Good Points** Ease of use, with some clever drawing aids.

**Bad Points** Spartan 3D facilities makes it look rather overpriced.

**Conclusion** Go the extra for Microstation if you want more than the basics of 3D.

**Visual CADD**



**Multiple drawings — but not views — and Visual CADD's nifty right-mouse menus**

rectangles, where you define a line at any angle for the height, then stretch out the width. Similarly, the "ortho" constraint can have its origin changed, so

you can continue drawing lines at right-angles to each other but at an angle to the drawing.

The secret weapon in the interface is the use of the right mouse button context-sensitive menus. If you're drawing a polygon, for example, this menu will include a choice of the number of sides. When drawing lines, this gives options to undo the last section, switch snaps and constraints on and off, zoom in and out, and so on. Another excellent feature is the "Track" command. This is rather like drawing without ink. Say you want to start a line at a precise but awkward spot, such as on a circle, 2.5 units left from the top quadrant point. With tracking on, you'd snap to the quadrant, enter the units from the keyboard, then with ortho on, snap down to the nearest point on the circle. Turn off tracking and you're ready to start

the line, which saves a lot of time drawing and erasing construction lines. Backward redraw is another time-saver: as its name suggests this reverses the order in which the screen is redrawn, and with this turned on, you can update the display of the last few objects created, press Escape, and carry on working without having to wait for the entire view to update.

There are some surprising omissions. Although this is a 2D package, I did expect to see some aids for isometric drawing; the ortho rotation helps a little here, but not as much as a proper isometric constraint or grid. A more serious failing is that although you can have more than one drawing open, you can't have multiple, linked views of the same drawing. Finally, a strong selling point is Visual CADD's open architecture, enabling third parties to create custom add-ons in Windows-based programming languages such as Visual C++ or Visual Basic.

**PCW Details**

**Visual CADD**

Price £495

Contact FastCAD Europe  
01923 246427

**Good Points** Open to third-party programming, good drawing aids and interface.

**Bad Points** Limited to 2D, no multiple viewports on same drawing.

**Conclusion** Expensive for a general-purpose 2D drawing package, but its programmability makes it attractive to vertical markets.

**FloorPlan Plus 3D 2.0a**

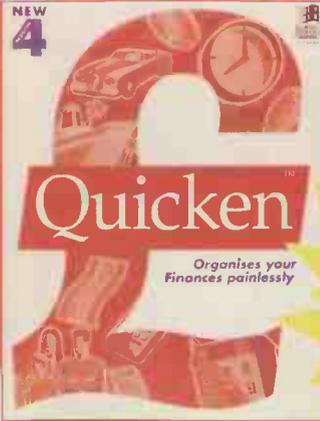
**F**loorplan is a 3D application specifically for architectural modelling. As such, as well as the regular drawing tools for lines, ellipses, rectangles etc, it has tools for floors, walls, pipes and stairs, with symbol libraries of doors,

windows, furniture and fittings. All drawing is done in 2D plan view, a floor at a time. Create a floor slab, then place walls — you have a choice of styles, which you can add to or edit. Next select the door tool, choose a door style, pick a

wall and slide the door into place. An opening is automatically created in the wall, and the same trick works with windows — even arched ones.

Having completed the first storey, you can move upstairs: up to 20 levels are

# Sort out your finances in 42 minutes. Or your money back!



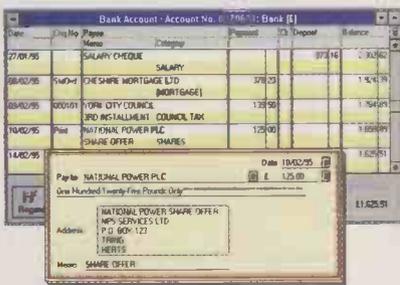
**£49.95  
Inclusive**

**Imagine a no-risk opportunity to take complete control and make the most of your money.**

Have you ever resented the time it takes to sort out your bills and statements? Do you find that just keeping up-to-date with your finances can be a real hassle?

**The fastest, easiest way to organise ALL your finances – Guaranteed!**

Imagine having New Quicken and the power of your PC do the hard work for you. It's simply the fastest, easiest way to keep your records accurate and up-to-date. Most Quicken users achieve this peace of mind in less than 15 minutes each week!



Quicken looks and works exactly like your cheque book and bank statement – it's that easy!

**All your key information in one format and one place.**

With Quicken, you'll see your whole financial picture in one go, it's effortless to:

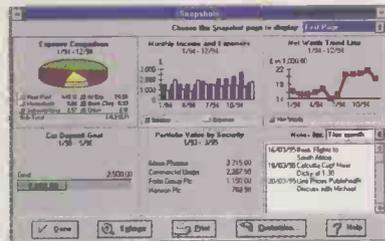
- Analyse your spending
- Tally your standing orders with your bank statement
- Understand exactly where your money goes
- See a projection of your financial future, based on your current spending and savings patterns
- Monitor your investment portfolio
- Keep the books for your small business, club or charity

**Get the 'Big Picture' of your finances.**

You'll instantly see what you spend most on, how this compares to last month, last year or to your budget. It gives you the 'Big Picture' of where you stand and shows you the fine detail behind any summary at the touch of a button.

**How does Quicken work?**

Quicken soon learns how you spend, earn, save and invest. You often shop at the same places, eat at the same restaurants and pay the same bills. Record a transaction once, and so next time you need only change the date and edit the amount. And it automatically records standing orders such as your pension, mortgage and salary. It even reminds you as forthcoming bills fall due!



Quicken gives you 'The Big Picture' view of your finances, using the clear, easy to read reports and graphs of your choice.

**How do I get started?**

Getting to know Quicken couldn't be easier. Just run through the tutorials (less than 10 minutes even for a complete computer novice). And if you need further advice just call our Free Technical Support line. Get your last bank statement and type it in once. Then you're ready to go. Sit back as Quicken shows you exactly where you stand and where you're going.

**Try Quicken and see for yourself why 8 million users worldwide have made it the most popular financial software ever!**

**NOW SORT OUT  
YOUR FINANCES  
RISK FREE FOR  
60 DAYS!**

Buy Quicken and use it for 60 days. If you are not 100% satisfied then return it to the place of purchase for a full refund.

*"I don't enjoy the nitty gritty of organising my finances but I do enjoy using Quicken. Quicken does all the hard work for you and answers any questions you may have - at any time."*

Mr A Frodsham

*"Monitoring the state of our finances is as easy as clicking a mouse - Quicken is what makes a home computer worthwhile for our household."*

Mr WR Johnson

*"I would not be without it. It has saved me from overdraft and shows me new things about my finances each time I use it."*

Mrs J Reeder

**CALL US FREE NOW ON**

**0800 585058**

**AND QUOTE THE REFERENCE BELOW**

PLEASE SEND ME: REF: QNPCW/10/95

**Quicken 4 £49.95**  
(Includes p&p and VAT)

(If ordering from outside the UK, please call +44 181 990 5500 to confirm shipping charges)

**TO ORDER:**

Fill in this coupon and post it with a cheque or your credit card details to Intuit Limited, Manor Court, High Street, Harmondsworth, West Drayton, Middlesex UB7 0AQ, or Fax on +44 181 759 2077.

Name \_\_\_\_\_

Statement address\* \_\_\_\_\_

Postcode \_\_\_\_\_

Phone no \_\_\_\_\_

PLEASE CHARGE MY:



Card no \_\_\_\_\_

Card Expiry Date \_\_\_\_\_

Card Holder Name (if different) \_\_\_\_\_

\*Please indicate elsewhere if delivery address differs from billing address. Please allow 21 days for delivery. 98% of deliveries occur within 6 days of placing an order.

**Quicken, the world's best selling finance software. Available from:**

**Currys**

**Dixons**

**TEMPO**

**PCWORLD**

**makro**

**TECHNOMATIC**

**JOHN LEWIS PARTNERSHIP**

**Office 1**

**STAPLES**

**ES.COM**

**Micro Anvika**  
Computer solutions



**GAME**

**Byte**  
The Computer Superstore

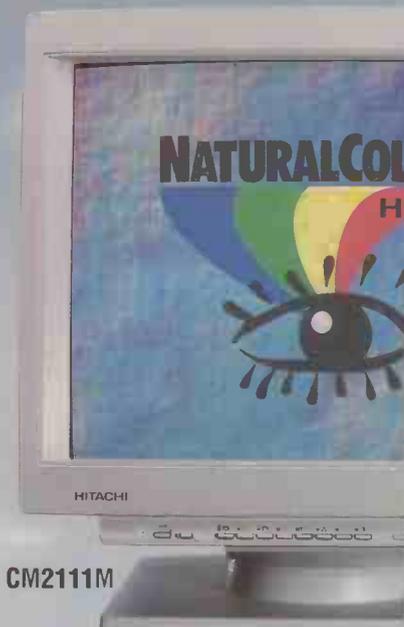
**Computer**

# Hitachi's new monitors...

■ Sharpest picture yet! Horizontal pitch of 0.22mm on all models.

■ Eco friendly MPR-II, Nutek and Energy Star compliance.

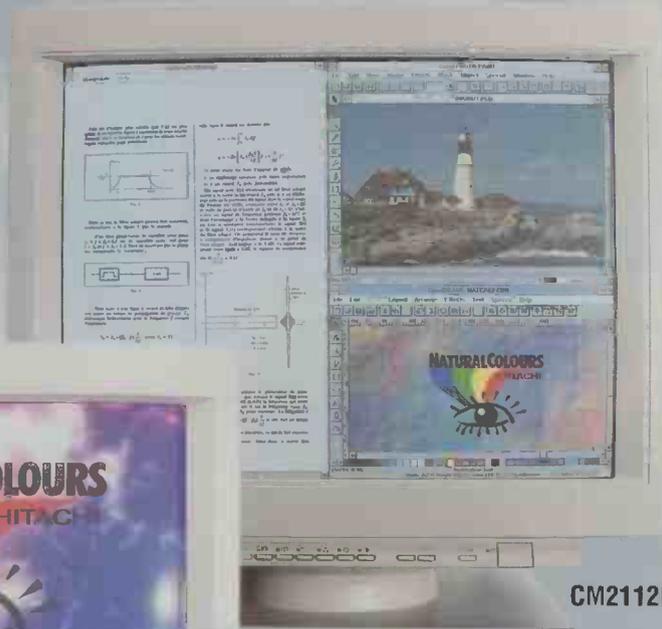
■ Increased phosphor area means better user control over brightness and contrast.



CM2111M



CM1711M



CM2112MET

■ Microprocessor controls with on-screen displays for easy setup and adjustment.

■ Plug & Play with DDC compliance.

■ Flicker free!

■ New phosphors give wider colour gamut for even greater image fidelity.

Model	Max. flicker free resolution
CM1711M	1280 x 1024 (75Hz)
CM2111M	1600 x 1200 (75Hz)
CM2112MET	1600 x 1280 (80Hz)
	1800 x 1350 (75Hz)



## ...don't buy a PC without one!

Improved technologies and new features mean the sharpest, clearest images, right out to the bezel. You just can't buy better monitors than these - so why accept less with your PC?

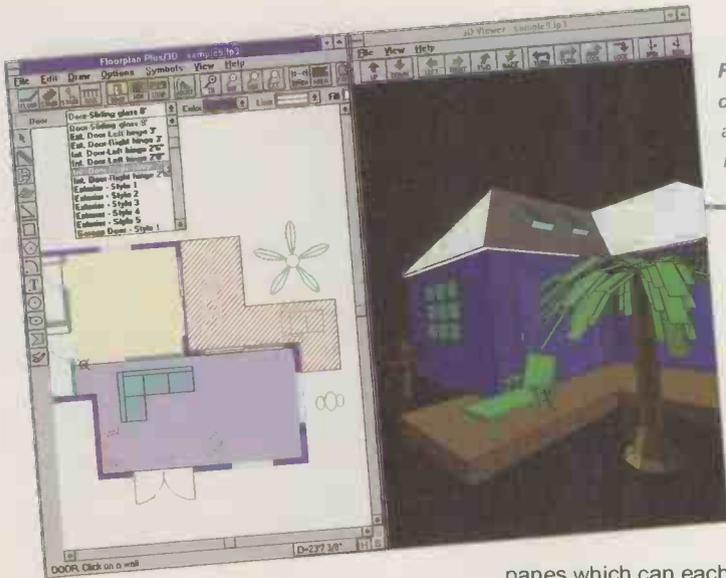
### FREE GUIDE!

We've put together a free guide explaining the technologies which make these new Hitachi monitors so good. For your copy call us now on **0800 605 605**.

# HITACHI

Business Systems Division

Tel: +44 (0)181 849 2092  
Fax: +44 (0)181 569 2763



*Floorplan — choosing a door, and right, the rendered 3D view*

supported, and the ground floor walls show through as a guide but are not editable. Objects are arranged in predefined layers — walls, floors, dimensions, and so on, so having drawn the next floor slab, you can turn it off to see the walls below again. Having created each storey, and populated it with 3D fixtures and fittings from the symbol library, it's time to

add a roof. The roof editor is a separate module, and here you get a more traditional view, split into three panes which can each be altered to top, front, side or isometric view. As well as being able to create plane surfaces, you can place dormers, skylights and chimneys.

The final part of Floorplan is the 3D viewer. Start this, specify a viewpoint, direction and height, and you see a perspective wireframe model of the 3D parts of your drawing. You can move through

and around this, and at any time render the viewport to see a solid model.

Precision drawing is not intended to be Floorplan's strong point. There's an adjustable grid to snap to, and walls will join to the previous segment, but that's about it — you can't snap to other objects or enter precise X-Y co-ordinates for a point. It is, however, very easy to use, and an ideal way of creating quick visualisations of simple architectural or room-planning projects. You can export both 2D and 3D DXF files, but unfortunately, not import them

### PCW Details

#### FloorPlan Plus 3D 2.0a

Price £149

Contact FastCAD Europe 01923 246427

**Good Points** Quick, easy and inexpensive.

**Bad Points** Can't import DXF files, short on accuracy.

**Conclusion** A remarkably cheap and cheerful way to produce 3D sketches.

### Drafix Quick CAD

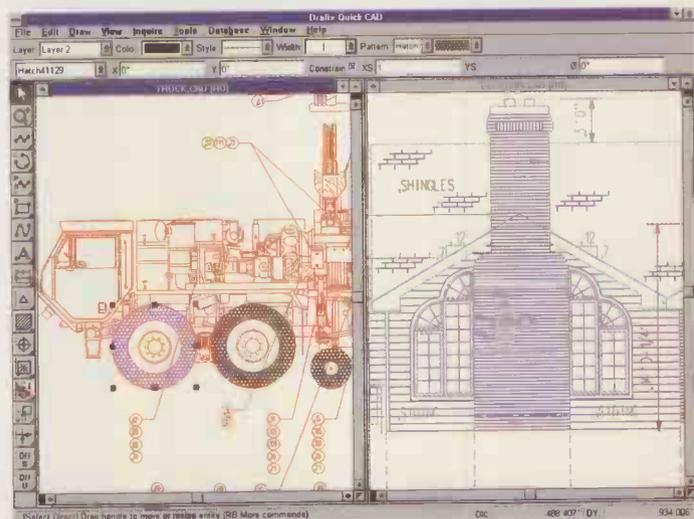
**D**rafix CAD was one of the first 2D CAD programs to appear as a true Windows application, and originally cost over £600. Over the years the price has dropped but there has been little change to the functionality, except that this version doesn't have macro capabilities: for these, you need Drafix professional version, at £199, which also comes with more extensive symbol libraries.

You can have multiple drawings open, multiple views of the same drawing and — rather redundantly — split a window into four panes. There's a wide range of import filters, including DXF and AutoCad DWG. There's but one toolbar, though this is available in "beginner, intermediate and advanced" flavours. Everything else fly-outs from here — zoom options, selection methods, ways of drawing a shape, and so on.

A status bar at the top of the screen shows the current layer, line width, colour and style, and below that, a properties ribbon shows the position and settings for selected objects. With this, you can do things such as change the number of sides of a polygon instantly. Though strictly 2D, there are a fine array of tools and drawing aids, including circular and rectangular arrays, trimming, bevelling, offsetting, and more. And it does merit

the title "Quick": redraws are encouragingly brisk and background redrawing means you can continue working as the screen updates itself — a major frustration-beater. Both dimensioning and hatching are associative — changing dynamically if the object is moved or altered. There are symbol libraries of common architectural, mechanical and electrical components, and an unusual feature at this price is the facility to attach hidden numeric or text data to objects. You could, for example, create an office plan with the purchase date and cost of each computer, the length and cost per metre of network cabling, and so on, and export this to a spreadsheet for costing the project.

My only personal grumble with Quick CAD is the rather inflexible use of object snaps. Unlike most products, where you can snap to a variety of points depending what's in range of the cursor "catch box", here you can only have one snap active at a time and you must use it. Another area that could be improved is the lack of aid for isometric drawing.



*Multiple files and a slick interface make Drafix Quick Cad a bargain*

### PCW Details

#### Drafix Quick CAD

Price £69

Contact Roderick Manhattan 0181 875 4400

**Good Points** Fast, well featured and easy to use.

**Bad Points** 2D only, slightly awkward snaps.

**Conclusion** Astounding value for money.

**Add-ons**

There's probably no such thing as a typical CAD user. The requirements of someone designing printed circuit boards are totally different from those of a heating and ventilation engineer or an architect. This is where the "open architecture" of the higher-end products is important. AutoCad has an astonishing level of programmability, starting with basic scripts, through Autolisp routines, Visual Basic, C++ and DDE, an example of the latter being a demonstration of an Excel spreadsheet that interacts dynamically with a drawing of a shaft. There are numerous add-ons available from Autodesk and third-party vendors, ranging from document management to enhanced 3D rendering, as well as libraries of symbols for all sorts of industries.

Microstation, despite its number two status in terms of user base, has a total of 600 independent developers with over 1,000 add-ons available via the Microstation Development Environment (MDE) and

Microstation Development Language (MDL). The future will see the development of Objective Microstation, with "intelligent" objects that model more closely real artefacts and can conform to "rules" such as the automatic selection of a fastening to suit material thickness and load. Powerdraft, too, though with limited MDL support and none for MDE, has a Basic-style macro programming language.

Despite its 2D status, Visual CADD is also dedicatedly open: its add-ons include "parametric" objects, where you can specify, for example, gear wheels by the number of teeth and diameter. There are text-handling and waterways add-ons, and under development are extras ranging from dress pattern design to scene-of-crime investigation. Drafix, meanwhile, will create databases and import symbol libraries, with a macro facility available in the Professional version, and Floorplan will import objects created in the budget 3D Design Plus.

	<b>AutoCad 13</b>	<b>Microstation 5.0</b>	<b>Powerdraft 5.5</b>
Supplier	Autodesk UK	Bentley Systems (UK)	Bentley Systems (UK)
Telephone	01483 303322	01344 412233	01344 412233
Price	£3,150	£ 3,495	£1,895
Min processor	386 + co-pro	386 + co-pro	386 + co-pro
Min memory	16Mb	8Mb	8Mb
2D/3D	3D	3D	3D
Layers	Unlimited	63	63
Multiple drawings open	N	N	N
Multiple viewports	Y	Y	Y
Macro language	Y	Y	Y
Development tools	Y	Y	Y
Rendering	Y	Y	Y
Customisable interface	Y	Y	Y
OLE	Server/Client	N	N
DDE	Y	N	Y
Database export	Y	Y	N
Symbol libraries	Y	Y	Y
Export formats	DXF, DXB, IGES, EPS, WMF	CGM, DWG, DXF, IGES	DWG, DXF
Import formats	DXF, DXB, IGES, EPS, WMF	CGM, DWG, DXF, IGES	DWG, DXF

	<b>Visual CADD</b>	<b>Floorplan Plus 3D</b>	<b>Drafix Quick CAD</b>
Supplier	FastCAD Europe	FastCAD Europe	Roderick Manhattan
Telephone	01923-246427	01923-246427	0181 875 4400
Price	£ 495	£149	£69
Min processor	386	386	386
Min memory	4Mb	2Mb	4Mb
2D/3D	2D	3D	2D
Layers	512	13 (preset)	256
Multiple drawings open	Y	N	Y
Multiple viewports	N	Only for roof editing	Y
Macro language	Y	N	N*
Development tools	Y	N	N
Rendering	N	Y	N
Customisable interface	Y	N	N
OLE	Server	N	Server
DDE	N	N	N
Database export	Symbol count only	N	Y
Symbol libraries	Y	Y	Y
Export formats	DXF, DWG, GCD	DXF, WMF, Estimator	DXF, DWG, IGES, WMF
Import formats	DXF, DWG, GCD	3D Design Plus	DXF, DWG, IGES, WMF

\*available in Professional version @ £199

# XARA Studio

INTERESTED  
IN GRAPHICS?

THEN  
IT'S TIME  
FOR A  
CHANGE!



Let us prove we offer the easiest to use graphics program, with the highest performance, by sending you a free CD containing a Studio graphic file viewer program (so you can see the speed and amazing screen quality for yourselves) along with example artwork, ScreenCam multimedia 'movie' of the program in action.

Xara Studio is a new class of graphics program combining the features from traditional drawing programs with some amazing new technology and performance levels.

- A brand new 32bit design
- Windows95 ready but also compatible with Win3.1
- The fastest drawing and illustration program around
  - Up to 20 times faster at drawing than Corel
- Real-time anti-aliasing for improved screen quality
- Ultra-smooth, instant drawing of graduated fills
  - Simple click-drag blending or morphing
  - Directly imports Corel CDR 3, 4 & 5 files
- Advanced 3D perspective and envelopes controls
- Full transparency control of all objects including bitmaps for photo-montage work
- Exceptional value for money, package includes:
  - 10,000 clipart items, 850 Truetype fonts,
  - 230 natural fill textures
- No quibble money back guarantee
- £199 + VAT (£233.82 inc) or for Corel owners just £99 + VAT (£116.33 inc)

All you need to do is phone FREECALL 0500 350000 and we will send you the free demo CD. Or you can ask for our brochure or place your no risk order.

Xara Studio is also available from selected dealers.



Gaddesden Place  
Hemel Hempstead, Herts HP2 6EX  
Tel: 01442 350000  
Fax: 01442 350010  
Email: Info@xara.co.uk

Hardware requirements: 486 processor with 8Mbytes RAM. Multi-media PC required to access all the fonts and clipart and multi-media help and demos. Corel is a trademark of Corel Corporation

FREECALL  
0500 350000

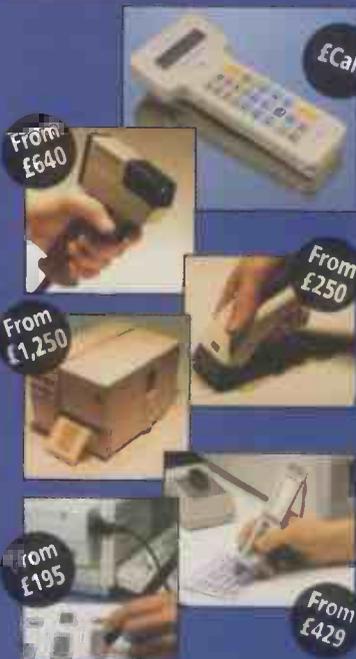


# The easy way to start using



S

Are you in need of local UK support? Looking for easy ways to Bar Code?  
Looking for HELP with your system? You've found it!



From £640

ECall

From £250

From £1,250

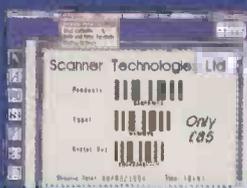
From £195

From £429

## Bar Code Readers

- Wand Scanners
- CCD Scanners
- Laser Scanners
- Slot Readers
- Portable Units
- Fixed Position
- Flat-bed Units
- Conveyor Laser
- Hands Free
- Memory Units

The Bar Code Specialists



## Bar Code Printing

- What you see is what you get
- Using the fonts of your office printer

Also available  
The Bar Code Book  
by Roger C Palmer  
£24.95

## FREE Bar Code Basics

From the Bar Code Specialists

With every scanner / program sold, our introductory booklet.

- Bar Code verification service
- Supplied with the connector of your choice
- 12 months R-to-D warranty - 2nd and 3rd Year Option
- Custom configured before shipment
- 48 hour repair turnaround
- Massive stocks held in the UK
- No Custom or Shipping worries
- Trade enquiries welcome
- Products are repaired by our own engineers
- 30 day money back guarantee on all hardware products

Call **today** for our **FREE**  
UK Sales & Service  
Order on **01734-770808**



## Scanner Technologies

Unit 1, The Sapphire Centre, Fishponds Rd, Wokingham,  
Berkshire RG11 2QJ, UK.



Prices subject to change  
Prices ex-VAT

## MICROMART INDEX

<b>A</b>		<b>K</b>		<b>S</b>	
Alpha Business Computer	311	Karlton Computers Ltd	294	Scanner Experts	314
A Plus P Computers	314	Komputer Knowledge	218	Soho Soundhouse	287
A1 Shareware	245	<b>L</b>		Squire International Ltd	294
Altek Instruments	301	Lasermoon Ltd	263	Super Money Savers	259
<b>C</b>		Linefeed	294	System Insight	257
Cafe Net	311	<b>M</b>		<b>T</b>	
CD International	220	Magnum Network Services	219	Tech-Mate (UK) Ltd	287
California Scientific Software	263	Mega Download	212	Teleadapt	311
Chaos	311	Microcosm Limited	301	Telesystems Ltd	221
Clove Technology	269	Microtronics Ltd	314	The Keyboard Company	275
Copymaster UK Ltd	275	Monitorman	271	The Legend BBS	218
Crofton Micro Systems	283	<b>N</b>		Themis (UK)	267
<b>G</b>		Netland (UK) Ltd	305	Trevan Designs Ltd	220
Green Business Company	314	<b>O</b>		<b>U</b>	
Greenman Toner Service Co Ltd	211	One Stop Software	263	Unilab Ltd	295
Graham Jacobs Associates	314	Online Now Ltd	218/220	<b>V</b>	
<b>H</b>		<b>P</b>		Vectorjet Ltd	261
Harper Collins	267/269	Permax Ltd	219	Vine Micros Ltd	283
<b>I</b>		Postech Ltd	211	<b>W</b>	
Ink Well	301	Print Revival	294	Wight Scientific	211
<b>J</b>		Prozess Software	259	Wise Imaging	259
JJA Ltd	283/289	<b>R</b>		Worthington Data Solutions	255
		Roland Digital Group	289		

# On the CUTTING EDGE

**W**elcome to Cutting Edge, the section in *Personal Computer World* that combines our regular reviews of games, books and CD-ROMs with features bringing you the latest news about computing, and consumer technologies and online services.

We now have the most comprehensive coverage of these topics available in a general computing magazine. Stay with us and we'll take the pain out of keeping on the cutting edge.

## PCW Online

- 2 1 0 **net.answers** — We tackle the vexed question of displaying World Wide Web pages. And does your screen saver slow your downloads? Stephen Cobb lends a helping hand.
- 2 1 4 **net.news** — This month's mixed bag features the ongoing campaign against porn on the Net, and France Telecom has big plans for fibre optics. Plus, what's new on the Web. Compiled by Joanne Evans.
- 2 1 8 **net.comms** — The watchword of today's comms is "convergence". Stephen Cobb takes a practical look at what's happening.
- 2 2 5 **net.newbies** — A shortened and simplified explanation of how to get online.

## PCW Futures

- 2 2 6 **Innovations** — Tim Frost on Nagra open-reel recorders.
- 2 2 9 **Horizons** — The cathode ray tube has a serious rival. Simon Rockman reports.
- 2 3 0 **Bluesky** — In part one of a two-part series, Nick Beard explores the realm of the supercomputer.
- 2 3 3 **Retro Computing** — Oh dear: just what was wrong with the Apple III? Simon Rockman thinks he knows.

## PCW Media

- 2 3 4 **Books** — Ben Tisdall selects some of the new batch of Internet books.
- 2 3 6 **CD-ROMs** — The human body laid bare, the World Reference Atlas, a very welcome wine guide, and the immortal Marilyn Monroe. It's all in a day's work for our reviewers.

## PCW Fun

- 2 4 1 **Kids' Stuff** — Paul Begg goes to PB Bear's birthday party, has an amazing art adventure, finds out how the leopard got his spots, and takes a trip to Zoo-opolis.
- 2 4 6 **Competition** — Top prizes to be won at the PCW Live 95 competition.
- 2 4 8 **Screenplay** — Fun with FX Fighter and Flight Unlimited.
- 2 5 1 **Leisure Lines** — Puzzles with JJ Clessa.



CD-ROMs:  
World Atlas

## Kids' Stuff: PB Bear



## Screenplay: Flight Unlimited



# net answers

## Are you being served?

Dr Andrew Chmielewski has asked whether it is possible "to create a Web page (using the WordPerfect 6.1 add-on for html documents, for instance), keeping my modem and computer switched on, and waiting for a Web Browser" — in other words, wait for someone to come to his computer and read his Web pages. "Would this work," he asks? "Obviously someone needs to know the URL, but if this were advertised, this URL would be known."

The correct answer — no — is a lot easier to give than the reasons for it, and a great deal shorter. I will start my explanation by observing that the World Wide Web is built on a client/server model. Web pages, written in hypertext markup language (html) are published on a server and viewed by client software. The programs that we call Web browsers, such as Netscape and Mosaic, are client programs. A different category of software, Web servers, are designed to respond to multiple requests to display Web pages to multiple users. The technical name for these programs is HTTP (HyperText Transfer Protocol) servers. There are HTTP programs for Macs, Unix, and Windows.

One of the roles of HTTP programs is to process input from users, other than simple requests for pages. For example, they switch to ftp if the user requests a file download instead of a page link. They also process information input into forms. This is where CGI (Common Gateway Interface) scripts come in. These take the data and supply it to other pro-

grams, such as a database storing names and addresses, in a form which makes sense to each program. They have to be scripted for a specific platform, so they are implemented differently under Unix, Windows and the Mac.

It might make sense for Dr Chmielewski to run WinHTTPD, available from various sites and also on CD. Then he actually could leave his machine on, connected to the Internet, and people could view his pages.

To return to the question of why someone cannot see the Web pages on your computer without a Web server, consider the two ways of loading pages into your Web browser: one way is with a URL, as in <http://www.ncsa.com>

The other way is to load an html file from disk (using File Open). Then the location reference is a disk address, as in <file:///F:/PAGES/MINE.HTM>

In fact, if you were to run the ftp program (file transfer proto-

col) and activate server mode, it would be possible for other people on the net to see your html file. But ftp only allows them to transfer it to their hard disk for local viewing; it does not "map" your drive to their system to enable them to load the file directly into a browser. In other words, ftp is not a full networking protocol, whereas the http protocol does allow direct access to html files that are served up by WinHTTPD. (Remember *not* to run ftp in server mode unless you want everyone on the net to have access to your machine.)

The http program provides the network service that allows someone else's machine to read a file directly from your hard disk into their memory, using a Web browser (without first having transferred the file from your machine to their own).

## Making contact

I empathise with Bernard, in Cornwall, who described himself as "floundering in ignorance".

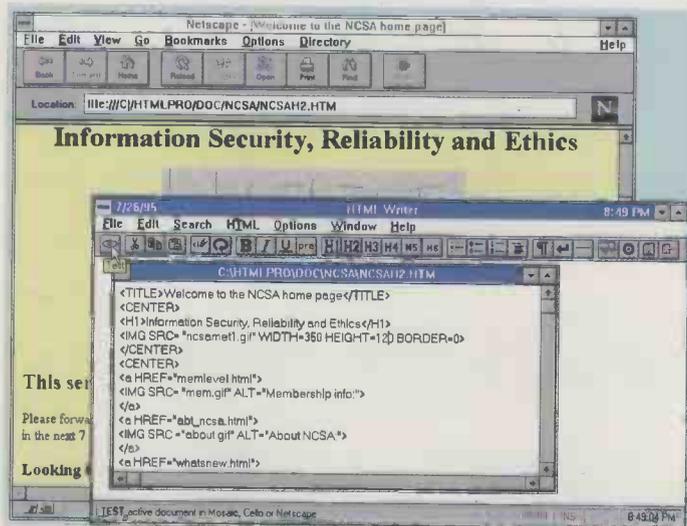
He is actually making good progress: witness the fact that he sent questions and comments to us by email.

Bernard thought that the free WinCIM disk was great: "But without manuals and so on I am wasting hours of my own time and, I suspect, hours of log-on time too." In fact, unless there was something wrong with the disk, it should have included an extensive Help file that acts as the manual. This is a very popular option for today's software publishers, but not always convenient for those of us who like to curl up with a good, old-fashioned paper manual.

Bernard posed the question: "I have been going through letterheads and business cards of people all over the place who I would like to contact. Those on CompuServe I can crack, as will be obvious if this ever gets to you. But what about all the other variants? It seems to me that you must first recognise the system a person is on, from cryptic clues within the address, and then you have to know how to re-code that into CompuServe language."

Unfortunately, this about sums it up for the moment. As far as email between different systems goes, we are still at the DOS command line level. In other words, you must decipher strange strings and enter the correct syntax, or your mail will not arrive. At the moment there is no trusty cyber-postie able to look at something which says 72662-546&compuserf.com and deliver it while muttering: "Aye, that hyphen should be a full stop, that ampersand should be @ and it's compuserf not *serf*, with only one "m" in com, d'ya ken?" But some mail systems are headed in this direction, as you will see later.

At least we now have links between all the major electronic mail systems, plus many bulletin boards. To send a message from CompuServe to an Internet user, put the INTERNET prefix ahead



The HTML code you get with a program such as HyperWriter, shown here, is viewed with a Web browser but served up with an HTTP server



of the address, separated by a space, as in

**INTERNET: cobb@iu.net**

If you receive a message from an Internet or Cix user, and operate under CompuServe Information Manager, simply use the From button to place the correct return address in your address book.

The Internet address for mail to someone on CompuServe is simply the person's number, with a dot instead of a comma, followed by @compuserve.com as in this example, which is my address:

**72662.546@compuserve.com**

For instance, if you are using CIX and want to mail someone on CompuServe you enter Send at the Mail prompt and, when you get the To prompt, you type the addressee's CompuServe number using a dot instead of a comma, followed by @compuserve.com as in the example above. There is a simple way of automating this in Cix: when you have read a message, use the Reply command which automatically enters the correct return address.

To send a message to a Cix user, from CompuServe, use the Internet prefix in the address, as

in:

**INTERNET:  
scobb@cix.compulink.co.uk**

Other service users are addressed in a similar fashion from CompuServe, as in **INTERNET: Stephen\_Cobb@msn.com** which addresses someone who uses the name Stephen\_Cobb on the Microsoft Network. I don't have an account with America Online, but if I did, the Internet form would be cobbie@aol.com. Obviously, if someone says "Send me an email, I'm SuzieQ on Cix" and you are not on Cix, you have to translate that statement into the correct syntax. For example, suzieq@cix.compulink.co.uk But unless you have the correct spelling you might be out of luck.

Guessing is always possible but can lead to embarrassing results. For instance, when renowned Unix-programmer Dan Farmer was planning to release the Satan security-checking program, I thought I would write to him. Since he was working for Silicon Graphics, and I knew that sgi.com was the company's Internet server, I addressed the message to dfarmer@sgi.com.

Or rather, I sent a brief test message to that address, just to make sure my "dfarmer" guess was correct (many companies use this type of naming convention, but others use first name+initial of surname, or both names in full with an underline connecting them).

After about an hour I checked to see whether the message had been returned. It had not, so I assumed that dfarmer@sgi.com was correct and sent a much longer message. Unfortunately, although the address was valid... it was the wrong Dan Farmer. Several hours later I received a very polite message from dfarmer@sgi.com saying that he had forwarded my message to the correct Dan Farmer and that this was a common mistake. Since then I have been more careful about my email assumptions — and about what I write in my messages.

Consider what might happen if you were to send a message to suzyq@foobar.co.uk telling her what a great time you had on your first date with her. If your typing were not so hot, the results could be very embarrassing. For example, if you were to type the letter z instead of the

letter f, someone at the company which makes cages for animals may get a good laugh (the word "foobar" is used by Unix programmers). Fortunately, if a message is wrongly addressed then a "Message returned to sender" typically comes back to you within a minute. Do not discard these without reading them: although they are machine generated they often include useful information, as we will see in a moment.

So how did I know that Silicon Graphics was sgi.com? Again, this was partly guess work, but the company runs adverts in which it refers to its Web site, www.sgi.com. Typically, the Internet server is the same name without the Web prefix. For example, if you see a Web link to www.ncsa.com you can assume that mail can be addressed to "someone@ncsa.com", where *someone* is a valid user name. Even if you send mail without a valid name, you may be well on your way to the correct address: I recently found, as a favour to a mutual friend, the email address of someone at Sun Microsystems in the UK. I started out by guessing that the

CUTTING EDGE

MICROWART  
CLASSIFIED

## BARCODE SCANNERS AND MAGNETIC CARD READERS

We import directly from hand picked manufacturers and distribute in UK all types of Auto-ID devices and PoS components. To prove the high standard of manufacturing, durability and resilience of our products, we offer 12 months warranty on every item we sell, and to prove our customer care, we pass the benefit of our buying policy directly to the public, with more competitive prices and generous terms. The variety of Interfaces we offer with every model makes our range particularly attractive to Integrators of PoS, Access Control, Security, T & A, Data Protection and Licence control systems and the simplicity of installation makes it ideal for the end users. Our list includes prices as low as:

- £120 for CCD scanners
- £ 35 for Light Pen/Wand barcode readers
- £ 65 for Slot/Swipe barcode readers
- £ 13 for magnetic card readers [single track]
- £ 29 for magnetic card readers [twin track]
- £350 for magnetic cards encoders

We shall be delighted to send a colour catalogue of our full range, provide competitive cost quotations or only discuss your requirement, just call us!

### POStech LTD

Unit 3b, Kingsway Court, First Avenue  
HOVE East Sussex BN3 2LQ  
Tel [01273] 746 816 Fax [01273] 771 516

## SIGNS!

Cost-effective DOS software (and the necessary hardware) for all types of signs, including paper posters, self-adhesive full-colour vinyl professional signs, and engraved and routed sheets.

**EasySign** – simple posters and banners on dot-matrix printers **£19.95**

**SignWriter** – advanced signs on all types of printers **£99.95**

**VinylWriter** – professional signs for plotter-cutters and engravers **£Ask**



9 Blackheath Hill, London SE10 8PB  
Tel: 0181-694 9293 Fax: 0181-694 8946  
Mastercard and Visa accepted

## COMPATIBLE TONER CARTRIDGES

OKI, IBM, CANON, COMPAQ, H.P., EPSON, RICOH, NEC, KYOCERA and much much more!!  
FOR PRINTERS FAX AND PC.

**FROM £26.00 SAVE 30%-60%**

### NEW/ NEARLY NEW LASER PRINTERS

**GOOD PRICING + GOOD QUALITY = GOOD VALUE**

FULL GUARANTEE UNDERWRITTEN AT LLOYDS OF LONDON.

### GREENMAN TONER SERVICE LTD THE LASER PRINTER COMPANY

TEL: 01372 748550  
FAX: 01372 748540

## Mega Download Internet

Bulletin Board  
0891 516 126

No Subscriptions

Full Download Access  
on your First Call

All Speeds to 28,800

Zmodem, Ymodem,  
Xmodem, Kermit,  
Sealink & others

New Files Daily

0891 516 126

Over 21,000 files  
for immediate  
download

Thousands  
of GIF files

Your own Internet  
email address for  
contact with the  
rest of the world

Legends online  
multiplayer  
adventure game

Super, Full Colour  
ANSI Graphics

Mega Download  
0891 516 126

Megadownload, PO Box 3463, London SE19 1DB  
Calls charged per minute  
39p cheap rate, 49p all other times

company was registered as sun.co.uk and used a guess for the person's email name.

I was right about the company but wrong about the individual. Nevertheless, the returned message included this helpful information (names changed to protect the innocent): "fbar@sun.co.uk...You may only send mail to name.surname forms." When I tried this, using foo.bar@sun.co.uk, I forgot that the person had recently married and so I used the wrong last name. Back came a very helpful message: "Your mail could not be delivered to <foo.bar>...User unknown. The following list is an automated attempt to find 'near' matches to the name you used, in the hope that one of these is the one you require."

Although the names listed did not include the one for which I was looking, there was more to the message: "If the above list does not help, please e-mail POSTMASTER giving as much information as possible." And that is what I did, and the postmaster sent me a message with the correct address. While this might seem like a lot of trouble, it only took a few short messages on my part and saved a phone call. At present, "directory services" for the net are in their infancy and are incomplete. Some Internet servers run a program, called a "finger server", that allows you to find out who is registered on the server (using a client utility also called finger), but abuse of this facility has resulted in a lot of servers turning it off.

### Comms non interruptus

Does the rate at which a file is downloaded slow down when the screen saver kicks in? Since the screen saver obscures the screen, I can't see the progress bar or characters-per-second meter. But I have the feeling that a very active screen saver will slow down file transfers performed under Windows. Not only that, some people have found that long file transfers have been interrupted by the activation of the screen saver.

Fortunately, there are several ways of avoiding the issue altogether: you can sit and watch the download and press the Shift key, or wiggle your mouse every few minutes just to stave off the screen saver. Or you could turn it off, of course. You could also increase the time delay for the screen to, say, 20 minutes (the maximum in the regular Windows screen saver, accessed via the Desktop module in the Control Panel, is 99 minutes).

Alternatively you can buy a piece of shareware called SSE (Screen Saver Enhancer), from Allen Jackson of Atlanta, Georgia. You can download SSE.ZIP from at

least two places on CompuServe, WINAV and NCSAFORUM. You can also register your copy on CompuServe: GO SWREG, and the registration fee is billed to your CompuServe account.

So what does SSE do? A couple of clever things: first of all it enables hot and cold spots for any regular Windows screen saver (the ones with the SCR extension that are listed in the Desktop module, including those that come with Windows). A cold spot, also known as a Don't Sleep spot, is a corner of the screen to which you move your mouse in order to prevent the screen saver from activating. By default, this is the bottom right corner of the screen. So if you move the mouse there while SSE is running, the pointer turns into an exclamation mark and you can be sure that the screen saver will not interrupt anything.

The hot (or Sleep) spot is the corner to which you move the mouse when you want to activate the screen saver immediately. This is handy if you need to leave your desk and don't want anyone to see your work while you are gone. Instead of having to wait for the screen saver to kick in, or leaving the screen exposed for the first few minutes that you are gone, moving the mouse pointer to the hot spot immediately turns on the screen saver.

If you have used the password protection option (standard on all Windows screen savers since version 3.1) you have a decent first line of defence against snoopers. But SSE also provides a second level — you can tell SSE to activate the screen saver as soon as Windows starts up, preventing a simple reboot from foiling the password protection. If you place the SSE icon in your Startup program group, then select the "Hide icon" and "Disable splash screen" options, you have a nice little privacy protection system: all this without having to add a complete screen saver program to your system. SSE is well worth the modest registration fee.

Incidentally, a trip to the Windows Audio-Visual Forum on CompuServe provides important pointers in the continuing debate about the productivity of personal computers. When I looked into the Screen Saver section of the file library on the 22nd July I noticed that a file, uploaded there just four days earlier, had already clocked up over 2,000 downloads. The "corporate logo" screen saver which allows you to make your own screen saver, complete with personalised bouncing corporate logo, had been downloaded nearly 10,000 times since 5th June. It would appear that a lot more screens are being saved than time.

**Stephen Cobb**

# Get ON-LINE

# with Sportster®



ENTertainment



FROM GOLDFISH  TO GOLD BARS



Sportster  
14,400

~~£199~~  
**£139\***



Sportster  
28,800

~~£299~~  
**£199\***

Whether you're a fish enthusiast or a money man needing the price of gold, there's something for you on the Information Superhighway. Sports forums, travel updates, the latest share prices, even Star Trekking... these are some of the things available to you.

Of course, you may be happy just using the e-mail and faxing facilities.

Get on-line with Sportster- the world's most popular connection to the Internet.

For further details and information on where to buy your Sportster, call U.S. Robotics on:

**0 8 0 0 2 2 5 2 5 2**

**US Robotics®**  
The Intelligent Choice In Data Communications

U.S. ROBOTICS LIMITED, 650 WHARFDALE ROAD, WINNERSH  
WOKINGHAM, BERKSHIRE RG41 5TP  
TELEPHONE: 01734 228200 FAX: 01734 695555

FIVE YEAR  
**5**  
WARRANTY



\* Price excludes VAT

# net news

**Joanne Evans has the very latest news from the Internet**

## Porn panic

The computer industry has responded to the panic over porn on the Internet by banding together to develop standards for software to block access to undesirable material. Netscape, Microsoft and Progressive Networks, makers of RealAudio audio-on-demand software for the net, started the initiative called the Information Highway Parental Empowerment Group, only to be joined by tens of other major computer companies including IBM and DEC.

The group aims to develop a system that will enable parents to ensure their children do not unwittingly gain access to material that parents deem inappropriate. To do this it may have to develop a method for both content and service providers to rate the nature of the material in a similar way to movies and embed that information in code. The group said it wanted to design a system that "will maximise the likelihood that it will quickly become a standard part of Internet access systems".

Software able to block access to Internet material has already been launched by at least two

companies SurfWatch and Net Nanny. The Parental Empowerment Group aims to publish its recommendation in a report by 31st December 1995 and incorporate them into software by 1996. Rob Glaser, president and CEO of Progressive Networks and chair of the study group said: "We hope to move as quickly as possible to make our way through the issues so that we can come up with a stable and reliable technical solution to the legitimate issues that have been raised."

The formation of the group can also be seen as a move to

counteract attempts by Senator Exon in the US to change the Communications Decency Act. One of Progressive Networks' backers is Mitch Kapor, founder of the Electronic Frontier Foundation. Fears about pornography on the net have been fuelled by the arrest of nine men in the UK as part of a worldwide police operation, for swapping paedophilic images over the net. Meanwhile, a survey by a researcher at Carnegie Mellon, the US university which became embroiled in controversy earlier this year for censoring its students internet access, has found that 83.5 percent of all image files on Internet newsgroups are pornographic.

## French fibre-optics

In France, the state-owned France Telecom has announced it is investing FF500 million in fibre-optic networks that will carry telephone, radio, images and data to more than 10,000 homes by the end of next year.

## Security update

The Internet will be safe for general commerce by next year according to a report from industry analysts Forrester Research. "That's not 100 percent. One hundred percent security can never be guaranteed," said Paul Callahan, author of the report. "Doing business on the Internet will not be that different

from the physical world."

However, he said: "We think most companies should expect to lose \$1 per \$1,000 of transactions to Internet-based fraud. When you compare this to other businesses a 0.1 percent loss rate is not bad. Cellphone fraud is running at an annual rate of close to \$20 per \$1,000." Callahan believes that by 1996 most Internet applications will be equipped with authentication and encryption technologies. "Lotus' Notes, Netscape's Web browser and server and Premeno's Templar EDI software are already encryption-equipped for the Internet, but we see a raft of Net-secure applications to follow in the next year and a half," he said. "The threat of Internet-based break-ins is overstated. The real problem is making sure that you know with certainty who is at the other end of the conversation, and that no-one can snoop your data or change your bits in transit." The answer, he believes, is encryption so that thieves cannot steal the data, and authenticated digital signatures so users can prove they are who they say they are.

## Netscape protocol

Netscape has introduced a new protocol for transactions on the Internet to extend security beyond transmission of data to storage on its arrival. While secure channel protocols such as Netscape's existing Secure Sockets Layer (SSL) encrypt data passing along the network between a client system and a server, the company said the new protocol, Secure Courier, delivers the additional security of keeping the financial data encrypted, or in a "secure digital envelope", when it arrives at a merchant's server or at other intermediate points on the net.

The Secure Courier protocol builds on existing protocols including SSL and will comply with a forthcoming security specification from MasterCard and Visa and is compatible

## Gates on the Internet

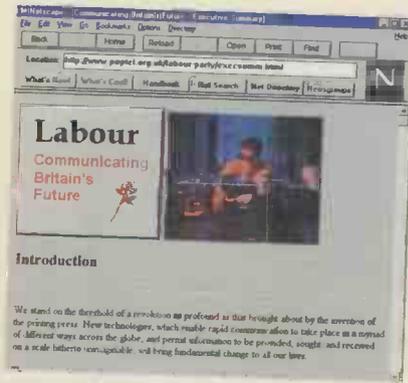
Bill Gates has admitted in his syndicated column: "it has only been in recent months that I've come to expect the Internet to become mainstream. This sea change is prompting us to critically reevaluate our plans - short-term and long-term. One of our highest priorities has become building Internet support into Windows for example. And the Microsoft Network is evolving to become part of the Internet."



## Labour party online

Anyone hoping a change in the ruling party would mean direct government action to develop the information superhighway in the UK will be disappointed by the publication of Labour Party's policy on the information age, "Communicating Britain's Future". The 23-page document insists: "Two-way broadband communication networks must be made available as widely and rapidly as possible" for Britain to keep up with other industrial nations and reap the rewards of becoming an information society.

However, it signals little change from current Department of Trade and Industry policy of relying on industry to do the job aided by a regulatory framework aiming to balance industry incentive with consumer protection. It states: "We believe that the physical infrastructure of these new communications networks will and must be developed by the private sector. The competitive and regulatory environment will therefore be crucial in influencing how it evolves." As well as releasing BT from the ban on providing entertainment across its networks (see Newsprint), the Labour Party would demand a clear timetable from all telecom providers for creating a universal service, covering the whole country "as far as is practicable".



Other measures to reach potential information have-nots include insisting that service providers automatically put a feed into every public library, school, health centre, hospital and Citizen's Advice Bureau in the area they are networking. As broadcast and telecoms services merge, the party would replace Ofcom and the Independent Television Commission with two new bodies, one to monitor both telecoms and television infrastructures and one to regulate all content. It also states: "We would also wish the regulator to take action over anti-competitive exclusive deals established between content providers and a particular network owner," which could have far reaching implications

for many online service providers such as CompuServe or Microsoft Network.

Some proposals could result in tighter control over the net before the arrival of universal broadband networks. "We would seek to set a framework within which companies and consumers, public services and citizens, could exchange content as they chose," it says, but it does intend to change the law on copyright freedom of speech and privacy. Citing concern over transmission and subsequent copying of music across the networks, it proposes to extend the definition of issuing copies in existing copyright law to include distribution through electronic networks and to establish a legal advisory to work on other legal solutions to copyright problems.

As for freedom of speech, Labour says it would not be restricted except for legitimate purposes: to stop racial hatred, protect minors and prevent criminal activity such as money laundering which is clearly illegal elsewhere. It does not support a clipper chip-type solution for government agencies to gain access to private data but it would make decryption of data legal with a judicial warrant. Communicating Britain's Future is on the Labour Party Web site at <http://www.poptel.org.uk/labour-party/execsumm.html>

across Unix, Windows and Mac. Netscape has published specifications for the protocol and plans to license the technology to partners. A major demand for the protocol is home banking across the net and Intuit and MasterCard have already announced they will support it. Netscape said it hoped to build the protocol into commercially supported software for consumers, merchants, and financial service providers by the end of this year. Specifications for the Secure Courier protocol are available from the Netscape Web site at <http://home.netscape.com/newsref/std/credit.html>.

### Pipex makes loss

The phenomenal growth of the Internet in the UK has taken its toll on Pipex, the country's largest access provider. The company made a loss of £1.08m during the financial year to 30 April 1995, despite growing 10 percent a month and almost tripling revenues to £3.76m. A financial spokesman denied the losses were a result of profit

margins being squeezed by fierce competition amongst Internet access providers in the UK. "Every customer we take on is profitable in their own right," he said. "But Pipex is going after new business and so spending a lot of money on marketing, advertising and infrastructure."

Pipex provides access to about 660 large companies, giving it an 80 percent share of the corporate market, and hopes to grow its dial-up service for individuals launched earlier this year to 100,000 subscribers in two years' time. In a fast-growing market the spokesman said: "The best strategy is to grab as many corporate customers as you can because once you've got them, they're likely to stick with you. Profitability is in Pipex's grasp. It depends on when it wants to stop growing." Profits of £31.5 million at its parent company Unipalm kept the whole group £442,000 in the black.

### New libel laws

The government has proposed changes to libel law in England

and Wales that could prevent online service providers being sued for libel over the content of the messages they carry. The Draft Defamation Bill proposes an updated 'defence of innocent dissemination' of defamatory material to take account of new technology. But it's not clear if services that moderate material would be deemed innocent disseminators. They could be still held liable as in the Prodigy case in the US earlier this year. Copies can be obtained from 0171 210 8560 and comments made until 23rd October.

### Jams spread to the net

Realtime information and pictures about roadworks and traffic jams in the UK could be available on the Web early next year in an experiment conducted by the Department of Transport and the CCTA, the government's computing agency. They are currently considering the security implications and the extent to which the data would need to be interpreted for public

consumption before going ahead, but the information would be collected from roadside sensors and cameras and fed through a government computer onto the Web.

### New net figures

CompuServe is the largest online service with 3.2 million members. American Online is second with 3 million and IBM's Prodigy third with 1.6 million according to a report from Business Research Publications. Delphi Internet has just 140,000 and Apple's eWorld 90,000 members and this is before the launch of the Microsoft Network.

### The Telegraph online

The Electronic Telegraph is claiming to be the busiest Web site in Europe with up to one million hits per day. Let's hope its news holds more surprises than the results of its Internet user survey, which tells us most users are "male, under 40, intelligent and computer-literate". <http://www.telegraph.co.uk/>

**New ISDN service**

Warrington-based Internet service provider U-Net has started an ISDN service for standalone PCs or Lans. A single PC costs £80 to join and £40 monthly fees. A Lan costs £150 to join and £150 per month, regardless of size. Tel: 01925 633144.

**New arts/IT centre**

Sandwell Borough Council in the West Midlands is currently campaigning to raise £40 million to build a new centre for community development of the arts and technology. The centre, which the council hopes would attract 250,000 visitors a year, would provide training in multimedia technologies including the Internet in complex including training hotel, multimedia studios and trading units.

**Shares hit the Internet**

Electronic Share Information (ESI), a Cambridge-based company which already publishes UK stockmarket prices on the Web, is launching a service which enable subscribers to trade shares on the Internet early next year. The company, which is backed by industry heavyweights including Acorn founder Herman Hauser, believes it will eventually create the first retail stock exchange on the Internet. Subscribers will receive realtime quotes on the price of all UK shares and then be

able to input their orders through the Internet to stockbrokers.

The first stockbroker to join the service is expected to be Sharelink, a broker which specialises in individual clients rather than institutions. The commission on trades using ESI's service will be much lower than other services, as little as 0.1 percent on trades worth more than £35,000, while subscribers are likely to pay as they use for other services such as share tips and company information.

Concern over the security of share trades and financial data will be addressed by using encryption technology. However, there may be problems online for punters relying solely on the Internet for their share dealing. ESI's current information-only Web site states: "You should be aware that the Internet is not a completely reliable transmission medium and there may be arbitrary delays and omissions and pauses in service provision." It could be bad news if your line drops just as you're typing "sell, sell, sell". ESI's web site is at <http://www.esi.co.uk>

# Net.surf

Our regular listing of the best of what's new on the web.

- If you're interested in Golf check out <http://www.golfweb.com/>. It gives you all the latest golf news including the Open Championship at St Andrews.
- Art colleges are jumping onto the net with a vengeance. The School of Art and Design at the University of Derby had its degree show online in June and July at <http://vertigo.derby.ac.uk/hitchcock/degreeshow/html>. You can still view it, although it really just demonstrates how poor Web pages are for large graphics.
- Glasgow School of Art, meanwhile, has a slightly more blue-chip reputation. Its degree show is at:

<http://www.mech.gla.ac.uk/~gsapd/sig.htm>

- Miguel Indurain has just won the Tour de France a record fifth consecutive time. Le Tour was well catered for on the net. Info on Indurain is at

<http://www.best.com/~bikiebob/df95/riders/indurain.html>

- The Hair Loss Handbook and Support Group Network is dedicated to the countless numbers of men and women who wish to be informed about hair loss. As the average PCW reader is a 35-year-old male it could prove a hit with Cutting Edge regulars.

<http://www.mcny.com/hairloss/>

- Plenty of bands are now netted but few have done as good a job of it as the US rock band Phish. PhishNet has made a big contribution to the success of the band. Unlike most bands Phish positively encourage their fans to record shows and trade in the tapes. Most of the trading takes place on PhishNet.

You'll find the PhishNet unofficial web page at

<http://hws3.hws.edu:8000/Phish/>

- It seems like the whole of this year has been filled with various Second World War milestones. The summer's big one was the 50th anniversary of the dropping of the first atomic bombs — Enola Gay hit Hiroshima on 6th August 1945. There's an excellent web site at

<http://www.csi.ad.jp/ABOMB/index.html>. It includes masses of information about the bombs, voices of A-bomb survivors and photographs from the Peace Memorial Museum which demonstrate the destructive power of the bomb, including a wounded horse and the melted face of a stone buddha.

**Try these...**

- <http://www.ee.port.ac.uk/Online-Books/hacker-crackdown-1.2/crack.html> — The Hacker Crackdown
- <http://www.primenet.com/links/magazine.html> — Newspapers and magazines on the Internet
- <http://mirsky.turnpike.net/wow/Worst.html> Mirsky's Worst of the Web: Mirsky's Worst of the Web really is pretty bad and pretty pointless. Probably the funniest thing about it is the cautionary notice which appears when you first arrive there — Worst of the Web requires that you use a Web browser which can display graphics. If you are using a text-only browser, you can still access the pages but they will seem even worse than intended.
- <http://www.st.nepean.uws.edu.au/stuff/bofh/> Bastard Operator from Hell (funny stories about a systems manager and his "lusers") — Progenitor of CIX's BOFH conference.
- <http://holodeck.infopages.com/cards/> — Greetings cards via the Net.

# Express Technology's MODEM Marketplace

Windows 95 It's 'modem ready' - are you?

**DON'T GET CAUGHT IN THE TALK TO THE EXPERTS 'NET!'**



Introducing  
**BT**  
Modems & ISDN

Technology you can trust  
from BT - World leaders in  
communications solutions

WITH BT HELPLINE SUPPORT AND  
FULL WARRANTY - ALL AT EXPRESS PRICES



Prologue  
1414 Pocket

Portable modem power,  
for on-the-desk or on-the-move

- Stylish 14,400 pocket design.
- Easy to install & use.
- Low power battery consumption.
- Phonetlink 'Fast Connect' compatible.

**Highlights** - Extended Hayes AT command set • Auto answer to V.25 • V.42bis/MNP 5 data compression • Tone/pulse dialling • V.42/MNP 2 - 4 error correction • FAX: Class 2/Group 3/V.17 - auto speed adjusts to 14,400 bps • DATA: V.32bis/V.32/V.22bis/V.22/V.21 • Delrina Windows & DOS Fax & Comms software.

only  
**£125**

Prologue  
PCMCIA

Now From  
**£179**

Highly featured and superb value

- Dual standard 28,800(V.34 & V.FC) and 14,400 models
  - No bulky 'boxes-in-the-cable' - Built-in DAA line interface.
  - PCMCIA Type II - For all leading laptops etc.
  - Phonetlink 'Fast Connect' compatible.
  - FIFO 16550 high speed buffer - For up to 115,200bps (V.34)/57,600bps (V.32bis).
  - Flash EPROM - for downloadable firmware upgrades & revisions.
  - Remote configuration & high level security.
- Highlights** - Hayes AT plus V.25bis command sets • Hayes Autosync • Direct enabler software • V.42bis/ MNP 5 data compression • V.42/MNP 2 - 4/ LAPM /MNP10 error correction • Advanced auto - line speed selection • Supports PCMCIA 'Hot Swapping' • Auto - sleep powerdown • FAX: Class 1 & 2/ Group 3/ V.17 • DATA: V.34/V.32bis /V.32/V.22bis/V.22/V.21/V.21/Bell 102/203a. • Delrina Windows & DOS, Fax & Comms software



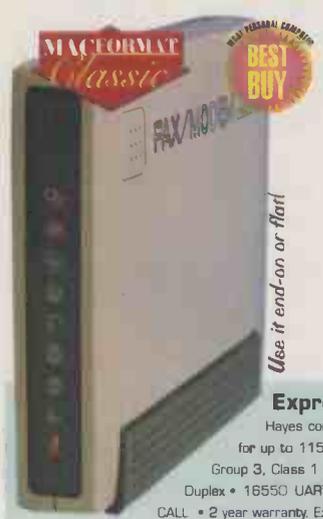
Ignition ISDN  
Terminal Adaptor

only  
**£499**

Simple, 'plug & play' access offering  
advanced features at an outstanding price

**Highlights** - 64k bps ISDN 2 with V.24 DTE interface • Dual analogue port, for phone & fax connections • V.42bis data compression, for up to 64k bps sync and 115.2k async • Latest V.120 rate adaption plus V.110 support • AT command set • Hyper Access Lite file transfer software & configuration software • ISDN information bulletin board.

Express Prices (ex VAT)	14,400 V.32 bis	28,800 V.34
Prologue PCMCIA	£179	£269
Prologue 'Pocket'	£125	-
FREE - 9 Pin Serial Cable		
ORDER ON 01784 421123		



AWARD WINNING EXPRESS MODEMS

From **£155** 28,800 V.34  
28,800 V.FC  
14,400 V.32bis From **£87**

Only while stocks last

The stylish, no compromise, Express Range leads the way for  
modem power, quality and value. Just see what the papers say...

"Best Buy"  
.NET Magazine

"A sleek piece of kit...We used intensively without any problems".NET Magazine Rating 88%.  
"The best bang per buck..." What Personnel Computer  
"I've been particularly impressed with the Express 28.8x..." Windows User

Express Fax Modems

Hayes compatible • Synch & Asynch Operation • V.42 bis/ MNP5 for up to 115,200bps (V.34) & 57,600 (V.32bis) • V.42/MNP2-4 • Group 3, Class 1 & 2 fax - 14,400/V.17 • Call-back security • Full or Half Duplex • 16550 UART buffer (int) • WinFax, DosFax, Comit (PC), Macintosh-CALL • 2 year warranty. External casing may vary from that shown

All Prices ex VAT	14,400 V.32 bis	28,800 V.34
Express Internal	£87	£155
Express External	£89	£165
Express Macintosh	£99	£175
Serial cable for PC/Mac - £9		

**ZOOM**

Personal Computer World EDITORS CHOICE

From **£89**

ZOOM UP TO V.34

Sensational UK approved modem prices  
from the No.1 in the US

All Prices ex VAT	14,400 V.32 bis	28,800 V.34
Zoom IE Internal	£89	£149
Zoom XE External	£99	£169
Zoom Macintosh	£99	£179
Modem serial cable for PC & Mac - £9		

**Intertex**

PC MAGAZINE UK CHOICE September 1995 Intertex UK EDV (vocal) Express Technology

Packed with innovative features, this is  
Swedish technology and design at its best!

V.34 'VOICE' MODEM -

AWARDED PC MAGAZINE EDITORS CHOICE

Turn your PC into a powerful fax & call management resource  
with Voice Mail, Fax-on-Demand, receptionist services, etc.

EXTERNAL & INTERNAL MODEMS

All with Fax/Phone Switch built-in!

All Prices ex VAT	14,400 V.32 bis	28,800 V.34
Intertex Voice External	£249	£399
Intertex External	£155	£255
Intertex Internal	£219	£319
Call for latest prices & full specifications		
CALL FOR DEALER PRICES		



FAX SWITCHES  
FAX FRIEND

An economic switch,  
for answering machine,  
fax & modem line sharing

TELYLINE

A sophisticated, multi-  
mode line management  
system with auto detect  
and 3 line sockets

Fax Friend	£49.99
Telyline	£139
£5 OFF WHEN BUYING MODEM	

Easy Ordering

Call Mon - Fri, 9.5.30.

We accept cheques  
and most major  
credit cards and  
orders are  
couriered  
within 48 hours

(Subject to availability). UK  
mainland £9 (smaller items  
£5). Prices & specifications subject  
to change. Full terms & conditions  
available on request.

ALL PRICES SHOWN EX VAT.

**EXPRESS TECHNOLOGY**  
THE COMMUNICATIONS COMPANY

Ashford Road, Ashford,  
Middx TW15 1XE  
Tel: 01784 421123  
Fax: 01784 421910  
E-Mail: sales@  
extech.demon.co.uk

**Plus**

New

PCMCIA DESKTOP INTERFACE

- Share PCMCIA modems etc between laptop & Desktop
- Quick & Easy data transfer • Twin slots - 3.5" bay + 16bit card

£119 + vat

FAX SCANNERS

Scan Documents Into PC from any Fax  
Machine, via your modem.

£28 + vat

Serial Accelerator card

(for external Modem high speed comms)  
2 x 16550 UART Serial + 1 x Parallel -  
£39 or with Modem - £29

## THE LEGEND Bulletin Board

**0891 517688**  
FULL ACCESS FIRST CALL

Over 4 gigabytes of the  
very latest shareware  
from across the Globe

+ OVER 5,000 GIF FILES

Multi-line system - speeds upto 14,400 baud  
8 data bits, no parity, 1 stop bit

**THE LEGEND BBS**

167 Sunbridge Rd, Bradford, West Yorkshire

Calls charged per minute, 39p cheap rate, 49p other times

ONLINE  
NOW  
LIMITED

Why delay? download today!



### Access the "USER FRIENDLY" Bulletin Board!

- \* Over 600 MB of Software Available. Wide range of applications.
- \* Much of the Software offered by the BEST libraries in the UK.
- \* No membership fees, subscription charges or direct debits.
- \* No download restrictions for the first time or frequent users.

**True multiline facilities**  
**0839 661188 and 0839 661199**  
Log on at up to 9600 bps, 8N1

Telephone charges 39p/min cheap rate 49p/min all other times. Online Now Ltd, Bridge House, Bridge Street, W-on-T, Sy. KT12 1AI

For more information phone 0839 669977 (recorded)

## KOMPUTER KNOWLEDGE CALL NOW ON:

**0891 515 066**

**MODEM DOWNLOAD SERVICE**  
V21 UP TO V42bis & V.FC.

- \* Over 330 file areas to download from \*

The latest Shareware, updates & additions via daily file links to Europe & USA for the PC, Amiga & Atari.

Areas of specialisation include R:Base, Dbase/Clipper, Windows NT/Windows, OS/2, DOS, DESQview, Novel, Virus prot', & recently Flight Simulator + Much More.

### Recreational

- \* Multi User Games Available \*

Calls cost 39p per minute cheap rate & 49p per minute at all other times. MODEM PARAM's:- 8 Data Bits, No Parity, 1 Stop Bit. Computer Knowledge, 3 Station Cottages, Cheddington, LU7 0SQ

# comm together

**With the differences between today's online services becoming increasingly vague, choosing the right one can prove daunting. Enter Stephen Cobb, who explains exactly how the comms world is converging, and gives some practical advice about getting yourself online.**

If the current revolution in computer communications has a watchword it is "convergence". Data, voice and fax are converging in multi-function modems while ISDN and other technologies promise simultaneous data, voice, fax, and video. Bulletin boards are converging with the Internet, offering net services such as email and newsgroups. Commercial online services are merging with the Internet and the World Wide Web. You can even access bulletin boards and online services from the Internet.

In this month's column we take a practical look at this aspect of convergence, the blurring of the lines between online services, bulletin boards, the Web, and the Internet. One of the immediate practical implications for users involves deciding which services to buy. Do you need an online account, an Internet connection, and bulletin board memberships? There are additional implications if you plan to provide services. For example, if your company wants to provide online information, do you create your own bulletin board, sign up for space on a commercial service like CompuServe, or publish on the Web?

### Which Way to the Web?

First of all we will look at two different ways of getting to the World Wide Web. In fact, the Web is what many people mean today when they scream "I want the Internet and I want it now!" Just 12 months ago "getting the Internet" meant something else: the abil-

ity to send email, join newsgroups, use a gopher, and possibly transfer files with ftp. Now Web browsers can do all that, except perhaps for mail, but anyone can now send mail to anyone else, whether they use a BBS, online service, or Internet account (see this month's *net.answers*).

So how are you going to get on the Web? For the SoHo (small office/home office) user the traditional approach is to get an Internet account, say with Demon or Cityscape, install the appropriate TCP/IP software for their machine, then dial up on a PPP connection and fire up a Web browser. The cost of this depends upon several factors. There's the monthly fee for the Internet account, plus the cost of the phone call while you're using the connection, which may be local or long-distance. Dialling long distance to a high-speed node makes sense when you're using your account to retrieve messages and news to be read offline, but the economics of Web browsing are different since you need to stay on the line to browse from site to site.

Now there's an alternative to getting a dedicated Internet account. If you're on CompuServe already you can browse the Web right now, or within 20 minutes, which is about how long it takes to get the necessary software installed. In order to do this you need to be running WinCIM and dialling into CompuServe at a speed of at least 9600baud. If you go through the following steps you'll be browsing the Web through a CompuServe access point with online time billed to your CompuServe account:

1. Log on to CompuServe with WinCIM by using the Service/Go command and entering INTERNET in the Go dialogue box.
2. At the CompuServe Internet Service menu double-click on Direct Internet Access.
3. Select Net Launcher for Windows and then select Download Net Launcher (this file is 1.2Mb and took about 15 minutes to download over a 14.4Kb/sec connection). By default the file is placed in the CSERVE\DOWNLOAD directory.
4. Use File Manager to locate the CLN.EXE file in the CSERVE\DOWNLOAD directory and double-click on it. This expands the file and runs the installation procedure. The default settings should work fine so simply click OK to answer questions.

5. When the setup process is complete you have the option to automatically start Spry Mosaic, the browser owned and supplied by CompuServe. If you accept, the program will dial out to the primary CompuServe access number you've been using in WinCIM, and take you to CompuServe's home page on the Web.

6. If you choose not to start Spry Mosaic immediately after installation you can do so, whenever you're ready, by double-clicking on the CompuServe Internet dialler icon, or by double-clicking on the Spry Mosaic icon (both of which are placed in the CompuServe program group, and both of which launch the Web browser).

The whole process went very smoothly when I tried it. As soon as you have Spry Mosaic up and running you can start customising. For example, you can use the Options/Configuration menu to change the home page that's loaded at startup to something like <http://www.mpn.com/vnu/pcw/> instead of the CompuServe page. You can also use the Viewers button on the same menu, which provides viewers for files such as the WAV sound file that's loaded when you click the Hunt button on the CompuServe home page (the Hunt in question is a \$1m treasure hunt-style competition that involves visiting Web sites for clues).

In fact, this button represents my only problem with the whole project. As we went to press I had not been able to get it to play using Spry Mosaic. I can play it with NetScape on the same machine — hopefully I will have an explanation by the next issue. In the meantime my suggestion is not to get hung up on sounds. Spend your time exploring the hundreds of thousands of Web sites that are out there. If you encounter Web pages that allow email input you'll find that Spry Mosaic is already configured to give your CompuServe address as your email address. So any replies will appear in your regular WinCIM in-basket.

#### Put a Windsock in it

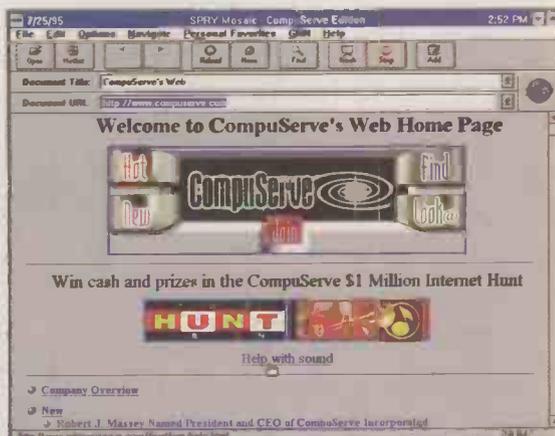
One other technical note. If you go through the above steps on a system that is already configured for PPP access you may find that your existing Windsock file (winsock.dll) is renamed winsock.000 by the installation procedure — it will warn you if this is the case. This is necessary because

Net Launcher uses its own version of Windsock.

The net effect, so to speak, is that you cannot launch your previous Web browser without exiting Windows, renaming winsock.000 to winsock.dll, and renaming the Net Launcher winsock.dll to winsock.000 (the files will be in different directories — the Net Launcher version is normally stored in C:\WINDOWS, while the previous version will be somewhere like C:\NETMANAG or C:\NEWT). However, I found that it was relatively painless to use this renaming process to switch between different browsers (a simple batch file springs to mind).

Why would you want two different access methods? One scenario is the travelling user. If you have your Internet account with a regional provider who only offers local access in one area, you might find yourself on the road with a very expensive long-distance call between you and your normal Internet access. If you can switch to CompuServe's Web access while on the road you can use the very extensive range of local numbers, which includes most major cities in the world. For users who don't yet have an Internet account, the CompuServe approach may well be the easiest option for instant access to the Web.

But what if you already have an Internet account and the economics of connecting to it are better than those for CompuServe or the nearest decent bulletin board? You may not realise it but you can actually run CompuServe and access bulletin boards over an Internet connection (the BBS must be properly set up for this to happen — something we'll return to in a moment). As far as CompuServe is concerned, accessing your



*This is where you get to when you've installed Net Launcher; browsing the Web with Spry Mosaic via your CompuServe account*

**VISIONS**  
UK BBS

*Your Instant Internet Connection*

**FTP. TELNET. GOPHER. USENET**  
**NO SPECIAL SOFTWARE REQUIRED**  
**NO DOWNLOAD RESTRICTIONS**  
**NO SUBSCRIPTIONS OR SURCHARGES**  
**FREE INTERNET EMAIL ADDRESS**  
**NO QUESTIONS ASKED**

**0891 32 89 00**

Visions International Limited P.O. Box 204 Manchester M60 1WR  
0891 calls cost 39p per min cheap rate 49p all other times.

**MAGNUM**  
Bring you the ...  
**INTERNET**

InfoBahn, Information Superhighway, Cyberspace! Call it What you will, but with Magnum you've got an Internet Access Provider that offers Fast Connect Times, Quality Service and Unrivalled Technical Support. We offer you ...

- Full Internet Access to 28.8
- Worldwide Electronic Mail
- Graphical Internet Access (WWW)
- UseNet - Discussion Groups
- FTP File transfer, Gopher, Archie
- Free Files and Software
- IRC - Internet Relay Chat
- Easy Menu or Shell Access
- Login, PPP or SLIP Accounts
- Your own World Wide Web space!
- In fact the complete service ...

So SURF THE NET with MAGNUM! Subscriptions from just £5 per month plus VAT. With no On-Line charges! If you have a Computer + Modem try our Demo login as "guest" with password "mag-net" Otherwise just Call, Fax, or Write for Magnum's FREE INTERNET INFORMATION PACK!

**Free Demo Modem : 01908 216677**  
email: [sales@mag-net.co.uk](mailto:sales@mag-net.co.uk)  
<http://www.mag-net.co.uk>

**Voice Enquiries : 01908 216699**  
Fax : 01908 218877

**Magnum Network Services Ltd, PO BOX 1609**  
Newport Pagnell, Bucks, MK16 8UG

account over the net was possible with earlier versions of WinCIM but became official in WinCIM 1.4. Here are the steps required:

1. From the Special menu select Session Settings and click New to name the connection — something like "Overnet".

2. The Name, User ID, and password will be picked up from your normal connection. In the Connector field select WINSOCK (it's on the list).

3. Select 115200 for the Baud Rate and Internet for the Network. In the Access Phone field replace the phone number with 0. Click OK.

4. Now you can run your Internet connection, with Demon for instance, and once you are connected return to WinCIM and select any one of the commands that initiate a connection, such as Get Mail.

Hey presto! The connection is made, not by dialling a phone number, but by sending packets over the net. Unfortunately, you might not say hey presto the first time you try it: I've found that connecting this way sometimes takes several attempts, and will report in next month's column on the reasons for this. And, I have to say that

downloading files on this type of connection is risky. This is a pity because some people can get a cheaper, faster 28.8Kb/sec Internet connection than the nearest 14.4Kb/sec CompuServe node. Mail comes through fine but binary files seem to cause hiccups. Apparently, CompuServe is working on this. My impression is that CompuServe, along with everyone else, yours truly included, has underestimated the phenomenal rate at which interest in online communications of all types has grown in recent months.

#### Across the board

Many bulletin board operators are determined to benefit from the increase in Internet connections. By installing the right hardware and software it's possible for a bulletin board to allow users to access via the Internet rather than a phone line. This means that if you have an Internet account you can use the feature known as Telnet to visit bulletin boards over your Internet connection. Of course, this opens up a whole new world. Want to visit a speciality board in the US but can't afford the transatlantic phone call? No problem — if the board is Tel-

net-compatible you can get there over the Internet.

So how do you find bulletin boards that offer this example of convergence? There's one search tool on the net that specifically identifies "telnetable" sites. This is Galaxy at <http://galaxy.einet.net/search.html>. Check the Hytelnet box and the results of your search will all be telnetable BBS sites. I did a search based on com\* which includes computers and communications, and the hit list was 469 entries long. What's nice about this way of locating boards is the Web page that appears when you click on any of the entries in the hit list. This page displays a description of the board and allows you to telnet to it by clicking a hot link on the page — you have to register your copy of telnet.exe with your Web browser for this to work.

Apart from this there are lists available in many places. Check out <http://dkeep.com/sbi.htm> for a file called sbimyy.zip which is the Select Bulletin Boards for a given month (for example, SBI0795.ZIP for July of this year). I hope to post this list in the UKCOMMS forum on CompuServe (library search on sbi). Alternatively, telnet to

dkeep.com. This board is a fun place despite the rather weird Dungeons and Dragons flavour (the prompts are liberally sprinkled with "thee" and "thou").

To telnet without your Web browser, you first log on to your Internet account then load Telnet, a copy of which comes with most Internet software suites. Then you issue the Connect command and enter the name of the board in the Host Name field (for example dkeep.com). The next thing you should see is the board's sign-in prompt. You can use the Telnet window like a normal ASCII or ANSI online session, but you may be limited in areas such as file downloading and session capturing due the particular Telnet program you are using (some do not support downloads or capturing to disk).

#### To Web or BBS?

Providing "phone-free" access over the Internet isn't the only way in which bulletin boards are keeping up with the latest in cyberspace developments. The recently released bulletin board software called WorldGroup, from Galacticcomm, gives any bulletin board operator instant access to a Windows-based online service look and feel. This



## MICROLAND BULLETIN BOARD

# 0891 990 505

To View

# 0483 725 905



Over 7 Gigabytes Of Shareware To Download  
All Speeds To V32bis - 8 Data BITS No Parity  
Thousands Of File Areas To Choose From  
Zmodem, Xmodem, Ymodem, Kermit, Sealink  
Multi-line System - Usenet Email  
Internet News - Subscription Service Available  
Terminal or IP Connections

Treva Designs Limited.  
P.O. Box 13, Aldershot, GU12 6YX.  
Voice/Fax 0252 25841  
Email [support@treva.co.uk](mailto:support@treva.co.uk)

Calls to 0891 990 505 charged at 39p per minute  
cheap rate and 49p per minute at all other times.

### PC PITSTOP BULLETIN BOARD SYSTEM

- ★ Masses of public domain & shareware
- ★ Compressed files for fast cheap download
- ★ First Time or Frequent User? No restrictions
- ★ Protocols, ZModem, XModem, YModem and Kermit
- ★ No membership fees, no subscriptions
- ★ Simply "pay as you play"



### INTERNET ACCESS COMING SOON

Multiline access via:

## 0839 661166 and 0839 661177

Modem connects rates up to v32bis.

Telephone charges 39p/min cheap rate 49p/min all other times

Online Now Ltd  
Chestnut Farm, Dinton, Aylesbury, Bucks HP17 8UG

## STRANGWAYS BULLETIN BOARD

FULL ACCESS ON FIRST CALL

Over 12 Gigs On-Line  
Multiuser Chat  
On-Line Help & solutions  
No Boring Questionnaires  
Gigs Of Glamour Gifs  
Over 180 Files Area  
over 28,000 programs

28,000  
PROGS  
ONLINE  
SPEEDS UP  
TO 32 bis

*Much to Much to Mention*  
**The only Number you will ever need**

# BBS: 0891 408040

0891 CALLS CHARGED AT 39p PER MIN CHEAP RATE 49p PER MIN ALL OTHER TIMES. C.D INTERNATIONAL P.O. BOX 107, MANCHESTER M73WZ.

CUTTING EDGE

## Virtual Vegas

Believe it or not, you can now place your bets in Cyberspace. Well, in Antigua to be exact, if you visit [www.casino.org](http://www.casino.org) on the World Wide Web. This is a trend that is likely to take off like a rocket. Why? Well for one thing, in many areas of the World's largest affluent country, the US, many forms of gambling are illegal. There's no way to put a fiver on the next President, and you may have to go to the races to place a bet on a pony:

telephone betting is explicitly outlawed in many states.

So is it legal to gamble on the net? I'm not taking bets on this one. The legal issues are extremely complex. The only thing you can bet on is politicians attempting to regulate or tax it. The state of Florida is already looking into control mechanisms: perhaps a chip inside phones that blocks betting? It's going to be a messy business for several years, during which time the online betting shops will probably make a lot of money.

Just a side note about the implications of cyber-gambling, upon which I have not yet formed any moral opinion. I asked a question about online gambling in the legal forum on CompuServe (GO



*Behold the shrine of the cyber-punter, as gambling comes to the Web*

LAWSIG). I was really hoping to find what the basic parameters would be for assessing its legality (the casino at [www.casino.org](http://www.casino.org) is quite clear that punters must resolve legal issues with their local authorities). Well, my message must have struck someone as a criticism of gambling because I received a very strident response defending gambling in all forms and venues. It was signed by "Guido". I know that it would be politically incorrect to draw any conclusions from this (see the section headed *Globalisation*). But it made me think very carefully about my response.

program, which I will describe in more detail next month, comes complete with email, online surveys, file libraries, even conferencing (another subject for next month's column). All this is executed in a push-button Windows interface with great graphics and even sound. While the free client software is rather large (2.7Mb) its capabilities are impressive. For example, it supports multiple simultaneous background file transfers, so you can chat online while files are downloading.

Could WorldGroup serve as a corporate bulletin board, even an alternative to hosting a Web site? The answer depends upon what you're trying to achieve. Some companies are bound to feel that they need a presence on the Web if only to keep up with their competitors. On the other hand, if your goal is to serve up data and online services to a group of customers or employees, then

WorldGroup might be the way to go. You have greater control, more security, and the system is arguably easier to set up than Web service (the installation of the WorldGroup client software is certainly a lot easier than getting an Internet connection running).

If you're hoping to make money by offering an online service, then a subscription or pay-per-minute bulletin service is still a much easier model to deal with than the Web, which is fundamentally free and still has no obvious toll-points for the people who provide the content. Bulletin boards still have an edge over the Web in terms of interaction and localised, niche interests. And by the time the Web becomes interactive, I think there will be seamless links to bulletin boards with more advanced Telnet software so that they will continue to be in on the action.

**Your Own BBS  
E-mail and  
Information  
Service for  
just £99 with**

**Wildcat 4**

**The World's Best-Selling BBS**

- \* Discussion areas/conferences
- \* Electronic Mail
- \* File upload/download
- \* Online information
- \* Bullet-proof security
- \* Multi-line versions
- \* Optional INTERNET E-mail
- \* RIP graphics support
- \* Add-on utilities available

**Prices from £99 to £775**

**Telesystems Ltd**

3 WYCOMBE ROAD, PRESTWOOD, BUCKS. HP16 0ND.  
Tel: 01494 866365 Fax: 01494 866050 BBS: 01494 891903

**If you're calling an online  
service, you should be using**

**QmodemPro**  
FOR WINDOWS

**The Choice of Professionals**

- \* Powerful script language
- \* Fax send and receive
- \* Sound support \* Built-in editor
- \* Graphics file viewer \* Macro keys
- \* RIP support
- \* DOS version also available

**Special offer - only £75!**

**INTERNET**

**Mail Access for your**

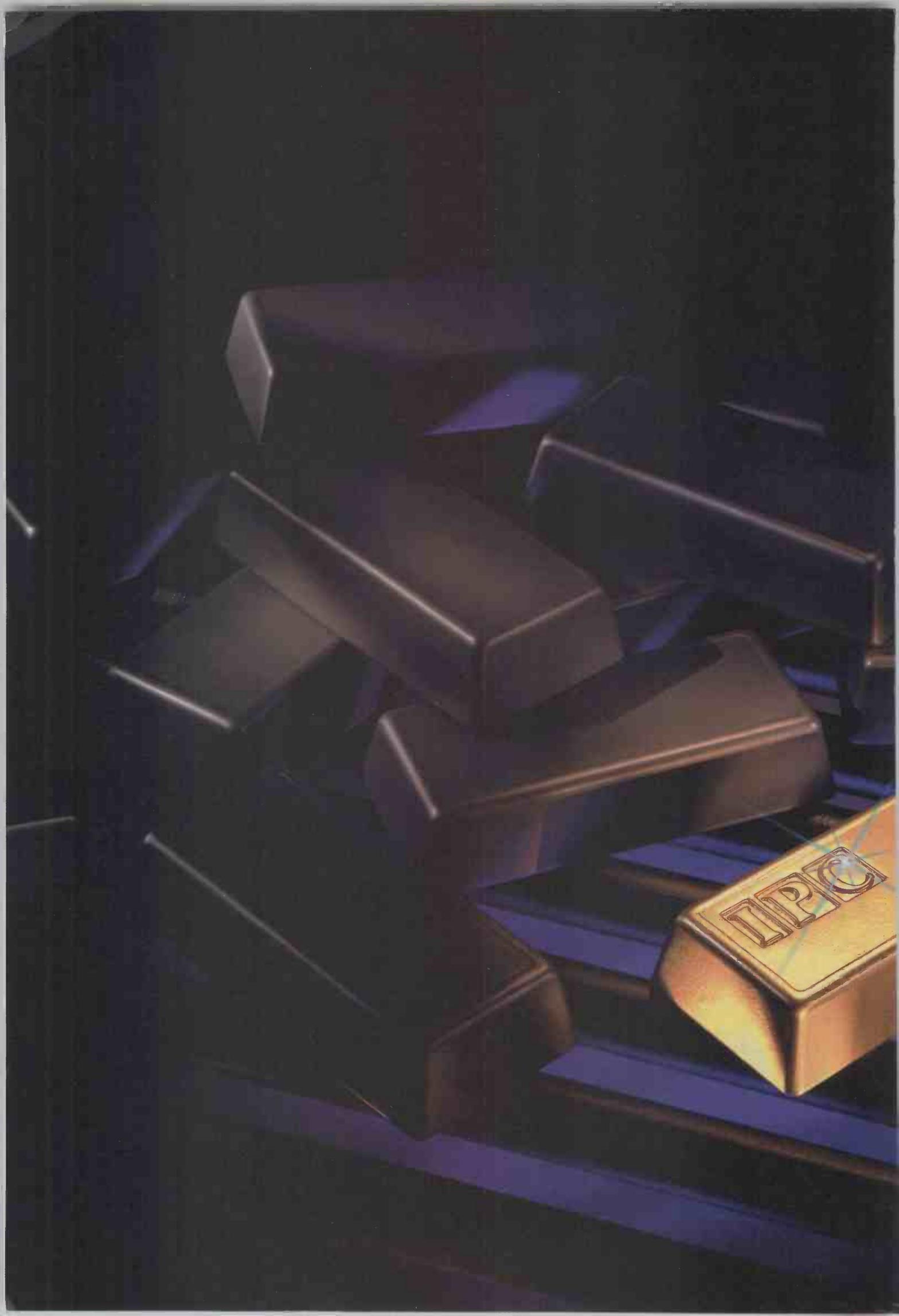
**Wildcat 4**

**callers with wcGATE**

**Gateway to the  
World**

**Telesystems Ltd**

3 WYCOMBE ROAD, PRESTWOOD, BUCKS. HP16 0ND.  
Tel: 01494 866365 Fax: 01494 866050 BBS: 01494 891903



# EXCELLENCE IS OUR HALLMARK

Today more than ever business needs high-performance, cost effective IT systems you can rely on, but how do you choose?

Look for the IPC name.

IPC are active in over 60 countries worldwide, manufacturing state-of-the-art high-end systems designed specifically to help maintain your business competitiveness and productivity.

We are leading innovators in business and personal computers, POS terminals and multi-media products, as well as one of the world's largest manufacturers of Intel processor based notebooks for the mobile office.

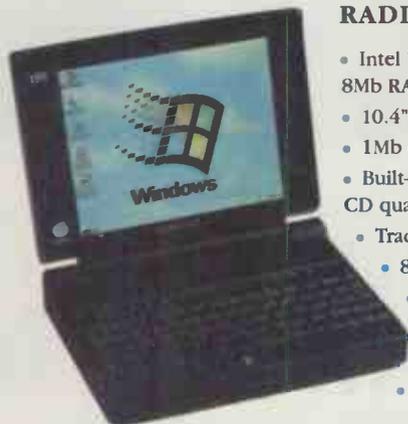
And all IPC manufacturing, sales, marketing, technical support and management operations conform to ISO 9002 worldwide quality assurance standards - proof of our commitment to product excellence.

In other words, IPC is the only marque you need to know. For more valuable IPC facts and

information, call Bryan Hartley now on 01282 618866.

# IPCing is believing

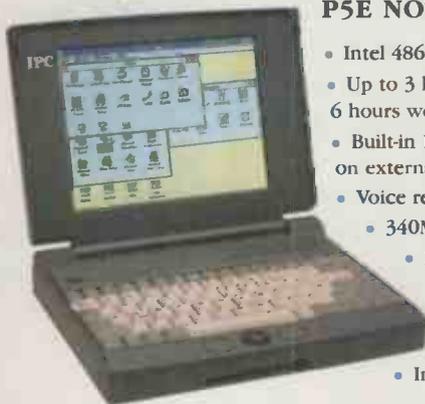
## RADIANCE R300 NOTEBOOK COMPUTER



- Intel 75MHz or 90MHz Pentium® processor, 8Mb RAM 540/810 Hard Disk
- 10.4" or 10.2" DSTN or active TFT colour
- 1Mb of Video RAM to support 256 colours
- Built-in microphone, speaker and 16 bit CD quality stereo audio card
- Trackball Mouse
- 8Mb RAM expandable up to 40Mb
- One type III or two type II PCMCIA cards
- Optional Docking Station
- Optional Internal Fax Modem
- International service availability assurance



## P5E NOTEBOOK COMPUTER



- Intel 486DX4-100 CPU
- Up to 3 hours mobile computing with 3.3V can give you up to 6 hours working time
- Built-in 1Mb Video RAM supports displays of up to 256 colours on external monitor
- Voice record and playback
- 4Mb RAM expandable to 32Mb
- 340Mb Hard Disk as standard, upgradable to 810Mb
- 2 Type II or one type III PCMCIA Ports
- 9.5" DSTN or TFT Colour screens
- Carry wallet included
- Trackball Mouse
- Optional Internal Fax Modem
- Optional Docking Station
- International service availability assurance



Certificate No: 94/3272

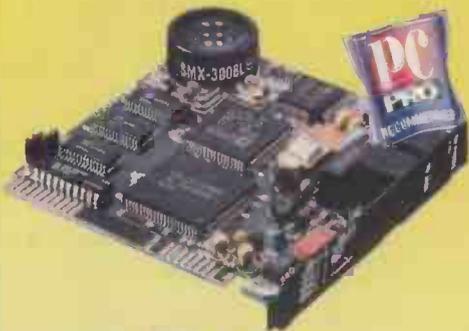


## We make IT work for you.

IPC Corporation (UK) Ltd, Suite 608, Glenfield Park,  
Lomeshaye Business Village, Nelson, Lancashire BB9 7DR. Tel: 01282 618866. Fax: 01282 618214.

The manufacturer of IPC products, IPC Corporation Ltd, located at 23 Tai Seng Drive Singapore, has been awarded an ISO 9002 Certificate by SGS Yarsley ICS.

Specifications and design are subject to changes without prior notice. IPC is a registered trade mark of the IPC Corporation Ltd. The Intel Inside and Pentium Processor Logos are trademarks of the Intel Corporation.



# VOICE, FAX & DATA MODEMS

**FREE** Compuserve membership +  
**£10 FREE** usage with all modems



## SPEED COM PLUS

14400 data/14400 fax/voice

### ORION INTERNAL

**£149**

+ VAT & DELIVERY

### ORION EXTERNAL

**£159**

+ VAT & DELIVERY

## SPEED COM PRO

28800 data/14400 fax

### ORION INTERNAL

**£159** + VAT & DELIVERY

### ORION EXTERNAL

**£169** + VAT & DELIVERY

### ORION PCMCIA

**£249** + VAT & DELIVERY



Tel: **01252 838393**

Fax: **01252 834881**

37 Kingsmead, Frimley Green, Surrey, GU16 6LX

**SPEED COM PLUS** is a Voice/Fax/Data modem, capable of 14400 bps fax and data, V.32bis, V.32, V.22bis, V.22, V.21, V.23, V.17, V.29, V.27ter, V.42bis, fax class 1 & 2, MNP 2, 3 & 4. **NEW 8 BIT HIGH QUALITY VOICE RECORDING** Bitware software can have up to 999 mailboxes each capable of receiving voice, fax or data, plus Fax-on-Demand, BitFax and BitCom(Dos). Including all cables.

**SPEED COM PRO** is a Fax and Data modem, capable of 28800 bps data and 14400 bps fax. V.34 & V.Fast, V.32, V.22bis, V.22, V.21, V.23, V.17, V.29, V.27ter, V.42bis, fax class 1 & 2, MNP 2, 3 & 4. Fax and data software included (BitFax and BitCom) for Windows and Dos. Including all cables

Speed Com Plus and Speed Com Pro are BZT, not BABT approved

## Protect your children from the Internet Net Nanny ... new from Leaf

### SIMPLE, EFFECTIVE SECURITY SOFTWARE FOR YOUR P.C.

The Internet is an exciting place to roam, but it is also a dangerous one, especially for the more vulnerable members of our society; our children. Pornography, pedophilia, racial hatred, you name it ... its out there and its readily available.

NetNanny is a product of Trove, one of Canada's leading security software specialists. Net Nanny works in the background, hidden from view, checking user input for sensitive words or phrases from a list which you, the program manager, enter. It has the ability to either refuse access or shut down the system if it detects undesirable traffic.

NetNanny has many other uses, including the ability to inhibit users from tampering with system files, formatting disks, and generally doing what they should not!

*Net Nanny is available exclusively from Leaf ... OEM and VAR enquiries are welcome.*



Authorised NetManage  
Distributor

# Call 01256 707777

Leaf Distribution Limited, 7 Elmwood, Chineham Business Park,  
Crockford Lane, Basingstoke RG24 0WG

Tel: 01256 707777 Fax: 01256 707555 email sales@leaf.co.uk



# net.newbies

## Getting started on the Net



If you don't know what a "newbie" is, you probably are one. These pages are designed to be an easy-to-use reference guide to the Internet for the novice — or newbie, as hardened netters will call you.

If you don't understand what's written here or have any suggestions, please email me at [derb@pcw.cityscape.co.uk](mailto:derb@pcw.cityscape.co.uk), or write to me via "snailmail" (Internet-speak for paper mail) at PCW.

Meanwhile, here's an easy-reference guide to the tools which will help you make the most of the Internet.

### What is the Internet?

The Internet consists of millions of computers inter-connected in a global network. The number of Internet users is difficult to measure for a variety of reasons, but those worldwide who can at least exchange electronic mail messages is estimated to be 30 million and this appears to be doubling each year.

### What is the World Wide Web?

It is not the Internet. It is a service on the Internet which uses special software (usually available free) to give users access to pages of information with pictures and multimedia instead of just text. Around 15 million people have access to the World Wide Web.

### What do I need to get on?

A PC of almost any age can be connected to the Internet as long as you can plug it into a modem. You don't even need to be able to view graphics on your

machine to look around (although it helps).

A modem allows your computer to dial in to another computer with a modem and communicate with it. They come in different speeds, from 2,400 baud to more than ten times that. When you are using the Internet, the speed at which things work is more likely to be limited by the speed of your modem than by that of your computer, so I would recommend buying the fastest you can afford. If you have an old 2,400 baud "V.22bis" model it would be fast enough to exchange electronic mail messages, but to send and receive files, or use the more exciting services on the Internet, a modem which runs at a speed of at least 14,400 baud "V32.bis" is vital. Fortunately, these have plummeted in price over the past few years and now cost as little as £100.

If you have the money, I would recommend spending even more on a 28,800 baud (V.34) modem.

### Okay, I've got a modem. Now what?

For a modem to bring you information, it has to have a number to dial. This is where a "service provider" comes in — you have to subscribe to one if you want to get online. Whatever kind of connection you have set up, you will have to pay your phone costs on top of any subscription, unless you are lucky enough to get free local calls through a cable company. The bigger service providers will have "points of presence" (the numbers you dial) scattered across the coun-

try so you only have to dial a local number.

If there's no company, near to your home, which offers Internet access, you may have to pay long-distance phone rates. Once connected, though, it doesn't matter where the information you are accessing is physically located: you are always charged at the same rate. A list of providers and telephone numbers is available below; a much bigger list has been placed on our CD-ROM cover disk.

Typically, a subscription that only provides electronic mail costs around £5 a month and **Delphi** offers this. But "all you can eat" Internet access allows you to use email and Internet services for any amount of time, limited only by the size of your potential phone bill. This level of service costs £8.50 to £15 per month. There are dozens of companies offering this kind of Internet access; none of them big enough to dominate the market. The basic service being offered is largely the same, although some higher-priced providers may claim to offer more personal service or a better selection of access software.

**Demon Internet** is the best known and most popular operator. The BBC runs the BBC Networking Club (**BBCNC**) and **Frontier Communications** has launched an inexpensive Internet service that covers most of Britain at local call rates.

Major online services like **CompuServe** or **Delphi** offer Internet access, but also have a large number of services of their own to which only their subscribers have access. These

services include official technical support for hardware and software by electronic mail, online games, vast indexed software libraries and databases of business or consumer information. A monthly subscription tends to cost between £6 and £10 per month, plus an hourly charge if you are online for more than a set number of hours in that month. There can also be extra charges for accessing the more popular services.

**UK Online** is a special case, a cross between an Internet provider and an online service. For £8.50 to £12.75 per month it offers unlimited access to the Internet, partially "censored" to make it safer for children to browse, plus access to online magazines and other services.

Although programs like Windows Terminal can be used to access these kinds of services, it is normally easier to use specially-written online software. Any service provider should provide you with at least some of this software when you sign up, and if you want to choose something different, most of it can be acquired online, free of charge.

### PCW Contacts

**BBCNC** 0181 576 7799  
email: [info@bbcnc.org.uk](mailto:info@bbcnc.org.uk)

**CompuServe** 0800 289378  
email: [70006.101@csi.compuserve.com](mailto:70006.101@csi.compuserve.com)

**Delphi** 0171 757 7080  
email: [uk@delphi.com](mailto:uk@delphi.com)

**Demon** 0181 371 1000  
email: [internet@demon.net](mailto:internet@demon.net)

**Frontier Communications**  
0500 468976  
email: [sales@thenet.co.uk](mailto:sales@thenet.co.uk)

**UK Online** 01749 333333  
email: [sales@ukonline.co.uk](mailto:sales@ukonline.co.uk)





# Innovations

## Even better than the reel thing

**Nagra has been the make of choice for high-quality open-reel tape recorders, and its move into digital audio is signalled by the Nagra ARES. Tim Frost reports.**

While open-reel tape recorders and cassette decks have all but disappeared in the studio, they have held on gallantly in the portable market for reporters and for gathering high-quality sound for film and video work. But this is about to change, as new recorders based not on DAT tape but on more recognisable computer formats are beginning to get themselves established.

There is still a big business in truly portable recording systems for professional users. In the film world one tape machine, the Nagra IVS, is still one of the most regularly used recorders to capture sound when filming. The Nagra, roughly the size of a laptop PC (but a bit thicker) is a pure analogue recorder relying on old-fashioned spools of open-reel tape. The design is virtually a quarter of a century old, but the incredible build quality of the unit both in terms of mechanics and electronics means that it still holds its own against most of the digital alternatives and is proved to be one of the most reliable bits of equipment on the film set.

Portable DAT machines have made some inroads into this area and although there are some which have most of the

additional facilities that film and TV people require, DAT's biggest success has been in the quality end of the radio reporting. Here, the simpler and cheaper portable DAT recorders can offer ease of use, stereo and better sound quality than the professional portable cassette machines they're replacing.

Nagra made its first move into digital audio with an open-reel portable machine, that, despite its expense, is doing very well in the specialist recording market with classical record labels using them to record at better-than-CD quality. But the new breakthrough comes with the Nagra ARES portable. In size and shape it's much the same as its analogue predecessor, but instead of open-reel tape it uses PCMCIA Flash cards for storage.

There are several advantages in moving to solid state memory, and the first is weight. While the outer case still has to be solid to withstand the hard life of the reporter, the ARES can do away with all the motors, mechanics and general hardware needed to move tape at a perfectly regulated speed. For a reporter, any weight saving is welcome. A secondary advantage is that the system becomes

immune to vibration and movement, which in some particularly strenuous reports can upset the tape transport.

The first version of the ARES was released using 20Mb Flash cards which correspond to 40 minutes of mono recording, and this capacity will triple when the 64Mb cards arrive. Unlike tape, which has a limited reliable life span, Flash cards are difficult to damage and can be used thousands of times; in fact, the current estimate is around 100,000 re-recordings per card.

Because the audio is recorded in random access form, ARES can be used to record the interviews and edit them before sending them back to the radio station. Normally the tapes are edited after they have been received in the studio, and working on the interviews in the field should save time and give the reporter more control.

To squeeze the audio down to a small enough data stream to get a useful record time requires a considerable amount of audio compression. The Nagra uses a telecomms compression standard called G722 which gives a moderate level of audio quality. Despite there being better-sounding alternatives (such as MPEG audio compression) the

advantage of this standard is that it is common on many of the ISDN digital telephone codecs that radio stations use to get reports back from sports, political and other outside news centres. To complete the package, the ARES includes an outlet for direct connection to an ISDN network and a PC connection so that text can be loaded alongside the audio.

There will be an MPEG audio compression version later, which, while sounding better, has its own drawbacks. MPEG encoding and decoding is a processor-intensive operation which introduces a 48ms delay, due to the amount and nature of the block processing. Adding the delays generated by the ISDN network, this makes live reporting using the recorder as a terminal rather difficult, as it will create those aggravating delays between finishing a question and getting the answer that used to make transatlantic interviews, before the days of satellite, so awkward.

Nagra isn't the only company working along these lines. Another Swiss engineering organisation, Mandozzi Elettronica, is producing a similar heavy-duty reporting recorder that works with both PCMCIA Flash cards and PCMCIA hard disks. Using a pair of hard drives this DART recorder has the same sort of record and edit facilities, and working with linear PCM rather than data-reduced audio, it can produce a higher-quality result.

Although by hi-fi terms they would both be somewhat expensive toys, these new machines path the way for lower cost PCMCIA recorders, possibly breaking into the top-end memo recorder business. The memo recorder market is particularly ripe for such a machine where the lower audio quality is not a problem, but the advantages of longer recording times and much easier and faster searching would make it a must-have.



## Eye care solutions.

Does your word-processed prose look more grey than purple? Are your household accounts rose-tinted rather than red? And does your street-fighting man look like he's been in-doors for too long?

You've got weary eyes and your world is washed out.

But now a solution is available that will make those tired old peepers feel positively pampered.

Drop it in place and you'll suddenly see your graphs look more graphic, give your pictures more punch — and your games? Well, ever shared a cup of tea with a figment of a programmer's imagination before?

Simply take your present computer screen and throw it away. Then dip into the vibrant colour of a Sony monitor and bathe your baby-blues.

Your eyes won't turn red when you see the price either — and they'll positively shine when you see how cheap it is to run.

So upgrade to a Sony Trinitron® monitor. It's the clear leader.



Multiscan 20sev



Multiscan 17sf



Multiscan 15sf



# SONY®

**Sony Computer Peripherals & Components UK**

The Heights, Brooklands, Weybridge, Surrey  
KT13 0XW Tel: 0181 760 0500

A division of Sony United Kingdom Limited.

Sony, Trinitron and Multiscan are registered trademarks of the Sony Corporation, Japan.

# Driving test

LESSON

4:

*thinking outside the box.*

## Here's something to think about:

What does it take for a company to engineer hard drives so reliable they can operate for 34 years before failing? Or for a company to more than triple the capacity of its 3½" drive in under two years?

*It takes a different way of thinking*

It takes the ability to anticipate the limitations of existing manufacturing processes and the determination to develop new methods. To do this, a manufacturer must be willing to step back and conceptualise bold, new solutions.

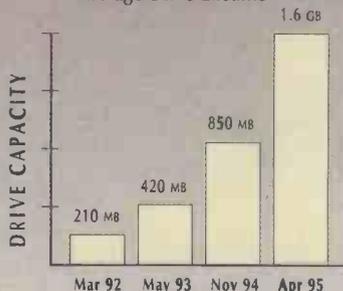
Western Digital already knows this. It's the kind of thinking that enables us to build so much quality, reliability and performance into our entire range of high-capacity drives and still keep them competitively priced.

We realise you don't spend as much time thinking about hard drives as we do. And we plan to keep it that way.

Put our drives to the test.

34  
YEARS

Average Drive Lifetime



Storage capacity increase  
of Western Digital 3½" drives

Ideal Hardware  
New Malden, Surrey  
Tel: 0181 286 5000  
Fax: 0181 286 5046

Ingram Micro (UK) Ltd  
Milton Keynes, Bucks  
Tel: 01908 260 160  
Fax: 01908 265 526

Osmosis Technologies Ltd  
Isleworth, Middx  
Tel: 0181 568 0077  
Fax: 0181 758 2760

Ambyte  
Windsor, Berks  
Tel: 01753 655 477  
Fax: 01753 655 864

Accept only  
the finest  
Caviar

WESTERN DIGITAL



# Flat hunting

**The cathode ray tube has finally found a serious rival, in the form of Sony's flat-screen PALC technology. George Cole turns on and tunes in.**

Electronics companies have for years chased the dream of a flat-screen display to replace the bulky picture tube found in most televisions and monitors. But Sony is planning to launch flat-screen TVs for the consumer market next year.

The new TVs will use Plasma Addressed Liquid Crystal (PALC) technology, and Sony says they could cost around twice as much as a conventional set. If Sony keeps to its promise, it will be no mean feat considering the various technologies that have challenged the picture or cathode ray tube (CRT) over the years.

The CRT is a remarkable piece of technology — high picture quality with low production cost has made it difficult to replace. Producing a flat-screen display is fairly simple, but making one that's affordable for the mass market is another matter. A good 14in portable TV can cost under £100; but a 14in monitor, made to higher specifications, is around twice that price.

Plasma displays work by passing a voltage through a gas at low pressure. The resulting discharge produces light.



Plasma screens can be made very thin, and Fujitsu has even developed a 50in plasma panel. But plasma displays can cost ten times more than a CRT device and tend to be used in specialist areas such as aeronautics.

But the liquid crystal display (LCD) is the leading flat-screen technology. LCD screens are made by sandwiching a thin layer of liquid crystals between two electrodes. When a voltage is passed through them they twist upright, altering the amount of light passing through. For TV displays, the liquid crystals are arranged in a matrix of cells which represent pixels or points of light.

High-quality LCD screens use

rows of transistors to switch the pixels on and off, and although the system works well, it's not cheap. Sharp has demonstrated a 21in LCD monitor, but currently it's too expensive to launch commercially. Sharp markets 12in to 15in screen LCD TVs, but even these cost around three times more than a conventional set because LCD screens are difficult to mass produce, requiring clean-room conditions.

As a result, LCD screens are used in niche markets like notebook computers, PDAs and pocket TVs, where users are prepared to pay a price premium

for a compact display. An LCD screen typically accounts for around a third of the cost of a portable computer.

Sony says PALC sets are cheaper to manufacture because the system requires low-grade clean-rooms for production. As the name suggests, PALC is a variant of conventional LCD technology.

The PALC system uses plasma in place of a transistor to act as a switch. Two electrodes are placed in a tube filled with gas that's under low pressure. By applying several hundred volts, a discharge is produced. In a conventional plasma display the discharge is used as a light source, but the PALC system uses it as a switch, which causes data to be passed to the LCD cell. Each scanning line is controlled by a plasma channel, with the whole display composed of around 450 channels.

The pixels in a PALC display are composed of several layers, including a transparent electrode, colour filter, insulation film and the plasma channel beneath them. When a discharge voltage is applied to the plasma channel, the switch turns on. Signals equivalent to a single scanning line in a CRT display are fed into the liquid crystals. The plasma channels discharge sequentially (line by line), and each pixel retains its state until data for the next frame is fed into it. Picture quality is claimed to be comparable to a CRT.

Sony's first flat-screen sets will be launched in Japan next year and marketed under the Plasmatron name. Although the LCD panels are less than an inch thick, the first sets are expected to be around 5in deep. Sony plans to launch a range of 20in to 50in flat-screen sets but the first Plasmatron TV will be a 25in model, and there are plans to target the new flat displays at the PC market. So that Picasso on the wall could soon be making way for a TV set. **PCW**

## Bluesky

# Strength in numbers

**Multiple processors are better than one when it comes to providing the power that tomorrow's computers will need. In the first of a two-part series, Nick Beard explores the realm of the supercomputer.**

Computers will never be powerful enough. Today's supercomputer is tomorrow's desktop PC and tomorrow's supercomputer will let engineers taste computational feasts they can only salivate over today. The boundary of practicable computability is continually pushed forward as new methods of programming emerge to populate the fertile terrain. In the first of this two-part series, we take a rapid tour of the realm of supercomputing and examine the flora and fauna of the exotic engineering applications which are evolving there.

Building computers which race with the best starts with the work of the computational architect. Increasingly, power comes from parallelism. Single processor architecture (only one thing can be accomplished at a time) causes a computational bottleneck and cannot compete in the race against multiprocessor rivals.

Parallel architectures are classified according to their instruction streams and data streams. These are analogous to varieties of production lines in manufacturing. A conventional,

sequential computer could be called an SISD machine (single instruction stream, single data stream). This is akin to a single assembly worker who receives a continuous stream of lumps of wood to work with, each accompanied by different plans and instructions on what to do with it.

If multiple, separate processors operate on different data items, doing the same thing to all of them, the computer is an SIMD machine (single instruction stream, multiple data stream). This would be like having a row of five carpenters, each receiving a stream of (potentially) different bits of wood, but each receiving the same wood and the same instructions at the same time. They thus (simultaneously) produce many times as many things as the single worker.

The most complex approach is the MIMD machine (multiple instruction stream, multiple data stream). Each processor has a control unit in addition to an arithmetical logic unit and memory — each is a fully fledged computer. This is like a room full of carpenters, each available to

do whatever they are asked, not necessarily in any sequence that links them together.

Newcomers to practical supercomputing are always surprised at how little of the theoretical power of high-end machines is actually exploited. A machine rated at 10 GigaFLOPS (1,010 floating point operations per second) will generally deliver a sustained performance of around 100 MFLOPS — a hundred-fold waste of power.

Part of the problem is that software is rarely able to exploit all that power. Various flavours of UNIX exist for different computers, and latterly Windows NT has increased the choice of hardware types to more than Intel-chipped boxes, but extracting the maximum performance means matching software and hardware precisely. That can be expensive. Bespoke software is expensive enough — but bespoke hardware?

So, how do we make the most of the algorithm, the core of the computers' power, on multiple machines?

Many computer programs start as follows: *take a bunch of stuff, tweak it until it looks like*

*some other bunch of stuff, then stop.* Or, if a bunch of rules holds true: *A is bigger than B, C is fatter than D, E is of higher fractional dimension than F* — then do something; *charge interest, diet, shade in light blue* until the rules no longer apply, then stop. If many processes (or processors, painters, carpenters) are at work, more gets done. If tasks can be split up and spread between workers who can solve them concurrently, the overall process should be faster. Charles Babbage, the "father of computing," knew this.

"The division of labour can be applied with equal success to mental as well as mechanical operations, and it ensures in both the same economy of time... The arrangements which ought to regulate the interior economy of a manufactory, are founded on principles of deeper root than may have been supposed, and are capable of being usefully employed in preparing the road to some of the sublimest investigations of the human mind," wrote Babbage in his chapter *On the Division of Mental Labour (Economy of Manufactures and Machinery, 1832)*.

Splitting tasks over many processors is a key step to high-performance computing. Next month, we shall look at specific hardware and software architectures and the applications which are emerging to tap all this power.

## PCW Resource Guide

### High-Performance Computing in Engineering, Volume 1: Introduction and Algorithms

H Power and CA Brebbia, Computational Mechanics Publications.

The first of an advanced two-volume set looking at the engineering use of the rapidly emerging power of supercomputers, especially in the numerically-intensive problems of engineering. A powerful and specialist work.

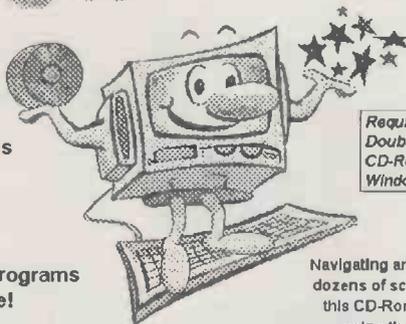
# NEW! - From the makers of PCW Interactive!

## Multimedia Mayhem

A CD-Rom packed with ALL the software, drivers and utilities you need to set your PC up for the best multimedia performance!

### PLUS:

- 10 superb animations
- 100 fantastic fonts
- 50 rendered 3D images
- 90 stereo MOD music files
- 10 digital videos
- 48 professional photos
- 5 product walk-throughs
- 14 of the best demos
- 20 powerful Shareware programs and much, much more!



Requires 386+,  
Double speed  
CD-Rom drive,  
Windows 3.1+.

Navigating around the dozens of screens on this CD-Rom is easy using the Intuitive Interface



Keep Multimedia Mayhem near your PC to have access to all the media and drivers you need to keep your multimedia PC in tip-top condition

### ORDER FORM

ONLY  
**£12.99**

Plus £1.50 P&P

Please send me \_\_\_\_\_ copy(ies) of Multimedia Mayhem.

I enclose a cheque/PO for £\_\_\_\_\_ made payable to Ultimedia.

Name \_\_\_\_\_ Signature \_\_\_\_\_

Address \_\_\_\_\_ Post Code \_\_\_\_\_

Send to: Ultimedia, 8 North Street, Ashford, Kent, TN24 8JN. Tel: 01233 666 663/Fax: 01233 666 664

### How you benefit

Our PCMCIA CD-ROM drive is ideal when you want to:

- add full multimedia facilities to your notebook
- use Multimedia and CD-ROMs on the move
- fast-load or directly use large software packages, eg MS Office, CorelDraw

### Why PCMCIA?

Our CD-ROM drive is:

- economical – use one to service several notebooks
- Easy to install – using PCMCIA Plug-and-Play
- Easy to use – you run it under DOS and Windows like any other drive

### How it beats other external drives

- Needs no mains or battery
- Lightweight (only 1.3Kg)
- Compact – 9 1/4" x 6" x 2"
- Low power – 5V operation
- 120mA in SLEEP mode
- 250mA in STANDBY
- 800mA in drive access
- 2-speed with 64k buffer
- 16 bit Audio output
- Error rate 1 in 10<sup>10</sup> bits

### Supports:

- CD-DA, CD-XA, CD-I
- CD-ROM modes 1 and 2
- Multi-session Photo-CD

### Requires:

- PCMCIA 2.1 card slot
- MS-DOS 6.0 or later
- MSCDEX.EXE (part of DOS)

Available now:  
only

£249<sup>+</sup>VAT

P&P UK mainland £8.00+VAT

### Your Money Back Guarantee

In addition to the one year Warranty, we'll give you a full refund if you're not completely satisfied within 14 days of your purchase.



## Plug & Play. Anywhere.

Do you know a better way of adding CD power to your notebook?

YOU can use our CD-ROM drive at work, at home, or on the plane to New York – unlike similar devices, it runs without batteries or mains

### Smart power saver

Whenever the drive is idle or empty, it automatically saves on your notebook's battery life.

To save even more power, you can also hot-unplug and hot-plug it – without switching off your notebook.

### Mobile multimedia

It's lightweight. Compact. Easy to install too – using PCMCIA's latest Plug-&-Play standard.

With a notebook with built-in sound card, it also gives you full-blown Multimedia.

To order, call us now on

0181-841 6711

fax 0181-841 7133

**MarkTech**  
SYSTEMS LTD

1 Belvue Business Centre, Belvue Rd  
Northolt, Middx UB8 5QQ

# ESSENTIAL APPLICATION TOOLS

## Doc-To-Help<sup>®</sup>

from WexTech

### SINGLE-SOURCE DOCUMENTATION AND HELP AUTHORING SYSTEM

Create printed documents and Windows Online Help simultaneously with Doc-To-Help's single-source documentation system

From rough layout to final printout, from the first hypertext link to custom installation of the finished Help file, Doc-To-Help offers tools to speed and facilitate every aspect of document Help authoring. Doc-To-Help customizes Microsoft Word for Windows to create a graphical authoring environment that allows simultaneous creation of printed documents and Online help.

- Customizable, professionally-formatted document templates.
- Multiple file support.
- Automatic formatting options (for screen shots, captions etc).
- A powerful indexing utility.
- Simplified table creation and formatting.
- Easy cross-referencing within the document.



## DemoSHIELD<sup>™</sup>

from Stirling Technologies Inc

### VISUAL DEVELOPMENT TOOL FOR INTERACTIVE APPLICATION DEMOS AND TUTORIALS

DemoSHIELD is for anyone who wants to create:

- Business Presentations
- Computer-Based Training
- Software Demos
- Help Wizards
- Hypertext
- Prototypes
- Tutorials
- Multi-media Resumes
- Slide Shows
- Story Boards

DemoSHIELD consists of several VISUAL tools to assist in visual planning, creating and testing a demo or tutorial. Absolutely NO knowledge of C or any other programming language is needed. It is all point and click. It is totally VISUAL! You can:

- Make things happen automatically in a demo or wait for the user to interact.
  - Create a fully interactive demo.
  - Show a sequence of scenes to some and not to others
  - Create tutorials that track performance. Include the standard branching techniques of computer-based instruction.
  - Create a demo to teach or advertise a software application.
- DemoSHIELD for Windows is quick and easy to learn and includes ten extensive demonstration examples.

## InstallSHIELD<sup>™</sup>

from Stirling Technologies Inc

### SHOULDN'T YOU BE USING THE INSTALLATION PROGRAM USED IN THE WORLD'S LEADING APPLICATIONS?

### NEW VERSION InstallSHIELD3 International

First impressions last!  
Use InstallSHIELD to create a bullet proof installation system for your application.

- Quickly create industry standard, bulletproof, professional installations.
- InstallSHIELD Setup Wizard guides your users step-by-step through the installation of your application.
- Automatically create folders, short-cuts and program items.
- Complete control over the flow and logic of your application.
- Integrated uninstallSHIELD to provide automatic uninstall.
- Available for MS Windows, Windows 95, Windows NT and OS/2.

All Trademarks Acknowledged

**SYSTEMSTAR**  
SOFTTOOLS LIMITED

4A BROCKET ROAD WELWYN GARDEN CITY ALB 7TY  
TELEPHONE: (01707) 278300 FACSIMILE: (01707) 268471

## DAKOTA KEYBOARD, MONITOR & MOUSE SWITCHES

Our Dakota Keyboard, Monitor and Mouse switches allows you to control a number of computers with **1 Keyboard, Monitor and Mouse.**

- 2, 4, 8 or 12 Computers controlled from 1 Keyboard, Monitor and/or Mouse
- VGA and SVGA Compatible (Up to 1280 x 1024)
- Works with AT/XT & PS/2 Keyboards
- Supports DOS, Windows, Windows NT and OS/2

**2 Device Option £49**  
2 Computers to 1 Keyboard, Monitor & Mouse

**4 Device Option £69**  
4 Computers to 1 Keyboard, Monitor & Mouse

**12 Device Option £329**  
12 Computers to 1 Keyboard, Monitor & Mouse

**2 Device Option £29**  
2 Computers to 1 Keyboard & Monitor

**4 Device Option £49**  
4 Computers to 1 Keyboard & Monitor

**8 Device Option £179**  
8 Computers to 1 Keyboard & Monitor

**12 Device Option £249**  
12 Computers to 1 Keyboard & Monitor

*Ideal for  
Classroom  
Setups*

## KEYBOARD, MONITOR & MOUSE - AUTOMATIC BOOTUP

Our ServeView automatic switch is the ultimate in computer switching devices. Fully expandable, it allows for automatic booting for both keyboards and mice on AT and/or PS/2 computers. A must for anyone where reliability is of prime importance.

**Call Now for an evaluation unit.**

- 4, 8, 12 or 16 Computers controlled from 1 Keyboard, Monitor and Mouse
- VGA, SVGA & EGA Compatible (Up to 1280 x 1024)
- Automatic booting with AT/XT & PS/2 Keyboards
- Automatic booting on Serial & PS/2 Mice
- Scan mode automatically switches between CPUs
- Num Lock, Scroll Lock & Caps Lock for all keyboards
- Supports upto 256 computers
- All commands can be done directly from the keyboard
- Non-Volatile memory stores configuration setup

**4 Device - ServeView £595**  
4 CPUs to 1 Keyboard, Monitor & Mouse

**8 Device - ServeView £995**  
8 CPUs to 1 Keyboard, Monitor & Mouse

**12 Device - ServeView £1395**  
12 CPUs to 1 Keyboard, Monitor & Mouse

**16 Device - ServeView £1795**  
16 CPUs to 1 Keyboard, Monitor & Mouse

**4 Device - MasterView £350**  
4 CPUs to 1 Key/Mon/Mouse

**6 Device - MasterView £395**  
6 CPUs (non-PS/2) to 1 Key/Mon/Mouse

## MULTI-ACCESS PC SHARERS

Dakota Multi-Access PC Sharers enable one computer to be shared by up to **4 Keyboards, Monitors and Serial Mice.**

- Extend up to 75 metres away
- VGA & SVGA Compatible
- Up to 1280 x 1024 resolution
- Supports DOS, Windows, OS/2 & NT
- All users see the same screen

**2 Site Option £99**  
2 Keyboards & 2 Monitors to 1 Computer

**2 Site Option £129**  
2 Keyboards, 2 Monitors & 2 Mice to 1 Computer

**4 Site Option £199**  
4 Keyboards, 4 Monitors & 4 Mice to 1 Computer

## MULTI-DISPLAY DEVICES

Dakota Monitor Splitters allow up to **64 Monitors** to display identical images. Perfect for exhibitions, training, presentations and demonstrations.

- Extends up to 75 metres away
- VGA & SVGA Compatible
- Supports up to 1280 x 1024 resolution
- Displays up to 64 Monitors from 1 device
- Independent of any operating system

**2 Monitors £ 99**

**4 Monitors £169**

**8 Monitors £249**

**16 Monitors £349**

**64 Monitors £899**

## PRINTER SWITCH BOXES

**Manual Printer Switch £11**

2 Computers to 1 Printer or vice versa

**Manual Printer Switch £19**

4 Computers to 1 Printer or vice versa

**Manual Printer Switch £22**

2 Computers to 2 Printer

**Automatic Printer Switch £29**

2 Computers to 1 Parallel Printer

**Automatic Printer Switch £39**

4 Computers to 1 Parallel Printer

**Automatic Printer Switch £39**

1 Computers to 2 Parallel Printer - Bidirectional

**Automatic Printer Switch £49**

1 Computers to 4 Parallel Printer - Bidirectional

**Automatic Printer Switch £179**

8 Computers to 1 Parallel Printer

**Automatic Modem Sharer £99**

4 Computers can share 1 Modem

**Genius Pocket LAN £69**

Parallel Port Ethernet Adaptor

Please specify DB25 ports or 36 Centronics ports on Manual Printer Switches



## VOYAGER 150™ EXTENDER

The Voyager 150™ Keyboard, Monitor and Mouse Extender is extremely small and powerful. Protect your sensitive computers and data from unauthorised access, damage and theft. Extends your worksite up to 150 metres from your PC.

- Extends Keyboard Monitor & Mouse up to 150 metres
- VGA & SVGA Compatible
- Supports up to 1024 x 768 non-interlaced resolution
- Supports both AT and PS/2 Keyboards
- Serial RS232 and PS/2 Mouse support
- Independent to all operating systems

**Voyager 150™ Extender £399**



Telephone

0181

452

8400

Facsimile

0181

452

2400

Location

Unit C

24 Lansdowne Grove

London

NW10 1PR

sales@dakotaUK.com

CompuServe:

100325,1365

Delivery

£5.00 3 - 4 Days

£10.00 Next Day

Hours Open

MON - FRI

9:30am to 5:30pm

Conditions

All Prices Exclude Carriage & VAT.

Postal, Facsimile & Telephone Orders Welcome. Send Visa, Access or Cheque



Ring Now for Next Day Delivery

Please quote PCW-1095

Call for Standard & Custom Cables, Disks & Printer Consumables.



Retro

# One bad Apple

**The unfortunate Apple III was a real damp squib compared with its hugely successful predecessor. The problems were tame hardware, hostile software and a new dialect of Basic, says Simon Rockman.**

Standing at the crossroads of computer history are the IBM PC and the Apple III. We all know that the IBM PC wasn't much cop then, but the Apple III must have been a real turkey to have remained so memorable. The *PCW* review of the machine dates back to May 1982 and, yes, it was a turkey.

Steve Jobs, one of the Apple-fathers, is on record as having said at the time that the Apple III was bound to sell well because it offered dealers a much bigger margin than had the Apple II.

But the problem was that Apple III hardware wasn't different enough from its predecessor. The Apple III was an 8-bit machine using a 2MHz 6502B at a time when 16-bit machines were just emerging. It lacked horsepower but possessed good memory addressing. The standard machine had 128Kb but could be expanded to 256Kb without the use of extra cards.

Paving the way for the future, the ROM was minimal (4Kb with the new operating system) SOS, or Sophisticated Operating System, loaded from floppy.

The case design looked as though it had a fixed monitor and a detachable keyboard. But



in practice it was the keyboard which was fixed, and the monitor which could be swapped over.

Under the skin, the Apple III was tank-like: as Dick Pountain described it in his review, "a truly massive alloy casting", the purpose of which was to act as a heat sink (something from which modern PC manufacturers could learn a lot). Since there was no fan the computer was silent, and the surfeit of aluminium meant that it didn't even get warm, let alone hot.

The metal chassis also shielded RF emissions and provided a solid base for the array of connectors: two joystick ports, an RS232 port, mono and colour video. There was no parallel port — the first joystick port doubled as an interface to

the dedicated Apple printer.

The Apple II had been a huge success, in part because it was so easy to modify. The Apple III carried warnings forbidding users from opening it. The only expansion was through four Apple II style 50-pin slots. The standard 5.25in disk drive had a capacity of 143Kb and up to three drives could be daisy-chained.

The only really exciting peripheral was the 5Mb hard disk, called a Profile. The operating system took up so much space on a floppy that it was wise to have a Profile, or at least a second hard disk.

The keyboard had a separate numeric keypad but no function keys, and of course no mouse. Like the whole system, the keyboard was very quiet, and this

allowed the *PCW* reviewer of the day to notice that there was a buzz from the processor when he was thinking.

If the hardware was tame, the software was hostile. "SOS" may well have been prophetic. Its design was heavily influenced by UCSD Pascal (University College of San Diego) and Unix, and was an attempt at being an operating system polyglot; it was about as successful as Esperanto. Unix already had a proper system of hierarchical directories and aliasing between them, with long filenames.

As with UCSD Pascal, SOS handled all devices as files; things to be read from and written to. The keyboard and VDU were "character" devices, while bigger units like the floppy and Profile were "block" devices. The latter had a volume name as well as a device name, so when a floppy called .D1 was put into the drive, the volume was called something sensible like "ACCOUNTS".

This worked even if the disk was put in another drive: a sensible notion which Macs continue to employ and an area in which PCs are still lacking, thirteen years on.

A radical change was the move to a new dialect of Basic, although an emulation was provided for Applesoft compatibility. The editing capabilities (a separate edit mode as opposed to full-screen editing) were crude by the standards of the day. The only place I ever encountered a program written in Apple III Basic was at a car spares shop in Essex, which had a crude system hated by the people who had to use it.

The Apple III was expensive, too: a basic machine with one floppy and the mono monitor cost £2,545, a second floppy drive £385 and a 5Mb profile £2,256.

It is not surprising that the Apple III died. What *is* surprising is that Apple ever thought it would do anything else. **PCW**

# BOOKS

**Just as the bookshelves are groaning under the weight of all those Internet books, along comes the next wave covering different aspects of the information superway. Ben Tisdall chooses a few.**

## **Netscape Navigator**

**Author:** Bryan Pfaffenberger  
**Publisher:** AP Professional  
**Pages:** 361  
**Price:** £/c  
**ISBN:** 0-12-553132-X  
**Rating:** ♦♦♦♦♦

## **Netscape and the World Wide Web for Dummies**

**Author:** Paul E Hoffman  
**Publisher:** IDG Books  
**Pages:** 356  
**Price:** £18.99  
**ISBN:** 1-56884-373-9  
**Rating:** ♦♦♦♦♦

Internet books seem to proliferate almost as fast as pages on the World Wide Web. The first Internet books had titles like *The Whole Internet* and set out to cover everything, but the trend now is towards coverage of particular areas like HTML or Netscape.

This month's crop includes several from IDG Books, best known for its Dummies series. The three latest are *BBSs for Dummies*, *HTML for Dummies* and *Netscape and the World Wide Web for Dummies*. These follow hard on the heels of *The Internet for Dummies*, 2nd Edition and *More Internet for Dummies*.

The Dummies books, which have notched up 17 million sales to date, all have bold black and yellow covers and cartoons by Rich Tennant to brighten up the contents. Apart from the cartoons, which are similar in style to Gary Larson's *Far Side* drawings, the illustrations are black and white screenshots,

with icons in the margin for tips, things to remember and technical details. All the books have different authors.

Netscape's Navigator has become the most popular way of accessing the Internet. The Dummies book about it will probably sell the most copies but it already faces competition from the just published Bryan Pfaffenberger's *Netscape Navigator*. The publishers, AP Professional, may lack the branding of Dummies publisher IDG, but the author has impressive sounding credentials: he combines an Associate Professorship at the University of Virginia with his other life as "an accomplished Webmaster and confirmed late night hyperlink addict".

Netscape is the best-known browser; it decodes the symbols in Web documents to give them their distinctive font and graphic-rich appearance. Browsers are also able to originate messages to find and retrieve documents each time you click on a hyperlink. The result is a program that is extremely easy to use but is doing a lot for you in the background. Netscape has successfully extended the feature set that first appeared in the ground-breaking Mosaic, particularly in adding a decent Usenet client to allow easy access to newsgroups.

*Netscape and World Wide Web for Dummies*, in fact has more information on the Web in general than Netscape in

particular: just four chapters are devoted specifically to Netscape. But this makes it all the better as a basic Internet primer. Chapter one explains what the World Wide Web is, what speed of modem to buy and what type of Internet connection to go for. Chapter two explains the Web in more detail; chapter three gets into HTTP, HTML, hypertext and URLs; and chapter four explains what to do before you get hooked up. It's not until chapter five that Netscape makes its big entrance.

Pfaffenberger's book takes a different approach, wading straight into how to get started with Netscape Navigator in chapter one and pressing swiftly on with installing Netscape and configuring Netscape helper programs. The helper programs are supplied with the book on a CD. They include Winzip, an Adobe Acrobat reader and a selection of viewers and players. There's nothing here that you can't download, but the CD conveniently puts them all in one place. Further on Pfaffenberger tackles some of the tougher topics in chapters with headings like *When the Surf gets Rough*, *Digging around in Gopher*, and *Surviving Telnet and 3270 Sessions*.

There's little to choose between the two books. Both titles have an American slant, and prices are given in dollars. The Dummies book is better for non-Netscape users, but non-Netscape users probably won't buy either book. Pfaffenberger's

book is written in a slightly more informal style, which doesn't grate. That and the bundled CD give it the edge.

## **HTML for Dummies**

**Authors:** Ed Tittel & Steve James  
**Publisher:** IDG Books  
**Pages:** 450  
**Price:** £28.99  
**ISBN:** 1-56884-330-5  
**Rating:** ♦♦♦♦♦

## **Creating Cool Web Pages with HTML**

**Author:** David Taylor  
**Publisher:** IDG Books  
**Pages:** 244  
**Price:** £18.99  
**ISBN:** 1-56884-454-9  
**Rating:** ♦♦♦♦♦

## **Teach Yourself Web Publishing with HTML in a week**

**Author:** Laura Lemay  
**Publisher:** Sams Publishing  
**Pages:** 400  
**Price:** £19.50  
**ISBN:** 0-672-30667-0  
**Rating:** ♦♦♦♦♦

For those who aren't dummies, IDG produces other books on comms, including *BBS Secrets*, which promises, among other things, *Everything You Need to Set Up and Manage a Successful Bulletin Board System*. It runs to 670 pages and looks as dry as the Arizona Desert but is no doubt worth a look for budding Sysops.

Rather more interesting is *Creating Cool Web Pages with HTML*. HTML stands for Hypertext Markup Language, the language used to create Web pages. The rather slim *Creating Cool Web Pages* appears at first sight to be competing head-on with the 450-page *HTML for Dummies*. Ironically, of the two *Creating Cool Web Pages* seems easier to follow. Early on it gives you a sneak preview of what HTML actually looks like (ASCII with a load of chevrons), and explains URLs (uniform resource locators) and how to use them. By chapter six you're

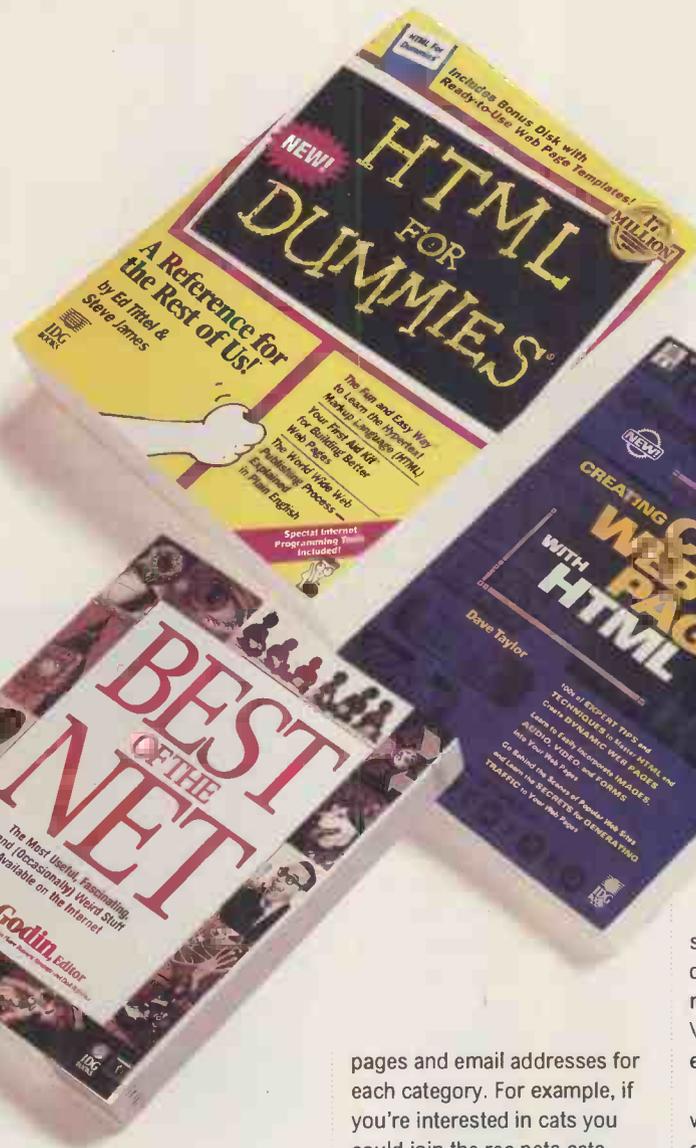
adding pointers and hot links, and by chapter eight you're jazzing up your Web pages with transparent colours, pictures, audio and video. The book comes with a disk containing all the HTML files described in the book together with a browser called Winweb. I liked its direct, nuts-and-bolts approach.

HTML for Dummies is thicker and more intimidating, perhaps because the words HTML and dummies sit uneasily in the same sentence. It seems to have been bulked out with general material that doesn't belong in a basic HTML book. It states, for example: "If your goal is to persuade or sell, you'll try to hook readers with compelling visuals and riveting testimonials as a way to provoke their interest, and then follow through with the important details."

Teach Yourself Web Publishing with HTML in a Week from Sams Publishing is another crack at the same subject. The title is misleading as it will take most people a couple of weeks just to read it. Although published this year, the book is already showing its age. Mosaic, for example, is described as the most popular browser.

But this book seems to have a more structured approach than the other two and seems better suited to commercial production of Web pages. For example it is the only one to cover how to storyboard a series of Web pages, just as you might storyboard a movie or an advert.

If you want to knock out a fast and dirty home page, try *Creating Cool Web Pages*. If you want to do the whole thing properly and have a couple of months to do it, *Teach Yourself Web Publishing* is worth a look.



#### Best of the Net

**Author:** Seth Godin  
**Publisher:** IDG Books  
**Pages:** 430  
**Price:** £21.99  
**ISBN:** 1-56884-313-5  
**Rating:** ⓂⓂⓂⓂⓂⓂ

IDG's Best of the Net is a directory rather than the style of a film guide. Rather than trying to be exhaustive, like the Internet Yellow Pages — let's face it, a complete Internet listing is fast become impossible — it offers a selection, generated by asking for nominations.

The problem with books of this kind is that they're instantly out of date. But it is useful as a ready reference, particularly for those who are new to the Internet.

The entries are arranged in alphabetical order and there are lists of newsgroups, Web

pages and email addresses for each category. For example, if you're interested in cats you could join the rec.pets.cats news group, take a look at the <http://www.ai.mit.edu/fanciers/fanciers.html> or mail the listserv@cornell.edu mailing list. The focus is more on news groups than on Web sites. Cycling has some great Web

sites, for instance, but the Best of the Net lists only the bicycle newsgroups and cycling on Veronica (a Gopher search engine).

Each topic gets two pages, with the introduction and address listings on the left and Net highlights on the right. The first 25 pages of the book are a new-user's guide to the Internet, including information on Net etiquette. It's nicely put together but not very different from other Net guides.

#### Top ten books: October 1995

1	Microsoft Windows 95 Resource Kit	Microsoft Press
2	Delphi Unleashed	Sams
3	Inside Windows 95	Microsoft Press
4	Delphi Programming Explorer	Coriolis
5	Introducing Microsoft Windows 95	Microsoft Press
6	Teach Yourself Web Publishing in a Week	Sams
7	Teach Yourself More Web Publishing in a Week	Sams
8	The Windows Interface Guidelines for Software Design	Microsoft Press
9	Linux Unleashed	Sams
10	UK Internet Book, 2nd Edition	Addison-Wesley

List supplied by The PC BookShop of 11 & 12 Sicilian Avenue, London WC1A 2HQ Tel: 0171 831 0022 Fax 0171 831 0443

# CD-ROMs

Sit back and enjoy a glass of wine while you learn about how and why your body works. The world reference atlas could show you a thing or two, while a biography of Marilyn Monroe takes the schmaltzy Tinseltown approach.



- How Your Body Works
- Bodyworks 4.0
- The Ultimate Human Body

In the words of the private health care advert: "Your body is amazing" — and these three CDs set out to prove it. All three cover the same basic ground, describing the body's organs and "systems". That is, the respiratory system, the reproductive system, the digestive systems and so on.

How Your Body Works was the most fun of the three. The main screen is set out like a laboratory, complete with Bunsen burner and microscope loaded with slides. All the information can be accessed simply by clicking on the various items scattered around the lab, such as the skeleton and the X-ray viewer.

A wide range of topics is covered but the explanations are sketchy. The authors have opted for minimal text complemented by audio clips, and there are numerous animations to make up little movies.

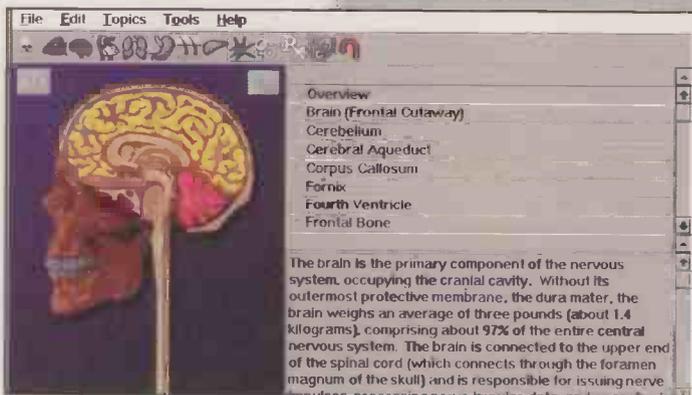
This simplistic approach is reflected in the "medical dictionary" which appears to have been written for small children. The other reference book included is a "health dictionary" which lists advisory bodies for numerous medical conditions — the drawback is that they are all in the US.



Above "See how your body works, Igor"

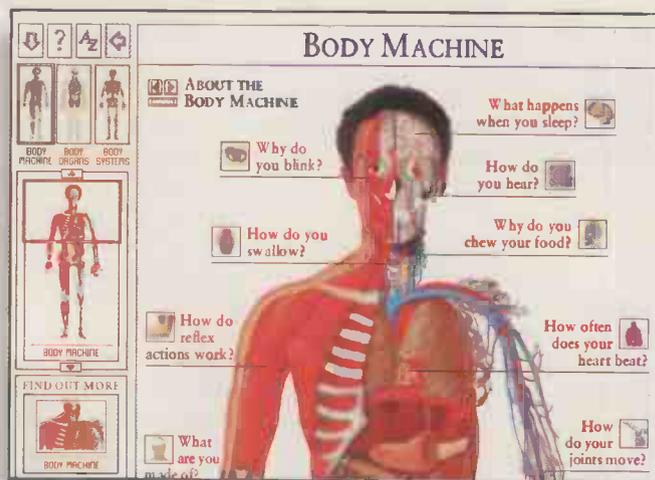
Left The exploding, spinning skull in Bodyworks 4.0

Below You can pull the ultimate human body to pieces



This CD is packed with gimmicks instead of concentrating on well-presented facts. The illustrations are not as clear as those offered on the other two disks, and the overall impression is one of good ideas ruined by bad execution.

BodyWorks 4.0 is the most comprehensive of the three CDs. Not only does it cover the various body parts and systems in detail, but also includes a section on lifestyle, and there are





lessons to follow, a quiz, and a chance to keep your own medical records in a database.

This CD is aimed at those who already have a good background knowledge (probably A-level students and above), and so the explanations tend to be quite complicated. There are many technical terms used in a densely written style, which can be confusing unless you spend some time going through the text with a fine toothcomb.

Help is at hand in the form of excellent lessons to take you step by step through various aspects of the body, and there is a very testing quiz which requires you to have learnt all the technical terms during those lessons.

The illustrations couldn't be clearer: as each body part or system is explained, there are pointers from the text to the diagram. By clicking on explanations for different parts, you can get to grips with the technical information.

There are 3D models of various body parts as well. For example, you can look at any part of the skeleton and rotate that part to give you a better idea of how it actually looks from all sides. You can even explode the skull and spin it to see how the 29 bones fit together.

Despite the difficulty of the explanations, it is undoubtedly the best of the three as a high-level teaching tool.

Dorling Kindersley takes a very different approach: The Ultimate Human Body is aimed at the beginner, but has plenty to interest anyone who knows a little and wants to learn more.

It is divided into three main sections: body organs, body system, and body machine. You click on maps of the body to choose the area you want to study. The body machine deals with how things work: why do you blink? How do reflex actions work? How do you swallow?

The great thing about this CD is that it not only tells you how individual parts of your body work, it goes some way to explaining how your body operates as a whole. Each of the items link to other related subjects so you slowly build up a picture of how everything in your body fits together.

The straightforward text explanations are helped along by excellent animations and clear diagrams. You can even ghoulishly pull these illustrations to pieces — you can take the head apart by taking out the eyes, then the nose bones, the brain and so on until all you are left with is an empty skull.

While The Ultimate Human Body is not as comprehensive as BodyWorks, it forms an extremely good introduction. But for the true biology student, BodyWorks has to be the best buy of the three.

**Adele Dyer**

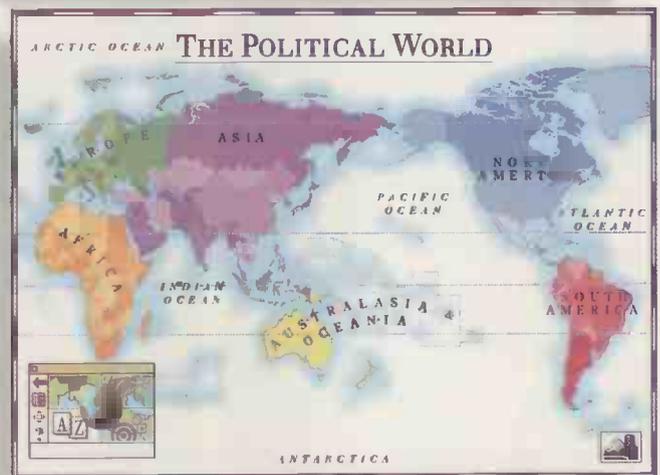
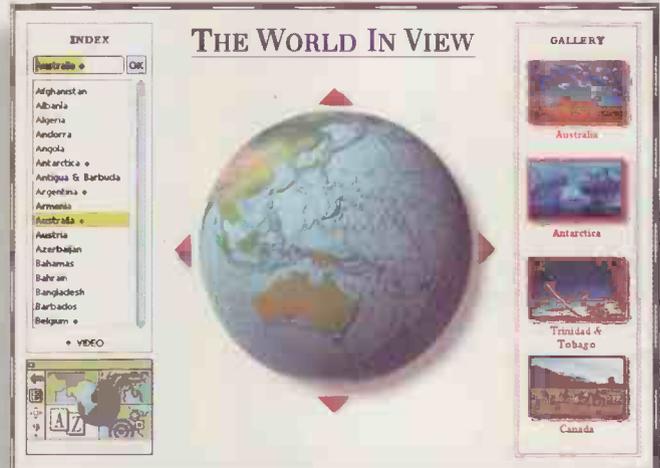
**How Your Body Works**  
**Contact Mindscape 01444 246333**  
**Price £39.99**  
**Rating ●●●○○**

**Bodyworks 4.0**  
**Contact Guildsoft 01752 895100**  
**Price £39.95**  
**Rating ●●●●○**

**The Ultimate Human Body**  
**Contact Dorling Kindersley**  
**0171 753 3488**  
**Price £59 inc VAT**  
**Rating ●●●●○**



**World Reference Atlas**  
 In contrast to many of Dorling Kindersley's other titles, this CD is aimed at adults as well as



children and is intended as a reference work rather than a teaching package.

There are five main sections: the physical world, the political world, an A to Z of countries, the "world in view" (a collection of video and photographs) and there's a comprehensive index which classifies entries according to people, places and physical features.

The political and physical world maps both allow you to view the world at a glance before zooming in to inspect an area in more detail. You can pan around and then zoom in again. But at this point you jump right into the details of a particular country, which is a shame because these maps do not provide easy-to-see details of the country boundaries for instance. Even though all the information you need is on one map, it is quite hard to assimilate all the information.

**Top This section of the World Reference Atlas has a collection of videos and photographs**  
**Above Political and physical views are available**

Within each country section there is a wealth of information and statistics: 18 topics are included for each country, ranging across subjects such as ethnic origin, politics, communications, socio-economic world rankings and the environment. Each includes graphs, diagrams, and text: you can see how each country measures up by clicking on the "compare" button in each section.

But there are drawbacks to all this information. There is very little in the way of statistical explanation so it can be quite hard for a non-economist to grasp the implications of the figures. For example, in a section

entitled "economic performance indicator" the country's GDP (gross domestic product) is charted against its consumer price index. I found it hard to fully comprehend these until I compared Britain's figures with Japan's: it would have been useful to have had some explanation of these (as well as all the statistics) in one block so you could compare more than one country at a time.

The "World in a View" section is the really fun section of the CD: you can spin a globe, pick an area to look at and pull up video and still shots of anywhere in the world. Some of them are great — the video clip of the Arctic is breathtaking — but others are more pedestrian. For Britain, Dorling Kindersley has included a video of the Trooping of the Colour. It would have been good to see more than one video clip and photograph per country, and in some cases, more imaginative versions.

I was disappointed to have discovered this CD to be less than perfect when Dorling Kindersley has such a good reputation for informative, well-organised CDs. But a few tweaks is all it needs. It is good for its type; just not what we have come to expect from DK.

**Adele Dyer**

Contact Dorling Kindersley  
0171 753 3488  
Price £69 inc VAT  
Rating ●●●●○



**Microsoft's Wine Guide**

This is one of the best CD-ROMs I've come across — certainly in my top ten of personal favourites. The wealth of information, the neat and attractive way in which it's presented, linked with the infectious enthusiasm of host, Oz Clarke (wine authority, wine writer and co-presenter of the BBC's *Food and Drink* programme) — all adds up to an attractive disc that's as enjoyable to use as it is informative.

A lot of people are afraid of wine, and it carries certain connotations of snobbery: bottles have to be opened in a certain way, the wine has to be poured just so, it must be sniffed and gargled and drunk from special glasses... Oh, for goodness sake, just give me a brown ale, I know where I am with a brown ale. But it needn't be like that.

It pays to know a little about what you are drinking, but wine should be fun. As Oz Clarke says: "I'll drink vintage champagne out of a tin mug if that's all there is... It may not be correct, but wine is supposed to be fun before it's correct."

So the Wine Guide is a fun wine encyclopedia that covers everything: from the vineyard,

through the winery, to the bottle; and how to glass it, sniff it and gargle it. And probably the best feature is what wine to drink with what food.

In fact, you name it and the Wine Guide will almost certainly have the information you want. For example, click on the category "Wine Tasting" and you'll find all the esoterica about glasses, decanting, corks and corkscrews, and how to open the bottle. Then move on to the important business of actually drinking the wine and, not to be neglected, how to spot a bad wine.

There is a fun and informative video-tasting tour as well. Oz has the enjoyable task of tasting and assessing 18 wines from champagne to port, explaining what to look, smell, and taste for.

The section "All About Wine" uses words, pictures, diagrams, video, and interactive charts to explain in considerable detail the vineyard and the winery. It tells you about the classic grape varieties, how to read a wine label and a wine list. There's a wine atlas which shows the 12 major wine-producing areas. There are 57 interactive maps, extensive geographical and historical information, grape varieties and the way countries classify the quality of their wines. And to cap it all, the Wine Guide has an A-Z list of wines containing almost 2,000 entries, and a glossary of around 700 wine terms.

**Paul Begg**

Contact Microsoft 01734 270001  
Price £40 (street price)  
Rating ●●●●●



collaboration between Bernard and her photographer father who took Marilyn's first pictures when she arrived in Tinseltown, and continued to photograph her throughout her career.

Great chunks of Bernard's book have been put onto the

disk (the text is unbelievably schmaltzy), along with a few other bits and pieces. There are video clips, a timeline so you can find out what Marilyn was up to in any given year, and narrated extracts from Bruno Bernard's diary: but true Marilyn

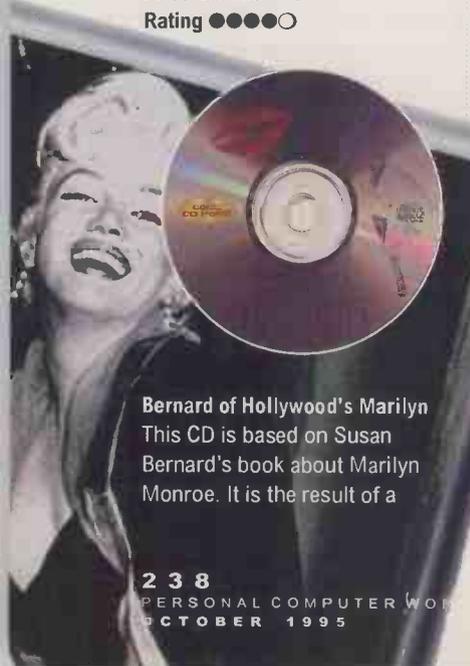
fans should not expect anything too probing.

The darkness of Marilyn's inner self is never explored in great detail, and unfortunately there is not very much in the way of a real biography. Such is the world's general fascination with her, the chances are you will already be aware of most of the facts on this CD.

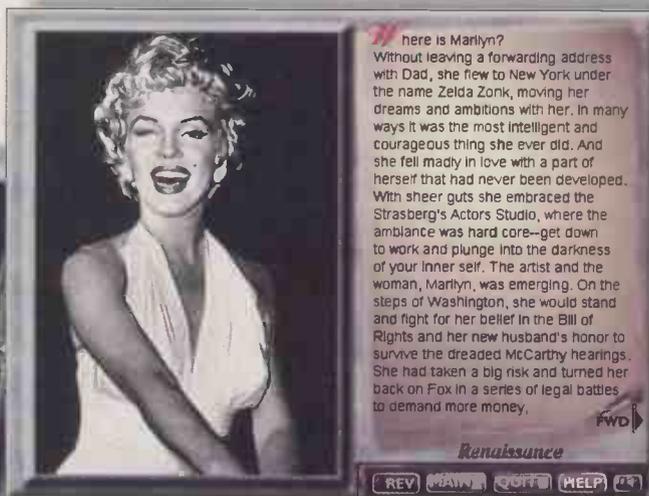
The video clips are quite fun and some of the photographs are excellent. But so many of the latter are posed studio pictures or publicity shots that they do not even provide a glimmer of the soul within the woman herself.

**Adele Dyer**

Contact Corel 0800 581028  
Price \$69.95 (£ Sterling price not available at the time of going to press)  
Rating ●●●●○



**Bernard of Hollywood's Marilyn**  
This CD is based on Susan Bernard's book about Marilyn Monroe. It is the result of a



The words might be a bit sickly, but the photos are stunning



# Back Up Your Hard Disk for £4.95\* and at up to x4 speed

If you value the contents of your PC or Mac hard disk drive then you should make permanent backups and or archives on recordable CD-ROMs costing only £4.95\* each. Alternatively you may want to use CD-ROMs to distribute large amounts of data throughout your organisation or even to clients. Recordable CDs are the most cost effective, durable, permanent storage medium and can provide decades of safe storage. Any file can be quickly accessed and read directly using any multisession CD-ROM drive. Of course, you'll need to invest in a CD Recorder with

software to record up to 650MB on a single recordable CD-ROM. Our range of CD Recorders (up to x4 speed) come complete (as pictured above) with Windows software, Adaptec SCSI card, terminator, cables, blank CDs, etc. - *dealer enquiries welcome.*

## **CD Revolution Ltd**

*CDR House, Gogmore Lane, Chertsey, Surrey KT16 9AP  
Tel: 01932 562000 Fax: 01932 571999  
also available in South Africa from CD Revolution (Pty) Ltd  
Tel: 021 880 1497/1710 Fax: 021 880 0305*



**JVC or Philips or Sony LOW COST High-Specification Internal Dual Speed SCSI CD Recorder** which can record a wide range of formats (subject to software used) CD-ROM, CD-ROM XA, CD-I, CD-DA and VideoCD.  
JVC or Philips or Sony - £1,199 +VAT (complete with WinOnCD ToGo or Corel CD Creator, Adaptec SCSI card, cables, CDs etc)



**Philips CDD522 Dual Speed External SCSI CD Recorder** which can record the full range of formats (subject to software used) CD-ROM, CD-ROM XA, CD-I, CD-DA, Photo CD (restricted image sizes) and VideoCD.  
CDD522 - £1,599 +VAT (complete with WinOnCD ToGo or Corel CD Creator software, Adaptec SCSI card, cables, CDs etc)



**Yamaha - Quad Speed SCSI CD Recorder** - The world's first (x4, x2, x1) speed record/play CD Recorder. Records (subject to software used) CD-ROM (including MPEG), CD-ROM XA, CD-I, CD-DA & VideoCD.  
CDR100 (internal) - £1,699 +VAT  
CDE100 (external) - £1,899 +VAT (as above with WinOnCD ToGo or Corel CD Creator software, Adaptec SCSI card, cables, CDs etc)



**Rimage CD Printer** - Prints customised silk screen quality printing on gold recordable CD-ROMs. Crisp sharp text, graphics, barcodes & radius type are produced using the powerful Windows based label editing software. Printing takes 15 sec.. with a professional print quality that does not smudge, fade or wash off.  
CD-Printer £3,999 +VAT



**CD Revolution CDR P-90 CD Recorder 2 PC** - Ready-to-go full featured Intel 90Mhz Pentium\* processor-based PC complete with internal Dual Speed CD Recorder, 8MB RAM, 1.2GB IDE Hard Drive, Quad Speed CD-ROM drive, 16-bit sound-card & speakers, MPEG decoder, DOS, Windows, Recording Software. CDR P-90 CD Record 2 - £2,999 +VAT

All trade marks recognised. Pentium is a trademark of Intel Corporation. Specifications and prices subject to change without prior notice. \*Prices are business to business and exclude VAT & delivery. E&EO.

# The Electronic Frontier DIFFERENCE

To help you get started in exploring the information super highways we have put together a unique package to ensure that you get the most from your faxmodem.

THIS PACKAGE IS **FREE** WITH EVERY ORDER

## FREE INTERNET BROWSER

FOR THE WORLD WIDE WEB which installs in seconds so you can 'surf the net'. Included with this offer is 3 free hours of access to the WWW and on-going rates from, as low as 70p per hour. WHO ELSE CAN OFFER YOU THAT?

## FREE COMPUERVE WINGIM

software for Windows or Apple MAC and a month's FREE access. Comuserve is the largest information service in the World. It offers a wealth of on-line services including travel reservations, share dealing, electronic mail, games and access to a wide range of technical and business databases.

## FREE INDIGO FAX BOX OFFER

This new service provides you with your own personal fax number to which faxes can be sent. Simply dial in with your faxmodem to retrieve any waiting faxes.

## FREE TECHNICAL SUPPORT

Our dedicated team of trained software and hardware engineers are on hand to help you sort out any teething problems following your purchase.

## PEACE OF MIND

30 day money back guarantee

Free Technical Support

Huge Stocks for Quick Delivery

Personal Callers Welcome

Fully trained technical sales specialists

Our **FREE 32 PAGE CATALOGUE** contains comprehensive advice on buying modems and detailed information on all our advertised products plus many more that we couldn't fit in.

Full ordering and product details from our Web Server on <http://www.electron.com>

Along with **FREE** anti virus software.

## ORDER NOW!

To place your order or request a **FREE 32 PAGE CATALOGUE:**

**TEL: 01734 810600**  
**FAX: 01734 811600**

We are now open Mon-Fri  
8.45am - 5.45pm  
and Saturday 10-2



The Electronic Frontier Ltd,  
6 Vulcan House, Calleva Park,  
Aldermaston Berkshire, RG7 8PA

Prices subject to change without notice. All prices exclude VAT and delivery. Gov & Educ POs accepted. All trademarks acknowledged. Courier Delivery £9. E&OE.

# ELECTRONIC Frontier

## A 28,800 FAXMODEM FOR JUST £89

### Frontier XL RANGE

Available in internal and external models, they are made to meet the exacting requirements of full BAPT approval. They are a faxmodem that you can be proud to own.

"This modem is certainly more than a pretty face, it can definitely deliver the goods that todays power users need."  
Internet Today



THE ELECTRONIC FRONTIER LTD

### SPECIAL OFFER



Our 28.8K Frontier XL Internal faxmodem has the same specification as our more expensive V34 model (Including BAPT approval) but features the Rockwell V.FC 28,800 standard. This will connect at 28,800 bps (and all lower speeds) to virtually all existing 28,800 modems. In fact, we haven't discovered a modem it won't work with yet!

So why buy a 14.4K faxmodem when for the same money you can have one that does BOTH 14.4K and 28.8K? And it's ideal for Windows '95!

★ THIS IS A STRICTLY LIMITED OFFER, SO 'PHONE TODAY TO AVOID DISAPPOINTMENT!

XL28S Frontier XL 28,800 Internal Faxmodem £89

"Good looks and great engineering... a powerful and relatively inexpensive faxmodem."

PC FORMAT Feb '95

- V.34 & V.F.C. 28,800 or V.32bis 14,400 bps
- V42 error correction and V42bis compression
- Group 3 fax operation with Class 1 & 2
- Call back security with 20 stored numbers (not V34)



"Frontier XL14E is easily .NETs best buy".

•NETs Magazine April '95

PRODUCT	PRICE
XL14I Frontier XL V.32bis Internal Faxmodem	£87
XL14E Frontier XL V.32bis External faxmodem	£89
XL14M Frontier XL V.32bis Apple Mac Faxmodem	£99
XL28I Frontier XL V.34 Internal Faxmodem	£155
XL28E Frontier XL V.34 External Faxmodem	£165
XL28M Frontier XL V.34 Apple Mac Faxmodem	£175

- 165550 UART on internal models
- Winfax/Dosfax & COMIT LITE software
- Speeds also V32, V22bis, V23, V22, V21
- Also MNP 2-5 and V.17 14,400 fax speeds

- Leased line and Sync capability (E models only)
- BAPT approved plus most European countries
- 16550 card available for external models £23.95
- Serial cables for PCs and MACs £9.50

### SPECIAL OFFER DIAMOND PACK

With all Frontier XL faxmodems we are offering at an exceptional price: Eclipse Fax V.6.0 - probably the best fax software in the world and on external models a high speed 16550 serial card and a serial cable.

DIAMOND 1*	Eclipse Fax V.6.0 (instead of LITE software)	£12
DIAMOND 2*	Eclipse Fax V.6.0 + 16550 Card + Free serial cable	£29

### ECLIPSE FAX 6.0 FEATURES

- OCR support
- Auto fax forwarding
- Unique Fax Assistant
- Fax Broadcasting
- Superb Phonebook
- Scanner support
- Image enhancement
- Numerous pre-designed coversheets
- Only available at time of purchase

★ "A star performer".  
Computer Shopper June '95

## Sportster BUNDLE



- ✓ Free Universal Serial Cable  
It doesn't come as standard
- ✓ Free Internet Browser  
Why pay extra for this essential software?
- ✓ Free Comuserve Windows software
- ✓ 30 day money back guarantee

14.4 model £133  
28.8 model £189  
This offer applies to external units. Ask about pricing for all other USB models.

### SPECIAL OFFER

FAXLINK FAXSWITCH £49.95 + VAT

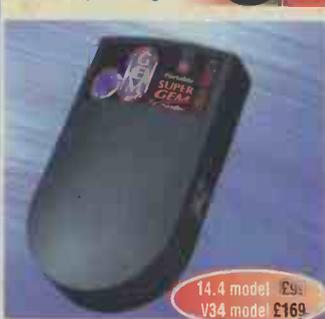
Save £459 over three years by sharing just one line between your faxmodem and telephones.

FREE Trio Data Comms Software\* worth £29 \*While stocks last

and we include the following: **WORTH OVER £50**

- ✓ Free High speed 16550 Serial Port  
Don't buy an external faxmodem if you haven't got a 16550 serial port. Most PC's don't and you would be wasting your money!

## PORTABLE FAXMODEMS



Includes mains adaptor, serial cable and software including InterNet Browser

**TEL: 01734 810600 FAX: 01734 811600**

240 DEALER AND VOLUME ENQUIRIES WELCOME PERSONAL COMPUTER WORLD

# Kids'

# Stuff

PLAYING EDGE

**Paul Begg and daughter Siobán (aged 9) have been to a birthday party, done some drawing, found out about spots and leopards, and brushed up on their French. It's alright for some...**

I always find it a little difficult to be certain about what young children will like. Siobán never liked Winnie the Pooh (apart from the Disney cartoons) and Beatrix Potter left her colder than an ice-cube. Yet Winnie and Beatrix usually adorn most of the stuff from notepads to china that grown-ups think charming and which they religiously buy for small children. That I found PB Bear's Birthday Party utterly charming therefore worried me. Would a young child greet it with the same enthusiasm as a tea plate adorned with Jemima Puddleduck?

In this case I think not. PB Bear's Birthday Party looks and sounds good and has enough to keep a young child entertained. Being a book transferred to CD-ROM — it's based on the Doring Kindersley book of the same name by Lee Davis — it's pretty close to Broderbund's Living Books series. The difference is that a mouse click almost anywhere on a Living Books screen causes something to happen, which provides the Living Books with an insurance against boredom. Clicking on a PB Bear screen simply reproduces the same animation. This isn't necessarily a black mark against PB Bear because young children like and in fact

benefit from repetition.

PB Bear also differs from the Living Books in that it has been specially designed to help young children learn to read and spell. The sentences are interspersed with pictures of (generally) familiar objects. Clicking on the picture lets you see it spelt and hear it pronounced — PB Bear works like a kind of wall frieze that introduces children to familiar objects and the connection between written and spoken words.

There are some simple games linked to the story, such as choosing from a selection of objects those which PB Bear would need to bake a birthday cake. These games are quite fun and teach a range of early learning concepts such as colours, shapes, and numbers. They are also a way for the grown-ups to get involved, offering support, encouragement and advice.

On top of all this, PB Bear can be used to introduce young children to the computer and teach them basic computer skills, such as how to handle a mouse.

### Amazing Art

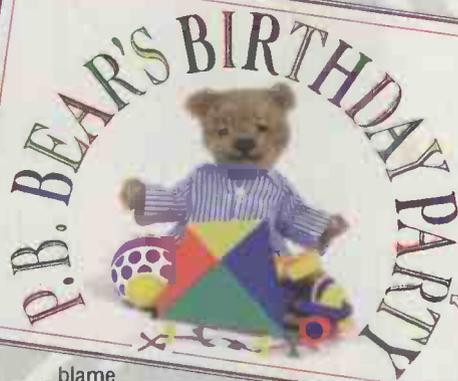
Have you ever heard of Binney and Smith Inc? No? Well, Binney and Smith are the people to

blame for having wallpaper with crayoned additions to the pattern and for that lump of Silly Putty stuck on that bit of ceiling above the stairs that you can't quite reach. A subsidiary of the Hallmark Cards people, Binney and Smith manufacture Silly Putty, Magic Marker and Crayola crayons.

Binney and Smith have joined forces with graphics software company Micrografx to produce two absolutely smashing software packages: Amazing Art Adventure for ages 3 to 6 and Art Studio for ages 6 to 12.

Both are drawing, painting and designing packages (yawn

### The big box



*We liked the way words are shown in pictures, text and spoken — PB Bear has great charm*

— are they ever going to stop crawling from the woodwork?). But these really are quite special. I got so caught

up with Amazing Art Adventure that the best part of an afternoon vanished without my noticing it while I played and watched the on-disc video on how crayons are made.

The opening screen is the Art Room, a comfortably untidy bed sitting-room where a click on almost anything either produces an animation or takes you somewhere. You can create your own pictures to colour in, or you can colour one of the loads of books pages that come with the software. You can even choose a dining table placemat from one of the several designs available

and colour it however you want.

You can add words, draw shapes, create crazy lines, add stickers, drop in some fun animations, and add a host of special effects, as well as colour with watercolours, markers and, of course, crayons. You can also undo mistakes or get rid of your picture in a number of ways, such as exploding it. Or the masterpiece can be saved, to be stored in the Art Gallery, as Windows wallpaper. The package comes with a 28-page booklet that includes a page of ideas to help parents use the products with their children.

The Crayola Art Studio is pretty much the same type of product but aimed at 6- to 12-year-olds, and is consequently rather more grown up. There's a certificate maker, badge maker, notepaper maker, a picture show maker (to produce your own animated cartoons), assorted games and a fun joke teller — where do Eskimos keep their money? In snowbanks.

Both packs are "meganeat", as my daughter would say, and I think both are especially good for the younger age group — once children hit the age of 12, Doom probably holds greater appeal!

### How the leopard got its spots

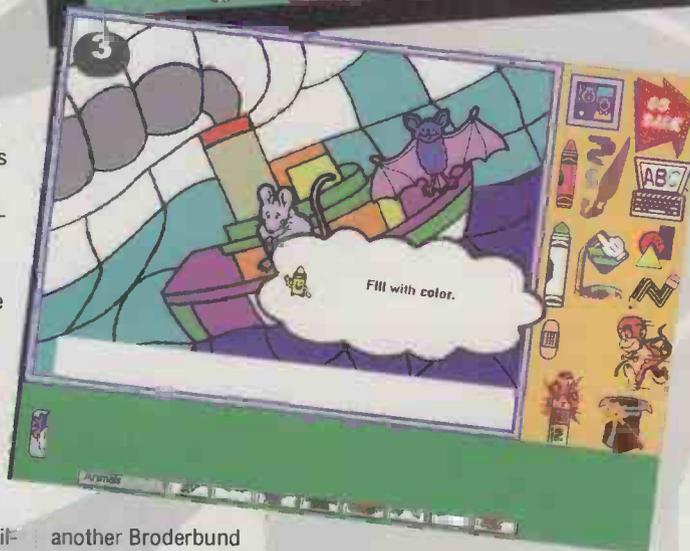
New from Microsoft is *How the Leopard Got His Spots*, one of Rudyard Kipling's *Just So Stories*. At first glance this looks like just



2



3



1 A great selection of drawing tools makes for engrossing colouring with *Amazing Art*  
 2 This is where your adventures in art begin — just click and something will happen  
 3 This is where the older child begins with *Art Studio*

The illustrations by Lori Lohstoeter are very unusual and distinctive; the guide, a laid back cartoon rabbit called PJ, is great (a lesson for children's TV makers, you don't have to have presenters who shout), and there are some games, including Mancala, an African stone game which is the oldest ball game in the world.

This sort of disc is the future of English Literature at home and in school — a great way to understand a story and explore its background.

### Zoo-Opolis

Not moving too far from animals, but returning to software for very young children, *Zoo-Opolis*, from Compton's New Media, is a nice introduction to animals for children aged three and up, though not very far up, in my opinion.

The program starts with the *Zoo-Opolis Rap*, a catchy little foot-tapper that gets you in the mood for exploring the zoo with some friends. You can explore

another Broderbund Talking Books look-alike, but there is meat here. You can have the story read to you by Danny Glover, who played the husband in *The Color Purple* but is perhaps best-known as Mel Gibson's sidekick in the *Lethal Weapon* films, or you can read the story yourself. A mouse-click

on any word gives you a pronunciation and a double-click on highlighted words takes you to further information. This might be a photograph, music, or video — for example, clicking on a zebra produced a video and information narration.

# Multimax

The Best Software      The Best Service      The Best Prices

Many other titles available – please call for prices, availability, review, info

### ART/ARCHITECTURE/LITERATURE

A Passion for Art (Barnes Collection)	£37.00
Art and Music CDs (call for info) each	£19.00
Classic Library CD	£24.00
Coats Art Review – Impressionism (unboxed) CD	£15.00
Exploring Ancient Architecture CD	£30.50
Exploring Ancient Cities CD	£40.00
Great Artists and Paintings CD	£45.00
History and Art Series each	£19.00
Investigating 20th Century Art (Tate)	£75.00
MS Art Gallery CD (Nat Gallery)	£36.00
MS Art Gallery CD (Nat Gallery)	£29.00
Oxford Shakespeare CD	£25.00
Personal Library (2000 classics/poetry) CD	£13.00
Romeo and Juliet CD	£31.00
The Ultimate Frank Lloyd Wright	£37.50

### CHILDREN'S READING CDs

A Silly Noisy House	£28.00
Adventures in Fairyland	£18.00
Arthur's Teacher Tble (unboxed)	£14.50
Just Grandma and Me (unboxed)	£14.50
Harry and the Haunted House	£27.50
Jungle Book Reader	£28.00
LITTLE MONSTER AT SCHOOL	£21.00
New Kid on the Block	£27.70
Peter Pan	£28.00
Ruffs Bone	£27.50
The Tale of Benjamin Bunny	£11.50
The Tale of Peter Rabbit	£11.50
The Tortoise and the Hare	£29.00
Thumbelina (Time Warner)	£25.00

### CHILDREN'S 3+

3 Balloons Alphabet, Numbers, Shapes CD	£22.00
Aladdin Activity Centre	£24.00
Alistair and the Alien Invasion CD	£22.00

**SUPERB VALUE AWARD WINNING CDs FROM IDNA**

Bailey's Bookhouse CD (2-6)	£14.00
Millies Maths House CD (2-6)	£14.00
Thinking Things CD (4-8)	£14.00
Thinking Things 2 CD (6-12)	£14.00
Sammy's Science House CD (3-8)	£14.00
Kid Desk CD (all ages)	£14.00

CALL FOR MORE DETAILS

Animal Antics CD	£12.00
Busy Town CD	£33.00
Community Exploration	£12.00
Fisher Price 1-2-3s CD	£22.00
Fisher Price ABCs CD	£22.00
Fisher Price Dream Dolls House CD	£22.00
Kid Keys 3.5	£22.00
Kid Phonics CD	£25.00
Learning English CD	£12.00
Me Myself and I CD	£12.00
Mind Games 3.5	£12.00
My Favourite Monster CD	£25.00
Noddy's Playtime 3.5	£18.00
Noddy's Big Adventure 3.5	£18.00
Professor Iris' Field Trip CD	£30.00
Putt Putt Goes to the Moon CD	£28.50
Putt Putt Joins the Parade CD	£16.50
Reading Adventures in Wordland	£12.00
Scouter's Magic Castle CD	£31.00
School Days CD	£12.00
Stradiwackius CD	£18.00
Sound-It Out Land CD	£25.00
Sound It Out Land 2 CD	£25.00
Spell It Out v3 3.5	£22.00
Tuneland CD (unboxed)	£15.00
World of Numbers CD	£12.00

### CHILDREN'S 7+

Algeblaster 3.5/CD	£25.00
Complete Algebra CD	£14.00
Fun School Spelling 7+ 3.5/CD	£16.00
Fun School Maths 7+ 3.5/CD	£16.00
Henrietta's Book of Spells 3.5*	£18.50
Mooray for Henrietta 3.5*	£18.50
Maths Blaster 3.5/CD V1 or 2 each	£22.70
MS Creative Writer 3.5/CD	£32.50
MS Magic School Bus Human Body CD	£33.00
MS Magic School Bus Solar System CD	£33.00
MS Ultimate Haunted House CD	£32.00
Spellbound CD/3.5*	£18.50

### CHILDREN'S 11+

ADI English 11/12/13/14 3.5	£16.00
ADI French 11/12/13/14 each 3.5	£16.00
ADI Maths 11/12/13/14 each 3.5	£16.00
ADI Eng/Fr/Maths GCSE 3.5 each	£21.00
A-Level Maths Workshop CD	£235.00
GCSE Maths Workshop CD	£135.00

see also other sections (Science, History, etc)

### CHILDREN'S ART

Art Centre (EA) CD	£21.50
Creativity Centre 3.5	£22.00
Fun School Paint & Create 3.5/CD	£16.00
Magic Theatre CD	£19.00
MS Fine Artist 3.5/CD	£32.50
Kid Pix v2 3.5	£24.00

### CHILDREN'S all ages

10/10 Range - Dinosaurs, Early Essentials, Junior Essentials, English, Maths, Science, French, German, Algebra, Geometry, numbers, Statistics, Spelling @ £17.00	
Education (Spelling, Maths) CD	£31.00
Fun School 4 under 5s/5-7/7-11 @	£15.50
Fun School 5 Dream/Time/Space @	£18.00
Kingfisher Micropaedia CD	£54.00
Kid Works 2 3.5/CD	£24.00
MacMillans Dictionary for Children CD	£18.00
Mario Missing/Playschool/Sums/Time @	£17.00
Random House Kids Encycl 2CDs	£28.00
What Air Can Do CD	£11.00

### COMPILATIONS

3ft 6 Pack (6 CDs for Kids)	£19.00
5ft 10 Pack Vol 1 (10 CDs)	£25.00
5ft 10 Pack Vol 2 (10 CDs)	£25.00
5ft 10 Pack Vol 3 (10 CDs)	£25.00
Best of Microprose	£14.50
CD Interactive 16 titles/10 CDs	£29.00
Dune/7th Guest	£16.00
Kings Quest Compilation 1-6 (not 5)	£19.00
Leisure Suit Larry 1-6 (not 4)	£22.00
Lucas Arts 1 (Sam, Tentacle, Indy) 3.5	£19.00
Lucas Arts 2 (Indy, Tentacle) CD	£19.00
Lucas Arts 3 (X Wing, B Wing, Imp Pursuit) 3.5	£20.00
One Stop CD Shop Vol 1 or 2 (11 CDs in each)	£18.00

**Publishers Pick (inc. Lemmings, Internet etc) £19.00**

Syndicate +/UFD	£29.00
Temptation (7 Gst, Lnd of Lore, Indy Car, Indy Jones)	£31.00

### DORLING KINDERSLEY/MULTIMEDIA RANGE CDs

Ann Hooper's Sex Guide	£33.00
Eyewitness Encyclopaedia Science	£39.00
Eyewitness Encyclopaedia Nature	£39.00
History of the World	£39.00
Incredible Cross-Sections Stowaway	£26.00
My 1st Inc Amazing Dict UK Version	£26.00
PB Birthday Surprise	£26.00
The Ultimate Human Body	£39.00
The Way Things Work	£39.00
World Reference Atlas	£46.00

### ENCYCLOPAEDIAS/REFERENCE

2000 Greater & Lesser Mysteries CD	£18.80
3D World Atlas CD	£38.00
Aircraft Encyclopaedia CD	£14.00
Circle of Knowledge 2CD Set	£32.00
Complete Ref Library (Mindscape) CD	£32.00
Compton's Interactive 95 CD	£21.00
Global Explorer CD	£49.00
MS Bookshelf '95 CD	£26.00
MS Cinemania '95 CD	£36.50
MS Encarta '95 CD	£45.00
ENCYCLOPAEDIA BRITANNICA CD v2	£625.00
Grolier v7 Enc CD	£19.00
Hutchinson's Encyclopaedia 1995 CD	£36.00
Jets CD	£31.00
Infopaedia CD	£21.00
Oxford Compendium (Dict/Thes/Quot) CD	£49.00
Oxford Ref Shelf (16 ref books!) CD	£49.00
Oxford Study Shelf CD	£29.50
World Atlas 5 CD	£15.00

### GAMES/ENTERTAINMENT CDs

PC3 = also available as 3.5" – prices may vary

1830 Railroad and Robber Barrons	£25.00
1944 Across the Rhine	£31.00
1942 Pacific Air War	PC3 £28.00
Acies of the Deep	PC3 £28.00
Air Havoc Control	£22.00
Alex Dampier Hockey	£19.50
Alone in the Dark 3	£32.00
Bridge Champion with Omar Sharif	PC3 £23.50
Civilization (unboxed)	£15.00
Colonisation	PC3 £29.00
Commanche Max (unboxed)	£19.50
Dark Forces	£30.00
Dawn Patrol	PC3 £28.00
Descent	PC3 £25.00
Discworld	£33.00
– D1 Zone (900 Doom levels)	from £15.00
First Encounters: Elite 3	PC3 £25.00
Flight Unlimited	£33.00
Full Throttle	£29.00
High Octane	£35.00
Jazz Jack Rabbit – full retail version	£22.00
Kings Quest 7	£27.00
Kyrandia 3	£24.00
Last Dynasty	£26.00

### LEMMINGS 2+1

£13.00

Links 386	PC3 £26.00
– courses 3.5" only	£15.50
Lords of Midnight	£25.00
Lost Eden	£24.00
Machiavelli the Prince	£28.00
Mad Dog McCreo 1 (unboxed)	£15.00
Mad Dog McCreo 2 (unboxed)	£16.00
Megarace	£14.00
Monty Python – Comp Waste of Time (ubx)	£26.00

MS Flight Sim 5.1	PC3 £25.50
- Scot-Ire, W Eng+Wales, E Eng, S Eng @	£19.00
- THE COMPLETE UK SET	£48.00
- Paris-New York	£17.00
- British Isles	£15.00
Myst	£25.00
NBA '95	£33.00
Network AIV	£28.00
NHL Hockey	PC3 £28.00
PBA Golf 486	£31.50
Premier Manager 3	£21.00
Prisoners of Ice	£27.00
Psycho Pinball	£25.00
Return to Zork (unboxed)	£16.00
Sam and Max Hit the Road (unboxed)	£17.50
Sim City 2000	PC3 £31.00
Sim Tower	£28.00
Sim Town	£24.00
Slipstream 5000	£23.00
Star Trek Next Generation	£53.00
Superkarts	£24.00
TFX (unboxed)	£16.50

### THEME PARK + 4 OTHER GAMES

£22.00

Tornado Desert Storm	£12.00
Transport Tycoon	£28.00
Wing Commander 3	£38.00
X-Com: Terror from the Deep	£28.00
X Wing Collectors	PC3 £32.90

### GAMES/ENTERTAINMENT 3.5"

Crystal Maze	£24.00
Lottery Trend Analysis	£18.00
MS Arcade	£14.00
MS Entertainment Pack	£14.00
MS Golf v2	£27.00
MS Space Simulator	£29.00
Overtind	£25.50
Quizmind	£10.00
Scrabble	£20.00
The Settlers	£23.50
Tie Fighter	£28.00
Ultimate Soccer Manager	£21.00

### GRAPHICS

Corel Draw v3	£49.00
---------------	--------

### MULTIMEDIA MAGIC CD

Excellent 6 pack special for animation, photo editing and much more ONLY £26.00

### HISTORY

Anglo Saxons	£33.00
Ancient Lands CD	£34.00
JFK Assassination CD	£9.50
Leonardo the Inventor	£16.00
MS 500 Nations	£35.00
Multimedia History of World	£19.00
The Discoverers CD	£29.50
Vietnam	£30.50
World War 2 Encyclopaedia	£37.00
World War 2: Global Conflict	£99.00

### HOME/HEALTH/COOKERY/HOBBIES

30 Gardeners World V2 CD/3.5	£18.00
Bartender's Complete Guide	£18.00
Better Home & Gdn Healthy Cooking CD	£19.00
Cookbook Heaven CD	£14.00
Complete Guide to Drugs/Symptoms each	£14.00
Complete House (Design and Database)	£14.00
Driving Test	£20.00
Family Doctor v3 CD	£16.00
Family Tree Maker 3.5 UK VERSION	£39.00
Gardening CD	£10.00
Gardening Companion CD	£27.00
Home Gardener CD	£22.00
Mavis Beacon V24 Chess+Atlases CD	£15.00
Mayo Health Clinic CD	£14.50
MS Ultimate Wine Guide	£37.00
The Herbalist	£29.00
Total Health Body & Mind CD	£37.00
Wines of the World CD	£19.00
Yoga Multimedia Guide CD	£9.50

### INTERNET UTILITIES/TUTORS

EZ Internet	£27.00
Internet Connection – Yellow Pages	£15.00
Internet Escort	£14.00
Internet For Everybody	£17.00
Internet Info (MAR 95)	£15.00
Internet Tools (Informagic)	£15.00

### How to calculate your order

Value of goods shown on page	_____
P&P	_____
VAT 17.5%	_____
TOTAL	_____

LESS £7.50 DISCOUNT IF APPLICABLE (SEE BELOW)

### £7.50 EXTRA DISCOUNT

When you purchase any title with

## The Very Best Games... Volume 1

A collection of 450+ of the latest and best Shareware Games on CD for just £24.95\* fully inclusive or less than 5 pence a game "Highly recommended" Practical PC 1994 "Game of the Month" PC Format September 1994

The CD contains over 450 great games in uncompressed format, ready to run, hassle free! We have selected only the very best titles from major companies such as Epic, Apogee and Id. All the games come ready to run... so you won't need to waste time unzipping files every time you want to play a game or move it to your hard disk.

Among the many titles you will receive are:

Doom, Wolfenstein, 3D, Spear of Destiny, Duke Nukem, Major Stryer, Shooting Gallery, Epic Pinball, Bio Menace, Jill of the Jungle, Cosmo's Cosmic Adventure, Balek Stone, Defender of Boston, Monster Bash, Halloween, Harry, Commander Keen, Sherlock, Poker, Blackjack, Mahjong, Chess, Prada, Anagram, Word games... and many more Arcade, Adventure, Educational, Casino, Card, Simulation and Strategy games too numerous to mention. We guarantee there is absolutely no padding – only the very best games are included.

\*The Very Best Games volume 1 contains shareware titles. These require separate payment of authors if found useful.

### LANGUAGE

Barlitz Fr/Ger/Ital/Sp CD each	£86.00
EZ Language CD Fr/Ger/Ital/Jap 1CD	£49.00
Global Fr/Ger/Ital each	£38.00
Hyperglot Learn to Speak Fr v4/Sp v5	£90.00
Languages of the World CD	£17.00
Learn French with Asterix CD 1 or 2	£45.50
Learn French with Asterix both CDs	£80.00
Syracuse 4-9 Eng/Fr/Ger/Sp/Jap each	£17.50
Syracuse 9-Adult Eng/Fr/Sp each	£24.00

### MUSIC

Catwalk Home Studio	£75.00
David Bowie Jump	£26.00
Hard Day's Night - The Beatles CD	£25.00
Jammer Pro	£115.00
Introduction to Classical Music CD	£31.60
Miracle Piano System	£49.00
MS Beet/Schub/Moz/Strav each CD	£37.50
MS Composer Beet/Moz/Schub 3CDs	£55.00
MS Musical Instruments CD	£34.00
Multimedia History of Jazz CD	£25.00
Musicaure Piano Tutor	£55.00
Personal Composer	£84.00
Peter Gabriel Xplora Ltd Ed	£55.00
Prince Interactive CD (unboxed)	£19.00
Resident's Freak Show	£19.00
The Rock & Roll Yrs: the 50s CD	£15.50
Woodstock 25th Anniv CD	£19.00
Viking Guide to Opera CD	£55.00
Yes Active CD	£16.00

### OFFICE/FONTS/DTP etc

2000 True Type Fnts + Clipart	£12.00
Colour Clipart 2,500 pics CD	£24.20
Corel Gallery 10,000 Images	£29.00
Corel Gallery 2 15,000 clip, 500 font/photos	£58.00
Corel Photo CDs each from	£14.00

10 PRE-FORMATTED DSHD (1.44MB) £3.00

Lotus Smartsuite R3 LIMITED STOCKS £120.00

MS Office Pro v4.3 LIMITED STOCKS £290.00

MS Office Pro v4.3 C/UPG LIMITED STOCKS £29.00

MS Works v3 CD	£49.00
Page Plus v3	£51.50
Page Plus Publisher	£81.50
Quickbooks v3	£85.00
Quicken v4	£37.45
Wordstar for Windows v2	£31.00

### RELIGION

Bibles & Religion CD	£10.00
Bible Heaven CD	£12.00
The Gospels	£12.00
The Koran - Multimedia Version CD	£50.00
The Multimedia Bible CD	£25.00

### SCIENCE/NATURE/SPACE

3D Body Adventure 3.5/CD	£19.00
3D Dinosaur Adventure 3.5/CD	£19.00
A Brief History of Time	£40.00
Animals of San Diego Zoo CD	£11.00

### BODYWORKS v4 CD (unboxed)

£18.00

Bug Insect Adventure CD/3.5	£28.00
Car+PC+Body Insight Reference 1CD	£28.00
Chemistry Works 3.5	£20.50
Dangerous Creatures CD	£37.00
Dictionary of the Living World CD	£15.00
Environment Series: Land and Air CD	£39.00
Environment Series: Water CD	£39.00
Environment Series: Theme Disks Cds @ (Climate Change: Conservation: Dwindling Resources)	£86.00
Exploring Earth Sciences CD	£60.00
Interactive Periodic Table	£99.00
Investigating Plant Sciences	£39.00
Isaac Asimov Science Adv CD/3.5*	£34.00
Leonardo the Inventor CD (unboxed)	£19.00
MS Dinosaurs CD	£14.00
Nat Geographic Mammals	£17.00
Oceans Below	£10.00
Redshift Astronomy CD	£34.00
Science Series: Elements	£99.00
Science Series: Materials	£99.00
Space and Astronomy	£14.00
The Chemistry Set	£139.00
The Physical World	£130.00
Undersea Adventure CD	£28.00
UFD CD (Photos, Accounts)	£18.00
Whales and Dolphins	£16.00

### SHAREWARE CDs

CICA 3 Dec 94	£12.00
CICA Windows 2 CD Feb 95	£10.00
Encycl of Sound I & II each	£10.00
GIFS Galaxy	£24.00
GIFS Galore	£13.00
GIF Gallery (all Vols)	£14.00
Libris Britannia 4 Science & Tech	£15.00
Libris Britannia 4	£16.00
Platinum Disks each (Education/Home and Business/Multimedia/Publisher/Utilities/Windows)	£14.00
Platinum 4 CD Pack (Ed/MW/Pub/Games)	£20.00
Shareware Heaven 3	£14.50
Simtel 95 DOS	£11.00

### UTILITIES

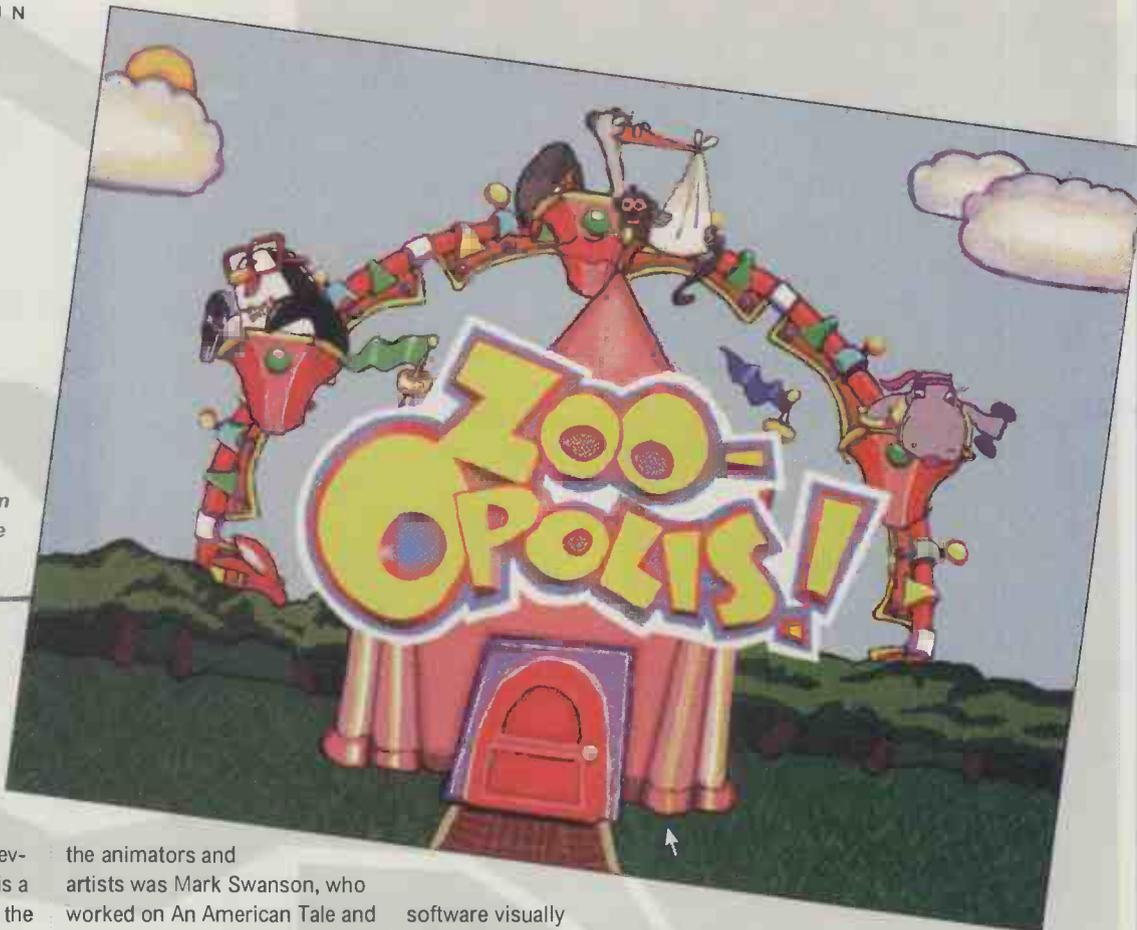
COMPLETE AFTER DARK COLLECTION	£38.00
Gamerunner (inc QEMM 7)	£39.00
Linux/Linux Toolkit	£18.00
OS/2 Hobbes	£12.00
OS/2 Warp 3.5	£65.00
OS/2 Warp CD	£53.00
QEMM 7.5	£57.00

### CD3 DISC STORAGE UNIT

Brilliantly designed for storing, protecting, cataloging and transporting up to 40 CDs. ONLY £19.00 (RRP £35)

Call for details of our new POWER CD series. Over 150 high quality multimedia CDs on Art, Music, Literature, Science, History, as well as the specialist Crime Pack (6 CD set). CDs cost from just £19.00 + VAT. Discounts are available for volumes

*Zoo-Opolis is a fun introduction to the zoo for little ones*



by taking one of nine paths, always keeping an eye open for hidden tokens; get enough of these and you get to play on a Bubble Machine.

You explore with one of several friends. Gilda Gorgeous is a giraffe who takes you behind the scenes of a real zoo. You get to see a video of an animal and listen to a zookeeper tell you what's happening.

Splash is a penguin and the Zoo-Opolis' game show host, and his game is Animal Identification. Correctly identify an animal from its silhouette and Splash tells a joke. Then there's Wally Wallaby who hosts two puzzle games, one is a jigsaw puzzle, the other a shuffle puzzle where young children can take pictures of animals, mix them up and put them together to construct weird and wonderful animals of their own.

There are several other games and videos, each hosted by an animal friend and each designed to introduce very young children to the animals of the zoo. I think some of the narration will go over the heads of some children, and some of the video wasn't of particularly good quality. But overall, Zoo-Opolis achieved what it set out to do and the youngest members of the family will probably enjoy it.

Zoo-Opolis Also has an interesting pedigree. It was created by a film maker named David Lee Miller, produced by Bill Paterson (who produced Teenage Mutant Ninja Turtles) and among

the animators and artists was Mark Swanson, who worked on An American Tale and Land Before Time. The Zoo-Opolis Rap was produced by Tom Petty and the Heartbreakers member Howie Epstein.

#### **Zut alors!**

A few months ago I reviewed a couple of French language tutors and these provoked a good response from people who were glad to see some software that the whole family could use and benefit from.

One of the better packages I looked at was French Pronunciation Tutor from HyperGlot. Now the same company has launched Vocabulary Builder. It's a smashing little program that teaches over 2,300 words, ranging from those you would use in everyday conversation to rather more unusual words and phrases.

You hear words pronounced by native speakers, so you can be certain that your own pronunciation and accent won't sound odd, but the most exciting thing about this package is that it uses Speech Recognition.

If you have a microphone you can repeat the words and the software will compare your pronunciation to that of the native speaker and score you accordingly. The speech recognition

software visually demonstrates how your pronunciation compares to that of the native speaker, and it's this which sets the package aside. It's like having an expert language teacher sitting at your side whenever you want — a genuinely innovative piece of software.

The package also includes original photographs (or, where this has not been possible, an accurate "library" photograph) to give every single word a visual representation. Thus, in one package you get to see, hear and read the word. The languages covered are French, German and Spanish.

Finally, for those who are interested in such things, the National Association for Co-ordinators and Teachers of IT (ACITT) has voted Microsoft Office (both the Standard and Professional editions) as the best general purpose software package in primary and secondary schools. ACITT is a British teachers organisation and as a result of this prestigious award, Microsoft is planning to introduce tools to Office specifically to help teachers tailor the software to specific requirements. Examples of planned value-added tools are a

lesson planner built into Word, and a pupil database in Access.

The award, together with Microsoft's plans to forge closer links with UK schools, seems to recommend Microsoft Office to anyone wanting a software suite for the home computer.

#### **PCW Details**

**PB Bear's Birthday Party**  
Price £39 inc VAT  
Contact Dorling Kindersley  
0171 836 5411  
Rating ★★★★★

• **Amazing Art Adventures**  
• **Art Studio**  
Price £29.94 each inc VAT (on disk or CD-ROM)  
Contact Frontline 01256 463344  
Rating ★★★★★

**How the Leopard Got His Spots**  
Price Under £30 inc VAT  
Contact Microsoft 01734 270001  
Rating ★★★★★

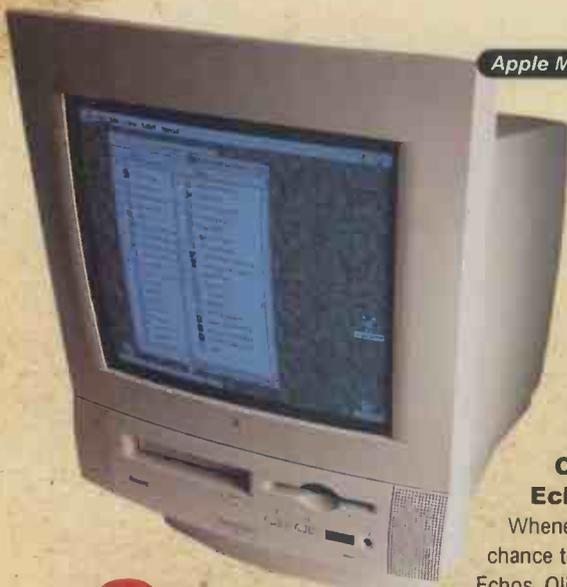
**Zoo-Opolis!**  
Price £39.99 inc VAT  
Contact Active Sales  
0181 838 1280  
Rating ★★★★★

**Vocabulary Builder**  
Price £49.95 inc VAT  
Contact Guildsoft 01752 895100  
Rating ★★★★★

# FREE SEVEN MEGABYTE CATALOGUE

17700 D	20p	2 ANIME GIRLS MAKING LOVE - In GIF format	12305 D	10p	FAROUT v4.0 - Amazing graphic display	04875 D	50p	NOTEWORTHY v1.89 - Write and print scores
07521 D	100p	4DOS v5.5C - Replaces COMMAND.COM	02455 D	40p	FASTFILE v5.45 - Fast, small and easy database	25715 W	120p	NOTEWORTHY FOR WINDOWS v1.10 - As above
04569 D	60p	ACTION GRAPHICS v2.2 - Fun animations	19576 D	10p	FAT & BOOTSAVE v2.3 - Vital safety program	22958 D	40p	O J SIMPSON - Preliminary hearing transcript
17168 W	230p	ACZAR v2.10 - Superb archive manager	03559 D	90p	F-PROT v2.18A - Easy to use antivirus program	10823 D	20p	OHM'S LAW CALCULATOR v2.0 - Nice program
11954 D	60p	ADULT HUMOUR - Hundreds of pages	20820 D	30p	FEMALE BODY BUILDER - Shirley Beattie	03819 D	40p	ONSDIE v2.0 - Print sideways on dot matrix
20891 D	40p	ADULT SAMPLER - Picture, joke & story	25637 D	30p	FIDDERLY FISK - Demo collectors must have	25661 D	20p	OPERATION OVERKILL - 10 levels for Waf3D
24576 D	190p	AF BOOK-KEEPING COURSE - Full tutorial	15764 D	50p	FILEIT v2.0 - Simple powerful freeform database	16657 D	40p	OPERATION VULTURE - You & your chopper
26491 D	50p	AGSI v1.0 - Superb professional system analyser	24096 W	40p	FILE MANAGER GUARD v2.06 - Guard your windows	02671 D	60p	ORGANISE YOUR VIDEOS v6.04 - Powerful & easy
17157 D	30p	ALMANAC - All sorts of fascinating info	11108 D	60p	FINTRIS v1.26 - One of the best Tetris clones	05977 D	20p	THE PACK RAT - Addictive scrolling arcade action
02786 D	40p	ALPHA MAN v1.1 - 20 block moving puzzles	02460 D	50p	FLEXIBACK PLUS v4.0 - Excellent back-up system	08715 W	130p	PANIC v1.0 - Classic Future Creng Megademo
26450 W	40p	ALPHABET TRAIN - TT font with letters in trucks	25672 D	80p	FLOWER CARD v6.3 - Mah Jongg type game	24389 D	30p	PARTITION RESIZER v1.1 - Leaves data untouched
24397 D	10p	A M I BIOS INFORMATION - Nice tutorial	26294 D	50p	FONT MAKER v2.20 - Makes TTFs & others	05379 D	150p	PC-CAL v2.11 - Creates interactive lessons
12083 D	50p	AM ISETUP v2.0 - Complete setup control	02814 W	80p	FONT MONSTER v3.5 - Superb TTF manager	11071 D	30p	PC-CONFIG v7.33 - Informative sysinfo program
20948 W	20p	ANIMOUSE v4.0 - Amazing animated cursors	09990 W	70p	FONTME v2.7 - Font comparison & printing utility	04708 D	50p	PC-DRAFT II v3.26 - Drawing and design
07482 D	10p	APOGEE INSTALL HELP - Assistance for gamers	27087 W	30p	FOOD FIGHT - The ultimate desktop destroyer	23266 D	40p	PC DRUMMER v2.4 - Drum machine simulator
04553 D	70p	AS-EASY-AS v5.5F - Lotus spreadsheet clone	05322 D	30p	FOODTQM v2.0 - Automatic disc formatter	08802 D	40p	PC-ECAP v3.01 - AC Circuit Analysis Program
16254 D	70p	ASTROFIRE v1.0 - Stunning graphics blaster	07204 D	60p	FORMGEN II - A favourite form designer	03240 D	50p	PC-FASTYPE VGA v4.1 - One of the best typing tutors
20993 D	30p	AUTOMATED PUNNY TEST - Check yourself out	08691 D	40p	FORMULA 1 - A good algebra tutorial	04353 D	200p	PC-FILE v7.0 - Powerful relational database
02518 D	70p	AUTOMAXX v4.1 - Powerful DOS environment	05038 D	160p	FREWAY LEDGERMASTER v3.5 - Accounts Pkge	04299 D	60p	PC-GLOSSARY v6.4 - Classic computer ref
28467 D	60p	AVARICIUS v1.6 - Graphic adventure in Pompei	26671 W	40p	FRENETIC v3.3 - Brilliant abstract art creator	26096 D	30p	PC-KEY v1.01 - Simple but good typing tutor
10960 D	30p	AVOID THE NOID - Deliver Pizzas or big trouble	24124 D	70p	FRIENDLY TYPING TUTOR - Enjoy learning	23818 D	40p	PEER GYNT'S ONION - Alternative medicine
26033 W	120p	BACKDESK v3.1 - Updated BackMenu & BigDesk	23705 D	40p	FRONTEYS - VGA Blbie verse screen saver	17195 W	20p	PENTAMINO v1.8 - Windows game of logic
19286 W	40p	BACKTOBASIX WIZARD v2 - Windows cleaner	26072 D	30p	GANJA DIGEST NO 58 - A Ganja 94 Emag	12951 D	40p	PERSONAL CHALLENGE v1.1 - General trivia
20356 D	50p	BARSOFT FORTUNE TELLER - Cynical scr. saver	06650 D	100p	GATEWORLD v2.0 - Super arcade space game	04728 D	40p	PERSONAL TAROT v3.1 - Mysteries explained
23366 D	10p	BBING FOR BEGINNERS - Easy reading	04822 D	50p	GCSE MATHS v4.0 - Good revision material	22716 D	40p	PIREAKERS MANUAL v1.1 - Old but interesting
21361 W	60p	BEAVIS & BUTTHEAD - Four outrageous WAV files	23481 D	30p	GEMSTONES II - Spectacular Breakout clone	07145 D	30p	PIANO MAN v4.0 - Compose & play for Speaker
21528 W	30p	BELCH WAVES - Twelve good speedsters	25644 D	20p	GET THE CRYSTALS 2 - Needs quick thinking	25720 W	50p	PIGS v1.0 - Extding game of skill & strategy
24404 W	130p	BESTBOOKS - Small business accounts	17737 D	20p	GETTING STONED - Guide by the Ragga Twins	26101 D	40p	PILE-UP v3.01 - A classic multi level tekt
09964 D	40p	BIBLE COMPANION v5.01 - Bible study aid	26182 D	80p	GFXFX2 - Brill collection of PA5 files	23280 D	120p	PLETHORA v3.1 - Awesome DOS desktop
23738 D	20p	BIO-LOTTO - Pick numbers using biorhythms	26079 D	20p	GLOSSARY OF INTERNET JARGON - All of it	25722 W	30p	POSTER PROGRAM v1.5 - 10 times single sheet
23378 W	30p	BIT RECYCLER v1.2 - Computer joke program	05880 W	60p	GOLDWAVE v2.10 - Powerful sound processor	26106 D	30p	POWER TEST v1.10C - Heating & perfect pitch test
24741 D	120p	BLAKE STONE PATCH - Upgrade 2.1 to 3.0	08648 D	80p	GORINS ORGANISER v2.03A - GUI Desktop	08581 D	40p	POWERCHES V5.3 - Best DOS Chess game
08612 D	70p	BLASTERIOS 3-D - Space flight needing 4MB	20478 D	80p	GRAPHIC DISPLAY SYSTEM v3.1G - Brill for all Pics	19531 D	20p	PRIME - AIRFRAME - Assembly 94 demo winner
28424 D	70p	BLITZ v5.4 - Powerful draughts player	04292 D	80p	GRAPHIC WORKSHOP v7.0E - Image converter	03783 D	50p	PRINT PARTNER v3.02 - Signs, posters & banners
08467 D	40p	BOLO ADVENTURES v1.3.0 - 40 of them	15782 D	90p	GROWIT MK III - Good gardening guide	22726 W	50p	PSYCHIC ADVISOR - Interesting answers
23443 D	40p	BOOKBANK II v2.01 - Book collectors database	25903 D	50p	HAC DOS v1.02 - Complete DOS reference	28714 W	100p	QUIZBUILDER v1.0 - Multi media quiz maker
05393 D	50p	BOOKS OF BUDDA - The Gospel and the Word	25904 W	50p	HAC SIMPLE v1.04 - Computers simply explained	16549 D	70p	RACHEL'S DOLLS v2.2 - Dressing up game
04583 D	50p	BOOT.SYS v2.10 - Easy multiconfiguration utility	24449 D	40p	HACKERS HANDBOOK - Hugo Cornwall edition	25812 D	20p	RAMMER v1.01 - Possibly worlds strangest Tetris
24420 W	10p	BRAINCHES v1.0 - Memory training program	22900 D	40p	HACKING FAQs v11 - New version, masses of info	05358 D	60p	RAMSEY'S ICHING - Simulates Chinese oracle
02792 D	60p	BREEZE v5.4 - Really good word processors	03367 D	60p	HARD DISK DIRECTOR v1.0 - File manager ++	23579 D	40p	READ-A-MATIC v1.0 - Brill Text to EXE
15702 W	40p	BRIDGE ASSISTANT v2.2 - Clever Bridge Tutor	22945 D	270p	HEARTQUAKE - Latest Iguaona masterpiece	21021 D	30p	RESNET v3.3 - Helps design resistor networks
08474 D	30p	BRIDGE PAL - Old but OK beginners bridge tutor	25735 D	100p	HERB POWER v3.0 - In depth colour guide	08593 D	40p	RESCUE ROVER - Tests your brain power
28510 D	70p	BUILD YOUR OWN V3.2 - Computer DIY manual	17022 D	70p	HIDING v3.0 - Creates Sirds and Stereograms	19698 D	30p	ROSENTHAL UNIMINAL v3.0 - System clean-up
04962 D	50p	BY THE NUMBERS v5.3 - Learn numerology	08071 D	40p	HOOSIER CITY - Adventure for beginners	02335 W	50p	ROSENTHAL WINLITE v1.0 - EXE compressor
25292 D	60p	BYTES, HUGS & KISSES - Original new demo	23215 D	30p	HOW CAN WE DO THIS - Environmental issues	06592 D	70p	SAVE OUR PIZZAS v1.1 - Stinky all in Rome
05386 D	40p	C++ TUTOR v2.6 - 20 lessons with code	10664 W	40p	ICON OF TERROR - Ndsy Desktop vandal	04588 D	60p	SAVE THE PLANET v4.0 - Environmental text & maps
20838 D	10p	CAMILLAGATE TAPES - Full transcript	12867 D	40p	INERTIA PLAYER 1.20 - Digital sound player	08733 D	40p	SCREEN THIEF v1.58 - Captures any screen
25326 D	30p	CANDY'S CONFESSIONS - 12 Amazing adventures	26193 D	50p	INFORMATION HIGHWAY ROADMAP - Very useful	25696 D	140p	SECOND GUESS v1.0 - SVGA solitaire
08488 D	40p	CAPTAIN COMIC v5.0 - Classic graphic adventure	12005 W	40p	INFOSPY v2.30 - Windows environment viewer	27886 W	80p	SENSUVQX v2.0 - 20 interesting WAV files
08917 W	90p	CARDSHARK HEARTS v4.37 - Classic card game	02469 D	60p	INTEGRITY MASTER v2.51 - Unique anti-virus	20011 D	30p	SEX - WARDERS - Alt. cont from the internet
23561 W	80p	CARTOON CALENDAR - Humorous diary	28294 D	50p	JAPANIMATIONS VOL 1 - Ten naughty girls	23960 D	40p	SHEZ v1.1 - VGA strategy & skill game
19749 D	60p	CATNAP - Must have classic animal	16189 D	80p	JELLY BEAN FACTORY - Unusual Tetris	02846 D	50p	SHEZ v1.0.6 - Superb easy to use archiving shell
24403 D	60p	CELLULAR MODIFICATION MANUAL - Phreakin	08542 D	50p	JILL OF THE JUNGLE - Wild graphic adventure	19459 W	40p	SHORTHAND FOR WINDOWS v3.0 - WP speedup
23425 D	40p	CHAN TAO CHIA - Essays & Lectures	16095 W	80p	JQL POOLS PLAN v1.2 - UK football forecast	04614 D	40p	SHOWME SAVER v4.0 - Classic screen saver
24452 D	40p	CHAMP MS. PACMAN LITE v1.1 - THE Pacman	28680 W	100p	JUKER v5.5 - Updated versatile Midi Juke Box	22290 D	50p	SILLY DOVER - Adds humour to the violence
02793 W	40p	CHARTIST v1.6A - Very attractive chart maker	25704 W	170p	JUST BUTTONS v1.03 - Super Windows enhancer	08203 D	50p	SIMPLY LABELS v4.02 - Multi featured but easy
18390 D	60p	CHEETAH v4.0 - 100s of cheats hints & tips	26080 D	40p	KATE BUSH - Unusual topless snapshot	15700 D	50p	SKY BOMBERS v1.0 - Shoot it ifll moves
26176 W	40p	CHORES & REWARDS v1.02 - Organise the children	10643 W	40p	K-CHESS v2.0 - Attractively designed version	02848 D	80p	SKYGLOBE v3.6 - See the stars on your screen
9170 D	100p	CHRONOLOG v1.2 - Superb powerful PIM	26082 D	10p	K-SPEED v4.0 - Good system & disc speed tester	17964 D	80p	SKYROADS 3D v1.1 - Space highway cruising
20805 D	20p	CINDY CRAWFORD - Revealing snapshot	25253 D	70p	KABBALAH - Text of Prophecy of the Chariot	20662 D	60p	SLICKN'S SLIDE v1.28 - Mini racing game
08686 D	40p	CIRCUMSPACE v1.0 - Space travel simulator	23554 D	50p	KAPTURE 3D v1.0 - 2 player action & strategy	22770 D	40p	SOKOBAN 94 - Brilliant VGA logic game
25682 D	50p	CITADEL OF SORROW - Awesome DOOM Wad	02980 D	80p	KILOBLASTER v1.0 - Space shootem up	20880 D	30p	SOLAR SYSTEM - Attractive beginners tutorial
26298 W	50p	CLUDGE MOOD GADGET - Mmedia Extravaganza	13040 W	40p	KITH & KIN v2.03 - Geneology for Windows	25755 D	30p	SOME PEOPLES FANTASIES - Internet conference
09997 D	40p	CLYDES ADVENTURE v3.0 - Newly enhanced	07215 W	20p	KYE v2.0 - Brain game with level creator	22645 D	30p	SOPHOCLES - Full text of the Oedipus Trilogy
05550 D	50p	COLORING BOOK v2.2 - Toddlers picture fun	05392 D	40p	THE KORAN - The E. H. Palmer translation	23953 W	170p	SOUNDZ FOR WINDOWS v2.15 - Superb audio library
17841 W	60p	COMET BUSTERS v1.1 - High speed arcade action	25669 D	30p	LA TOYA JACKSON - Super centrefold shot	27446 W	30p	SPIRAL v1.1 - Fascinating Fibonacchi visualisations
26249 D	30p	COMPLEX - Cyboman2, their latest demo	18367 D	20p	LARSON COLLECTION - 5 Farside Cartoons	26670 D	50p	SPIROTRIS v1.2 - Strategy game from Sateau
28400 D	120p	COMP-JU-CRAP NO 1 - Quality UK satirical humour	23575 D	100p	LAURA BEYERS LEVEL CREATOR - Doom DIY	26885 D	40p	SQUAREFX v1.1 - Arcade strategy game from Sateau
27523 D	50p	COMPUPHONE GOLD v6.0B - Superb address book	08264 D	30p	LETTER ATTACK v2.2 - Childrens typing tutor	28724 D	100p	STAR SPECK - Amusing Star Trek parody
11493 D	50p	COMPUSHOW 2000 v2.04A - Easy picture viewer	27430 D	50p	LIL' PICASSO v1.0 - Preschool painting & drawing	22754 D	20p	STONED - Vidous virus type computer gag
27085 W	50p	COMPUTER DICTIONARY - 1000 item help file	05488 D	40p	LITTLE BLACK BOOK v7.0 - Favourite address book	04269 D	40p	STUPENDOS v5.0 - Powerful file & disc manager
26171 D	20p	CONRAD (JOSEPH) - The Secret Sharer	01990 D	50p	LITTLE LISTS v3.0A - Friendly & simple database	10659 W	120p	SUNSHINE v4.05 - DOS & Windows tutorial
11831 D	200p	COOPER GRAPHICS - Collection of 1800 PCXs	18367 D	20p	LOAD & UNLOAD v2.22 - Control your drivers	19000 W	40p	SUPERBAR v2.0N - Super productivity enhancer
22032 D	40p	CRUSH v1.8 - Add extra compression to ZIPs	13677 D	40p	LOADER LARRY v1.2 - Brilliant animated puzzles	01807 W	40p	TERMINATOR - Amazing Windows Saver
26363 W	170p	CRYSTAL WALLS v1.0 - Animated Wallpaper	28687 D	50p	LOGIC CIRCUIT ANALYSIS v1.1 - Good tutorial	27499 D	70p	THINKING IN C++ - Masses of useful source code
23566 W	70p	CURSOR DELUXE v1.01 - Enhanced cursors	20730 D	20p	LOGISYM v3.0 - Digital logic simulator/tutorial	04924 D	80p	TIME LORD v2.0 - PIM & much more
28618 D	40p	CYBERBOX ADVENTURES - Superb logic puzzle	26475 W	80p	LOTTYERY MASTER v2.0 - Full featured UK system	07011 D	30p	TODAY v3.6 - Recall historical events
17777 D	40p	DANDYLINES - 1000 good philosophical quotes	22812 D	60p	LOTTO BUSTERS - Powerful 6-49 system	10859 W	140p	TOP DRAW v2.01 - Object oriented drawing
04553 D	40p	DAZZLE v5.1B - Award winning graphic display	22637 D	40p	LOTTOMATIC v1.23 - Good 6/49 system	26375 W	10p	TOPCAT - Cute desktop cat for cat lovers
23771 D	50p	DC CHALLENGE v2.0 - Electronics tutorial	08795 W	40p	MABRY SOFTWARE MEGA PACK - VBx's	17156 D	40p	TREK GURU - Trek enthusiasts info database
20444 D	30p	DEHACKED v2.2 - Doom EXE editor	23498 W	70p	MAGIC HEXAGONS v1.2 - Clever brain game	22013 D	40p	TREKKER T FONTS - Three Treckle type fonts
25751 D	80p	DELEGATOR - Well written management tutorial	05706 D	40p	MAGIC DESK v3.22 - Icon based DOS menu system	05389 D	50p	TURBO PASCAL TUTORIAL v2.6 - 20 Lessons
02803 D	50p	DESERT FROG v4.0 - Classic screen saver	07593 D	80p	MAJOR STRYKER v1.4 - Apogee space shoot'em up	11270 D	30p	TUTOR MASTER v1.0 - Beginners DOS tutorial
28657 D	50p	DIGITAL CHALLENGE v2.0N - Electronics tutorial	02484 D	40p	MATHS v3.8 - Helps visualise maths functions	00083 D	80p	TUTOR.COM v6.2 - Comprehensive DOS tutorial
28442 D	50p	DISK CATALOG SYSTEM v3.0 - Electronics selling	02596 D	40p	MATHS MANIC v1.03 - Good Drills for Juniors	24325 D	100p	TWISTED EXISTENCE - Brilliantly weird demo
25689 W	50p	DMAUD FOR WINDOWS v1.4 - Doom Audio Editor	02479 D	40p	MATH JONGG v4.2 - Latest enhanced version	22661 D	50p	UFO REPTS - Much fairly recent material
19220 W	20p	DODGER - Super Windows PacMan Clone	28785 D	30p	MATH ZAPPER v1.2 - Makes Maths drills enjoyable	24413 D	80p	UK CLUB MEMBERSHIP - For club organisers
16205 D	30p	DOOM CHEAT v2.3 - Elegant archive manager	22639 D	40p	MCSHELL - MAC like front end for DOS	27084 W	80p	VB TIPS & TRICKS MAR 95 - Hints & code
02806 W	80p	DRAG AND ZIP v5.3 - Elegant archive manager	08798 D	40p	MEAL MASTER v8.02 - Best recipe organiser	25992 D	30p	VECTOR PRO v1.1 - C & C++ Maths library
11515 D	30p	DRILLER v3.5 - Maths drills for juniors	23526 D	30p	MEAL MASTER RECIPES - 200 The cuisine	09389 W	90p	VIRUSCAN FOR WINDOWS v2.2.2 - Scans & cleans
24393 D	30p	DR SICK OFF CLEAN JOKES - 600 awful jokes	26195 D	80p	MEAL MASTER RECIPES - 1301 Chicken variations	25731 D	40p	WADMAN v1.01 - Convert 1.X Doom stuff to 2.0
08501 D	30p	DTQ v2.2 - Clever concentration game	13061 W	40p	MEDIAEVAL WAR v1.5 - Many featured war game	26283 D	80p	WARLOCK SCREEN EDITOR v1.1.3 - Brill
16088 D	20p	DUMPPROG v2.62 - Disseminate EXE files & more	15540 D	30p	MEDITATIONS - Superb philosophical reading	23079 W	50p	WAYFARER v2.2 - Superb Program replacement
03219 D	40p	EARLY BIRD v1.0f - User-friendly reminder program	05109 D	50p	MELODY MASTER v2.5 - Write, edit & play	23601 D	50p	WIBBLE v1.1 - Details of over 1000 UK BBBs
12355 D	200p	EASY BASE v8.0 - Powerful database	25272 D	40p	MERLIN'S MUSIC v1.02 - Music tutorial & player	01895 W	60p	WINFRAC v17.3 - Powerful fractal generator
09577 D	40p	EASY DRAFT v5.0 - Easy drafting with tutorial	22696 D	40p	MICROBOOK v1.20 - Create electronic manuals	16032 W	80p	WINJAMMER v2.30 - Powerful Midi sequencer
02807 D	50p	EASY PROJECT v4.07 - Project management	27086 W	140p	MORAFF'S SPHEREJONGG - Brill new Mahjongg	09656 W	80p	WINSLEUTH GOLD v3.0 - Super systems diagnostics
18355 D	10p	EBCOM PRO v2.31 - Easy configuration files editor	25713 W</					

# The Personal World Live 95



Apple Macintosh Performa 5200

multimedia-ready. Easy to use with plenty of software and expansion options, the 5200 is an excellent entry-level system.

**Olivetti Echos 44c**

Whenever we get the chance to review the Echos, Olivetti usually has to fight to get it back. Not only is it one of the best-looking portables we've seen, it's great to use and puts the power of a desktop PC in a box no larger than A4. It has all the power management facilities you'd expect in a high-end

**C**ome down to the Live 95 Show at Earl's Court, between 19th and 24th September 1995, and enter the PCW Live 95 competition. You can pick up an entry form at the PCW stand and win one of these fabulous prizes. You can find us on stand 3076 next to the Olivetti and Microsoft stands.

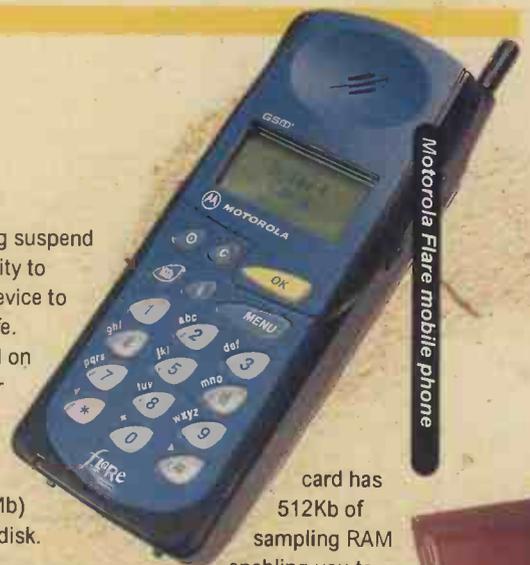
**Apple Macintosh Performa 5200**

A return to the original all-in-one-design, Apple's Performa 5200 is the latest and greatest Macintosh for the home. A 75MHz PowerPC 603 RISC processor gives it plenty of power, while 16-bit stereo sound and a quad-speed CD-ROM drive make it

notebook, including suspend to disk and the ability to power down any device to conserve battery life. The Echos is based on a 50MHz processor and is complemented by 4Mb RAM (upgradable to 24Mb) and a 340Mb hard disk.

**Creative Labs AWE-32**

The AWE-32 is the sound card to have. It's compatible with just about every piece of software ever written and is supplied with some excellent applications of its own, allowing you to write and edit MIDI and digital audio tracks. The



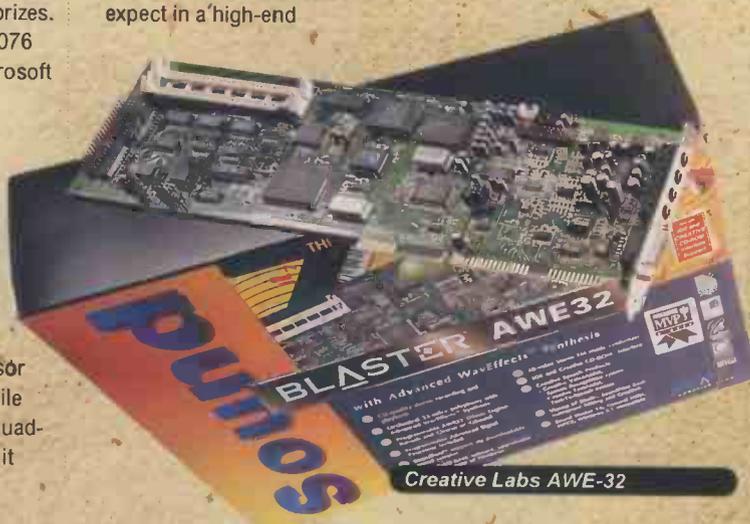
Motorola Flare mobile phone

card has 512Kb of sampling RAM enabling you to download your own instruments to use with a MIDI keyboard or sequencer. Its WaveTable synthesiser is General MIDI-compatible and has 1Mb of instruments stored in ROM.

**Yamaha QY22**

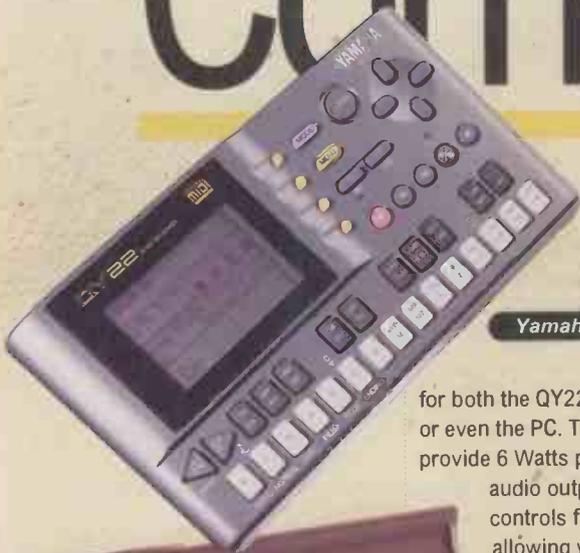
Yamaha has given us its brand new QY 22 to give away at Live 95. Combining an eight-track MIDI sequencer and 16-part multitimbral synthesiser, you can compose your own tracks just about anywhere — even on the beach. The synthesiser is fully GM-compatible, and as well as 128 instruments there are eight drum kits ranging from analogue through to orchestral and jazz.

Of course you'll want to play your stuff to friends, so Yamaha has also given us a pair of high-quality shielded speakers good



Creative Labs AWE-32

# Computer Competition

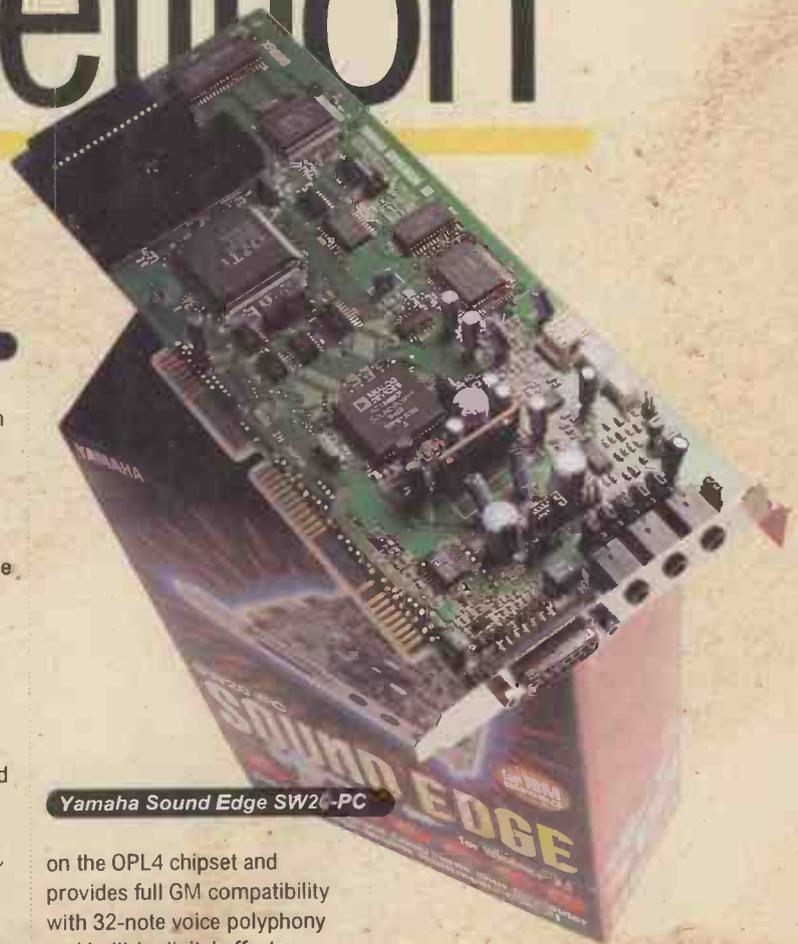


**Yamaha QY22**

for both the QY22, the Walkman or even the PC. The YST-M5's provide 6 Watts per channel audio output and have controls for presence, allowing you boost treble and bass frequencies.

### Yamaha Sound Edge SW20-PC

Also brand new from Yamaha is the Sound Edge 16-bit sound card for the PC. After eight years of supplying sound chips to manufacturers like Creative Labs, Yamaha has released its own card. The SW20-PC is based



**Yamaha Sound Edge SW20-PC**

on the OPL4 chipset and provides full GM compatibility with 32-note voice polyphony and built-in digital effects. Effects, which included reverb, pitch shifting and chorus, can be applied to any audio source in real time thanks to the on-board DSPs.

### Motorola Flare mobile phone with free connection

Motorola is offering its new Flare mobile phone as part of the PCW Live 95 competition.

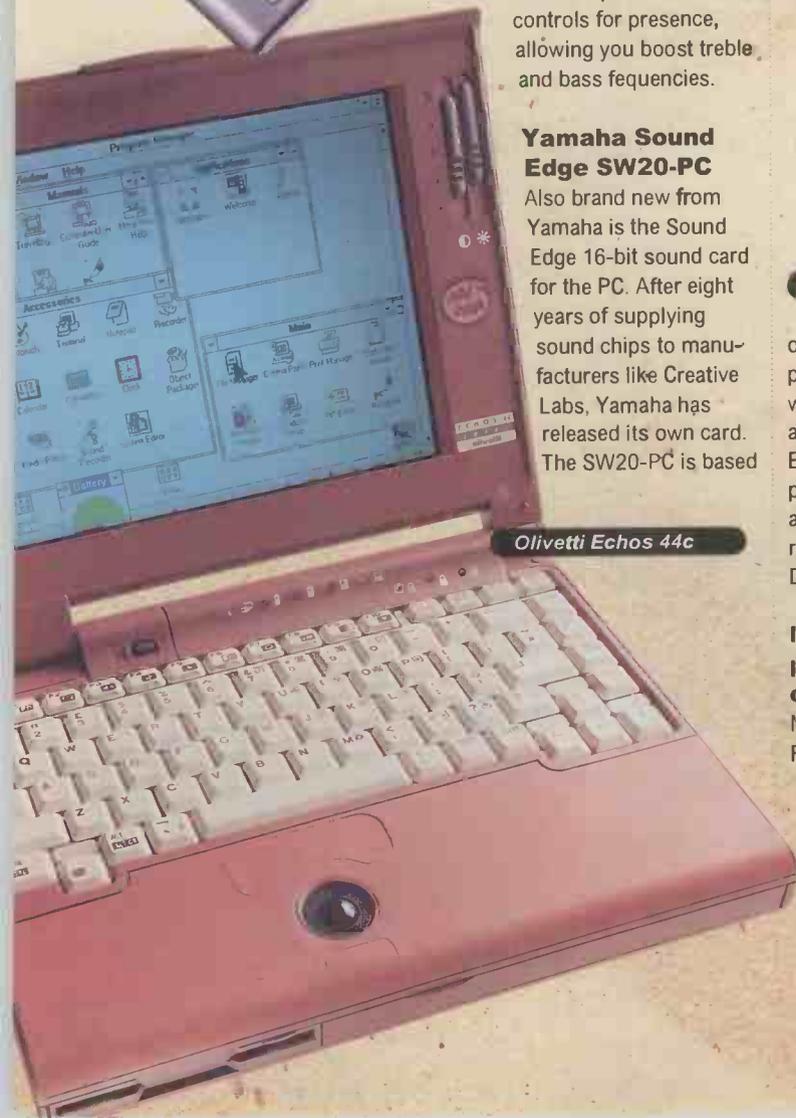
When it comes to choices Motorola's on top, offering 5 different styles in its Flare range. Not only is there a choice of analogue and

digital networks, but there's a full palette of colours to choose from. Motorola Tel. Co. will also provide the winner with free connection (subject to status).

### Rules of entry

The PCW Live 95 competition is open to all readers of Personal Computer World except for employees, and their families, of VNU Business Publications, Apple, Olivetti, Creative Labs, Yamaha and Motorola. The judge's decision is final. No cash alternative is available in lieu of prizes.

**Olivetti Echos 44c**



## S c r e e n p l a y

## NEWS

## Strategic launch

PC users who like to think about their games are in for a treat with the announcement of several new titles from strategy masters Mindscape and SSI. Together, the companies are launching a range of products boasting detailed 3D graphics, fast action, and more challenging puzzles than ever before.

First up is *DeathKeep*, a first-person-perspective Advanced D&D adventure billed as "a relentless slaughter on a frighteningly huge scale". An evil Necromancer has escaped from his icy prison and is wreaking havoc upon the surrounding lands. *DeathKeep* sends you into the bleak, frozen wastelands to become a hero and put paid to his plans. Key features include a full 3D view, over 25 detailed levels and a choice of three personas, including a powerful female elf-mage.

*Thunderscape* takes the player into more traditional dank dungeons on a quest to fight off dragons, gremlins and other things that go bump in the night. Once you've dealt with that you might like to try *Silent Hunter*, an authentic action-packed World War II submarine simulator.

*DeathKeep* costs £44.99 for PC, £39.99 for 3DO. *Thunderscape* and *Silent Hunter* are PC-only and both retail at £44.99.

Mindscape is on 01444 246333

## Brain drain

Electronic Arts has announced the release of *Fade to Black*, the sequel to the highly successful French platform affair, *Flashback*. Set in the year 2190, it centres on a race of malevolent brain beings that have taken control of the solar system. Returning to the role of *Flashback* hero Conrad, you must confront the evil and bring freedom to the universe once again.

The plot sounds a little familiar, but with six levels, various missions and a cinematic feel (thanks to varying camera angles) *Fade to Black* should be fun.

*Fade to Back* will eventually appear on PC CD-ROM, but no price or release date has been set.

Electronic Arts is on 01753 549442

## JUMP!

The Lemmings are back, and this time they're in 3D. Just when you thought it was safe to turn on your PC, the green-haired horrors return to send you further up the wall. *3D Lemmings*

follows the same style as the previous smash hits from Psygnosis, but the action takes place entirely in a 3D world. It may be more of the same, but judging from the demo we've received it looks like a winner.

*3D Lemmings* is destined for release on PC and Sony Playstation in September.

Psygnosis is on 0151 282 3290



## Deadly deadlines

Drug running, prostitution, muggings and murders — everyday events in New Arhus, the setting for *Synnergist*.

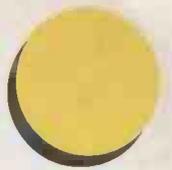
The latest from 21st Century has you assuming the role of Tim Machin, an underpaid and overworked journalist (I know the feeling) investigating the gruesome death of a valued informant. Check out the local drinking establishments, interview undesirables, and uncover dark

secrets and cover-ups that will shake the very foundations of the city.

*Synnergist* will appear on PC CD-ROM in October.

21st Century is on 01235 851852





# FX Fighter

**Gloves on, fists raised, and left foot forward, Chris Cain checked out this exciting new beat 'em up from Philips Media and GTE Interactive — and despite its slightly blocky graphics, he couldn't help being impressed.**

Despite being one of the definitive video game genres, fighting games ("beat 'em ups") have never been big on the PC. Those which have appeared have been mediocre at best, with Probe's conversion of *Mortal Kombat II* probably the most impressive. This month, Philips Media and GTE Interactive are attempting to redress the balance with *FX Fighter*.

*FX Fighter* is a one-on-one beat 'em up, set in the style of current arcade hits such as Sega's *Virtua Fighter 2* and Namco's *Tekken*. It's the first game to use BRENDA, a new graphics technology developed by Argonaut software, famed for the timeless *Starglider* series and the Nintendo hit *Starwing*.

As with other beat 'em ups there isn't much of a plot, and *FX Fighter*'s revolves around an alien conqueror named Rygil. Space-hopping Rygil has entered a new solar system and challenged the champions from different worlds, including you, to meet him in a battle for supremacy. Win and you get to claim his planet, the most awesome weapon ever devised. Lose and you and your species are space dust.

Making up the combatants are human warrior and obligatory hero Jake, a praying mantis, a cyborg, an alien priest, Magnon the living rock and four intergalactic females. Each has their own agenda and fighting style, and after reading some brief descriptions you must side with one. I went for Cyben 30, a mean machine if ever there was one. His race is out to destroy all organic life, but what the hell.

To earn the right to fight Rygil you must first defeat the

others, whom you can choose to tackle in any order. Each enemy has over 40 attacks at their disposal, but naturally, some are easier to do away with than others. In true beat 'em up tradition not all the moves for each character are printed in the instructions — the idea is that players experiment to find them for themselves. Basic movements and punch and kick buttons are provided, but that's about it.

Moves to discover include jumping kicks, back-breaking throws, multi-punch combinations and ground attacks. Siren will even kick her male opponents in the goolies if you find the right joystick and button combination. Some of the moves are somewhat similar to those in Sega's product, and can sometimes be accessed with the same combinations.

Each opponent is fought on their home world, which is destroyed in a spectacular explosion if they're beaten. Unlike other fighting games

you don't have to tackle yourself at any stage, giving some credibility to the storyline. The final stage is Rygil's homeworld, a dark artificial planetoid with devastating fire power.

Thanks to the BRENDA engine, *FX Fighter* boasts smooth-moving 3D graphics, and motion capture techniques have been employed to provide realistic animation. The polygon-based images are shaded and texture-mapped, with the level of detail adjustable to suit your particular setup. The box quotes a minimum 486DX/33 specifications, but it takes something like a Pentium 90 to have all features at maximum. As characters fight, the camera angle on the action changes to give the player the best view.



While the characters and backgrounds move smoothly, the level of design and artwork isn't up to the standards of games like *Virtua Fighter 2*. In fact, some of the graphics are downright blocky, and bad polygon clipping leads to particularly messy visuals at some points. For example, Jake's arms and head seem detached from his body when the camera zooms in for a close-up.

In contrast the sound is fine with good in-game music, except for the "poppy" title tune, and all characters grunt, groan and give a suitable taunt when they win.

Where *FX Fighter* does score highly is playability, and arcade beat 'em up fans will feel right at home. The game is best controlled with a joystick, such as the Phase 9 Phantom 2 from Euromax, but the keyboard can be used as an alternative. It supports a two-player mode and none of your opponents are easy to beat, although some like Magnon and Rygil are especially

tough, so the urge to discover hidden more powerful moves is strong.

*FX Fighter* is a brave attempt at boosting the PC beat 'em up scene, and those looking for *Virtua Fighter*-esque action without nipping down to the arcade or the expense of an additional game console should be satisfied. It's not perfect, especially in terms of graphics, but it's certainly the best of its type at the moment.

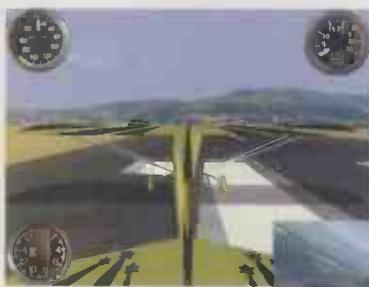
**System requirements:**  
486DX 33MHz PC, 4Mb RAM, VGA, SoundBlaster or compatible, single-speed CD-ROM drive. Note that *FX Fighter* requires a maths co-processor.  
Price: £39.99  
Contact: Virgin Interactive  
0171 368 2266

# Flight Unlimited

**"Ladies and gentlemen, this is captain Nicola Kingsley welcoming you aboard the virtual flight of a lifetime, during which we will change planes four times, perform extensive aerobatics, and I will learn to fly. Those interested should consult the flight details below."**



It's a clear sunny day. You've chosen your aeroplane, strapped yourself in and as you push back the throttle you feel the surge and weight of the plane as you leave the runway. This latest flight simulator, Flight Unlimited by Looking Glass Technologies and marketed in



those ripe and lovely thermals from the mountains.

To enhance the sensation of flying, each plane — the Bellanca Decathlon, Pitts Special S-2B, Sukhoi

suspended in air and using the flow of air over the wings to manoeuvre. Moving the stick to the right doesn't necessarily result in a simple right-hand turn as the program simulates real flying conditions, which aren't always perfect — the flight can get a bit bumpy. Just when you think you've got the hang of it, the sun shines in your eyes and haze limits your vision. Comments like "Next time we'll use your plane" and "Do you know how much these things cost?" appear with alarming frequency in your log book.

When you do complete a successful landing, you certainly feel as if you've been somewhere. And once you've mastered straightforward flying you can move onto aerobatics, with nice realistic touches like simulated G-force which can cause grey-outs and blurring of vision.

Flight Unlimited's rugged and interesting landscape has been created from aerial stereoscopic photographs (two photographs shot



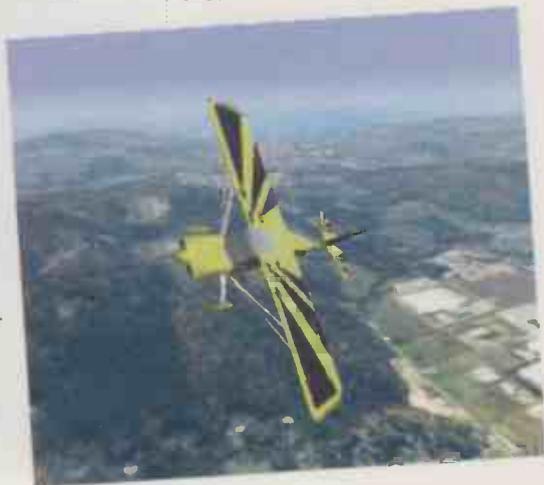
occasional scrape with a tree top, you quickly pick up the necessary skills and learn to handle the plane effectively.

To help you, there's ground instruction and hands-on flying lessons at all skill levels. The Operator's Manual is also excellent; well illustrated and entertaining with interesting bits of information and insights into the principles of flying.

Flight Unlimited provides a choice of four powerful single-prop planes, all of which are capable of aerobatics to challenge your developing skills. There is also a glider, a Grob Sailplane, if you want to catch

SU31 and Extra 300S — has its own specific sound effects, which are actual recordings of engine sounds made in the air. Throaty engine noises are replaced by the sound of air rushing over the cockpit of the Grob Sailplane, capturing the eerie quiet of soaring through the air.

Flying these planes is very different from driving a car. For once, you get the feeling you are





## Leisure Lines

### Brainteasers courtesy of JJ Clessa.

#### This Month's Quickie

A brief puzzle to get your brains going.

I offered my grandson 9p for every sum he got right in his school test, with the proviso that he gave me 6p for every one he got wrong. There were 25 sums and, in the end, we broke even. What percentage mark did he get?

#### This Month's Prize Puzzle

We think this month's problem is fairly difficult, unless you have access to some very powerful computing facilities. But, since every month there's invariably someone who sends us an entry with the remark "Done without a computer!", so we could be proved wrong yet again.

Three lads — Alf, Bert and Cyril — run a small business buying and reselling tropical fish. One day they go off to the local suppliers where Alf buys only goldfish, Bert buys only angelfish, and Cyril buys only guppies, with the proviso that the number of fish bought by any man must not exceed the price that he pays in pence per fish.

When they get back, they compare their purchases and discover that the numbers of fish that each has bought and the price of each fish in pence are all 2-digit prime numbers, with all six 2-digit prime numbers being different. Moreover, the total money, in pence, spent by the three of them is a 5-digit prime — which also happens to be palindromic.

How much did they spend altogether?

Now, the problem above should keep your micros whirring for a while. However,

we know there are more than 20 solutions possible and almost 2,000 combinations of 2-digit primes which produce these solutions. So, as it stands, things are a bit too easy.

However, it just so happens that two, and only two, of these 20 solutions can be obtained by only one combination of 2-digit primes. So, to ensure that you earn your prize this week, we are asking you for one of those two solutions — either will do.

Answers on a postcard or the back of a sealed envelope — no letters and no floppy disks, please. Then send it to: PCW Prize Puzzle — October 1995, P.O. Box 99, Harrogate, N. Yorks HG2 0XJ, to arrive not later than 20th October 1995. Good Luck!

#### Winner of July 1995 Prize Puzzle

Just under 100 entries were received for our permutation problem about the school sports — and, judging from the many incorrect submissions, it must have been more difficult than we had originally envisaged. In total, there were 420 ways in which the winning score of 30 points could have been achieved. The answer to the problem was therefore 419, since we asked for the number of combinations possible other than the one given.

The winning card, as usual drawn by our ERNIE (who still hasn't come up with the lottery winners), came from Mr John Stephenson of Bolton, Lancs. Congratulations, John, your prize will be with you soon.

Usual pep message to all the others — keep trying, it could be your turn next.



from slightly different angles) of five different US airfields. This method enables the generation of a real 3D landscape to fly in, complete with mountains and valleys. This is complemented by an efficient texture-mapping technique that displays plenty of detail, but not at the expense of speed, so the scrolling of the scenery is pretty smooth although you still need a fairly fast PC. (Even on a DX4/100 there was room for improvement.)

The relatively steep learning curve and level of skill required probably makes Flight Unlimited more suitable for the flying

enthusiast than those looking for things to shoot. That said, there's plenty of excitement to be had. Well worth the money.

#### System Requirements:

Minimum 486DX/33, DOS 5.0, 8Mb RAM, mouse, double-speed CD-ROM, 25Mb hard disk space, VESA 1.2-compliant SVGA graphics card

Price: £49.99

Contact: Virgin Interactive  
0171 368 2266

## Charts

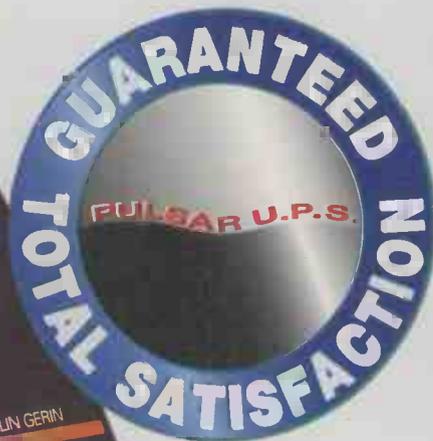


AMV  
**LEVEL ONE**

### PC

1	Ecstata (PC/CD)	Psygnosis
2	Star Trek Final Unity (CD)	Microprose
3	Terminal Velocity Shareware (PC/CD)	US Gold
4	Ultimate Doom (PC/CD)	Virgin
5	Player Manager 2 (PC/CD)	Virgin
6	Dark Forces (CD)	Virgin
7	Full Throttle (CD)	Virgin
8	Syndicate Plus (CD)	EA
9	EA Sports Rugby (CD)	EA
10	Hi Octane (CD)	EA
11	DiscWorld (CD)	Psygnosis
12	FX Fighter (CD)	Phillips
13	Simon The Sorcerer 2 (CD)	Adventuresoft
14	AIV Networks (PC/CD)	Ocean
15	Last Dynasty (CD)	Sierra
16	Virtual Pool (CD)	Interplay
17	World Cup Year '94 (PC)	Empire
18	Transport Tycoon (PC/CD)	Microprose
19	X Wing (PC)	US Gold
20	Colonization (PC/CD)	Microprose

**"with the new Pulsar E Series,  
we promise to give you much  
more than a UPS..."**



**SPECIAL OFFER**

**30 days free access  
to the Information  
Highway**

**CompuServe®**

**the new Pulsar E Series UPS :**

■ **a unique blend of style and  
high technology!**

Every Pulsar E Series UPS incorporates numerous extra functions designed to increase the protection of your data and to simplify the management of your electricity supply. Because of their revolutionary ergonomics, these new UPSs merge perfectly into your workplace.

- products twice as compact and twice as light as other UPSs currently available.
- 4 installation positions to gain as much space as possible: vertical, horizontal, rack-mounted or wall-mounted (with optional accessories).
- unique Powershare function allowing management of individual power supplies.
- SNMP management.
- Pulsar ES for the support and protection of PCs.
- Pulsar ESV for the support and protection of stackable hubs and of servers.

■ **take advantage of our Total  
Satisfaction Guarantee!**

With your Pulsar E Series UPS you automatically qualify for the 5 free unique advantages of our Total Satisfaction Guarantee! For full details, all you have to do is contact us.

**For full information and for a list of your  
nearest resellers, ask for information  
by post by faxing 01 753 790 323  
or call Freephone 0500 820 828**  
Quoting code : PCW/2

■ **order before 30.09.95 for a free  
month's subscription to CompuServe®!**

With every purchase of a Pulsar E Series UPS made before 30th September 1995, we are offering a month's free subscription to CompuServe®, plus several hours free connection. Simply send in your guarantee form to receive your starter pack.

**request for more information**

To: Merlin Gerin Marketing,  
8 Shaftesbury Court, Chaveley Park, Slough SL1 2ER

YES, without any obligation to purchase, I would like to know more about the new Pulsar E Series UPS. Please supply me with the list of my nearest resellers who are taking part in this promotion, and who can help me to profit from the Total Satisfaction Guarantee and the Special CompuServe® Offer!

Name .....

Mrs  Miss  Mr

Job Title .....

Company .....

Address .....

Post Code .....

Telephone .....

Fax .....



**MERLIN GERIN**

GROUPE SCHNEIDER

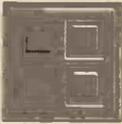
# Hands On Contents

## OPERATING SYSTEMS



### Windows 95 254

Tim Nott has had plenty of time to get right into Win95 and tidy up his desktop.



### Windows 256

Tim Nott takes a serious approach to system security and bumps into Bob's friend, Bubba.



### DOS 260

Cross-linked cluster error messages in CHKDSK come under Simon Collin's scrutiny.



### 32-Bit 262

Monolithic applications? No thanks, says Chris Bidmead. But then, Linux-FT's Xadmin is OK...

## APPLICATIONS



### Word Processing 266

Some choice examples of keyboard shortcuts are demonstrated by Tim Phillips.



### Spreadsheets 270

Stephen Wells enjoys some salted peanuts as he helps the RNLI with their "pay packets".



### Databases 274

They're ganging up on him! — gang-screens, that is. Mark Whitehorn wins the day.



### Graphics & DTP 278

In holiday mood, Gordon Laing joins up the dots to reveal good, budget drawing packages, and indulges in some trickery with tracery.



### Multimedia 282

Panicos Georgiades and Gabriel Jacobs feel that you may have to resort to the Pentium for reasons other than speed.



### Sound 286

Get into the groove with Steven Helstrip as he sings the praises of Vienna and, er, is that Beavis and Butt-head on those Loopisms?

## PROGRAMMING



### Visual Programming 292

Tim Anderson tries the OCX in a calendar application and glances at Visual dBase.



### Low Level 298

Maths, anyone? Mike Liardet makes light work of some equation-solving techniques.

Hands On is the place where readers can contribute to *PCW*, and as always we'll pay for anything we use. Macros, sections of code and hints and tips will be rewarded with a £20 book or record token (please say which you'd prefer) and we'll pay hard cash for longer, more involved pieces. Please include relevant screenshots in GIF format.

All submissions should be emailed to the author of the appropriate section or snailmailed to Hands On, *Personal Computer World* Editorial, VNU House, 32-34 Broadwick Street, London W1A 2HG. Questions and short hints and tips can be faxed on 0171 316 9313.

We're constantly working to improve the contents of Hands On. If you have any suggestions, send them to the Editor at the address above, or email them to: [editor@pcw.ccmil.compuserve.com](mailto:editor@pcw.ccmil.compuserve.com)



### Numbers Count 302

Attention, please — Mike Mudge returns to that old favourite, the Smarandache Function.

## AND THE REST...



### Networks 304

Leave that Lottery Instant ticket alone — Stephen Rodda has Instant Internet to show you.



### Macintosh 308

Is your desktop looking dull and uninspired? Rekindle that old visual enjoyment, as Chris Cain fans the flames of a facelift.



### Computer Answers 313

Frank Leonhardt presents his regular forum for your problems, hints & tips and solutions.



### Beginners 317

New to the weird and wonderful world of the PC? Eleanor Turton-Hill guides you through the minefield of jargon and confusion.



## Clearing the desk

**Tim Nott called time on the surfeit of icons cluttering up his desktop and came up with a compromise solution. Plus he offers more hints, tips and observations on Windows 95.**

The Windows 95 beta preview program should be history by the time you read this — at least in theory. But the combination of publishing lead times, a French postal strike, and Microsoft UK's apparent policy of making beta updates available to everybody but the press, means I'm still lumbering away with build 347.

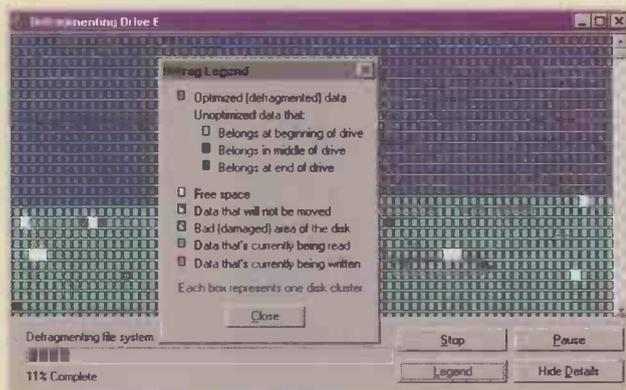
I've got far more used to it now, to the extent that when I boot back into Windows 3.1 I get unbearably frustrated when nothing happens having right-clicked on a file. I miss, too, the "kiss of death" button (the X button at the top right of each window) — something I hated at first.

Most of all I miss 32-bit multitasking. It's great being able to copy files, do a long print job, or run Ameal (the CIX off-line reader and, from France, my lifeline to the English-speaking world) in the background without it sequestering the entire brain-power of the processor. And as I type this sentence I'm defragmenting my hard disk.

This is admittedly slowing things down somewhat — even at my modest typing speeds the screen isn't keeping up — but it's still usable and doesn't throw a wobbly if I save a file (it just rescans the drive and catches from where it left off). It's a welcome change from the days when you had to exit Windows, run Defrag, and go away and do something

else for a few hours.

Then there are all sorts of small but pleasant surprises. The first time I put a music disc in the CD-ROM drive, I was startled out of my wits when it started to play, unbidden. Now the first autoplay data discs are starting to appear. What happens is that Win95 makes the very reasonable assumption that having stuck a CD in the drive you want to do something



**Top** Defragmenting drives under Windows at last — now there's no excuse not to do it  
**Above** Some of the jollier icons in pifmgr.dll

with it, so it looks for a file called autorun.inf in the root directory of the CD and takes its orders from there. Usually, the trick is to load a small program which displays a screen saying something like: "To start the Wizzo Interactive Encyclopedia of Poisonous Fungi, click here." By the time the user has read this, the main program has loaded in the background (multithreading at work) and is ready to go, which, in the immortal words of Microsoft, "Significantly reduces the perceived load time".

It appears that not all third-party developers have quite got the hang of this. I won't name names, as the software in question was itself a beta, but it helps tremendously if the little program that autoloads is capable of detecting whether the application has already been installed. If so, run the main program. If not, run the setup program. Get this wrong and you run the risk of seriously alienating the user by trying to install another copy of the application every time the disk is put in the drive, unless they know the "disabling autoplay" trick (see the Ten Top Tips box, opposite).

Other things I liked at first, I now find annoying. Having shortcuts, folders or documents icons on the desktop was an interesting novelty. Half way through my second column of icons, I began to find it a pain in the neck — too much clutter, and they got buried under windows (but see the "desktop" tip in the Ten Top Tips box). What they really need is a docking station, rather like the taskbar, and I'm sure somebody will come along with one soon. But in the meantime, Win95 and I have come up with a compromise: I've stuck all my shortcuts into a suitably named folder in the root of drive C: — that way I can find it quickly on the taskbar, even when the title is truncated. There's a shortcut to this folder in the bottom level of the Start menu (right click, then "Open" on the Start button to add things here) and I've got it positioned and sized to cover the compulsory desktop icons.

### The path to enlightenment

As I implied in my first Windows 95 column (PCW July '95), there's so much that is different, changing, and as yet undocumented that I may well be talking utter codswallop. And I walloped a fine piece of cod in the July issue by saying that you have to re-install your existing applications for them to work correctly if you've opted for dual-booting. Several people pointed out that this may not be necessary, but David Richardson was first off the mark.

### Ten top tips for Windows 95

<b>CD-ROM Desktop</b>	Holding down the Shift key when loading a disc disables Autoplay. You can minimise and restore all windows from the Taskbar right-click menu. If you've got a Microsoft Natural Keyboard, the shortcut is WinLogo + M, adding Shift to restore. With a normal keyboard, the shortcut (contravening the Trade Descriptions Act somewhat) is Ctrl + Esc, Esc, Tab, Shift + F10, M.
<b>Recycle bin</b>	You don't have to open this to see if there's anything in it. The icon itself changes between full and empty.
<b>Taskbar</b>	Letting the mouse pointer linger over a truncated Taskbar button pops up a bubble giving the full title. Thanks to David Garstin for that one, which I'd been in too much of a hurry to spot...
<b>Taskbar Open with...</b>	...and lingering on the clock pops up the date. When I covered this recently I missed a brilliant shortcut: thank you, Mark Fletcher, for pointing out that holding down the Shift key when you right-click on a file adds an "Open with..." option to the menu.
<b>Icons</b>	You can change icons for a file or shortcut from the Properties sheet. Have a poke around the system files for new ones — there are some particularly Jolly ones in pifmgr.dll.
<b>Folders</b>	Backspace takes you up one level.
<b>Control Panel</b>	If your Display icon changes into a joystick, don't worry: it's a commonly experienced but harmless bug.
<b>Copying disks</b>	Not with build 347 you can't. At least, not in Windows — you'll need to open a DOS box and use Diskcopy.

So, before you blow the dust off those 20-odd floppy disks, try adding the old Windows and Windows\System directories to the Path statement in autoexec.bat. This trick has worked well for quite a few applications, and my initial fears that this might confuse Windows 95 have so far been unfounded. Make sure that the entry to the old Windows path comes after that to the new. You might also have to copy win.ini settings across — all I had to do to get the mighty Corel Draw suite to run was add [CorelGraphics5]  
Dir=C:\COREL50\CONFIG  
to the new win.ini.

#### In search of a pound

In other respects, this Path trick was a slightly retrograde step. I'm lucky in that my CD-ROM drive and sound card are recent models, recognised by Win95. So goodbye to the real-mode (DOS) SCSI drivers, sound card drivers and mscdex.exe. Disk cacheing is handled by Windows, so cheerio Smartdrv, and my Drivespaced hard disk "just works" without anything in config.sys. Most of this stuff was commented out by the Win95 installation routine, but in the interests of journalistic research and reckless lunacy, I removed config.sys and autoexec.bat to a place where the sun don't shine and Win95 wasn't going to find them. Everything still worked. Everything. And free memory in DOS sessions is a respectable 597Kb. A minor inconvenience is that DOS boxes default to the US keyboard

layout, but this is easily overcome: right-click on the Start button, choose Open, and dig through the folders until you find the MSDOS icon — it defaults to the first level of the Programs folder. Although this icon looks like a shortcut, it's really a PIF (Program Information File). Right-click and choose Properties — you'll get a six-page property sheet that combines options found in the former PIF editor and the old DOS box system menu.

There's a lot here and I'm not going to attempt to cover it now, so when you've finished playing with the fonts, click on the Program tab. In the Batch file box, type ukkeys.bat. Now create a Notepad file consisting of one line — keyb uk — and save it to your Windows 95 command folder as ukkeys.bat. This trick works on other PIF files too, so you can run the DOS edit.com and have your £ signs where they belong. (Windows rather politely creates a PIF the first time you run a DOS application from a folder or the Run... command.)

There's been loads of feedback from July and August's columns. Thank you all very much, and my apologies for not being able to reply to all the letters individually. All tips will be credited, so please keep them coming.

#### PCW Contacts

Tim Nott can be contacted by post via PCW or by email to [timn@cix.compulink.co.uk](mailto:timn@cix.compulink.co.uk)

## Print and Read Bar Codes on your PC

### Bar Code Readers

Attaches as second keyboard



### Radio Laser Scanners

### Portable Bar Code Readers



#### Also Available:

- Labelling Software for Dot-matrix, DeskJet and LaserJet Printers
- Bar Code Fonts for Windows™
- Laser Scanners • CCD Scanners
- MagStripe • Slot-Badge Scanners
- Radio Frequency Cordless Scanners

- Same Day Shipping
- Made in the USA
- 2 Year Warranty
- 30 Day ££ Back Guarantee
- Direct From Manufacturer

Freephone in UK

**0800 393 213**

30 Day Money Back Guarantee!

21-23 Fenian Street • Dublin 2, Ireland  
Tel. 00 353 1 6614 566 • Fax: 00 353 1 6614 622

**WORTHINGTON**  
DATA SOLUTIONS



## A sense of insecurity

**To restrict users on a system, it is probably better to avoid the built-in safeguards of Windows 3.x. There are various d-i-y security measures but a more serious approach is sometimes needed. Tim Nott casts his private eye over the options before visiting Bob's country cousin.**

“Windows 3.x security” is not a phrase that trips comfortably off the tongue — rather like “underwater cycling” or “acid house tranquillity”. For mission-critical security (say you run MI5, or the Bank of England for a living) you need Windows NT. But there are a whole host of situations in which you might want to restrict users in some way.

Administrators might want to stop users messing up their carefully crafted installations or installing unauthorised software. Teachers might want to prevent their pupils from installing SAMFOX.BMP as Windows wallpaper. Small-business users may want to keep junior staff away from the more intimate details of the company's financial affairs. Parents might want to prevent their kids having access to

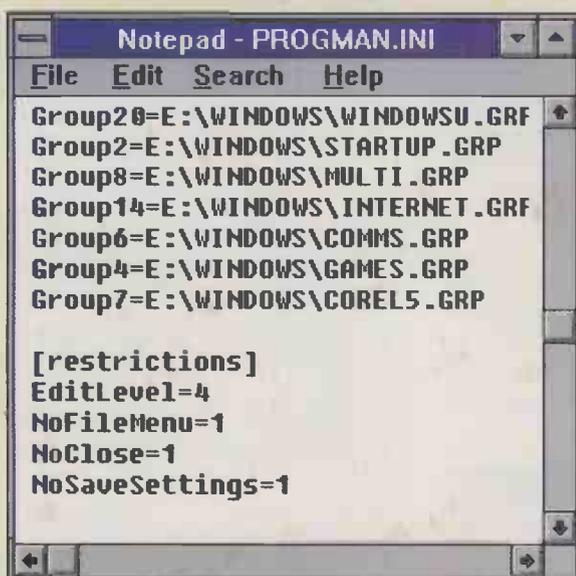
Mum and Dad's work files and personal correspondence.

Although Windows does have a few built-in safeguards they aren't really any good. Take the password-protected screensaver — well, don't bother actually, because all that's needed to get around this is to turn off the PC and restart (possibly losing some of the victim's data in the process). And although the password itself is stored in encrypted form (hah, that'll fox 'em), you can get around this by disabling the password protection in Control Panel or by deleting the encrypted password from CONTROL.INI. You don't even have to be in Windows to do the latter — any DOS text editor will do. If you want to stop people messing around with Program Manager or installing

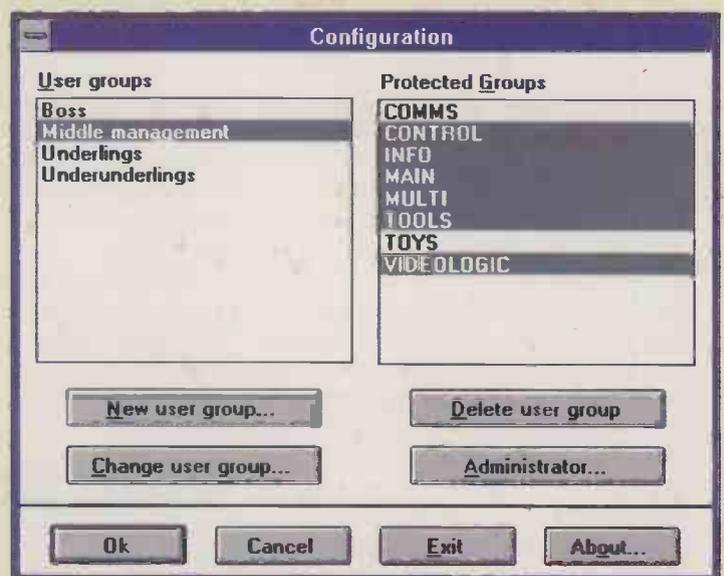
new software, you can add a Restrictions section to PROGMAN.INI. This one has been in previous *Hands On Windows* columns before, but just for the record here it is again:

```
[Restrictions]
EditLevel=1 - can't create, delete or
rename groups, 2 - nor program items,
3 - can't edit item command line, 4 -
can't change any item properties.
Restrictions are cumulative.
NoRun=1 - disables the File/Run...
command
NoFileMenu=1 - removes the "File" menu
completely
NoClose=1 - can't close Program
Manager
NoSaveSettings=1 - can't save
settings.
```

### The search for security



Pretty poor security...



...getting better...

This, you'll be pleased to hear, has only two serious flaws: firstly, you can still add program items by dragging them from File Manager; and secondly, anyone with a text editor can remove the settings.

Another trick is not to use Program Manager as the shell. Open SYSTEM.INI and add to the SHELL=c:\path\_to\wordproc.exe (or whatever word processor your office slaves use) and they'll be stuck in there without being able to run anything else. Unless they have the bright idea of using the word processor to edit SYSTEM.INI, or knocking up a few macros to run other applications.

### Losing control

Control Panel has a similar feature: create a section in CONTROL.INI entitled [Don't load] and add entries such as desktop=1. This will stop the desktop icon loading when Control Panel runs. This might be fine for discouraging the half-hearted or accidental meddler, but once again, there are two ways around this: edit CONTROL.INI; or use the "control panel" tip shown in the *Ten Top Tips* box (on page 259) to File/Run the item. Unless, of course, some spoil-sport has disabled File/Run in which case go back a paragraph or do it from File Manager.

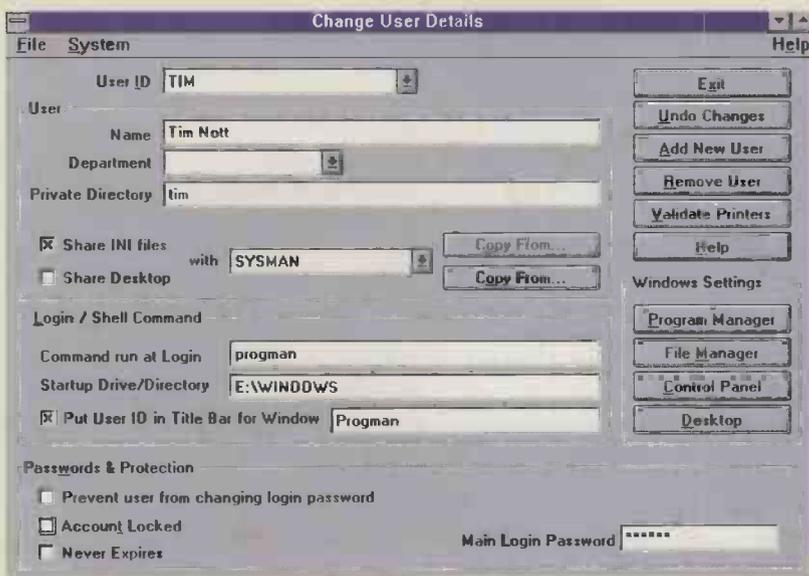
At file level, you can either hide directories and files, or make them read only. But then File Manager has an option to "Show hidden/system files" and the facility to unprotect them again. You could, of course, remove File Manager from the system or make it hidden, in which case Hacker Harry would have to use the DOS ATTRIB.EXE command. Remove

ATTRIB.EXE and then you have no way of seeing the files yourself unless you carry a copy around on a floppy. As will Hacker Harry. Then you can have clever batch files that copy standard sets of .INI files before Windows is started. Hacker Harriet edits the batch files. And so it goes on.

So, basically the System manager (whether this is the office boss, a teacher or Mum) has two choices: either to use the built-in Windows restrictions, and leave the PC wide open to anyone with the basic literary and computing skills to operate a text editor; or to restrict the functionality of the PC to such an extent that the users would be better off with a pencil and paper.

Even though there are alternative Windows shells, such as Central Point Desktop that offer some degree of protection you might quite understandably not want to shell out (*sorry*) the money or invest the learning time.

Secgroup, a freeware utility, makes a slightly better stab at Program Manager security. First you must set yourself up as the system administrator and issue yourself a password. Next, you decide which program groups you'd like to protect. Then you set up user groups, each with their own password and decide to which of the protected groups that password will allow access. Any group that's minimised can't be opened without a valid password so there are three levels of security for each group of users: free for all, password protected, and access denied. The System administrator has quick access too, via a dialogue box, to the Program Manager restrictions settings.



...and much better

## NEW! INKJET SUPPLIES CATALOGUE

56 pages in full colour!

FREE - Call Now!

Quality Inkjet Refills  
Original Inkjet Cartridges  
Special Inkjet Paper  
Inkjet Transparency Film  
Bulk Inkjet Ink  
Inkjet Labels

NEW!  
Inkjet Refills for Epson Stylus Colour  
and Canon BJC-4000 available now.

FIRST CLASS POST  
SAME DAY DESPATCH



Call  
now  
for  
details

## SYSTEM INSIGHT

The Inkjet Specialists

Dept PCW1095 Freepost 581  
Welwyn Garden City  
Hertfordshire AL7 4BR

Tel: 01707-395500

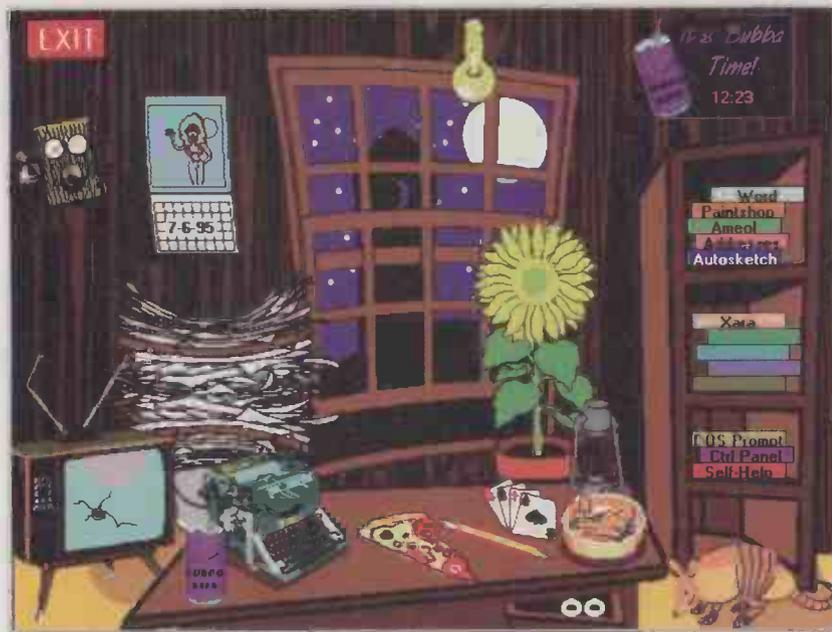
Fax: 01707-395501

All Major CREDIT/DEBIT  
Cards Accepted

It's a fairly handy way to keep File Manager or Control Panel, say, out of the reach of small children and casual users. But again, it's terribly simple to crack as it

requires SECGRP.EXE to be loaded in the [windows] section of WIN.INI. And the idea of a group password is extremely insecure — I reckon half a Mars bar would be about the going rate for a school pupil in class 5c to get the password out of class 5b. But if you want to give it a whirl it's in the Windows/Files topic on CIX (SECGRP.ZIP — 20,794 bytes), on this month's cover CD and you can contact the author, Andreas Furrer, at [s\\_furrer@ira.uka.de](mailto:s_furrer@ira.uka.de).

### Bob's your uncle — Bubba's his country cousin



It's Bubba's place! This friendly Windows front-end is simplicity itself, and fun, too

You may have heard of Bob, the easy-peasy Windows shell for those who find Program Manager too much of a challenge. I haven't seen this but I have seen Bubba, a multimedia Windows front-end for those who find Bob too taxing. You'll be pleased to hear that this is freeware and (if everything has gone smoothly) should be on the cover CD-ROM. It's also available on CompuServe GO OSOSOFT, and you'll need VBRUN300.DLL for it to work.

Although you never actually get to meet Bubba in person, you soon gain a clear mental picture of the guy: he's a good ol' boy with a heart of gold and a head of hickory. He drives a '77 Chevy pick-up whose colour scheme is rust and filler, buys his groceries at gas stations, and the loves of his life are shotguns, dogs, beer an' wimmin, in that order.

Opening the Readme file gives a good indication of the ambience of this interface: "This here file ain't got much in it." Start the thing up and you're in Bubba's shack. The moon is shining through the window, silhouetting the john in the backyard. On the desk in front of you is an ancient sit-up-and-beg typewriter (Windows Write), a pencil (Notepad), a hand of cards (Solitaire) and a few other things such as an ashtray (cough-cough), a can of Burpo beer (fart-fart) and a slice of ageing pizza (wait and see). Over yonder, sitting on the trash bucket, is a big, untidy pile of papers — yep, you guessed it, File Manager. Cue the kickin' country banjo music (crack the other can of Burpo) and crank up Terminal on the old wind-up telephone (how apt).

Then there's the television. I must confess I couldn't get this to do much, but it could have something to do with the bullet hole. The babe on the calendar gives a cheerful wave and a wiggle, and the armadillo (don't ask) in the corner dispenses useful "Bubba sez" tips for everyday life. Personally, I found these far more enlightening than Microsoft's Tips of the Day: "Don't fool with no snake nor no drunk"; "The richest man on earth don't wear but one pair of trousers at a time"; and, "They ain't no computer that kin make a stupid man smart." All have a certain philosophical ring, and frankly, "You can quickly switch to other open applications by pressing CTRL+ESC to open the Windows Task List dialogue box", misses by miles.

And there are the bookshelves (Bubba reads books?). Here you'll find tomes like DOS Prompt and Ctrl Panel, as well as some for your own applications. Though somewhat limited in features, I found it a refreshing change from my usual shell. As Bubba sez: "Tired of the same old pizza? Y'all try our cheese wiggles. They ain't good, but they's handy."

When you're tired of Bubba, y'all click on the Exit sign and watch a rather unusual (but harmless) way for a Windows application to close.

### Latch 22

For a more serious approach I've been looking at the commercial program Latches for Windows. This comes in three versions: for home, professional or network use. Looking at the professional version, the range of what can be done is formidable. Not only can it apply restrictions to Program Manager and Control Panel, but it gets its hooks into File Manager too. Settings and restrictions can be configured user by user. Each user, who has to log in with a password when Windows starts, can have their own set of GRP and INI files too. So you can have a whole different desktop, and levels of access for everyone from the managing director to the janitor's dog. Although there's no individual directory protection as such, the system manager can disable "File/Properties..." and "Show Hidden Files" so, for instance, the user can't change a read-only file.

It's all very impressive, and offers similar facilities to Windows 95 for multiple users, but with a lot more security. For a start, you can't get around it by editing CONTROL, PROGMAN or WINFILE.INI. In a very clever bit of chicken-and-egging it rebuilds the INI files from an encrypted copy only after the relevant executable has started to load. It also pre-emptively empties the screensaver so that only the logged-on user and System Administrator passwords are valid.

At present, there is one fatal flaw — but I'm not going to blow the whistle as that would be unsporting, and besides, as Latches is currently undergoing trials with the Ministry of Defence, I might be compromising National Security. Let's just say that anyone computer-literate enough to be reading this column should be able to disable the whole shooting match in a matter of minutes. However, in a secure networked environment SYSTEM.INI (whoops, sorry, there goes the country) would be kept behind a "firewall" so this wouldn't be a problem. Furthermore, having talked to David Biggins, one of the

## Ten Top Tips for Windows

<b>Starting Windows</b>	It is an old chestnut but everyone forgets how to do it: so to change the Windows start-up screen, first catch your bitmap. It mustn't have more than 16 colours, or be more than 50K, and must be saved in RLE format, so you'll need a shareware utility such as Paintshop Pro. If you have a DOS badge on the sleeve of your anorak, exit windows and type: <b>copy /b win.cnf+vgalogo.lgo+newlogo.rle c:\windows\win.com</b> adjusting paths to suit. If you can't be bothered with all that, save the new logo as VGALOGO.RLE (back up the old one first), then use Setup (from DOS) to change your Windows configuration, then change it back again. This automatically rebuilds WIN.COM.
<b>File Manager</b>	To tile panes vertically, press Shift + F4.
<b>Sounds</b>	Assigning sounds to events can be fun but has its problems: it slows down program loading and can cause "Device in use..." problems when a multimedia application needs the soundcard to start.
<b>Control Panel</b>	You can save time by going straight to any item of Control Panel with the command line (or Progman icon) <b>control.exe abc.cpl xyz</b> where <i>abc</i> is the name of the .CPL file (e.g. MAIN), and <i>xyz</i> is the name of the sub-section, if any (e.g. DESKTOP).
<b>Program Manager</b>	You can create an icon for Program Manager in itself — whatever title you give, it will replace "Program Manager" in the title bar when launched.
<b>Task Manager</b>	If you don't need this, you can get any program to run when you double click on the desktop or press Ctrl+Esc. Add <b>taskman.exe=myprog.exe</b> to the [boot] section of SYSTEM.INI and restart Windows.
<b>Write</b>	You probably know that double clicking in a word selects the whole word. But move the pointer to the left of the screen and it changes into an arrow: one click selects the line; a double click selects the paragraph. Hold down Shift, and the text from the insertion point (flashing vertical bar) to the end of the line, or paragraph, is selected instead. Control + click selects all.
<b>File Manager</b>	With the focus on the right-hand pane, typing a forward slash selects all.
<b>First Aid Kit</b>	When you first install Windows on a PC, take a floppy copy of the main .INI files before installing extra hardware or software. Subsequently, if things go terribly wrong, you can return to an "out the box" Windows installation by using the DOS commands to move the existing .INI files to a temporary safe haven, and using the originals.
<b>Setup files</b>	Sysedit.exe, located in WINDOWS/SYSTEM, loads WIN and SYSTEM.INI, CONFIG.SYS and AUTOEXEC.BAT (and more with Mail enabled) for simultaneous editing.

developers, I'm told that by the time you read this they will have cracked this problem on stand-alone machines as well.

He wouldn't tell me how (well, would you?), but basically, Windows will refuse to start if SYSTEM.INI has been tampered with. Many of you will doubtless have noticed that Windows is quite capable of refusing to start without any meddling on the user's part, so harnessing this great natural force seems a step in the right direction. For more information, get in touch with Rhea International (see *PCW Contacts* on page 259).

Doing a little cross-pollination from the column at the posh end of *PCW* (*Letters*, August issue), a letter from Alan Cox reassured me that I was not the only one clumsy enough to HIT THE CAPS LOCK key by mistake. He asked whether there

was any way of disabling it, short of physical surgery. Well, I have good news and I have bad news: the good news is that there is such a beast; the bad news is that you have to buy a Microsoft Natural Keyboard to get it. One of the options in Control Panel is precisely this, and you have to double-tap the key to turn it on. It is not perfect, because you have to go back to Control Panel to disable the thing again, but it is useful.

## PCW Contacts

Tim Nott can be contacted either by post c/o PCW or by email on [timn@cix.compulink.co.uk](mailto:timn@cix.compulink.co.uk)

Rhea International, Devonshire House, 60 Station Road, Addlestone, Surrey KT15 2AF. Tel 01932 830551

## Write Your Own Windows Adventures

**The Adventurer £39.95**

- Generate easy to play games
- Games include sound and pictures
- No programming knowledge needed
- No restrictions on distributing games

See it in action in the game:

**So You Want To Be A Guru £5.00**

*Windows 3.1 required.*

P&P included. Cheques and POs to:

**Prozess Software**

PO Box 51

Manchester M14 6NF

## The Best

A reputation that has been honoured since 1986. We offer the best and the most current shareware in the world.

We supply on diskettes & CD Roms.

You name it, we've got it: games, kids, business, desktop publishing, general interest and more!  
Call today for FREE info pack!

## SMS SHAREWARE

19 Carshalton Road, CAMBERLEY, Surrey GU15 4AQ  
Tel: 01276 681864 Fax: 01276 64382



CALLERS ARE WELCOME at our SHOP At:  
3 DEAN PARADE, Camberley, Surrey

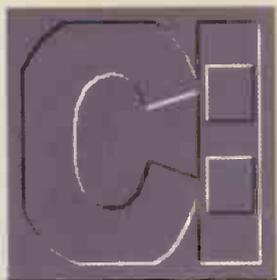
## image/text scanning



**Wise Imaging**  
image/text scanning services

51 Hoddesdon Road  
Stanstead Abbots  
Ware, Hertfordshire  
SG12 8EJ  
Tel: 01920 870 905  
Fax: 01920 871 337

We offer a professional prompt, and low cost answer to all your image/text (OCR) scanning needs in both colour and B&W. Photographs, signatures, logos, clipart, drawings and text output in any format are our speciality. Aimed squarely at the business user or individual our scans can help you to enhance your business stationery, presentations, DTP work or advertising material. Customer help and friendly advice is always available and customer satisfaction is given almost priority.  
Call or write now for further details!



## Getting cross with DOS

**Simon Collin opens his postbag to reveal pressing problems with cross-linked cluster error messages in CHKDSK, controlling a modem, and sorting out the SORT command.**

### Checking out

Dear PCW: My PC developed a new error message when I last ran CHKDSK. I try and run CHKDSK once a week, and on the last occasion it reported that there was a cross-linked unit. The message included the names of two filenames, of data files that are important. I have tried to run CHKDSK with the "/f" switch to get it to mend the problem, but it keeps reporting the same error. So far, I seem to be able to access the two files without any major problems, but would like to either get rid of or solve the problem.

**PCW** Your error message is quite common. It occurs because one cluster (one part of the disk) is listed as belonging to two separate files. This normally happens because the FAT (file allocation table) that stores details of where files are stored on the disks, has been corrupted. Unfortunately for you CHKDSK cannot solve this problem, which is why you're not getting anywhere, even when you are running it with the "/F" switch that would normally fix errors.

You will either need to use a disk utility, such as Norton's Disk Doctor or PC Tools, or you can sort out the problem yourself. However, you are likely to lose data if you try and tackle the problem yourself: another case for keeping good backups!

To get rid of a cross-linked cluster error message, do the following:

1. Copy both files to a floppy disk or, if you don't have a floppy drive, copy them both to another separate directory on your hard disk.
2. Delete the original files.

3. Run CHKDSK to make sure that the error message no longer appears.

4. If the files are data files, open them and check for missing data. If they are application files, try and run the programs. If all seems okay, copy them back to their original locations.

The disk utilities I mentioned will try and fix the problem rather than just get rid of the message as I've described. To do this, the disk fixer utility looks at the two copies of the FAT (luckily, DOS keeps two copies of the FAT, just in case) and tries to work out which is correct and so spot the missing cluster. Once it's found the missing cluster, it can re-write the FAT and so both files regain their original full complement of clusters.

### Modem muddle

Dear PCW: I have been frustrated by an annoying, if trivial problem that I hope you might be able to solve. I use a bulletin-board software program to provide a way for me to call into my office PC from home. I start the program when I leave and the modem is then set to automatically answer the telephone. In the mornings, when I quit the program, it doesn't seem to properly reset my internal modem and it remains in auto-answer mode. Since I cannot switch off the modem (it's internal), I have to creep under my desk and unplug the phone lead.

Is there an easy way to control a modem from DOS?

**PCW** There's a neat and simple way of controlling your modem from the DOS command line. In fact, you can use the

same method to control any standard peripheral such as a printer or even your monitor. The trick is to use the redirection symbol ">". Normally, I've given tips on how to use the redirection symbol for processing files, but in your case you can use it to send data to your stubborn modem.

Make a note of the COM port that your modem is using: even if it's an internal modem it will be set to one of the four standard PC serial ports — COM1 to 4. If the modem is a Hayes-compatible model, and almost all are, it will respond to the standard AT command set used to control modems. To turn off the auto-answer function of a modem, the AT command is:

```
ATS0=0
```

To get the modem to respond, you might need to send it a series of three '+' signs first (this is the usual way to tell the modem it's in command mode so that it will respond to AT commands). The full sequence is:

```
+++ATS0=0
```

To send this to the modem, use the ECHO command, which can work with text characters, and follow with the text string (above) and the redirection symbol. The full command is:

```
ECHO +++ATS0=0 > COM1
```

If you include this in a batch file, run the batch file when you get in to the office and the modem will be switched to normal mode. You can equally easily use the same technique to send any other setup string to your modem or to any other serial device.

### On the right path

Dear PCW: Is there any way of extending the storage capacity of the PATH statement? I switch between Windows and DOS and so have different applications scattered around my hard disk. I have added a new DOS accounting program and this needs an entry in the PATH, but it's already full.

**PCW** PATH is an environment variable that is used to store the names of the directories and drives where you want

## Out of sorts

Dear PCW: I have been trying out one of your ideas, sorting data using the DOS SORT command, but I cannot get it to work properly. I experimented with the results of the DIR command with great success, and could sort the output on any column. What I want to use the command for is to sort a text file of addresses that I've exported from my time-organiser program. The SORT program just goes haywire and sorts the file into no particular order at all.

**PCW** The SORT command is a useful little command-line tool that comes with DOS. It lets you specify any text file or input stream and sort the lines by the first character or by any column. For example, to sort a text file called "address.txt" on its 30th column (perhaps the surname of the entry) you would use the command

```
SORT /+30 < ADDRESS.TXT
```

I suspect that your text file has been formatted using tab characters when it was output. This will look fine if you display it on screen (for example, using the TYPE command), but it will fool SORT. The problem is that the tab character is a single character, so if you try and sort on a particular column that you've calculated from the display, the effect of the tab character is lost and SORT treats it as any other single character. The solution is to export the file without tab characters and SORT will work fine.

DOS to look for an executable file once it has looked in the current directory. PATH has a maximum capacity of just 127 characters which soon becomes a limitation.

You could set up a new path just before you want to run your accounting program, but by using the PATH= command you would simply delete the existing settings. An alternative would be to use the APPEND command. Although it can be useful, the APPEND command has a mass of possible switches that generally make it a pain to use.

The big advantage of APPEND over the normal PATH command is that it lets you set up separate search paths: one set for executable files and a second set for data files. This is unlike PATH which sets up a search path for an executable. APPEND doesn't normally use an environment variable, but you can force it to write its search path to a variable called APPEND. For your use, you won't gain anything by using the APPEND command (since you're dealing with executable utilities).

Perhaps the simplest, if not the most elegant, solution to your problem is to temporarily replace the PATH completely. I described how to do this when covering the redirection symbol last year: If you want to run the utility, delete the path, substitute the new path, run the utility, exit the utility and retrieve the original path. The trick to making this far simpler than it sounds is that if you enter the PATH command by itself, it displays the existing path in the form of a real PATH= statement:

```
C:\ > PATH
PATH = C:\; \DOS; \APPS
C:\ >
```

If you want to temporarily save this

Path, you need only redirect it to a file:

```
C:\ > PATH > OLDPATH.BAT
```

Now you have a batch file that, when run, will re-set the Path variable to the original. Now you can go ahead and change the path to point to the utilities and, finally, run the accounting program. For example, to run your accounting program, set up a batch file with one line:

```
PATH = C:\ACCOUNTS; C:\DOS;
C:\APPS\TOOLS
```

This resets the PATH to point to the accounting program along with DOS and any essential tools. Once you've run the application, to return to your original path, just run the OLDPATH.BAT file.

You mentioned that you also use Windows. This could help improve things (for once): attach the two little batch files above, OLDPATH and ACCOUNT, to two separate DOS icons. Now, if you want to run a utility, double-click on the Account icon and you have a DOS session with the correct path. For normal use, start the other DOS session with your usual, full path.

I explained how to attach a batch file to a Windows icon a couple of months ago, but if you've temporarily forgotten, do the following: Create a new icon and in its Properties box, add the command "C:\DOS\COMMAND.COM /K" followed on the same line by the name of your batch file.

## PCW Contacts

If you've been delving into DOS and want to share your experiences, write care of PCW or via email to [scollin@cix.compulink.co.uk](mailto:scollin@cix.compulink.co.uk) or CompuServe 72241,601

## INKJET & LASER PRINTER SUPPLIES

### ★ INK JET REFILLS ★

Refill your cartridges with our NEW improved professionally designed KITS. High quality inks manufactured to BS 5750 with full instructions.

**MOST PRINTERS CATERED FOR.**

Many coloured inks available.



### ★ ORIGINAL SUPPLIES ★

Vectorjet now stocks a wide range of Inkjet and Laser consumables.

**GREAT SAVINGS ON COMPUTER PRODUCTS, CARTRIDGES, DISCS, etc.**



### ★ RECYCLED CARTRIDGE SERVICE ★

**Inkjet and Laser.**  
High quality fully guaranteed.

Phone for our **FREE** catalogue



## Vectorjet Ltd

A MEMBER OF THE GUILD OF MASTER CRAFTSMEN

EC ☎ 01763-273115

UK FAX 01763-273383

Same day despatch with credit card orders

**Vectorjet Ltd, Freepost SG 447**  
Unit 29, Park Farm Industrial Estate  
Buntingford, Hertfordshire, SG9 9YA



## A monolithic app... and tickle

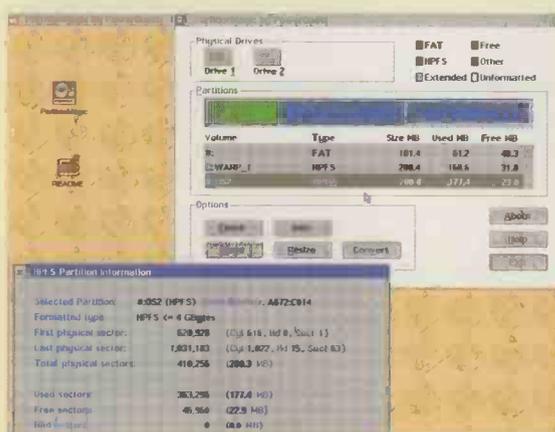
**Chris Bidmead doesn't approve of monolithic applications but shows that the Linux-FT package's Xadmin, written in Tcl, is the exception. He has some fun with WPS objects and reviews the latest Linux support issues, too.**

In the past, I've whinged not just about the shortage of OS/2 applications, but about the difficulty of getting hold of those few that are out there. It seems only fair, then, to report the good news that a UK company has heard my plea and is now delivering a product for review.

I wish I could get a little more excited about the first two packages that One Stop Software (talk to [geoffd@cix.compulink.co.uk](mailto:geoffd@cix.compulink.co.uk)) has sent me so far, but that's hardly their fault. In any case, I've never believed in the "killer app" scenario that says OS/2 needs to come out with an application that everybody will clamour after, and to which no other platform can do justice. In my humble opinion, OS/2 is the killer app — a somewhat brash statement, the truth of which will emerge (or not) over the coming year when we see (or don't see) wondrous things happening with OpenDoc.

Actually, I'm being a little unfair to Partition Magic and Impos/2, because they do what they do rather well. Impos/2 is a modest but subtle bitmap manipulation package for creating images or touching up pictures. It's hardly going to make a dent in the sales of Windows products like Picture Publisher, but for OS/2 users it's fully 32-bit (although it uses 16-bit stuff to read Kodak PhotoCD images) and integrates with the WPS through drag 'n drop. It comes with a comprehensive manual translated from the original German and is, in places, almost totally impenetrable.

Partition Magic is a utility for expanding,



*Partition Magic is just the utility you need if, say, you decide you want OS/2's Boot Manager on a disk that's already fully partitioned: just shrink one of the partitions by 1Mb to make room. Unfortunately, once it's on, Boot Manager doesn't take kindly to subsequent movements of partitions, which is just one more reason I'm putting off using the thing for real*

contracting and moving partitions. It can also convert FAT into HPFS on the fly. I'm proceeding cautiously with it because it assumes a world of OS/2 and DOS, and seems to know nothing about NTFS ext2 Linux partitions and NeXTStep, and most of my machines carry a veritable tutti-frutti of different operating systems. If I take the bold step, I'll let you know what happens next month.

### More Fun with WPS Objects

I like OS/2's WPS for the neat, simple things you can do with it. Here's something I knocked up the other day that may be of some use to you.

I've said before that it's not smart to work directly from the icon of an executable file in its home directory. Instead, create a program object and put that in a folder, then work from a shadow of that object which you keep somewhere convenient. Or work with data objects that have been connected to appropriate program objects via SOM, using Type in the data object and Associate in the program object. (If the WPS doesn't provide a ready-made type that fits the bill, make one up and write it in. I prefix all my new types with CHB so I can recognise them.) The advantage of a data object is that like a folder it has a menu setting with which you can mess around.

If you're like me there will be a number of icons floating around on your desktop that belong in groups. Maybe one icon is for editing a batch program and the other

for running it. Or one icon launches a comms package like Ameol and another inspects the download directory. The WPS offers several ways of dealing with this. An obvious one would be to put related icons into the same drawer of the Launchpad. I've already described another in this column: create a folder for Ameol and put the Ameol launcher icon, and a shadow of the download directory into it. Then — and here comes the neat bit — drop the Ameol

launcher icon into the Open settings of the folder, and make it the default action. Round the whole thing off by giving the folder the Ameol icon. Thus, the download directory is effectively hidden inside Ameol. But you can always get to it through the Open menu.

### Getting to Verity's Topic

I get to my text retrieval package, Verity's Topic, through a pair of program icons: one for evoking the program, and another for doing its indexing and general maintenance from the command line. Why would you need a program object to launch a command line utility? Well, the program object actually opens a tailored OS/2 window, with its own distinctive Window Title and background colour and a custom built PATH that points to the nest of special Topic directories where I keep my Topic

binaries and batch files.

When I began to take the Launcher seriously, I realised it would be nice to put the pair of objects into a single icon. The Ameol Folder solution came to mind. I run Topic more often than I maintain it, so the logical thing would be to make running Topic the default double-click action, with opening the maintenance environment as a secondary action accessed through the menu. Unfortunately, a folder has Icon View, Tree View and Details View as irremovable menu items, and all I really wanted was the choice of Run or Maintain.

The solution was to use a data object instead of a folder object. A data object doesn't have to have data: it can be empty and merely used as a launcher. Drag a new object off the Data object template, open the Settings and remove Plain Text from the Type window. (When you close the Settings again this will remove the unwanted System Editor from the Menu options.) Then put the Topic program object into the Open menu as default, and the Maintenance program object as the other Open menu option. Stick a fancy icon on the front of the data object, and lo and behold, you have a program object that knows two tricks instead of just one. You could use this technique to combine ZIP and UNZIP, or give yourself a choice of text editors. I'm beginning to think that the rule should be to drive everything though WPS data objects.

### Linux: the nightmare continues...

...But not for me, I hasten to add: I'm very happy with the Linux-FT distribution that Ian Nandhra, of Lasermoon, sent me for review and you'll be reading about it soon.

But last month, I mentioned the problems Ian was having with the free support he offers. "Linux Tech Support is a nightmare," he says. "There is a hard core of non manual-reading users who don't want to think for themselves, and demand you drop everything until they're sorted. It only takes three of those ringing you up on the same day to completely wipe you out — at which point everything else gets stacked up. The people who call up have paid virtually nothing, consider they are entitled to free support, and have no reason to moderate their consumption of this free thing. We manage to stay sane (ish) here by confining tech support to the hours between 2.00 and 6.00 in the afternoon."

Ian has had to do this because he's seen the effects on other vendors of what he calls "Linux Tech Support Stress". He tells me: "There's an outfit in the US who will remain nameless, because the people

concerned are very good friends of mine: one of them is in hospital, and the other only manages to recover at home, at the end of the day, with the aid of five or six bottles of beer."

So the utterly great idea of distributing a major operating system for free is under serious threat. Ian calls the technical support issue "The biggest Achilles' heel in the free software revolution". In theory, you download the software for nothing over the Internet, and turn to the Internet for support when you need it. But because your modem isn't fast enough and you don't have the expertise to install raw Linux, you probably get it as a ready-to-go distribution from a CD-ROM distributor instead. Money changes hands. That's perfectly within the spirit of the GNU licence, but it tends to change the expectations you have about support. As will your experience of the Internet if you're a raw beginner. As Ian says: "What you get on the Internet is not tech support, it's opinion. Some of it happens to be good, and some is awful. The average Joe has no way of telling the difference."

Linux was developed by, and for, people who care about Unix. They are prepared to invest time in it, and that includes sorting the genuine information from the junk that gets handed out over the Net. But Linux has grown up since these ideas were formulated. A modern distribution like Linux-FT is pretty well as ready to run as the copy of Windows NT 3.51 I installed this afternoon, and is ending up in the hands of the same kind of people who buy shrink-wrapped operating systems. These people will almost certainly need outside help at some stage, and that means somebody's time being devoted to their problems. Time is money. The bits may be free, but the bods always cost. The present ambiguities of the "free software" idea are leaving some users frustrated, and turning distributors into screaming wrecks.

It can't go on like this. Linux is in danger of collapsing under the weight of its own success. Or Caldera could save it by eventually replacing all other Linux distributions (I doubt this). Neither of these are welcome scenarios in my opinion.

### A new approach

One way around this is the robust yah-boo-sucks approach taken by software developers like Peter Childs (pjchilds@apanix.apana.org.au). He's written a utility that converts OS/2 .INF help files to HTML, either as a one-off effort or dynamically so that a Web server can serve up .INF files directly. He gives it away free as

## CD-ROM's UNIX and DOS

### Motif 2.0 (Linux and BSD)

We are specialists in UNIX (and DOS) Freeware with a wealth of expertise, let us help you. Free Technical Support. Call the specialists!

#### LINUX FT

UNIX V Clone for PCs 3/486 will run directly from the CD and/or hard disk. With X windows, tcl, expect, ghostscript, TCP/IP, client and server NFS, C++, on-line doc'n Full source.

LINUX DEVELOPER Resource-Call for details £17.50  
Standards CD US & International Standards, RFCs, ITUs, ISO X, ISDN, Sys 7, Posix, modem, API, SCSI, Windows etc £23.50  
BDS 4.4 Lite: 386BSD, NetBSD, FreeBSD (Incl X Windows, TCP/IP, client server NFS £23.50

Internet Tools CD: Net tools, Util's, daemons (inetd, ftpd), Crynwr, SNMP (PC) TCP/IP, SLIP, PPP, routing & monitoring, mailers (mime, popper, imap) and more £23.50

Source Code CD: NeU2 (4.3BSD), InterViews, MACH, GNU, X11RS (base), DOS GNU C++, perl. £23.50  
USENET CD: Archives from many groups eg: comp.sources (UNIX, PC's, AMIGA etc) £18.95

Prime Time Freeware: vast range of languages, Utils, Perl, Tex., AI OS'S, COMMS etc etc than we can list from £15.00  
New! Sintel and Cica windows archives only from us! Call for details.

For further details contact the specialists:

#### Lasermoon Ltd,

The Forge, Fareham Road, Wickham,  
Hants PO17 5DE England

All prices ex P&P and VAT.

Educational/Student discount

Phone: +44 (0) 1329 834944 Fax: +44 (0) 1329 834955

Support: 01329 834430 info@lasermoon.co.uk

# OS/2

## SOFTWARE

Galactic  
Civilisations  
Only £39.95

WARP  
+ Bonus Pak  
£49 CD ROM

Hobbes  
Latest CD  
Only £16.00

Isn't it about time you could find ALL your OS/2 software in one place at a discount and from friendly, helpful people? We thought so too. So here we are. OneStop.

Download our electronic catalogue from:

Internet: ftp:ftp.onestop.co.uk

CIX: OS2/Files

OS/2 User Group BBS: +44(0)1454 633 197

General File Area

Call us on: +44(0)117 985 3370

Fax us on: +44(0) 117 985 3373

We will send you a copy of our catalogue .INF file on floppy - FREE.

OneStop Software  
Maggs House  
78 Queen's Road,  
Clifton, Bristol  
BS8 1QX



"BrainMaker is the most fascinating software I've ever seen." — John Dvorak, PC Magazine

Teach your computer to think without programming using neural networks!

BrainMaker mimics your brain's most powerful abilities — learning patterns and trends by observing the past. Over 18,000 sold for financial forecasting, scientific & medical work, sports handicapping, and more. BrainMaker is the #1 selling neural network training system, here's why:

- Windows, DOS, or Macintosh versions.
- Fastest neural network algorithms — up to 750,000 CPS on a 486/50 PC, generalizes well for new cases.
- Unconditional money-back 30-day guarantee.
- The most complete documentation — includes the acclaimed *Introduction to Neural Networks* free.
- Data preprocessing utility included free. Reads Excel, Lotus 123, dBASE, ASCII and binary files. Professional also reads CSI, MetaStock and CompuTrac files.
- Free technical support.

Find out what BrainMaker can do for you!  
0101 916 478-9040 / fax 0101 916 478-9041

California Scientific Software

10024 Newtown Rd, Nevada City, CA 95959 USA

what he calls "email-ware". If you like it you're asked to send him email to say so.

Here's how Peter handles the question of copyright and support: "I wrote it and it's mine (so there!) but anyone can use it if they want. If it breaks, you own both bits — if it breaks your computer you still own all the bits, and it's not my fault."

It's not quite as brutal as it sounds; he adds that he'll consider any fixes you want done if you drop him a line. Of course, Peter isn't offering source code with his distribution, so this is rather different from the spirit of GNU. Can there be a world where source is distributed free without everything falling apart?

Maybe. There are already a few companies like Cygnus ([www.cygnus.com](http://www.cygnus.com)), whose business is giving commercial quality support for Linux and GNU at commercial rates. Cygnus believes that the whole software industry is somewhere near the



*Xadmin is written with the TK toolkit that lets you add Motif-style widgets to applications you whip up in Tcl. It's cheaper than Visual Basic, it's free, and more importantly, any effort you invest in Tcl/TK is highly portable*

beginning of an inevitable economic shift in that direction. Founder, Michael Tiemann, has put up a fascinating paper on the Cygnus Web Page called "Source-

ware Solutions" that elaborates the argument.

The business model developed in the eighties, which put high-priced, shrink-wrapped software into large boxes, packed out with expanded polystyrene is definitely on the way out — Ashton-Tate, the company that pioneered this, has vanished.

As with hardware, software margins are tightening. So, instead of pushing an artificially stuffed and expensively hyped product through a dealer channel, and then offering free support, why not do it the other way around? Give the software away and charge for the support. Lower the cost of support by distributing the source code with the proviso that people who improve and expand it feed their efforts back into the publicly-shared source tree. That way the customer gets real value, not polystyrene, and only pays for what he needs. Get hold of Tiemann's piece from the Web to appreciate the full argument.

## Tweaks and tickles

Unix is ugly and awkward, right? Bruce, a Macintosh fan and very good friend of mine from San Francisco, was passing through last month and pulled a vinegary kind of face when he saw that a couple of my workstations were running Unix: Why did I need Unix, when I had a Mac, Windows and (funny old me) OS/2?

There wasn't time to take him through the full answer, but I showed him NeXTstep on the Canon object.station to demonstrate how very far from ugly Unix can be. The fvwm window manager on the Linux-FT box is pretty elegant too. But of course, this is just cosmetic. Next time I'll sit him down in front of Linux for a couple of hours and show him the inside of the X administration package (Xadmin).

Xadmin is written by German developers, Thinking Objects Software GmbH, and is distributed as one of many extra goodies in the Linux-FT package. It's a utility, run from root, that handles the administrivia of your Linux workstation or server. It can be used to create users, set up the parameters for your network, configure the keyboard, modems and printers, and format and copy floppy disks. It kills loose processes, installs new software packages and, well, lots of other stuff too. And it has a very pretty front-end complete with drop-down menus and radio buttons that let you drive everything with a mouse.

Ah-ha, I hear you cry, if you've been

following this column closely: a monolithic application with a fancy user interface? Haven't you been telling us, Bidmead, that such things are the work of the devil? Not at all in the spirit of Unix, which is about small, single-purpose utilities that can be strung together in arcane command lines and shell scripts?

Well, yes and no. I've previously sung the praises of Mike Gancarz's excellent book *The Unix Philosophy*, which explains the "small is beautiful" concept in exquisite detail. Mike worked on the early development of X, and he has a real feel for the subject — even down to telling us that X is now too big, ungainly and feature-packed. A far cry from the Unix idea.

But he'd approve of Xadmin, because it only looks monolithic. Underneath, it's a shell script that fetches and carries for the user through a fancy front-end and pulls strings internally using all the familiar Unix utilities. For example, when you use xadmin to format a disk it launches a Motif-like X Window widget to gather up the parameters you want to set, and passes these to fdformat and mkfs to do the actual work.

Notice how the floppy formatter in MSDOS is a jack of all trades — it knows how to format and how to write a file system. Under Unix, you typically have separate utilities: one to do the low level formatting, and the other to write the file system. Actually, it's even more modular than that because

mkfs is only a file system broker that reads the parameters you pass it, and decides which of the actual file system builders to call: msdos, mkfs, ext2.mkfs (or several others).

So what sticks all this modularity together? Forget OLE, OpenDoc and object-orientation. What they've chosen to bind up these low-level utilities is a good old-fashioned, procedural, cross-platform scripting language called Tcl (tool command language), and pronounced "tickle". Under X, Tcl is frequently extended with an X widget set called Tk (toolkit), and together they make a kind of universal "Visual Basic for X". Xadmin is written in Tcl/Tk, calls a bunch of standard Unix utilities and, er, that's it. A monolithic application from the casual user's point of view, but underneath it's just business as usual. If you want to tweak the Tcl code it's all there for the tweaking. If you want to update one of the Unix utilities it drives, just slide the new version into the appropriate bin or/sbin directory. Any investment you make in tarding up the Tcl code can be ported wherever Tcl goes, and that's pretty well across all Unixes, everywhere.

## PCW Contacts

Chris Bidmead is a consultant and commentator on advanced technology. He can be contacted at [bidmead@cix.compulink.co.uk](mailto:bidmead@cix.compulink.co.uk)

# ELECTRONE

*Point of Sale*

# ELECTRONE

*General*

## ▼ PRECISECASH KEYBOARD ▼

The P.O.S. Keyboard with QWERTY keys, 58 programmable keys, full QWERTY typing area, magnetic card reader and bar-code port.



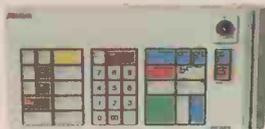
## ▼ 8001 P.O.S. KEYBOARD ▼

One of our newest P.O.S. keyboard products, the 8001 has a host of features packed into a very small footprint. Includes 105 programmable keys. Built in magnetic card reader optional.



## ▼ CARY 9000 P.O.S. KEYBOARD ▼

The Cary 9000 Programmable Keyboard looks and feels like a cash register keyboard. New Membrane Expansion module for 56 extra keys. Featuring tactile membrane and changeable inserts.



## ▼ BARCODE READERS ▼

Both CCD Scanner and wand readers include built-in decoder and interface. Bar code data is entered as keyboard data. Serial versions also available.



## ▼ CASH DRAWERS ▼

Available for serial port connection or with dedicated adapter card, the cash drawers offer a variety of coin and note compartments.



## ▼ KEYPORTS ▼

The range now includes 7 models for use in all environments including stainless steel Industrial/ P.O.S. models. Fully user programmable. Call for full details of models and interface options.



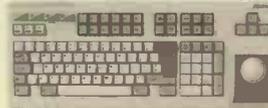
## ▼ CUSTOMER DISPLAY ▼

The 8003 pole display is specially designed for point of sale applications. Back-lit L.C.D. displays 2 lines of 20 characters, 12.7mm high characters.



## ▼ KEYCAT ▼

A real space saver, includes 102 keyboard with separate cursor controls numeric pad and serial trackball in a standard footprint.



## ▼ MCK142 PRO ▼

The MCK 142 Pro has all the keys you'll ever need: two sets of function keys, enhanced style 102 layout with separate cursor pad and 24 user programmable keys.



## ▼ MINIKB ▼

Occupying less space than an A4 notepad, the MINIKB has 85 full sized tactile click keys. Includes QWERTY keys, function keys and cursor controls. Optional numeric pad available.



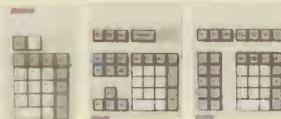
## ▼ 5100 MINIATURE KEYBOARD ▼

Only half the size of an ordinary keyboard, the 5100 squeezes 81 keys into the smallest footprint yet. Includes embedded numeric pad.



## ▼ MICROPADS ▼

Micropads for all applications. Include notebook numeric pads, keyboard replacement pads and fully programmable, customised keypads.



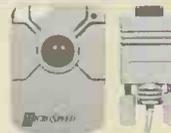
## ▼ KEYBOARD MASTER ▼

Remote data entry for computer-based presentations and demonstrations, Keyboard Master can operate any keyboard driven PC application up to 50' away from the computer.



## ▼ MICROTRAC ▼

Miniature trackball for use with notebook computers. Smaller than a mouse, Micro-TRAC can be hand held and keyboard mounted.



## ▼ PC-TRAC ▼

PC-TRAC sets new standards in style and comfort. The sculptured shape fits naturally into your hand and large, wrap-around buttons are right under your fingertips.



Electrone Limited, Unit 1, Central Park, Bellfield Road, High Wycombe, Bucks. HP13 5HG Fax: 0494-511888 Int + 44-494-511888

**Product Hotline 0494-511999 Int + 44-494 511999**

**CALL FOR OUR NEW CATALOGUE**



## Taking shortcuts

**For word processor users, knowing the right keyboard shortcuts can be a real godsend. Tim Phillips demonstrates some choice examples, introduces you to his very own macro club, and even finds time for some DOS advice.**

**T**hanks to all those who replied to my call for participation in our macro cop. By now I should have turned you into a mailing list and set you a few challenges. The more the merrier, though, and if you're competent in any macro language or Visual Basic (or if you just fancy having a go), email me and join the club.

Many thanks as well to those who have written and emailed me with queries. These have snowballed in the past few weeks, and as I deal with your enquiries in batches, my reply might occasionally be delayed. I'm very pleased to be getting so much feedback, but please bear in mind that there's only me to do the admin.

### Windows

Lionel Kremer's macro to cycle through open windows caused a lot of fuss. My replies via email were along the lines of: "Yes, I know you can cycle through windows using Ctrl+F6, but I keep forgetting, and when I'm cutting and pasting between documents, using the keyboard is a pain when I can put a button on the toolbar."

Nevertheless, the keyboard shortcuts in Windows are more useful to word processor users than to anyone else, because we have our fingers stuck to the keyboard a lot of the time. I personally prefer to whack in all the text I can and then do the fiddling around with a mouse and a toolbar later, but that's a comment on my typing. All you recently converted WordStar and WordPerfect DOS users will be getting itchy fingers, and anyone recording macros needs to know how to

move the cursor around, so it strikes me that a quick revision course on the keyboard shortcuts available to Windows users would be useful, not least to me. So here we go:

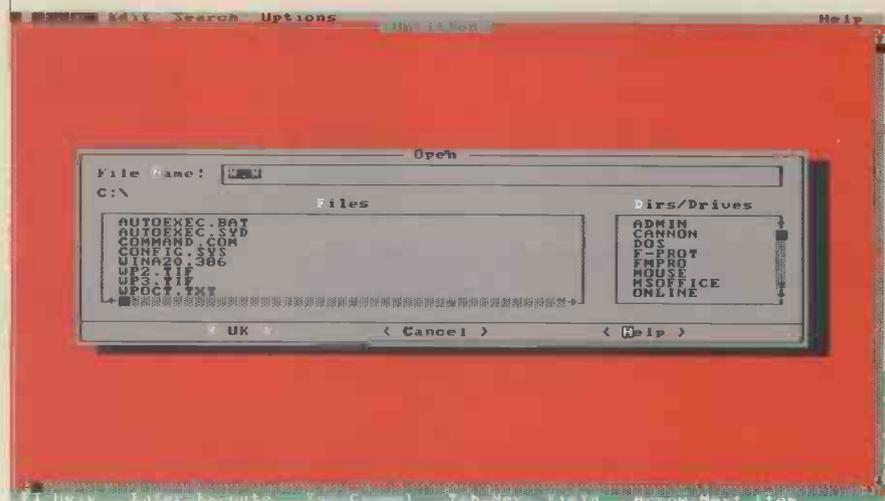
### 1. The simple stuff

In your dialogue boxes, Alt+the underlined letter of an option selects that option. To move forward and backwards one word at a time, use Ctrl+the appropriate arrow key. The beginning and end of a line is Home and End, and Page Up and Page Dn go up and down one screen.

### 2. Selecting text

One line (exactly) back from the cursor is Shift+Up, one line forward is Shift+Dn.

*Fancy new colours, more lines, and it's now looking for \*\**



Here's one I had forgotten: Shift+Ctrl+End selects from the cursor to the end of the document — substitute Home for End and you select to the top. Use Shift with Home or End to select the rest of the line, either before or after the cursor. Not surprisingly, Shift+Ctrl+Cursor key selects the letter to the left or right of the cursor.

### 3. Copying and pasting

You know this — well, you should: Ctrl+C copies, Ctrl+X moves, Ctrl+V pastes, Ctrl+Z undoes.

### 4. Windows Write

Turn off your Num Lock and Write has a few extra goodies. Use the numeric keypad to select text: 5+Left, 5+Right moves to the next or previous sentence. Use the 5 key with the down and up arrows to move to the next and previous paragraphs. Finally, if your Write document has pages, use 5 plus the Page Dn or Page Up to move to the next or previous page.

### DOS

Let's get right back to basics with DOS advice this month. I was shocked, nay horrified to find that a colleague was still editing in DOS using the execrable EDLIN program. Don't tell me — you do it too. I think I'm off to have a lie down.

If you have DOS 5.0 or 6.0, and I hope you have, then why don't you use EDIT for short word processing jobs? It's twice as good for batch files and is a respectable, if not overwhelming, text editor. But there are a few things we can do to immediately make it better: if you have an EGA card or better, type EDIT/H rather than EDIT and you get 50 lines of text on the screen.

You can fine-tune it using the Options menu. It won't let you set a font, but it does let you set the screen colours and the spaces that separate tab stops.

Next, get your DOS mouse driver working, and Edit is mouse-enabled. It's

CLASSIFIED

quicker using the menus and scrolling. If you can't use a mouse, learn the cutting and pasting shortcuts. Edit is not at all quirky, in fact it is extremely well-behaved, and if you want to start someone off in simple DOS word processing it teaches good habits. You will find a list of shortcuts in the Help menu under Keyboard.

I admit to having learnt the last tip initially from the excellent *DOS 6.0 Techniques*, published by Ziff-Davis Press, which I highly recommend. EDIT defaults to looking for \*.TXT files, which is a pain. To make it default to \*.\* you have to hack QBASIC.EXE with DEBUG.

I cannot stress enough the importance of making a backup copy of QBASIC.EXE. Please do this. Don't mail me if you haven't and everything goes wrong.

So copy QBASIC.EXE to QBASIC.TIM or similar to back it up. Then:

```
REN QBASIC.EXE QBASIC.PRG
DEBUG QBASIC.PRG
```

You get a "-" as a prompt. Type:

```
R DS
and it comes back with
DS ODAA
```

Note this number (that is, the last four digits). If you're in DOS 6.0, add 2 to the left digit — that would be 2DAA in this case; if you are in DOS 5.0, add 3, to make 3DAA.

Now type:

```
E xxxx: DD70 "**.*", 0
```

(For DOS 6.0, xxxx is the number you got by changing the old number), or type:

```
E xxxx: C76F "**.*",
```

(in Dos 5). Then:

```
W
Q
```

```
REN QBASIC.PRG QBASIC.EXE
```

If it doesn't work, and be warned there are many cases in which it doesn't, at least you have your backup to rename to QBASIC.EXE. Don't you?

### Tim's Macro Club

Welcome to the introductory session of Tim's Macro Club. Members were set these interesting problems:

1. John Lea, of Highgate, wants a macro so that both his document windows in Word 2.0 will scroll simultaneously (he's a translator). I'd like this too — any package, any solution.

2. David Harris of Easynet Cyberspace would like to enhance MarkCitation because he doesn't want to mark the same citation more than once on the same page. To elaborate: if he has text that generates a footnote, and this text appears twice on the same page, he doesn't want the same footnote to appear twice.



*Big, big fonts — don't let your word processor tell you it isn't possible*

3. Just a quickie: I'm interested in macros that provide some sort of billing function. For example, if someone bills by the word, or for the time spent on a document, I'd like a macro that automatically generates an invoice for it, or some type of report. Nothing too complex, please.

As a reminder: the macro club offers excellent prizes but operates by email only. You join by emailing me to tell me you're interested, and every so often I'll mail you all a challenge. Mail back your efforts (uuencoded if it's Internet mail) and the best ones will win prizes and get into print. All macro languages, Visual Basic (sometimes) and even simple workarounds (if they're very clever) will be accepted. Please note: by sending the macro to me, you thereby agree that I can redistribute it or publish it in this column, but you will be credited at all times.

If you don't have email, by all means have a go at answering the problems by post, but the time lag between when I write this and PCW's publication date means that you're unlikely to win anything. This section will be used for reporting the results of our little competitions and publishing the macros if they're short enough.

### Top tips

More macros this month. A few of you said there's no point in writing a macro to flick through open windows, as Windows provides Ctrl+F6 specifically for this purpose. You're right, but if you put the macro on your toolbar it means you can keep hold of your mouse while cutting and pasting between documents.

Another shorty macro, from Dave Symington of Edinburgh: a simple four-liner that reverses two characters if you've made a mistake. This is WordBasic but you can record it as a keystroke macro in any word processor. Give this macro a shortcut key, because when you mis-type

## Inkjet REFILL KITS



For All Makes and Models of Inkjet & Bubblejet Cartridges

Outstanding Print Quality for a Fraction of the New Cost!

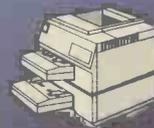
ALSO: Comprehensive Range of New Cartridges

## LASER TONER CARTRIDGES

Remanufactured & New

ALSO:

Toner Refill Kits  
Drum & Developer Units  
Fax & Copier Cartridges



FULLY GUARANTEED

## Printer Ribbon Re-Inking Machines



Re-ink your Ribbons the professional way, with a THEMIS RE-INKER

- Four models to choose from • Mains powered
- Designed for ease of use • Highest quality ink
- Re-inks automatically • Spools? No problem

SEND FOR BROCHURE OR FOR A QUICK RESPONSE:

TEL: 01883 330333  
FAX: 01883 330888



THEMIS (UK)  
11 - 13 GODSTONE RD  
CATERHAM, SURREY  
CR3 6RE

ENVIRONMENTALLY CONSCIOUS

THE PRINTER SUPPLIES SPECIALISTS

¿HABLA USTED ESPAÑOL? PARLEZ-VOUS FRANÇAIS?

Get it write right with ...  
Collins Bilingual Dictionaries

- Accurate translations
- Quick and easy to use
- Compatible with most word processors
- Both DOS & Windows versions supplied on diskettes in the one box

Collins On-Line (70,000 translations) £59

Add-on bilingual dictionaries £29 each

Add-on COBUILD Student's Dictionary £39

(the special dictionary for learners of English, containing over 30,000 examples showing typical uses of words and phrases)

Collins Series 100 (110,000 translations) £69

Add-on bilingual dictionaries £39 each

Languages available: French, German, Spanish or Italian

Prices exclude delivery at current Post Office rates & VAT

accept AMEX/Access/MasterCard/EuroCard/VISA

HarperCollins  
Electronic Reference

14 Steep Lane • Findon • Worthing • West Sussex • BN14 0UF

Tel 01903 873 555 Fax 01903 873 633

E-mail 100317.1372@compuserve.com

¿HABLA USTED ESPAÑOL? PARLEZ-VOUS FRANÇAIS? ¿HABLA USTED ESPAÑOL? PARLEZ-VOUS FRANÇAIS? ¿HABLA USTED ESPAÑOL? PARLEZ-VOUS FRANÇAIS? ¿HABLA USTED ESPAÑOL? PARLEZ-VOUS FRANÇAIS?

# Glare/Guard<sup>®</sup> MAXIMUM PLUS

Stylish  
easy-fit  
wrap-around  
design

**Glare/Guard MAXIMUM PLUS Filter** offers the ultimate in screen comfort to all regular VDU users. High performance optical technology, tempered glass, static elimination & ELF/VLF reduction of 99.9% will cut your visual fatigue. Exceeds latest Health and Safety requirements. TAKE A LOOK FOR YOURSELF with our 30 DAY SALE or RETURN OFFER at just £69+VAT for 12 to 15" diagonal models.

FREE DELIVERY in UK. ACCESS/VISA or Fax Order.

☎ 01993-883277

FAX 01993-883333

Full range of sizes 9" to 24" diagonal. Quantity pricing upon request.

**COMPUTING**  
Rookery Court Church Hanborough  
Oxford OX8 8AB 01993 881912

## Voice/Fax/Modems

Solwise offer a full range of connectivity products for your PC all covered by our 30 day money back guarantee of satisfaction and a 12 month warranty. In addition to our selection of modems we stock a range of Telecoms and Network products including Telephone systems, fax-switches, scanners, bar-code readers, remote-node-servers and much more. Details of our full range can be found in our FREE CATALOGUE which is only a phone call away. Further information is also available from our fax-on-demand system 24 hrs per day. Just call 01482-444589 from your Touch-Tone phone or fax-



phone to get the latest information sent directly to your fax machine. Just follow the spoken instructions to get an index or a selection from the dozens of pages available.



Fax/Data & Voice	V22bis/MNP + G3Fax 2400bps Data 9600bps Fax	V32bis/MNP+G3Fax 14,400bps Data 14,400bps Fax	
Internal	V9624A - £29	V1414A - £69	
External	V9624E - £65	V1414E - £92	
Pocket	—	V1414P - £109	
PCMCIA	—	V1414C - £119	
Fax/Data Only	V22bis + Fax 2400bps Data 9600bps Fax	V32bis/MNP/Fax 14,400bps Data 14,400bps Fax	V34/MNP/Fax 28,800bps Data 14,400bps Fax
Internal	9624A - £20	1414A - £49	1428A - £135
Tosh Lap	9624T - £29	—	—
Pocket	9624P - £45	1414P - £89	1428P - £159
External	—	1414E - £70	1428E - £149
PCMCIA	—	1414C - £99	—
16550 Serial Card £12 - MAC Software/Cable £20			

**Solwise**<sub>LTD</sub>

All Modems non-BABT

Add £5.95 for next-day carrier & 17½% VAT. Major Credit Card taken with a 1½% surcharge. COD available.

PCWO, Princes Court, Princes Avenue, Hull, HU5 3QA.

Tel 01482-473899, Fax 01482-472245, Fax on demand 01482-444589.

## BEWARE OF CHEAPER COPIES.

If you're offered a diskette copier at a better price than the new CopyPro 2000 from Loadplan, it probably already belongs to someone else!

At £1600 the CopyPro 2000 is itself a steal and represents, by some distance, the best value in today's market for automatic diskette duplicators.

The compact CopyPro 2000 is also very reliable, fully 'standalone' in operation, simple to use and can be upgraded from 40 to 135 three and a half inch high density copies per hour for just £895.00!



Copying sets automatically from multiple masters is no problem either with CopyPro's batch processing mode. Input and output hoppers can accommodate up to 150 diskettes for longer runs.

With Loadplan you're always assured of maintenance back-up from a company with a 15 year history in duplicating excellence, so why not call us now on 0181 200 7733 or return the coupon for more information.

**LOADPLAN**

Jubilee Close Townsend Lane Kingsbury London NW9 8TZ.

Please send me further information on the CopyPro 2000 range of diskette duplicators.

Name \_\_\_\_\_

Company \_\_\_\_\_

Position \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Telephone \_\_\_\_\_

PCW/10/95

Post coupon to Loadplan Ltd., Jubilee House, Townsend Lane, Kingsbury, London NW9 8TZ or simply fax it over on 0181 205 2615.



EN 29002/ISO 9002/BS 5750  
APPROVED BY BVQI

you just want to hit the shortcut key immediately and carry on.

Sub MAIN  
CharRight 1, 1  
EditCut  
CharRight 1  
EditPaste  
End Sub

You can record versions of this in almost any package. It's a good introduction to macros.

Phil Knight, of the School of Science and Technology at the University of Teeside, has noticed that the toolbar on his word processor only offers fonts up to 72pt. He wants something bigger.

Don't believe everything you see, Mr Knight. Just type in the bigger size in the box which shows font size, and providing you have chosen a software font, you get it. The 72pt size seems just a stylistic thing, not a restriction on fonts which you previously didn't have.

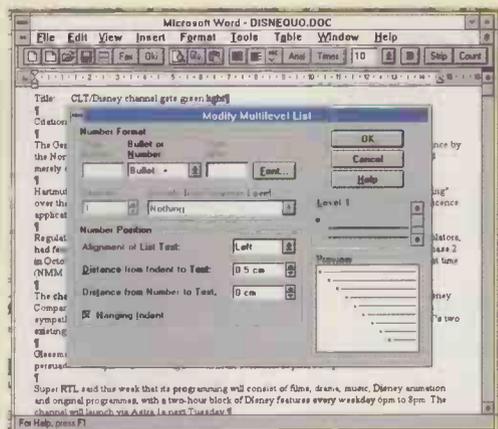
TrueType fonts, the standard in the Windows environment, will effectively scale as large as you want. If there are limits, I haven't met them, apart from in Write (see screenshot on previous page) which establishes an upper limit of 127pt. They will also be as small as you want. The pick boxes commonly offer only sizes between 8 and 72pt, but click in the box and type any number, and you'll get a font in that size. Note that smaller than 6pt is illegible and bigger fonts need kerning (adjustment of the spaces between letters manually) if they are to look good.

### Problem solving

Simon Parmenter's wife Mo hacked into his CompuServe account to ask about auto-numbering paragraphs. Does Word support numbering 1(a), 1(b) and so on or just 1, 2, 3? she asks.

Yes, like Ami Pro or WordPerfect or, as she is accustomed to, WordStar 6.0, Word's implementation is quite powerful. In the Format menu, find bullets and numbering, and you get one of those multilevel dialogue boxes. Click on the Multilevel tab, and you have a variety of styles for multilevel numbering. If you want to change these, click on the Modify... button, which controls style, font, indent and gives you a preview. This goes nine levels deep, and if you need more — I'm not reading your document even if you pay me.

When Sharad Patel, at Xerox.com, tried to double-click a chart in a document, "Cannot open Microsoft Organisation Chart 1.0" was displayed. But what did this mean? Where could he find Organisation



*Auto-numbering — as sophisticated as you like*

### Chart 1.0?

This is another example of the applet problem that we're all going to have to get used to. Unfortunately for Sharad, his chart was prepared using PowerPoint, then embedded — it's PowerPoint's Org Chart applet and has been available since PowerPoint 4.0. You must find a user with PowerPoint if you want to see it, because you can't get the applet separately.

This will be a feature of all our lives if OpenDoc catches on. The idea of OpenDoc, which is IBM's, Apple's and Novell's version of OLE on steroids, is that all documents will be composed of "parts", and one part will generate text, another will do the spell checking, another will generate a table, and so on. If you want to view the document, you need to own a copy of the part, or a "part viewer".

What's the point? Firstly, it means an end to monolithic applications. You're all struggling to keep up with the range of features in word processors (I know I am), and you don't use them. The idea is for you to buy only what you need. Secondly, OpenDoc will be cross-platform, and should spell an end to tedious converters for file formats. It's a neat idea, but idealistic, and not slated until 1996 at the earliest. I'll report in more detail when I have something to show you, although the previews I've had are impressive.

The idea with OpenDoc is to give away the Viewers that correspond to each part (which means you can look but not edit) for free. So in an OpenDoc environment, Mr Patel could have got a viewer and looked at his chart for nothing.

### PCW Contacts

And that's that for this month. Surface or airmail to PCW, otherwise I'm on email at [wong@cix.compulink.co.uk](mailto:wong@cix.compulink.co.uk) and CompuServe 100436,3616

## PSION SERIES 3a

3a 256K £199 3a 512K £239  
1mb Ver £259 2mb Ver £305  
All with Free Software  
256K Series 3S With Spreadsheet £139

### Software

Account & Exp	£27	Fax Modem	£149
Psion Money -3a	£39	Mains Adaptor	£12
Banker	£59	Print Link	£24
Chess	£24	P C Link	£54
Spell Checker	£28	Psi Win Link	£62
Games Pack 3a	£29	Mac Link Plus	£62
Pipemania	£24	Leather Case	£12
Berlitz Interpreter	£28	Exec Case	£18
Berlitz Phrase	£30	SSD Wallet	£15
Games Packs	£24	Desk Stand	£14
Soundmaster	£20	Disk Drive	£195
Win Link Ver 2	£23	<b>Books</b>	
Timebase Solo	£72	First Step Prog	£13
Contact Edge	£72	Serious Prog S3	£13
Data DeLuxe	£49	Serious Prog S3a	£15
Data View	£44	Graphic Prog	£13
Paint & Compose	£52	100 Questions 3a	£10

SSD'S			
256K Flash	£45	128K Flash	£28
512K Flash	£69	128K RAM	£39
1mb Flash	£92	512K RAM	£99
2mb Flash	£149	1mb RAM	£189
		4mb Flash	£259



PHONE FOR  
FULL PRICE LIST



☎: 01202 302796  
FAX: 01202 300419

**CLove**  
TECHNOLOGY

43 Springbank Rd, Bournemouth BH7 7EL  
Prices exclude delivery and VAT. Subject to availability.

I HAVE A SPELL CHEQUER IT CAME WITH MY PC

How many errors did you spot in the poem?

## COLLINS ELECTRONIC ENGLISH DICTIONARY & THESAURUS

REAL DICTIONARY & THESAURUS FOR £49

- Instant access to 190,000 definitions containing 3.5 million words of text
- 16,000 encyclopedic entries including places plus 14,000 new and updated entries
- 275,000 synonyms linked to the dictionary
- Powerful anagram search facility
- Wildcard or fuzzy search feature (? and \*)
- Boolean search functions (AND, OR, NOT)
- Includes pronunciation and etymology
- DOS & Windows versions are supplied both on diskettes and CD-ROM in one box for IBM compatible PCs

Price excludes delivery at current Post Office rates & VAT  
We accept AMEX/Access/MasterCard/EuroCard/VISA

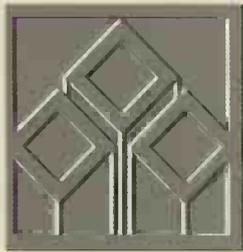
## HarperCollins Electronic Reference

14 Steep Lane • Findon • Worthing • West Sussex • BN14 0UF  
Tel 01903 873 555 Fax 01903 873 633  
E-mail 100317.1372@compuserve.com

TOO NO ITS PERFECT IN IT'S WEIGH MY CHEQUER TOLLE ME SEW

IT PLAINLY MARKS FOUR MY REVUE MISS TAKES I CANNOT SEAVE TIE RUN

THIS POEM THREW IT I'M SHORE YOUR PLEASED



# Salted peanuts

**Making up 'pay packets' for the RNLI was far from plain sailing. Stephen Wells smooths the waters.**

As a relative of mine is the helmsman of our offshore lifeboat, I felt a twang of empathy when I heard from Tony Nixon of the Isle of Anglesey. He wrote: "I was recently asked by the local secretary of the RNLI to assist him in computing the making up of 'pay packets', and providing a summary for the treasurer to draw the necessary from the bank. I thought this would be a simple task, eminently suitable for the shareware As-Easy-As spreadsheet which you included in your July cover disk.

"I include a working version of my program and a printout with some notes. You will see that it did not give the expected results in all circumstances with regard to the number of 20p and 10p coins. I don't think I've done anything wrong. It seems that the program maths has rounding errors somewhere. I use a 486DX33, not a Pentium. I would be grateful for an explanation of what is going on and perhaps a warning to users with similar errors."

I returned Tony's disk with an instant solution to get him in business using his present worksheet. This was to go to any cell which had an unhelpful formula and press F2, F9, Enter. What this does, in this and most other leading spreadsheets, is replace the existing formula with the calculated value as seen on the screen.

It's one thing to get a vehicle going so it

will get the driver home, but it's also important to understand what is happening so the problem is circumvented in the future.

Firstly, I would clarify that the work of most lifeboat crew is voluntary. The "pay packets" referred to hold nominal honorariums. Secondly, Pentium paranoia should not be allowed to deter us from suspecting simple programming shortcomings.

Here's what Tony has on his worksheet: column B holds the pay packet amounts, B5=£34.70, B6=£24.70 and B7=£4.70. From there on out, rows 5 through to 7 have the same formulae with only the logical row number changing.

Column N calculates the number of £10 notes required. Cell N5 has @INT(B5/10). Column O gives the balance, calculated in O5 as +B5-(N5\*10).

Column P calculates the number of £5 notes. P5=@INT(O5/5). And the new

balance is in column Q. Q5=+O5-(P5\*5).

This series continues logically to the right with the number of £1, 50p, 20p and 10p coins shown in columns R, T, V and X, respectively.

The balance columns change, so cell S5=(Q5-R5)\*100, U5=+S5-(T5\*50) and W5=+U5-(V5\*20).

Further down the sheet, he sums each column so he knows the total number of each type of note and coin to get from the bank.

Now, in Tony's example, everything works out fine in rows 5 and 7. It's row 6, based on an amount of £24.70, that's making him seasick. The answer should be two £10 notes, four £1 coins, one 50p coin and one 20p coin. Yet As-Easy-As is telling him he doesn't need any 20p coins, but one 10p coin instead. No, there's nothing the matter with the software. The PCW July issue cover disk provided version 5.5F, a mature, fully-featured, DOS spreadsheet.

The first thing is to dig in and examine what is happening. If you go to cell N5 and enter

/ Range, Format, Science, Z (decimals), N5.X7

you'll turn everything into a load of asterisks. Now enter

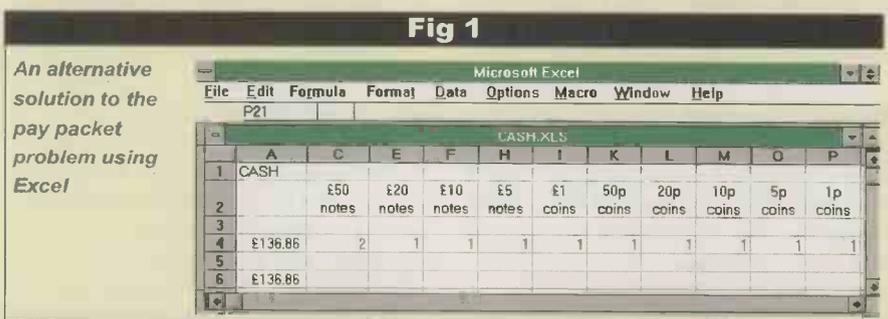
/ Sheet, ColWidth, RANge, N5.X7, 15

Column S displays 7.0000000E+01

in rows 5 and 7, but row 6 shows

6.9999999E+01.

So, although all three rows show one



**Panel (a) Converting currency to coinage**

A4 ENTER AMOUNT  
 A6 =SUM(C4\*50,E4\*20,F4\*10,H4\*5,I4,K4\*0.5,L4\*0.2,M4\*0.1,O4\*0.05,P4\*0.01)  
 B4 =DOLLAR(A4,2)  
 C2 £50 notes  
 C4 =IF(A4>99.99,MID(RIGHT(B4,7),2,1),0)\*2  
 D4 =IF(A4>9.99,MID(RIGHT(B4,6),2,1))  
 E2 £20 notes  
 E4 =INT(IF(D4>4,(D4/2),0))  
 F2 £10 notes  
 F4 =IF(D4>2,D4\*10-(E4\*20),D4)/10  
 G4 =INT(RIGHT(B4,4))  
 H2 £5 notes  
 H4 =IF(G4>5,1,0)

I2 £1 coins  
 I4 =IF(G4>5,G4-5,G4)  
 J4 =VALUE(MID(RIGHT(B4,3),2,1))  
 K2 50p coins  
 K4 =IF(J4>=5,1,0)  
 L2 20p coins  
 L4 =INT(IF(J4>2,(J4\*10-(K4\*50))/20))  
 M2 10p coins  
 M4 =(J4\*10-(K4\*50)-(L4\*20))/10  
 N4 =IF(RIGHT(B4)>0,RIGHT(B4),0)  
 O2 5p coins  
 O4 =IF((VALUE(N4)>=5),1,0)  
 P2 1p coins  
 P4 =N4-(O4\*5)

### Panel (b) Financial analysis template listing

A40	GEARING RATIOS (%)
A41	Debt to Equity
B41	=Total_Liabilities/Stockholders_Equity*100
A42	Fixed Assets to Long-Term Debt
B42	=Net_Plant_Equipment/Long_Term_Debt*100
A43	Long-Term Debt to Working Capital
B43	=Long_Term_Debt/Working_Capital*100

50p coin, the balance in pence in cell U6=1.9999999E+01, a sliver under the single 20p coin mark, but more than enough to provide a 10p coin in column X.

The best solution is to use the ROUND function. To solve the immediate problem, if you edit cell O6 to read @ROUND(B6-(N6\*10),2) the 10p coin disappears and a 20p coin surfaces. As insurance, you could use the ROUND function in all formulae in the balance columns.

As-Easy-As also offers the MOD function. This returns the remainder (or modulus in number theory) after a number has been divided. It is a variation of the INT function and it just depends on how you want to construct your worksheet.

As the subject of translating spreadsheet-calculated currency to coinage is of interest to more people than those making up pay packets, and as so many readers use Excel, Fig 1 (page 270) shows one solution for doing it in that spreadsheet.

I've only entered one line but you can see how it would continue down the page. The total numbers of each denomination would then be added at the bottom. The amount to be converted to coinage is entered in cell A4. The figure in A6 is a simple cross-check. That formula multiplies the number of each note or coin by its size, and adds them all up.

The layout is shown in Fig 1. The formulae are listed in Panel (a). Columns B, D, G, J, N have been set to zero width (using the shortcut Ctrl 0, zero). They hold intermediary formulae.

To eliminate potential rounding problems, I started by converting the entered amount to text using the DOLLAR function. Then I've referred to individual digits in the amount with functions like MID and RIGHT. Fortunately, Excel is generally smart enough to recognise a number in text when you want to calculate with it. After some entered amounts gave Excel pause in columns J and O, I popped in a VALUE function to give it a nudge. It was probably because of this that I had to throw in two or three INT functions here and there when Excel occasionally came back with a result of one and a half for the number of one denomination.

I wouldn't want to swear that this work-

sheet works in every instance, but I've tried numerous random entries from £0.99 to £999.99 and the final version shown here always gave correct answers.

### Financial analysis

Last month, we looked at the Liquidity Ratios in the financial analysis template for service companies. We now come to the gearing section. It's what they call "leverage" in the US. Both terms communicate the same idea: using someone else's money to finance the company's expansion plans, albeit at a cost.

Panel (b) shows the listing for the three Gearing Ratios. Rows 39 and 44 are blank. Column A gives the definition. Column B gives the formulae. They are the same in columns C through F because we're using the Names created in the July issue *Spreadsheets* column.

Column G holds the average results for the company's industry for any ratio which is commonly collected. As the example we have been using is an advertising agency, and the majority of agencies typically don't carry much Long-Term Debt, here the only average available is for the Debt to Equity ratio: everything the company owes compared with everything the company's stockholders own through the company.

Fig 2 (page 272) shows the results if you use the sample Balance Sheet and Income Statement figures from the July and August issues. As trends are more easily recognised with a chart, we'll make another here.

Of all the ways to make a chart in Excel, here's the easiest in this instance: open the worksheet we've been creating, SERVICE.XLS. Because many people like to print out all the ratios on a page, the labels of the years are on line 34 in the template which you can obtain on disk. To save a bit of work later, simply copy these headings from B34:G34 to B40:G40. They are not shown in Fig 2 because this is just a working procedure. You can get rid of the headings later by closing the worksheet without saving it.

Now select the range, A40:G43. Select, Edit, Copy. Then select, File, New, Chart; and then Edit, Paste Special. In the dialogue box choose Values in Columns.

### Monitor Man says .....

We do the business because we have the best value equipment at the right price and offer personal service too ... try us ...

### E-type VisionMasters ...



We have the new 1996 models at the UK's best prices ... Buy your VisionMaster from Monitor Man and if you are not delighted with it, you can return it within thirty days for a cash refund - no one can offer you a better deal.

**Our prices elastic ... for buyers with plastic. Ring for proof ...**

### NOKIA ON TOP ...

Nokia will always be on top because they set the highest standards in the business. If you want the very best screen then do have a Nokia from us ... we are an approved Nokia Business Centre ... We have 21-inch models at £1295 and offer exclusive swap-out warranties.

### Make mine a Mitac ...

an extremely sensible choice for budgetedly challenged buyers ...

the 0.28dp tube runs 1024 x 768 at 72Hz which is the 150 spec for a 17-inch monitor.

Mitac have annual sales of \$600m ... with this quality at these prices we're not surprised ... we also have the 14-inch at £159 and 15-inch at £249.



### Other Big Value Items ....

10-Inch VGA mono .....	£95
A4 full page Samsung mono .....	£99
15-Inch EM - refurbished .....	£149
20 Inch AlphaScan .....	£595
14-inch Touch-screen kdt .....	£210
ThunderBolt 64 bit 2 Meg. VL Card .....	£99

Cables and Accessories a Speciality

### Why not pay us a visit .....

We are centrally situated on the A419 which links J15 on the M4 to J13 on the M5. Ring for directions and you will be able to compare 16 monitors running side by side. You can also check our range of used models.

**For our latest MARKET REPORT, please call Fax-Back number 0374-50 63 33 from your fax, and press start when requested.**

OUR PRICES DO NOT INCLUDE V.A.T. E.&OE



MONITOR MAN LOOKS FORWARD TO HEARING FROM YOU ... SOON!



**Tel: 01453 88 55 99**

**Fax: 01453 88 66 33**

**Fax-Back: 0374 50 63 33**

The Studio - Middle Lyplatt - Stroud - Glos - GL6 7LW

Fig 2 &amp; Fig 3

Microsoft Excel									
File	Edit	Formula	Format	Data	Options	Macro	Window	Help	
F41	=Total Liabilities/Stockholders_Equity*100								
39	A	B	C	D	E	F	G		
40	<b>GEARING RATIOS (%)</b>								
41	Debt to Equity	358.96	269.23	179.61	210.00	225.53		22	
42	Fixed Assets to Long-Term Debt	733.33	525.00	266.67	269.23	325.00			
43	Long-Term Debt to Working Capital	7.06	8.60	13.64	14.77	14.63			

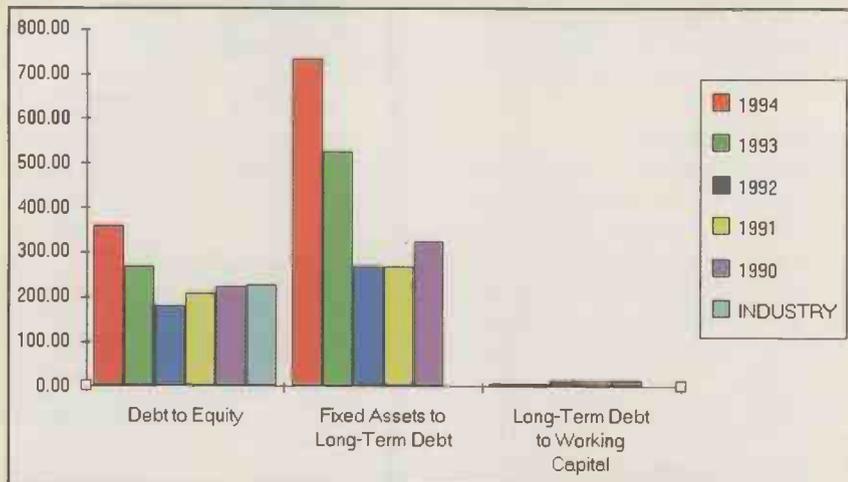


Fig 2 (top) Example results for the Gearing Ratios portion of the financial analysis template for service companies

Fig 3 A chart of the results shown in Fig 2

Accept the default selections of Series Names in First Row, and Categories in First Column.

Select, Chart, Add Legend. Select Chart, Attach Text and choose Chart Title. In the Formula bar, enter an equals sign and select Window, SERVICE.XLS, cell A40. Delete the word "Title" on the end of the line.

As the x-axis legends are extra long, their last lines may not appear on the bottom of your screen. Simply choose Format, Text, Horizontal Orientation and they'll sort themselves out. You should now have the chart shown in Fig 3.

Advertising agencies typically carry huge Accounts Payable because on the books they can have multi-million pound media bills to pay for their clients. It all balances out because their Accounts Receivable are higher still, but it tends to inflate their perceived debt. However, it is not Long-Term Debt (i.e. more than a year). That's why on the chart, the Debt to Equity ratio peaks at over 350%, and although the Fixed Assets to Long-Term Debt rises to more than 700%, the Long-Term Debt to Working Capital is way down there between 7% and 15%.

The latter ratio is included on the template, though, because in other service businesses it can be quite significant, particularly if they own real estate.

Gearing ratios measure the use of debt by a company. The lower the Debt to Equity ratio, the more the company may be reducing its debt and increasing its ability to repay.

If this ratio increases from year to year, reflecting a higher percentage increase in Net Worth, then the annual interest charges will add to the overhead — even if bank loan interest rates don't rise. Management can find itself spending more time with bankers than clients.

But a low ratio can indicate that management is too conservative and not capitalising on the potential of the business.

To summarise: The ratio compares the investment in the company by all creditors and the amount invested by the shareholders. It is an indicator of whether the company is carrying too much or, in the case of too conservative a management, too little debt. Ideally, the ratio will not change much from year to year and be comparable with the company's industry. In the example, shown in Figs 2 and 3, the company dropped below the industry average for three years but then in '93 and '94 started climbing. That the ratio not only exceeded the industry average but also climbed for two years may not necessarily mean trouble, but it's important for management to find out why it happened.

If the Fixed Assets to Long-Term Debt

ratio is high or rising from year to year, it indicates a shrinking dependence on Long-Term Debt to finance major investments in items like buildings or perhaps information technology hardware. It also indicates that less of the company's capital is used for plant and equipment and more is available for current use.

A low or decreasing ratio indicates some loss of protection to long-term creditors. And it shows that more of the company's capital is used for plant and equipment and less is available for working capital.

To summarise: This is a useful indicator when deciding whether to invest in new plant and equipment. Fixed assets which may appear to be a good investment are no bargain if they tie up working capital. However, a very high ratio may suggest an under-investment in plant and equipment. In the example, the position has been more stable than the chart would suggest. But because the relatively small Long-Term Debt of the company halved over the five years while the investment in Plant and Equipment rose 13%, the ratio rocketed from 325% to 733%. Nothing there to get the wind up about.

If the Long-Term Debt to Working Capital ratio is more than 100%, the company can find that much of its capital is locked up in relatively fixed assets, and management will need to borrow even further in order to operate. A low or declining ratio is usually the better position.

To summarise: This is a ratio which may not be recorded in many industries, one reason being that the ratio is so closely related to the Fixed Assets to Net Worth Ratio. This latter is among the Activity Ratios which we'll come to in a later column. When the Fixed Assets to Net Worth ratio is exactly 100%, the Long-Term Debt to Working Capital ratio will also be 100%. However, this third Leverage Ratio is included in the template because it is a useful measurement of the amount of Long-Term Debt that a company can comfortably handle.

Next month: Activity Ratios.

### PCW Contacts

Stephen Wells welcomes questions on spreadsheets, and solutions to be shared, via PCW Editorial at the usual address or at [stephen\\_wells@pcw.ccmil.com](mailto:stephen_wells@pcw.ccmil.com). For the financial analysis Excel templates for service companies and those which carry stock, send a formatted 3.5in disk and a stamped, self-addressed envelope.

# One World. One Communications Software.

PROCOMM PLUS for Windows.

Integrating  
fax with data  
opens up a  
whole new world in  
communications software.



PROCOMM PLUS for Windows 2.1 is here with new features which are above and beyond all other communications software programs.

First up, you have complete fax capabilities including a fax viewer, scheduling, broadcast send, and the ability to receive faxes in the background; all from right within PROCOMM PLUS for Windows.

Plus, you can access your local area net or the vast global village via the Internet with our TCP/IP support



for Telnet connections and an easy-to-use FTP file transfer and file management utility. With the fully-customisable Action Bar,<sup>™</sup>

you can easily activate frequently used features with immediately understandable icons. You'll find our new Dialling Directory smart enough to serve as a single phone source to organise voice, fax and data calls. Enhanced ASPECT scripts automate on-line

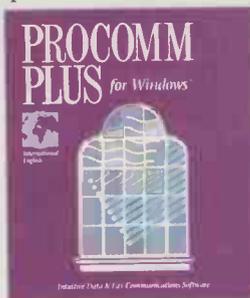
sessions with services like CompuServe and MCI Mail. Our GIF viewer displays graphics as you download them. And in the intuitive PROCOMM PLUS tradition, everything is extremely powerful and easy to use.

**In the UK call us at 0800 789955  
to upgrade for just £39.\***

To start fresh, visit your computer dealer or call us at +44 (0) 1954 789955.

PROCOMM PLUS for Windows 2.1.

A whole world is waiting.



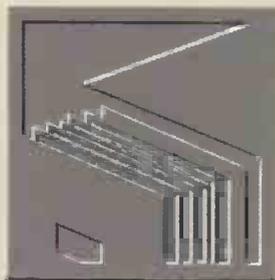
**PROCOMM  
PLUS** for Windows<sup>™</sup>

TOTALLY CONNECTED

DATASTORM TECHNOLOGIES, LTD.

All brand and product names are trademarks or registered trademarks of their respective holders. Copyright © 1994 DATASTORM TECHNOLOGIES, INC. All rights reserved.

\*Plus VAT and shipping charge.



## Join the gang

**Mark Whitehorn finds another variant of the gang-screen, struggles with Access, and covers more of Ted Codd's rules for running a tight database.**

Is there no end to the gang-screen wars? Having reported last month how to find the gang-screen in Paradox for Windows, and some time ago the gang-screen in dBase 5 for Windows, I came across a sub-variant of the dBase one. If you open up the Help>About dBase 5.0 for Windows screen, and press ALT-28 (hold down the left-hand ALT key, and then press the 2 and 8 keys, above the normal keyboard), the number 28 strolls across the screen. This was apparently inserted into the code by a former Borland employee called Kevin Brown as a tribute to racing driver Davey Allison, who died in 1993. Presumably Allison drove car 28?

### No Access for groups

Having installed Access 2.0 as a networked version a couple of weeks ago, I was able to run Access from a variety of different workstations, create tables and run Wizards, and foolishly assumed all was well. I discovered I was wrong when trying to teach Access to a class of ten people. I demonstrated the table Wizard and invited the participants to have a go. Only one managed to run the Wizard, while the others received the error message: "Another user or instance of Microsoft Access is currently using the Table Wizard or the Field Builder."

I found this impossible to contradict; after all, I had just told ten people to use it at the same time. But I also suspected that an attempt by multiple users to use the same software simultaneously shouldn't have come as a major surprise to an application installed for use on a network. I assumed that I had fluffed the installation in some way, perhaps failing to set the correct access rights to the \*.MDA files which contain the Wizards. While the participants

were enjoying lunch, I went hungry, logged in as Supervisor and gave every user their own copies of the \*.MDA files. After altering the [Libraries] section of their MSACC20.INI to point to the new sub-dir, I was able to continue the course.

At the end of the day, I contacted Microsoft. It transpired that I had followed the installation instructions perfectly, but they happened to be wrong. Three of the \*.MDA files (WZLIB, WZTABLE and WZBLDR) contain Wizards which modify the library database they reside in and can't run concurrently. The solution Microsoft has found for this problem is the same as the one I used; namely to give each user their own copy of these files and alter their MSACC20.INI to point accordingly. You can even get a document (REF Q121662) from Microsoft which details the changes.

Now, I accept that software is likely to have bugs, but going by the date on the documentation of the bug fix, Microsoft has known about this bug since 13th October 1994 at the latest, and has neither fixed it nor amended the documentation. Instead, all over the world, individual network supervisors are expected to install the software incorrectly (as per instructions) and then suffer an intermittent fault as different users on different parts of the network occasionally clash in their attempts to use the same

**Fig 1** Paradox treats nulls as equal during a join, not something I would like to explain to the relatives (or next of kin) of some of these patients

ANSWER	BOTTLENO	TYPE_1	PATNO	TYPE
1	1.00	A+	2.00	A+
2	2.00	O-	3.00	O-
3	3.00	A-	1.00	A-
4	3.00	A-	8.00	A-
5	5.00		5.00	
6	5.00		6.00	
7	5.00		7.00	
8	6.00		6.00	
9	6.00		6.00	
10	6.00		7.00	
11	7.00	O-	3.00	O-
12	8.00		5.00	
13	8.00		6.00	
14	8.00		7.00	

Wizard simultaneously. I was lucky: the fault was obvious to me because I was teaching a class who were working in sync, but this is the sort of problem that could plague you for months.

How many person-hours have been spent attempting to sort this problem, for which a fix (albeit an untidy one) has been known for nearly a year? How many Microsoft-hours would it have taken to fix the problem, the install routine, or to slip a note into the manuals? Does Microsoft actually care one way or the other?

Microsoft's answer to my complaint is as follows: firstly, very few people actually install the software on a network, so it isn't a major problem. Secondly, two of the .MDA files have been fixed and are up on CompuServe (LIB 15 - Wiznet.EXE) so people can download them.

The first seems an odd response from a company which professes so much interest in networking. The second is really no answer because everyone still has to discover the problem first (which is where the time is wasted), and since WZTABLE.MDA hasn't been fixed, you still have to mess around with sub-directories, .INI files and the like.

### Input masks

I used to like input masks, but now I'm not so sure. Having thrashed the phone number version to death two months ago, I thought I was safe, but no. As David Probett has pointed out, the input mask for Access which I suggested (>LL0a\0LL) is unsuitable for postcodes like B1 2BC. Arghhhh! In this electronic age, why don't the committees which design entities like postcodes ever think about databases? David kindly suggested (>LA9a\0LL;0\_) which will allow all of the correct forms, but allows mutants like D23 4HN as well.

This isn't David's fault; the problem is the variability of the codes themselves. I still think the only real cure is to use Access Basic.

Microsoft Access

File Edit View Format Records Window Help

Table: BLOODBAN

BOTTLENO	TYPE
1	A+
2	O-
3	A-
4	AB-
5	
6	
7	O-
8	

Table: PATIENTS

PATNO	TYPE
1	A-
2	A+
3	O-
4	AB+
5	
6	
7	
8	A-
9	B-

Select Query: Query1

BOTTLENO	BLOODBAN.TYPE	PATNO	PATIENTS.TYPE
1	A+	2	A+
2	O-	3	O-
3	A-	8	A-
3	A-	1	A-
7	O-	3	O-

Record 1 of 5

Datasheet View

**Fig 2 Access treats nulls with the respect they deserve, and doesn't treat them as equal in a join**

patients are new, so we haven't yet discovered their blood types. In other words, some of the information is unknown, so quite correctly it is represented in

the tables with null values. Given this example, do you think nulls should be treated as matching? If so, you get the job of explaining to the relatives of patient 5 why he was given un-typed blood.

6. Joins on non-identical field types must not be allowed.

Lotus' (sorry, IBM's) Approach breaks this particular rule and serves as an excellent example of what happens.

I was told by a Lotus person that it is a "feature" which makes life easier for the users. You see, some users are unable to distinguish between text and numeric fields because they can put numbers into both types. Thus a user may have a text field in one table and a numeric field in another, both of which contain numbers. When they try to join these fields, they become disgruntled because the RDBMS refuses to sanction the join. The solution, according to Lotus, is simple: remove the restriction and allow the RDBMS to join them.

However, let's have a look at why the restriction needs to be in place. The two tables in Fig 3 are clearly meant to be joined by their respective ID fields, but one is a text field, the other is numeric. The problems which arise if the RDBMS allows you to join them is clear from Fig 4. Approach is unable to distinguish between the person with the ID of 3 and the person with an ID of 3A. The result is that both of them end up responsible for the orders attributable to person 3. This will delight Sarah Jones and infuriate Jerry Ferish.

7. When joins are performed on tables containing existing data, the referential integrity of that existing data must be checked and the join must fail if the data violates the proposed join.

If an RDBMS imports data, we cannot expect it to be responsible for the prior integrity of that data. However, as soon

Does anyone out there have any code they would like to share?

### Codding about

Following on from last month's list, here are some more suggested rules for modern, PC-based RDBMSs:

3. The RDBMS must ensure that any field declared as a primary key, or part of a primary key, is not allowed to contain null values.

The main point here is that a null value means: "We don't know the value which should be inserted here." A null is not the same as a zero or space character. Since the value in the primary key field is used to provide a unique identifier for the record, we have to be sure what value it has, so null values are highly inappropriate in a primary key field.

4. Every piece of information in a table must be accessible by using a combination of the table name, field name and primary key value.

This excellent rule is essentially Codd's Guaranteed Access Rule (see PCW May '95).

5. Null values must not be treated as equal in joins.

Some RDBMSs, like Paradox, treat nulls as if they were equal in joins, which, as Mr. Spock would have said, is illogical.

Values which are known can be said to match; so 2 equals 2 and 3 equals 3. However, an unknown value cannot be said with any certainty to match another unknown; so one null value cannot be said to equal another null value.

What happens if they are allowed to "match"? Have a look at Figs 1 and 2, showing the results of a query on two joined tables in Paradox and Access. We are matching blood in a blood bank, to patients. Some of the blood in the bank has yet to be typed, and some of the

**THE KEYBOARD COMPANY**

Keyboards ... we have them all ... large or small ... in almost every language ... English, every European, Russian, Arabic, Scandinavian, Polish, Japanese, whatever your requirement, we'll have it. Today's special ...

**KBC TRACKERBALL KEYBOARD** - only £49.95  
5-Pin DIN fitting - PS/2 adaptor £7.00 - Carr. £6.95

**WINDOWS '95 KEYBOARDS**  
Superb quality with the extra keys you need to make the most of your new operating system **£29.95**

Full details of our range are on Faxback: Dial 0374 50 21 50 from your fax machine and press Start when requested, or ring our sales department

**01453 88 55 22**  
Fax: 01453 88 66 33

STILL COPYING MANUALLY?

**COPYMASTER**

Experts in quality media duplication

**CopyMaster (UK) Limited** makes mass copying to diskette, tape and CD precise and cost-effective.

The **COPYBOX** attaches to a PC or runs standalone, to minimise manpower costs in diskette duplication.

The **COPYBOX** can be used to automate data retrieval, data distribution, virus-checking or software protection on diskette, as well as copying.

Prices from £2290

**COPYBOX**

**CopyMaster (UK) Limited** also provide the solution for mass duplication of cartridge and CD-R media.

Alternatively, we offer an efficient and responsive in-house duplication service. Simply send us your master diskettes, tapes and CDs and we will duplicate them for you.

To evaluate your requirements in more detail please contact Paula Smith or Stephen Tan.

TEL: 01895 833 833 FAX: 01895 833 813

CopyMaster (UK) Limited, Caps Wood Business Centre Oxford Road, Tatling End, Denham, Bucks, UB9 4LH.

# Where other databases leave you with questions...

**At the security company:**  
What other equipment have these cowboys sold us?

**At the recruitment agency:**  
How long will it take us to see who we've got with experience in VB, security and comms?

**In the research section:**  
You mean we can't just look for everything in the database that mentions it?

**In the MD's office:** What do you mean "we don't know how many fault calls relate to this" - it's on the computer isn't it?

**In the library:**  
Have you got any background on [fill in pet hate]?

... Blackwell

# Idealist

has the answers

## Just think of it.

a database that's flexible enough to store and retrieve all your information in the way that you want.

a database that delivers your search results in less than a second, however large the database

a database that automatically indexes every bit of your information so that it can find it again, wherever it is stored.

Blackwell *Idealist* has all of these features and a lot more besides.

*Idealist* gives you fast and genuinely flexible access to your information: at your desktop, to your colleagues on a network, or to your customers via CD-ROM. Every word is indexed so that all your information can be stored, not just the bits that 'fit'. In an *Idealist* database, your information can be searched for and retrieved by any word, number or date, wherever it appears in the database. Variable field length and multiple record types per file also allow you to design your database to fit your information, rather than the other way round.

*Idealist* will display graphics within your databases - such as in a library-style catalogue with links to documents in an image archive. It will allow you to import information from disparate sources, like bibliographic records from online services and word-processed documents, store them alongside one another, and lets you mailmerge, print labels, reports, or to link into other packages such as spreadsheets via DDE.

*The applications are innumerable, but the principle is simple: if you have information that you need to retrieve, but can't be sure what you'll need to find, Blackwell *Idealist* has the answer.*

**It finds everything.**

**b**  
**Blackwell  
Science**

**Winner of an Editorial Team  
Award from Personal Computer  
World in June 1995**

Please send me a free *Idealist* for Windows demo disk and information pack. PCW 9

Please send me \_\_\_\_\_ copies of *Idealist* for Windows (16 bit) @ £99.50 + VAT/ *Idealist* for Windows (32 bit) @ £149.50 + VAT

I enclose a cheque for £ \_\_\_\_\_

Please debit my credit card for £ \_\_\_\_\_

Visa/Access/AMEX

expiry date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Organisation \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Tel/fax \_\_\_\_\_

Blackwell Science Ltd,  
Osney Mead, Oxford OX2 0EL, UK

Tel: (01865) 206206 Fax: (01865) 791738

e-mail: idealist@blacksci.co.uk

All trademarks acknowledged

  
MICROSOFT™  
WINDOWS™  
COMPATIBLE  
32-Bit Application

## Tips and tricks

### Forms in Access

In Access, I often construct several forms which are similar, but subtly different. For example, I might have two forms: one for entering data and the other for viewing the same data. Both contain the same fields but they have different labels and colours, and the latter would be read only. Clearly it is a waste of time to build both forms from scratch, so from within the database window Access allows you to select a form and treat it just like any other object. Thus you can cut or copy it to the clipboard and then paste it back.

Access is quite smart about this. If you paste a table, for example, it will ask if you want to paste the structure, the structure and data, or append the data to an existing table. The same trick can be performed with Queries, Forms and Reports. With some imagination, this trick can be used for more than just copying objects. For example, suppose that you have a relatively complex query which works well, but needs improvement. If you take a copy before you start the improvement process, should anything go wrong and you end up destroying the original rather than improving it, you have an instant backup. This is a really useful technique.

### Paradox for DOS

"I have a MASTER table of Users like this:

```
User ID      A1
Address     12 The Cottages
etc...
```

User ID is the key field.

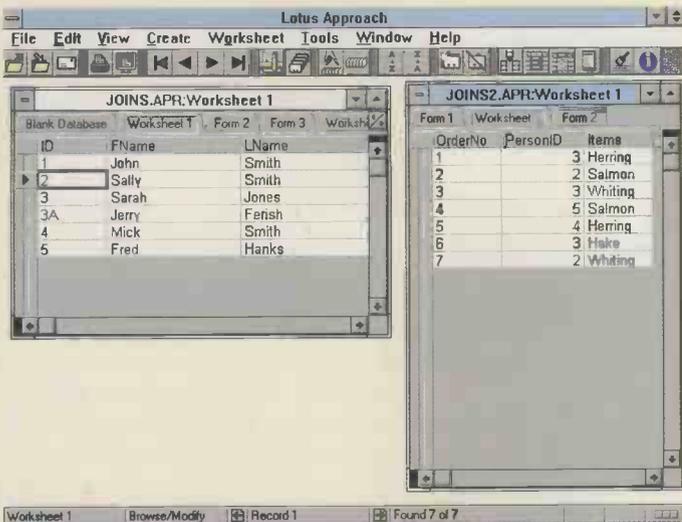
Periodically, an ASCII delimited text file is created which includes all the users. I import this into a TEMP table and then I need to add only the new users (i.e. those for whom the User ID is not in the MASTER table) into the MASTER table. What I have been doing is performing a delete query to remove those that are in the first table and then inserting those that remain. Is there a way to perform this sort of query in one step? I have tried various combinations of sets, NOT and NO with no luck."

You just need to perform an ADD of the TEMP table to the MASTER table. All the "key violations" should drop out into a KEYVIOL table which you can then ditch.

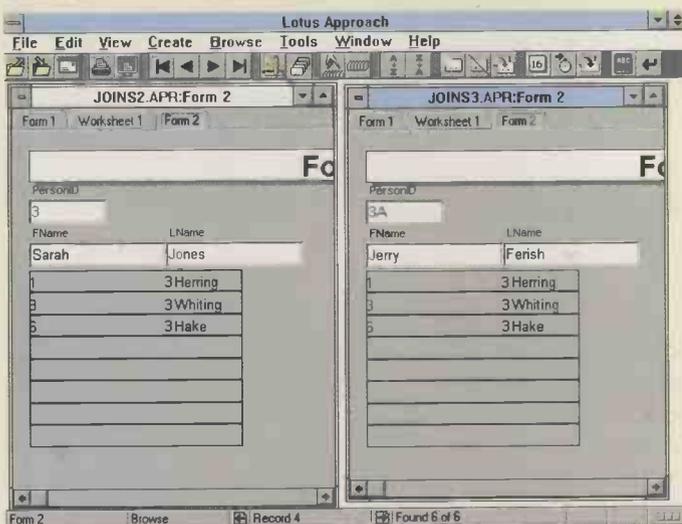
The steps are: TOOLS{More}{Add} type in "TEMP" <Enter> type in "MASTER" <Enter> SELECT {New Entries}.

## PCW Contacts

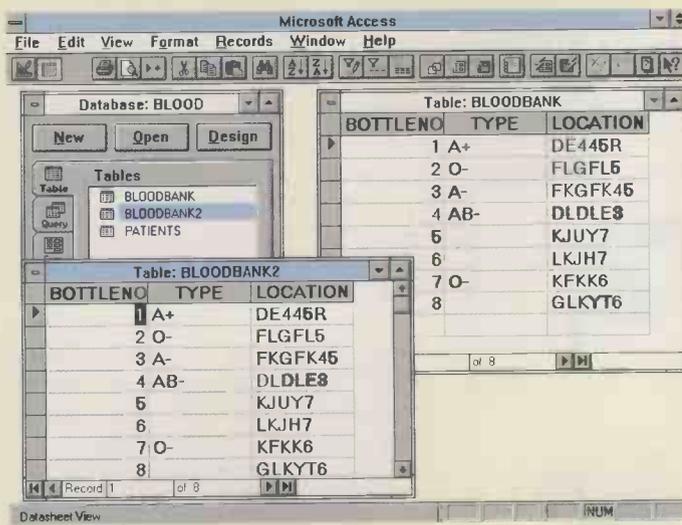
Mark Whitehorn welcomes readers' correspondence and Ideas for the Databases column. He's on [penguin@cix.compulink.co.uk](mailto:penguin@cix.compulink.co.uk)



**Fig 3** Here are two tables in Approach which have been joined by the Identity Field (ID in JOINS.APR and PersonID in JOINS2.APR). However, ID is a text field while PersonID is a numerical field



**Fig 4** Both Jones and Ferish end up responsible for orders 3 and 6 because Approach seems unable to distinguish between 3 and 3A in a join. I've had to fiddle this screenshot to get both records onto the screen together, but the effect is just as shown

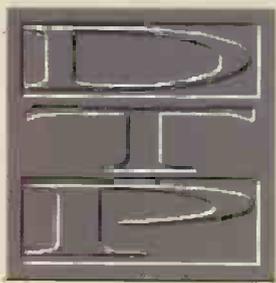


**Fig 5** The result of pasting a table, complete with data, in Access. Note that the two tables must have different filenames

as we use that RDBMS to, say, establish referential integrity between a pair of tables, we have every right to expect the RDBMS to check that the existing data conforms. Many RDBMSs make this check, but here again Approach falls short of perfection; it doesn't check.

"Why might this be?" you ask. According to Kevin Harvey, the designer of the

product, very few people import existing tables of data. Odd that, especially as we are also told that Approach used the dBase file format just to be compatible with existing datafiles. However, as long as you are sure you will always create data from within Approach, and never import it, you need not worry about this problem.



## Join up the dots...

...to reveal good, budget drawing packages.

**Gordon Laing fills in the detail on paint packages that are easy to work with, remarks on bitmap tracing applications, and uses an unusual cordless tablet pen.**

**W**henever I write a group test of software or hardware, I always try to provide lots of boxes on related technologies or concepts. Judging by the amount of feedback we get at the PCW office, it would seem that these information boxes are sometimes more popular than the actual buyers' guide feature within which they have been included. Two topics which always seem to generate interest are: "pens and graphics tablets" in the paint and photo-retouching features; and "bitmap tracing" in the scanner group tests. This month, I'm going to examine both subjects in more detail.

Before going any further, it's all very

well extolling the virtues of high-end drawing packages such as Macromedia Free-Hand, Adobe Illustrator and, to a certain extent, CorelDraw, but for most users they're far too expensive, sophisticated, and difficult to use. It's easy to forget that these apps are supposed to allow you to draw on a computer, and should therefore feel as natural as drawing with a pen.

### Get smart

As far as painting packages are concerned there are some brilliant low-end products, but good budget drawing apps are much thinner on the ground. There's Serif's DrawPlus 2 reviewed in our Sep-

tember issue's *First Impressions*, but the most impressive I have seen recently is SmartSketch, by FutureWave Software (available from CGS ComputerBild for a giveaway price of £49.99 on Mac or Windows).

The really nice thing about paint packages is that they're dead easy to work with: just wave the mouse around with a suitably sized brush and you get your desired shape. The problem is that they are bitmaps of fixed resolution, which either means huge file sizes to counteract the blockiness, or poor enlargements and prints.

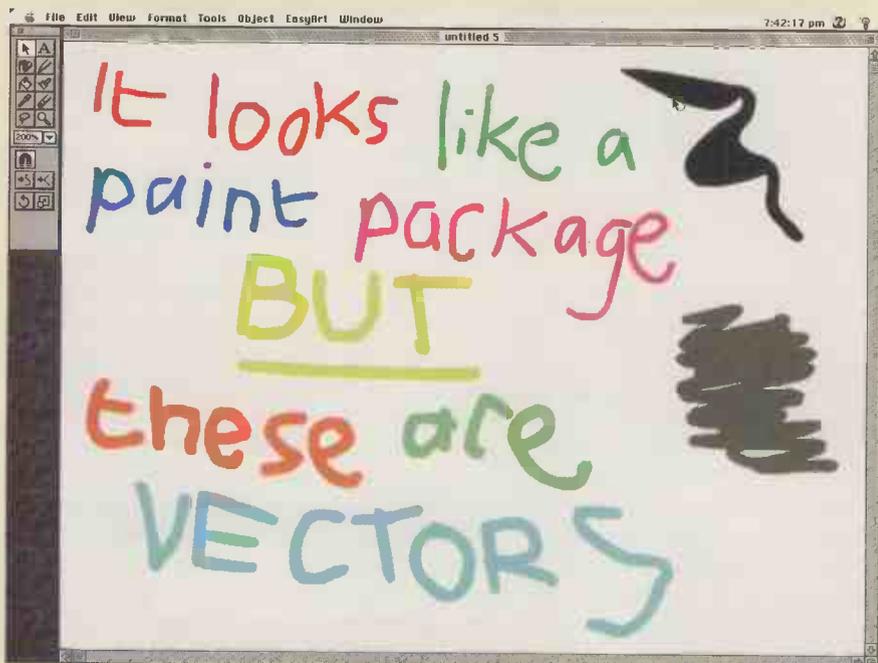
The answer is drawing packages which describe shapes with device, and hence resolution independent vectors... but hang on, that's a bit of a mouthful. The idea is that instead of painting a line of jerky dots, a drawing package says: "Join two dots here and here, with a line this thick." This message is then interpreted and displayed or printed as best the device can, whether it be a low resolution screen, mid-resolution laser, or high resolution image setter.

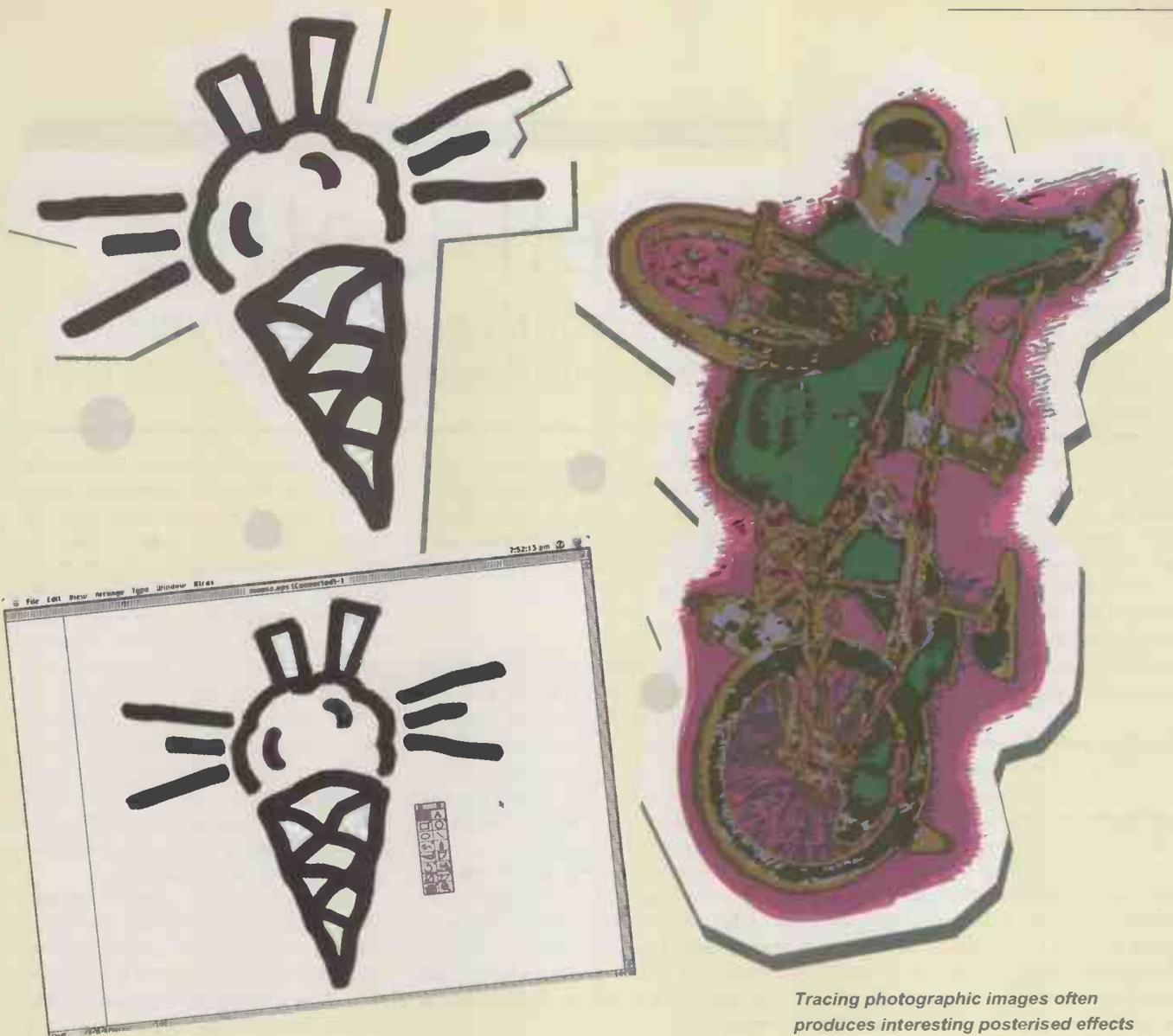
The beauty of this is that the same vector file is used for all devices: its suitability ranges from low to extremely high resolution. Better still, vector files are usually quite compact thanks to their basic geometric descriptions. If this were a bitmapped file from a paint or photo retouching application, a high resolution version would be huge due to the greater number of pixels required to describe finer detail.

But the reason we don't use vector drawing applications all the time is twofold: firstly, they don't handle continuous tone photographic images very well, and secondly, they're not that easy to use.

A vector shape is made up of at least one bezier curve, passing through or between at least two points. The shape is defined by the nature of the points and the direction of the curve as it passes through them. In simpler terms, if you want to modify the shape, you must manually adjust each point, forcing the line which passes through it to twist and turn until it's just right.

These are known as path operations and were covered in much greater detail in an earlier *Graphics & DTP* column (PCW





Tracing photographic images often produces interesting posterised effects

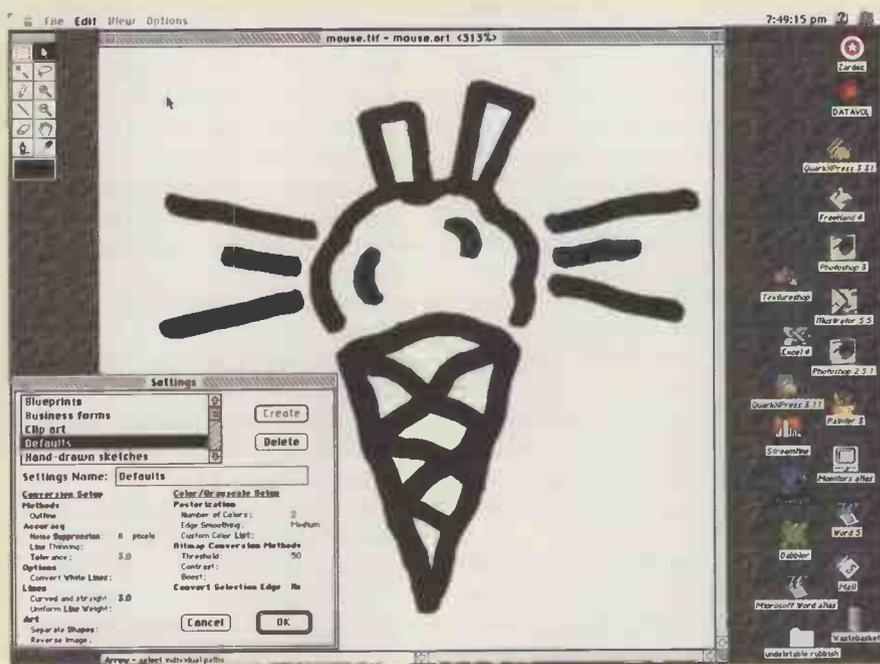
**Below Fig 1** Adobe Streamline importing a bitmapped TIF and tracing the outline

**Above Fig 2** The traced image in EPS format opened in Macromedia Freehand  
**Top Fig 3** The traced EPS placed directly in Quark Xpress — look, no snaggies!

April '95). Suffice it to say that you can't casually doodle in a drawing application in the same way as a paint package.

Until, now that is. I recently met up with the Wacom people, who demonstrated their latest pens and graphics tablets with numerous software packages, including the aforementioned SmartSketch.

What really appeals to me is how easy it is to sketch and doodle away in SmartSketch, just as you would with a paint package. The important difference is that, as with any other vector drawing application, you can stretch and reshape the images.



The really clever part is that you don't have to select suitable points in the path, then drag and modify the handles to create the desired effect. Instead, with SmartSketch, you grab anywhere you want on the path and drag away.

There's an eraser tool as well, pretty much unheard of in most drawing apps, which works in exactly the same way as in a paint package. Just rub away, and SmartSketch will rejoin the broken paths automatically.

Finally, I must mention the optional shape recognition facilities which, as their name implies, recognise your quick sketches as common shapes and corrects them. Draw a rough circle, polygon or line and SmartSketch will neaten it up for you.

We'll be doing a full review of SmartSketch in the near future, but I felt I had to let you know in advance about the usability of this package, which is remarkably simple and intuitive.

### Putting pen to tablet

Returning to the subject of Wacom, the launch I mentioned earlier was concerned with some neat new pen and tablet products. If you thought that pressure sensitivity was the be-all and end-all of tablets, think again. Wacom has come up with the UltraPoint Eraser, a cordless tablet pen which actually has a rubber on the non-pointy end — an electronic rubber, that is. It looks like a pencil with an eraser on the end, which seems a little silly, but is in fact really rather good.

Whereas previous models carried electronics only in the tip of the pen, Wacom has fitted electronics into both ends of this new pen. When it is turned upside down, suitably equipped software notices the change in ends and reacts accordingly. Conventionally, you would have it select the erasing tool, but there's no reason why it couldn't be assigned to anything else, very much like pressure sensitivity. I had been sceptical, until I saw it demonstrated in Adobe Photoshop 3 (version 3.04), Fractal Design's Painter 3, SmartSketch, and even Microsoft Word and Excel, where it was used to delete unwanted words or cell contents.

It really is intuitive to use, and works well. This UltraPoint Eraser should be the standard pen with all Wacom tablets by the time you read this, including the new 4in x 5in ArtPad II.

Another clever idea of Wacom's is to fit an ink or leaded pencil nib onto some of its pens: this way, you place a sheet of paper over the tablet's surface and draw naturally, leaving a mark behind just as you

**Font of the Month**

# Bell Gothic

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyzß&1234567890

would when using a pen or pencil. Very cunning. Take a look at this month's Gadgets spread (on page xxx) where, amongst other goodies, are three new Wacom pens: the ink nib, pencil nib and eraser models.

### Tracery

If imitation (or copying) is the sincerest form of flattery, then I would say that bitmap tracing applications are some of the nicest around. Every time I mention tracing, in the information boxes I include with scanner group test features, I get loads of enquiries. So here's something to satisfy those whetted appetites.

As I have mentioned, vector descriptions have several advantages over bitmaps, like scalability, device independence and small file sizes. However, bitmaps are the raw output of scanners and that's what is used to digitise original artwork.

By original artwork, I'm referring to paper-based illustrations such as signatures and company logos. If you want to use these in electronic documents like DTP pages, you'll need to scan them at a sufficiently high resolution. Although this will work, sometimes the file size becomes too large, or you may want to modify the shape without losing quality. Simply, you want to convert it into vector-based form.

The process of converting a bitmap to a vector is known as tracing, and is performed by a variety of applications with this facility built-in (such as Macromedia FreeHand). Under Windows there's the CorelTrace module of CorelDraw, which has now been present for several versions, the most sophisticated of which is StreamLine 3 by Adobe (sadly, for the Macintosh only).

They all do the same thing to varying degrees of complexity. At a basic level, the bitmap is usually opened in TIFF format. Then the application traces the outline, ignoring the very small steps inherent in bitmaps. By the end of the process, a vector outline of the original shape remains.

All tracers offer options to vary the accuracy of the outlining process, and a fair amount of trial and error may be required before the desired effect is achieved. In most cases, it should be as accurate as possible but not to the extent that every step of the bitmap is recorded. Whereas in other circumstances, a rather pleasing effect may be produced with a loose outline.

The more sophisticated tracers are able to detect a user-defined number of colours, resulting in a posterised effect. Continuous tone colour photographic images do not trace well most of the time, but very interesting results can be discovered with a little experimentation.

The best results are achieved with simple bitmaps such as basic logos or signatures, preferably in few colours (or only one). PCW needed to trace a hand-drawn logo. The original bitmap was subsequently traced in StreamLine (Fig 1). The vector shape is shown in FreeHand (Fig 2) as a screenshot, and finally the EPS itself (Fig 3) which, barring disasters, should be nice and smooth. Notice how StreamLine has spotted the gaps and created white vector shapes to represent the holes.

### Just my type

Probably the last of the new PCW fonts is Bell Gothic, seen above in Roman face. This is a classic face, ideal for a style that will be respected. It was designed by CH Griffith in 1938 and is on the BitStream books. Contact the usual suppliers.

### PCW Contacts

Please do let me know if you have any comments — write to the usual PCW address, or those suitably equipped can email me as  
gordon\_laing@pcw.ccmail.  
compuserve.com

Faces 01276 38888  
FontWorks 0171 490 5390  
CGS Computer Bild 0181 679 7307  
Adobe 0181 606 4000



DR SOLOMON'S

## Data Recovery Service

Crashed hard disk?  
Unreadable floppy?  
Dead files server?

**NO FIX - NO FEE**

DON'T PANIC - CALL

S & S INTERNATIONAL PLC

0800 581263

### How you benefit?

Parallel port devices are ideal when you want to:

- add a hard disk or CD-ROM drive - even when your PC has no more space
- quickly move large files between several systems
- work with the same data anywhere - without taking your PC with you
- lock away confidential data and files vital to your work
- fast-load your PCs with large software packages, e.g. MS Office & CorelDraw

### Why parallel port?

Our devices are:

- economical - you use one device to service many PCs
- convenient - a Disklite stores as much as nearly 900 slower less reliable floppies
- versatile - you use them with notebook and desktop PCs
- practical - you can use them and print at the same time
- easy to install - done in a few minutes - you don't ever lift the lid off your PC
- easy to use - you run them under DOS and Windows like any other drive

**LOWER PRICES**  
(exc 17.5% VAT)

**Disklite** (3 1/4" x 5" x 1 1/4")  
alone - fit your spare 2 1/2" disk .... £99  
w/170Mb 2 1/2" IDE disk ..... £195  
w/340Mb 2 1/2" IDE disk ..... £269  
w/520Mb 2 1/2" IDE disk ..... £395  
w/810Mb 2 1/2" IDE disk ..... £599

**Diskplus** (2 1/4" x 8 1/2" x 6 1/2")  
alone - fit your spare 3 1/2" disk ... £125  
w/420Mb 3 1/2" IDE disk ..... £235  
w/540Mb 3 1/2" IDE disk ..... £259  
w/1.27Gb 3 1/2" IDE disk ..... £429

**NEW 4-SPEED CD**

**CDplus** (6 1/4" x 12 1/2" x 2 1/4")  
ATAPI multi-session CD-ROM drive  
**CDplus4** - QUAD speed ... £249  
**CDplus2** - Double speed ... £195  
Disklite & CDplus have built-in power supplies and connect to mains  
DELIVERY OVERNIGHT MAINLAND UK ... £8  
Prices include 1 full year Warranty and exclude VAT @ 17.5%



## DATA STORAGE Sensation

"An Idea so simple, ingenious and useful that I wonder why it hasn't been invented before."

- CD-ROM Now, Nov'94

**D**isklite brings you the ultimate Convenience - up to 810Mb of storage you can take and use anywhere.

Unlike with a PCMCIA disk, you use it with both your notebook and desktop PCs - Disklite also costs far less and gives you much more storage.

### Your Money Back Guarantee

Get any of our devices today and we'll give you a full refund if you're not totally satisfied within 14 days of purchase.

Find out more, call us now on

**0181-841 6711**  
**fax 0181-841 7133**

**MarkTech**  
SYSTEMS LTD

1 Belvue Business Ctr, Belvue Rd  
Northolt, Middx UB8 5QQ

### More good news

With our 3 1/2" Diskplus you can store even more. And with CDplus4, you can now add Quad-speed Multimedia to your entire office.



**MultiGen**

GENLOCK ADAPTOR

REQUIRES NO DRIVER SOFTWARE OR INTERNAL CARDS



Unbeatable Value at only  
**£349** plus  
VAT

## Computer to Video...

...at the touch of a button.

Plug in the MultiGen External Genlock Adaptor, and you can instantly output any computer image direct to Videotape, TV Screen or Projector - at the push of a button. Push another button to superimpose computer graphics or text directly onto live or pre-recorded video images. PLUS...

COMPUTER / VIDEO FADE & FLICKER REDUCTION  
OVERSCAN / UNDERSCAN MODES  
RGB, S-VIDEO & COMPOSITE VIDEO OUTPUTS  
S-VIDEO & COMPOSITE VIDEO INPUTS  
640 X 480, 256,000 COLOURS

The unit is smaller than a videotape, making it an ideal partner for a laptop, and works with PAL and NTSC signals. It operates with Apple Macintosh, Acorn, Atari, and IBM compatible machines, so you can use it worldwide with virtually any computer.

COMPUTER to TV...

...or VIDEO OVERLAY

...or MASK and MORE...

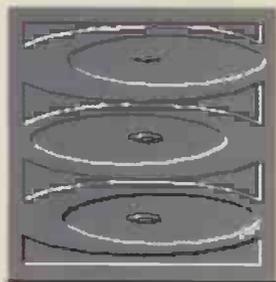


Screens created via MultiGen and shot directly from a standard Sony TV.



VINE MICROS LTD., VINE HOUSE, COWPER RD., MARGATE, KENT CT9 1SX  
SALES INFORMATION: TEL: 0843 225714 FAX: 0843 296237

All Copyrights and Trademarks acknowledged. E & OE. Details subject to change.



## Time to plump for Pentium

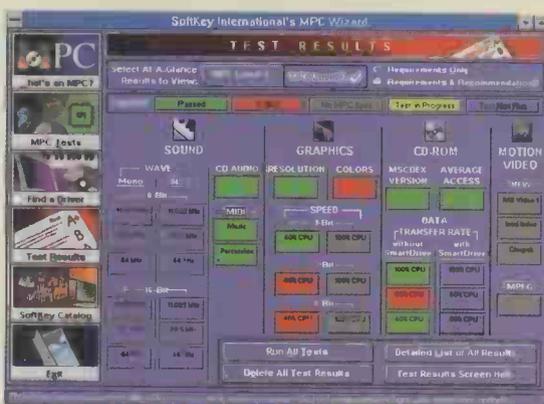
With more manufacturers developing products specifically for use with Pentium processors, Panicos Georghiades and Gabriel Jacobs reckon it could finally be time for multimedia fans to invest in an Intel. There's also a new CD-ROM for Macromedia Director, and more on MPC standards.

Although high-end 486-based PCs can run multimedia quite acceptably if fitted with 8Mb RAM or more, it seems that if you want a multimedia playback PC with a future, you should seriously consider a Pentium processor.

This may sound like the kind of sales hype you normally have to be wary of. After all, there's always something faster than what you've got, either here and now or just round the corner. It's obviously in the interest of manufacturers to try to convince us that we can't expect good results for multimedia without the extra speed of the Pentium chip — the higher we set our sights, the more money we spend.

But you may have to consider a Pentium for reasons which go beyond its raw processing speed. Over the last year, despite Pentium's bad press over floating point calculations, a number of multimedia-related manufacturers and developers have been introducing products which specifically make use of Pentium features to achieve improved performance.

For instance, one of the leading multimedia companies, Macromedia, has recently released a minor upgrade to Director 4.0 for Windows. This new version (4.0.4) is optimised for the fast performance and graphics capabilities of the Pentium. On a Pentium, the new version can display twice as many frames per second as the older version. Other improvements include DIB support, embedded QuickTime compressed PICT files, and mixing sounds that use different resolutions and sampling rates. The upgrade is



*Test your PC's performance with the MPC Wizard. Individual components and complete systems can be checked*

available at £25 to all registered users from Macromedia (01344 76111).

Having other firms make use of the Pentium's native operations is what Intel is aiming for, as is evident from the number of tools it provides free to developers. At the end of April this year it unveiled version 2.0 of its 3DR technology, first

released a year earlier but now optimised for the Pentium. Version 2.0 offers features not available in current 3D-graphics Windows software, and will help multimedia, virtual reality, CAD and games applications by providing better image quality and transparent scalability. Software libraries include a general lighting model, matrix operations and camera model, texture processing and user interface kits, a comprehensive geometric mathematical library, and support for Visual Basic.

Another Intel technology, NSP (Native Signal Processing), developed in conjunction with other manufacturers, enables realtime multimedia tasks such as audio signal processing or video file capture and compression to be done on the Pentium. A second developers' kit, Native Audio, was released last May as part of NSP. This enables functions which otherwise require specialised dedicated co-processor hardware, such as WaveTable MIDI

synthesis, 3D audio and special effects, to be delivered using software only and the Pentium. Some of the most important benefits of this will be digital mixing of multiple audio tracks, simultaneous record and playback, and advanced compression algorithms including MPEG sound.

Intel isn't the only company providing software-only solutions with the Pentium. Xing Technologies, pioneers in MPEG compression/decompression software, have recently been working in conjunction with several graphics card manufacturers

## Media Book CD

If you're developing multimedia using Macromedia Director (Mac or PC), you'll be interested to know of a new CD-ROM containing information and development tools provided by professional dedicated users.

There are over 100 royalty-free XObjects, as well as re-usable Lingo code. With this, not only can you save development time but you can also learn more about Director's not-so-friendly Lingo programming language.

The CD contains a Lingo directory with all known and some officially undocumented Lingo keywords including syntax, results, functionality and cross-platform considerations. Each keyword is accompanied by interactive examples, illustrations, and some by QuickTime movies.

The Lingo library contains more than 200 ready-to-use Lingo handlers and functions for string, data and file manipulation that you can copy and use in your applications. A general reference library contains 100 articles on topics such as using the FileIO XObject and optimising load times when reading from a CD-ROM.

There's also a collection of Mac and Windows XObjects, including some for printing, file management, memory management, and system analysis. Most of these are royalty-free.

On top of all that there's the Toolbox, a suite of development aids including score, cast, sprite and movie-in-a-window management tools, and Lingo analysis, debugging and formatting tools. Finally there's a resource directory of where you can get even more tools and further information.

The CD-ROM is rather slow, but we were very impressed with many of the techniques.

Media Book CD is manufactured by Grey Matter Designs and sold by Computers Unlimited (0181 200 8282).

to deliver software-only MPEG video playback on Pentium machines.

XingMPEG Player is bundled with a graphics card from Miro: the MiroVideo 12 PD. This ordinary S-VGA card for PCI and VLBus slots costs only £99 and can scale AVI files to full screen. But if you have a Pentium 90 or higher you can also playback full-screen MPEG video. At £99 it's over £100 cheaper than the cheapest dedicated MPEG playback card on the market.

On the other hand, £100 is nowadays more or less the difference between a 486 and a Pentium. So you may find that by paying the extra and investing in a Pentium instead, you'll save money on dedicated multimedia peripherals such as video playback cards and audio cards with DSP.

And, of course, you get all the other speed advantages of that faster processor we're told we can't be without.

### Testing for performance

Last month we described the specifications of the MPC standards. But manufacturers' quoted specifications can be presented in ways that suit them rather than us, and can often be found inadequate in real-life situations.

Therefore, whether you're a professional multimedia developer, or just your common or garden user, you really need ways of testing individual multimedia component peripherals as well as complete systems. It could be for the purpose of buying a system, or developing an application, or simply because you need to

change a configuration in order to maximise performance when running a particular application. For example, you may want to alter the screen resolution and colour-depth so that a particular multimedia application's video clips run better.

To find out how a system will behave you have to carry out the right kind of tests. If you dabble in programming, you could devise your own tests, but it usually takes far less time to use existing ones.

There's a plethora of benchmark programs around, some of them bundled with various pieces of hardware such as SCSI adaptors, co-processor chips and graphics cards. But most of these tests are inadequate for testing multimedia, since in their efforts to be accurate and independent, they tend to test in the kind of ideal conditions few of us meet in the real world.

There are, however, a few programs specifically written to test multimedia machines or functions. One we use often, and which has proved accurate and reliable, is MPC Wizard. Unlike most other Wizards it doesn't come from Microsoft, but from Softkey, and it tells you all manner of revealing little things.

Using it is simple. You run it, and it informs you how well your computer performs several multimedia-related tasks. The tests are divided into four sections: CD-ROM Drive, Graphics, Sound, and Video.

Many of you will no doubt remember those test programs you could buy a few years back which told you how well your

## TRADE PRICES To the Business User

4Mb 72pin Simm	£84.00	BABT Approver Modems	
8Mb 72pin Simm	£174.00	14.4 Fax/Modem Int	£76.00
1Mb 30pin Simm	£25.00	14.4 Fax/Modem Ext	£82.00
4Mb 30pin Simm	£92.00	28.8 Fax/Modem Int	£165.00
		28.8 Fax/Modem Ext	£179.00
560Mb Hard Drive	£102.00	250Mb Tape Streamer	£79.00
850Mb Hard Drive	£149.00	DeskTop Case	£34.00
1.2Gb Hard Drive	£179.00	Mini Tower Case	£35.00
486DX266 CPU	£49.00	MS-DOS/Windows	£49.00
486DX280 CPU	£69.00	Encarta CD ROM	£25.00
486DX4100 CPU	£90.00	MS-Works V3 CD ROM	£25.00
Pentium P75 CPU	£135.00	16 Bit Sound Card	£49.00
Pentium P90 CPU	£220.00	486 Motherboard 256k Cache	
CD ROM Quad Speed	£109.00	DX2/DX4 3 x VLB Slots	£59.00
CD ROM Dual Speed	£79.00	3.5 FFD 1.4 Mb	£17.00
		14" SVGA LR Monitor	£155.00

All Prices Exclude VAT and Delivery  
All prices and specifications are subject to change without notice  
Please phone first for latest prices

### Crofton Computer Warehouse

Units 52/53 Brockley Cross Business Centre  
Endwell Road, Brockley, London SE4 2LX

Phone: 0171 252 9595 Fax 0171-252 9616

## BARCODING products at discounted prices

We also specialise in discounted UNIX software and hardware. In addition to low prices and unusual products, we offer personal service, support and advice. Pricing examples:-

	£
Barcode Wand and pc wedge	195
Wand and wedge for Unix/RS232 terminals	250
CCD Scanner with integrated decoder	390
Mobile data capture terminal with voice	385
Barcode printer decoder - print from any op. system on any printer	330
Barcode printing for Windows	185

We are specialists in shop floor data collection

All our Barcoding Products are supplied on an unconditional 30 day moneyback guarantee. Most items are on 2 year warranty.



Prices plus V.A.T. and carriage at cost  
For quotations phone 01257 452237 - 9am-6pm  
JJA Ltd., 38 Beechfields, Chorley PR7 5RE

## Splitter Boxes

- Multiple displays from a single source

### Splitter 550

This unique Multi-Signal Splitter Box will split VGA, SVGA, XGA, Composite Video, S-Video, RGB and Audio signals up to 5 times (25 if using composite video), and carry the signal up to 50 metres from the source. Supplied with power supply unit and cables for connection to a PC. Additional cables required for Composite & S-Video, Audio and RGB signals. Call sales office for prices.

£149 + VAT

### VGA Splitter Box

Designed to allow up to three monitors to be run from a single PC, this unit will split VGA and SVGA signals, and carry the signal up to 20 metres from the PC. Power supply unit and cables for connection to computer included for

£65.70+VAT

Full Desktop Video product guide now available.

Vine Micros Ltd., Vine House, Cowper Rd,  
Margate, Kent, CT9 1SX, England.  
Tel (01843) 225714 Fax: (01843) 296237

£&OE: Details subject to change.



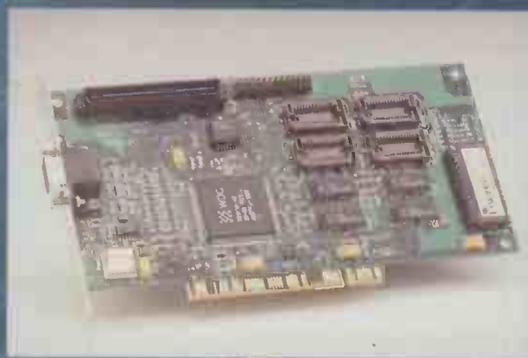
# *Catch the next wave...*

## *...in multimedia*

Maybe, you've seen video on PCs. Either it's the size of a drinks coaster, or its jerky and unsynchronised.

All that's going to change with the new **Pipeline 64** motion video accelerator from **PARADISE**. Full screen motion video, scalable to any size, up to 30 frames a second and crystal clear.

You have to see it. It's the next wave in multimedia.



*Pipeline 64 will change the way you look at video.*



**PARADISE**<sup>®</sup>  
Western Digital Corporation



OSMOSIS  
0181 568 0077



IDEAL  
0181 286 5000



INGRAM  
MICRO  
0181 260160



AMBYTE U.K. LTD  
01753 655477

PC was doing compared to an IBM AT. You got an overall figure which made you feel good because it was rather hard for any PC clone not to outperform the IBM AT.

Well, you're unlikely to get the same feeling automatically with the Wizard tests, since it shows you not how your machine stacks up against the competition, but against several of the MPC Council's requirements and recommendations.

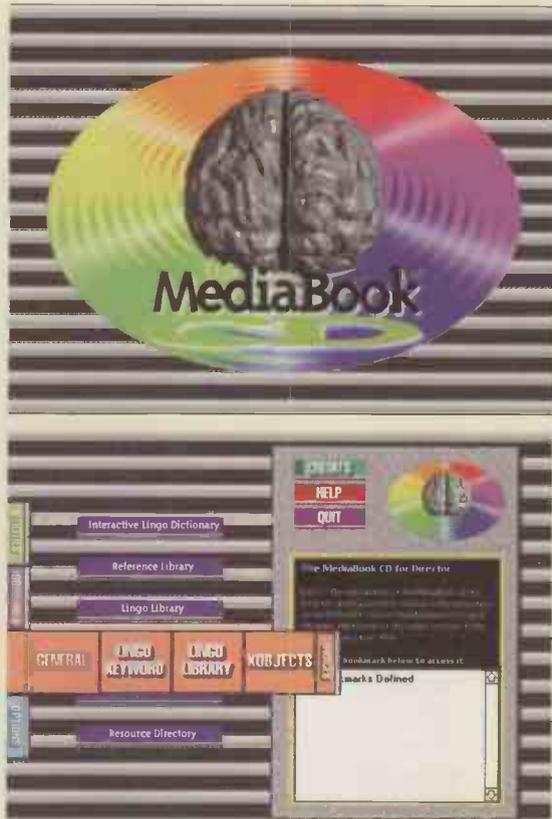
For example, the CD-ROM tests check out the MSCDEX version you're using, the access time of the drive, and its real (as opposed to its theoretical) transfer rates on your system. It may come as a surprise to some readers that this latter figure will depend on how much of the CPU (Central Processing Unit — the main chip) is used during the transfer process. CPU time is critical in assessing performance of multimedia elements, as we shall see.

The written specification of your double-speed CD-ROM drive will be around 300Kb/sec, but you'll find that if your PC devotes all its processing power to read from the drive, this value will be higher, whereas if it devotes a low percentage of CPU time to the operation, the transfer rate will fall well below the theoretical value. In fact, if your processor is too busy doing other things, the transfer rate from your double-speed CD-ROM drive can fall below single-speed values.

This kind of thing is important. The MPC Level 1 minimum specification for CD-ROM transfer rates is 150Kb/sec for a sustained period of time, during which it should command about 40 percent of your CPU's time. If the rate drops significantly below 150Kb/sec, the result will be that video, animation and sound will break up if they're played directly from the CD. Poor lip synchronisation in video clips of talking heads is a typical example of too low a transfer rate, though there may be other causes.

MPC Level 2 specs require the CD-ROM drive be able to read data at a sustained rate of 300Kb/sec at a recommended CPU usage time of 60 percent maximum, so that the CPU can get on with other things and give an impression of real multitasking. MPC Wizard tests transfer rates at 40, 60 and 100 percent of CPU usage.

Another set of tests that may reveal interesting results is for the graphics adaptor. You might well imagine that if you bought a machine with a 32-bit SVGA local bus graphics adaptor, it would satisfy MPC requirements. Well, maybe yes,



*Media Book provides over 100 royalty-free XObjects and re-usable Lingo code. A must for the budding Macromedia Director developer*

maybe no. It depends on the resolution and colour depth you're using — and again, on how much of your CPU's power is devoted to graphics.

In addition, even though your system may be capable of displaying more than 16 colours, the Windows display driver software you're using may not be taking advantage of this capability.

MPC Wizard tests the colour depth and resolution that your currently installed driver is capable of, and also carries out bitmap display speed tests.

Now back to those talking heads, since the problem of synchronised audio and motion video is obviously also related to graphics capabilities, and in particular the pixel-write speed of the adaptor.

This is something which is often virtually ignored, with spatial resolution (the number of pixels displayed) and colour resolution (the number of bits per pixel) taking pride of place. In fact, pixel-write speed can be just as important as the other two parameters, since if the pixels can't be drawn rapidly enough, even the fastest transfer rate from a CD-ROM won't be of much use.

MPC Level 1 specifications recommend that the graphics adaptor should be

able to draw 1-, 4-, and 8-bit-per-pixel DIBs (Device Independent Bitmaps) on the screen, at a rate of at least 358,400 pixels per second while using 100 percent of the CPU time, and 143,360 pixels per second at 40 percent of CPU time.

Most graphics subsystems can handle that kind of speed, but MPC Level 2 specifications are far harder to meet. Here, we're talking of a minimum of about 1.2 million pixels per second using 40 percent of the CPU time, which is the kind of value necessary to ensure that video at 15 frames/sec in 256 colours and 320 x 240 resolution plays back as it should (the calculation is  $15 \times 320 \times 240 = 1,152,000$ ).

The Wizard test loads 18 1-bit, 4-bit or 8-bit images into memory, then measures how fast it can draw those images at either 40 or 100 percent of the CPU time.

The program also carries out tests for CD Audio, Wave Audio, MIDI and loudspeakers. In the case of audio, the recommendation is that it shouldn't involve more than 15 percent of CPU time.

The test for Video for Windows, which will be important to many people, counts the actual number of frames displayed for two frame sizes and three compression formats (Video 1, Intel Indeo, and Cinepak). The program will also perform a test on MPEG hardware if you have it fitted.

In addition, MPC Wizard lists all the MPC specifications, and has a selection of drivers for various multimedia peripherals.

We don't suppose many readers will have access to a large range of machines to test them all out and compare them, but it might not be such a bad thing to wander into computer shops with Wizard in your hand, to see if the claims made by manufacturers are real.

Or maybe not. Salespeople might get quite upset at that, especially if you don't buy anything after tying up their demo machines for hours. Anyway, shops take note: have your own copy of Wizard (at £19), or a similar program, ready running on your best machine.

### PCW Contacts

Panicos Georgiades and Gabriel Jacobs will be glad to answer your questions. Either write to PCW, or email [g.c.jacobs@swan.ac.uk](mailto:g.c.jacobs@swan.ac.uk)

Softkey 0181 789 2000

Xing Technologies 00 1 805 473 0145

Miro 01494 510250





## An absolute GAS

**Steven Helstrip grooves with an analogue sequencer, samples a new sound card from Roland and finds a cheap way to upgrade it, and sings the praises of Vienna.**

**T**he problem with sequencing is that unless you have plenty of musical ideas, there's very little you can do other than play through the sounds on your synth or sound card. Unlike a word processor, which gives you a template on which to base a document, a sequencer offers no starting points.

To remedy this, Intrinsic Technology has written an application that enables you to create grooves and musical parts simply by sliding a few faders, pressing a few buttons and generally having fun. It's called GAS, or Grooving Analogue Sequencer, and can run alongside a sequencing package such as Cubase.

The main screen is daunting at first, to put it mildly. But once you're familiar with the myriad controls it really

is just like using an analogue sequencer. The idea is to manipulate up to ten software-generated monophonic parts, which can be on as many MIDI channels. Each part can contain up to 16 notes and has its own sliders for pitch and velocity. Because of the random nature of the program, not everything will sound musical, so there's a scale correction utility to ensure each part is at least playing in the same key.

There are quite a few nice features, like the ability to copy the velocity of one part to the

pitch of another. This works well when applied to percussive, or analogue effects, particularly when a filter is applied. There's also MIDI echo built into the software and an auto-chord facility. Grooves can be saved in standard MIDI file format, allowing them to be loaded straight into a sequencer. The package comes with a video tutorial and costs £76.

### Play your cards

There have been plenty of sound card releases recently. The most interesting is from Roland, which has announced a PCMCIA card. Based on Roland's tried-and-tested Sound Canvas technology, the SCP-55 has 354 multi-sampled instruments and ten drum kits along with DSP-based reverb and chorus effects. Those familiar with the SCC-1 can expect a similar range of high-quality, General MIDI-compatible sounds in addition to two mono, or one stereo, channel for sampling audio up to 44.1kHz 16-bit. The card is expected to cost around £320. An optional MIDI interface is available.

### Making waves

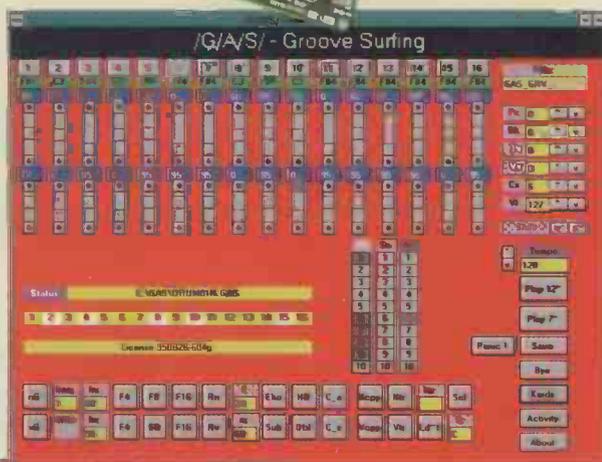
A cheap and easy way to improve your sound card is to add a WaveTable upgrade to your existing card. Easy to install, this sits on top of your sound card and connects via a standard plug.

Orchid has recently reduced the price of all its upgrade boards and you can now have WaveTable quality for as little as £66. The WaveBooster 2 has 2Mb of samples on board, providing 263 General MIDI-compatible instruments. Even better value is the 4Mb version for £90, which has 514 instruments and effects including reverb, chorus and digital delay. Both are supplied with Cubase-Lite.



**Top** Upgrading to WaveTable now costs as little as £66 with Orchid's WaveBlaster plug-in board

**Right** GAS allows you to create sequences with an analogue touch. You can then import them into your sequencing software, such as Cubase or Cakewalk



### Held in AWE

If you have an AWE-32 sound card, chances are you also have Vienna, which is used to create banks of samples. If Vienna wasn't supplied with your card, then it's well worth getting hold of a copy from Creative Labs. It allows you to take any mono 44.1kHz wave file and create an sbk file, or new instrument, that can be played over MIDI, usually from a sequencer. With 512Kb of on-board sampling RAM, up to six seconds of audio can be downloaded to the card — that could be a new piano sound, a selection of percussive instruments, vocal samples or even a combination of these.

The software enables you to create multiple keygroups, which means more than one sound can be assigned to the

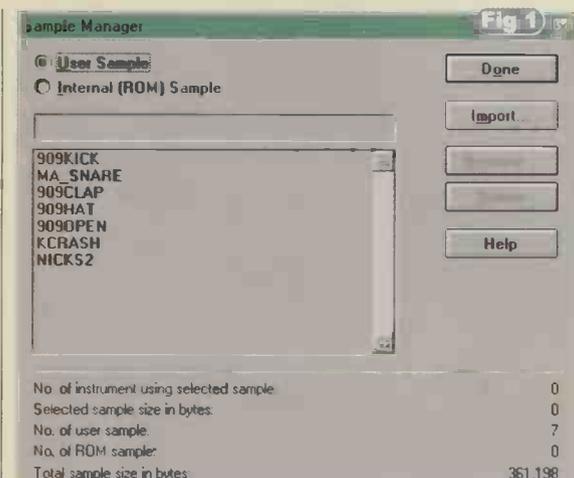


Fig 1

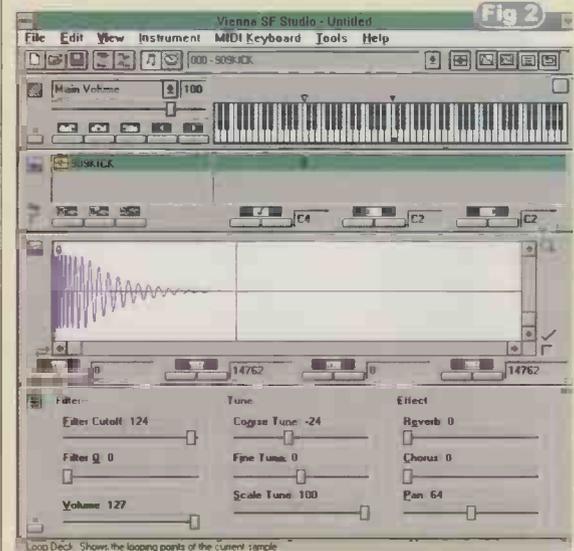


Fig 2

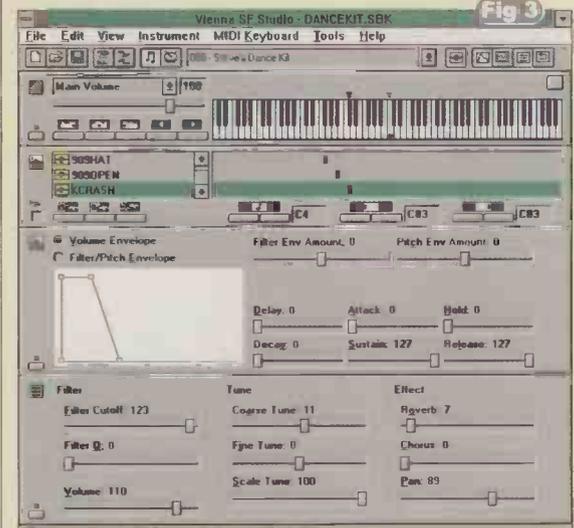


Fig 3

**Fig 1** Vienna's import dialog enables you to use samples from the card's ROM

**Fig 2** When assigning a single percussion sample to an area on the keyboard, you may need to transpose the sample by adjusting the coarse tune

**Fig 3** Give short percussion samples a long release time using the envelope shaper

keyboard. For example, you can have an acoustic bass over the lower keyboard and a piano covering the rest. Layering of sounds is also possible: you could combine a piano, choir and a string pad, for example. This is quite easy to do and there are plenty of other useful features.

Before loading samples into Vienna it's worth spending some time editing them first in WaveStudio. Make sure they are at their optimum level, or volume, and that they start and finish exactly where you want them to — more audio than you need will only take up memory.

Samples are loaded via the sample manager dialogue box, which can be found in the instrument drop-down menu. Clicking the import button will allow you to select wave files from your hard disk, CD-ROM and the card's ROM chips. Fig 1 shows seven samples which were loaded from various libraries. There are six percussion samples and one drum loop which will be used to demonstrate how to build a new drum kit. The final sound bank, and the accompanying MIDI file, have been placed on this month's cover CD-ROM.

Once the samples are loaded they have to be given a keygroup. To do this, click the "add sample" button followed by the sample to be grouped. The sample will appear beneath the on-screen keyboard mapped to every key on the keyboard.

In most cases, or at least for non-percussion instruments, following the above will produce an instrument patch. But more often than not, further tweaking is required. When dealing with more than one instrument, for example, keys have to be mapped individually. In Fig 2, the 909 kick drum is mapped only to C2, the key

**tech-mate**  
215 Harwich Rd, Colchester, Essex, CO4 3DF

**MIDI KEYBOARDS**  
Studio 49 .....£99 ALL PRICES INCLUDE VAT.  
Goldstar GMK49.....£159  
Roland PC200GS...£165 Studio 900.....£549

**THE MIRACLE PIANO TUTOR**  
The fun way to learn the piano. 250 lessons, 3 games and keyboard with sounds. All for only £179 inc. VAT & delivery.

**MUSIC SOFTWARE**  
Cakewalk Home Studio £99  
Cakewalk Pro3 £219  
Cubasis £149  
Cubase Score £399  
Music Station £179  
Cubasis Audio £249  
Personal Composer Notation £99

**SPEAKERS**  
Yamaha YST-M10 £59  
Yamaha YST-M5 £49  
Yamaha Sub Bass £99  
**EXCLUSIVE!**  
Steinberg music card and 16 bit record playback midi leads. **ONLY £129!**

**CARDS/INTERFACES**  
Internal Midi Interface from £75  
Parallel Port Interfaces from £99  
Soundcard Midi Lead £24

**Yamaha Hello Music** £199  
Brilliant GM Module incl. Software + Delivery

CALL US FOR A FREE INFORMATION PACK!  
Tel: 01206 793355  
Fax: 01206 791371

**FOR PC MUSIC THIS BEATS ANY SOUND CARD!**

RRP £399  
**£119 EX VAT**

The Yamaha "Hello Music" package is a no-nonsense alternative for people who want a thoroughly professional sounding General MIDI synthesizer for playing and recording Music. It connects simply via the serial-port (cable included) - No screw-drivers, no IRQ conflicts, no DMA problems! Most modern sound-cards offer poor quality WaveTable sounds. The GBX-T3 synth (pictured) contains 192 different musical instrument sounds recreated with 16 bit quality, processed through breathtaking reverb to give you the "recording studio sound". Also included is a special version of Steinberg's famous Cubase software for recording your own musical ideas, and a Yamaha Song-Disk featuring 20 hits including West End Girls, New York New York etc... R.R.P. £399. Demand will greatly outstrip supply, and orders will be filled on a first-come, first-served basis.

Why not try our PC Music Encyclopedia on CD-ROM? Only £6.99, it contains brochures, movies and audio to help you decide what to buy.

**GoldStar GSC-X21**  
STUDIO QUALITY SOUND CARD  
BELOW HALF PRICE  
**ONLY £75!**

AudioTrix Pro Sound card	£149	Passport Encore + free Trax 2.0	£399
Cadenza for DOS (RRP 175)	£65	Passport Mastertracks Pro 6	£125
Cakewalk Home Studio	£85	Passport Trax 2.0 (old version)	£59
Cakewalk Pro for Windows 3.0	£169	PG Music Powertracks Pro	£42
Coda Finite Academic	£299	SampleRate Pro	£212
Cubase - best prices on all 4 versions		Software Audio Workshop	£299
MaxPak 3 (RRP £235)	£125	Sound FX Classic 3000	£149
MIDI master keyboards from	£99	Steinberg Cubasis (new)	£125
MIDIQuest 5.0 generic editor	£199	Turtle Beach Wave for Windows	£99
Musicator 2.1 with WaveAudio	£255	Turtle Beach Tropez Sampler card	£212

Sequencers are for people who are producing their own demo tapes. Music-Time on the other hand is for musicians who want to record music onto a standard score page, and to print it out as sheet music. Many programs attempt to do this - only MusicTime makes it easy, fun and educational, while still giving professional quality results. MusicTime16 is just £125, and includes a free copy of Pianist Lite.

**Tropez**  
Turtle Beach 16 bit sound card with ACS General MIDI synth and special ability to record samples and play them back from MIDI - optional RAM expandable to 12 Meg. Also works with hard-disk recording software (included), optional MIDI cable for use as a MIDI interface. This is a serious card for people who want to play more than games! £212

**BAND-IN-A-BOX 6.0**  
THE MOST POPULAR MUSIC SOFTWARE IN THE WORLD?  
A "great fun" package for people with little or no musical training. Type in chords (from a songbook or even at random), and select one of the built-in styles (over 100 available), and Band-in-a-Box does the rest. Also comes with some pre-recorded songs to get you started. Only £75.95.  
Windows, dos or Mac version

**Pianist**  
The Pianist is a MIDI music JukeBox which comes with 215 beautiful classical performances in MIDI file format. You can play any of them in any order. Also, there is a trivia quiz and a dictionary of musical terms. Pianist sells for only £39.1 Windows and Mac versions. Also available, Jazz Gutunst, Jazz Pianist, New Orleans Pianist, Ragtime Pianist etc.

**SOHO SOUNDHOUSE / TURNKEY**  
114 CHARING CROSS RD.  
LONDON WC2H 0DT  
**0171 379 5148**  
UK residents add 17.5% VAT  
24 hour delivery from £9  
Please check system requirements when ordering  
100 yards from Tottenham Court Road Tube

http://www.demon.co.uk/turnkey or mail sales@turnkey.demon.co.uk

- **More Sound**
- **More Dynamics**
- **More Value**
- **More Fun**

# NuSound PnP

## New Sound for Today's PCs

Forget the snap, crackle and hiss of old sound technology. Experience the brand-new sound of NuSound PnP.

### Soundpower for Gamers

OK, we admit it, we love playing too! That's why we paid particular attention to making NuSound PnP a gamer's delight and we reckon we've succeeded. 100% compatibility because NuSound PnP understands your need for all the important sound standards, including SoundBlaster Pro. Nearly 400 vibrant, dazzling sounds, and with a 3D spatialiser we'll put you right in the middle of the action.

### High-End Audio Built-in

But not forgetting the budding maestros amongst you, NuSound PnP hosts features your home Hi-Fi equipment would love; features such as 64 times oversampling, high signal/noise ratio and improved bandwidth. All of which means greater precision at high frequencies and impressively punchy bass notes.

You can even expand the sounds and drumkits further with our WaveBooster add-on card.

Finally, we've added Panasonic and IDE CD-ROM interfaces. The Plug and Play installation and no driver with Windows 95, means you'll be up and playing with our complete audio software bundle in no time at all.

And at an amazing £129 we bet you'll be up and funning down to your nearest Orchid dealer today.

- Plug and Play compatible
- Hi-Fi quality with 18-bit Wavetable
- Nearly 400 musical instruments

**Orchid – Simply more Sound**

**D-Zone Loopisms Vol 4 — Huh-huh, hmm, yeah...**

I wasn't quite sure what to think when I saw Beavis and Butt-head on the front of this CD. In fact, it isn't full of "Huh-huh, yeah" and "These guys rule" samples. It does, however, have some pretty cool drum loops and samples taken from the TB303, Juno 106 and Matrix 1000. As in the rest of D-Zone's sampling CDs, you are presented with 24 drum loops, not just one or two bars of each, but around 90 seconds of the same loop over and over. The loops have been recorded both dry and with stereo effects. If you have an Akai s3000, you'll also find the digital backups for each loop.

The loops, like D-Zone's other CDs, vary dramatically in style and tempo — from 116bpm funk patterns to 160bpm jungle rhythms. The quality of the recordings are excellent.

The much sought-after TB303 is captured in true style on this CD — great fat bass sounds, through to acid-style bleeps. More analogue patches, but mainly strings and pads, have been taken from the Juno 106. Unsurprisingly they are just preset patches, but are worth having in your collection. The samples have only been recorded at middle C so cannot be multsampled. For just £12.50, though, you can't grumble. This is probably the best value sampling CD around.

There's one drum loop on this month's cover CD as a .wav file and sound bank for the AWE-32.

**Price £12.50**

**Contact D-Zone 0181 651 2222**



the on-screen keyboard is a drop-down menu that lets you select the active program number. There are 128 to choose from and on program change number two you will find a drum loop which was grouped in exactly the same way as the other instruments. To access more than one program from your sequencer, you need to "talk" to each program on a separate MIDI channel.

On this month's CD-ROM (d:\magazine\hands\_snd\ you will find the sound bank along with MIDI files in standard MIDI file format and as a Cubase arrangement. For this to work, you must first load the sound bank into bank one. This is done from the AWE-32 control panel.

used for kick drum in the General MIDI specification. You can specify the limits of the keygroup by dragging the handles beneath the on-screen keyboard. When you want the sample on just one key, the highest and lowest keys must be the same.

Having the right instrument on the right key is only half the battle. You must then change the pitch, or transpose, that keygroup. By default middle C (C4) is set to play the original pitch of the sample. As the kick drum is positioned two octaves below middle C, the "course tune" has to be set to +24 semitones. It should now sound the same as the original sample.

To enable the sample to play right to

the end when you press a key on a MIDI keyboard, the release time of that sample needs to be set to 127. This can be found on the envelope section within Vienna. In this example, I have also set the reverb for each instrument to zero, enabling you to use external effects instead of the built-in ones. You can turn the reverb on again either from Vienna or from your sequencer's mixer module.

Once each percussion instrument has been assigned to a key group, transposed and panned (given a position in the stereo field), it can be saved as a sound bank. But first you can add further instruments to the sound bank and assign them to a different program change number. Above

**PCW Contacts**

Readers' contributions — hints & tips, suggestions, information — are music to our ears. Send them in to the usual PCW address, or to [shelstrip@cix.compulink.co.uk](mailto:shelstrip@cix.compulink.co.uk)

**Intrinsic Technology 0181 761 0178**  
**Roland 01252 816181**  
**Orchid 01256 479898**



**UNIX products at discounted prices**

We specialise in personal service, support and advice in the installation or upgrade of complete UNIX systems:

A few pricing examples:-	£
SCO Unix 16 user	685
Specialix SI 8 Port	475
Wyse 55 terminal	240
Digital 510 16 emulation terminal (3 year warranty)	270
Ice Ten plus terminal emulation	310
Solaris Desktop inc. Dev kit, C++	495
Unix fax software	310
Interactive Unix 2 User	330
SCO Microsoft Word, unlimited users	630

We also specialise in barcoding & shopfloor data capture.



Prices plus V.A.T. and delivery at cost

For Quotations phone/fax - 01257 452237 - 9am-6pm  
 JJA Ltd., 38 Beechfields, Ecclestone, Chorley PR7 5RE

**We're full of it!**

**FREE!**  
 20 Page Colour Catalogue



Now you can make professional sounding music with your PC...

- Synthesizers
- Sound Cards
- Sound Modules
- Music Keyboards
- Desktop Speakers
- Easy Music Software
- Tuition Programmes
- Scoring Software
- Music Games
- HIT SMF & Karaoke Songs
- Multimedia Books

Lo-call **0345 697776**  
 for your FREE MSP catalogue or fill in the coupon...

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 Postcode \_\_\_\_\_  
 Send to MSP, The Water Mill, Broughton Hall Business Park, Broughton, Skipton, North Yorkshire, BD23 3AG PCW

**MICROWART**  
 CLASSIFIED

**LATEST  
GREATEST  
UP-TO-DATEST  
SURF THE NET  
CHANGE YOUR SET  
PCs, TVs, CDs  
YES PLEASE!  
STARS, GUITARS  
MUSIC IN CARS  
COME AND PLAY  
STAY ALL DAY!**

**LIVE '95**

**Are you ready for  
the experience?**

**S**ee tomorrow's technology today. 3D TV, multimedia, virtual reality, digital TV, the internet. LIVE '95 has it first.

Hear the purity of real hi-fi, the power of home cinema sound, the pleasure in musical instruments.

Get hands-on with the best in computing hardware and software, the latest games releases, the state-of-the-art in cameras and camcorders.

Talk with the manufacturers, have your questions answered by the experts, get first-hand advice from the people who know.

LIVE '95 is an interactive feast for the senses. It's a hundred experiences rolled into one.

**95.8 CAPITAL FM**

It's party time and everyone's invited! On the 95.8 Capital FM stage, we've lots of your favourite jocks and top acts. Last year, we had Whigfield, Eternal, Michelle Gayle and Let Loose. Be there to see the big names for this year.

**SEE CARLTON TV LIVE AT LIVE**

You're on air when Caron Keating presents "After 5", London's early evening magazine show LIVE from the show (Tues & Weds). Plus, action packed programme of entertainment, including a chance to test your own skills as a TV presenter / newsreader.

**IN-CAR ELECTRONICS AT LIVE '95**  
ICE at LIVE '95 hits Earls Court 2 on Saturday and Sunday. Check out the latest in-car audio and security.

Plus 120 of the country's mightiest systems battle it out in the National Sound-Off Challenge. Hosted by the KISS FM roadshow.

**THE ULTIMATE FUTURE GAMES SHOW**

It's the ultimate challenge. Test your games skills on the season's new releases. Free play over 200 consoles and PCs. Arm yourself with hints, tips and cheats from the experts on the Future Showcase Stage. Plus the return of the Nintendo Challenger - 21 tons of pure playing power.



**MEET YOUR MAKER.**

LIVE '95 is your chance to meet the top names in consumer electronics including:

<b>95.8 Capital FM</b>	<b>Fuji</b>	<b>Maxell</b>	<b>Polaroid</b>
<b>Alpine</b>	<b>Goldstar</b>	<b>Microsoft</b>	<b>Polk</b>
<b>Apple</b>	<b>Grundig</b>	<b>Mission</b>	<b>Quad</b>
<b>Bose</b>	<b>Harman</b>	<b>Mitsubishi</b>	<b>Roland</b>
<b>BT</b>	<b>Hitachi</b>	<b>Motorola</b>	<b>Samsung</b>
<b>Canon</b>	<b>ICL</b>	<b>Nikon</b>	<b>Sanyo</b>
<b>Celestion</b>	<b>Jamo</b>	<b>Nintendo</b>	<b>Sennheiser</b>
<b>Cellnet</b>	<b>JVC</b>	<b>Nokia</b>	<b>Sharp</b>
<b>Clarion</b>	<b>KEF</b>	<b>Novell</b>	<b>Sony</b>
<b>Clifford</b>	<b>Kenwood</b>	<b>Olivetti</b>	<b>Sunsoft</b>
<b>Compaq</b>	<b>Konami</b>	<b>Orange</b>	<b>Technics</b>
<b>Creative Labs</b>	<b>Korg</b>	<b>Ortofon</b>	<b>Wharfedale</b>
<b>Denon</b>	<b>Leica</b>	<b>Panasonic</b>	<b>Yamaha</b>
<b>Electronic Arts</b>	<b>Marantz</b>	<b>Philips</b>	Over 200 of the top names.
		<b>Pioneer</b>	



**TV LIVE '95**

Take a bow, you're part of the show in LIVE's real-life TV studio. Demos, celebrities, interviews, live auctions, big prize game shows - broadcast on walls of screens around the show.

**LIVE MUSIC**

Spot tomorrow's stars in the making. It's the final showdown in LIVE's National Battle of the Bands with a recording contract for the best band. Watch the winners of Yamaha's National Youth Rock & Pop Awards on Thursday.

**HI-FI CHOICE LIVE**

Treat your ears to the very best in hi-fi. Our purpose-built listening rooms mean nothing comes between you and perfect sound.

**BT'S INTERNET CAFE**

You too could be a wanderer in the World Wide Web. Surf the net. See how the latest hardware and software can launch you into cyberspace.

**MULTIMEDIA MALL**

Catch up with the fast-moving world of multimedia. Try before you buy. Get up to speed with all that's new on CD-ROM.

**HOME CINEMA PROMENADE**

Discover the thrills of home cinema - realistic cinema sound in your own living room. Take in clips from the latest big films as you stroll through a series of room sets demonstrating the best systems for every budget.

**GET READY FOR THE EXPERIENCE**

LIVE '95 is six days of excitement, entertainment and non-stop hands-on fun. Want to know more?

Just return the coupon below.



YES! I want to experience LIVE '95. Please send me more details about the UK's most exciting consumer electronics event. (Please use BLOCK CAPITALS.)

Name: .....

Address: .....

Postcode: .....

Please return to : LIVE '95, Blenheim House, 630 Chiswick High Road, London W4 5BG

**0171 396 4545 First Call for tickets.**

Open 24 hrs. Booking fee payable. Or get your ticket at the door on the day.

PCW



## All in a day's work

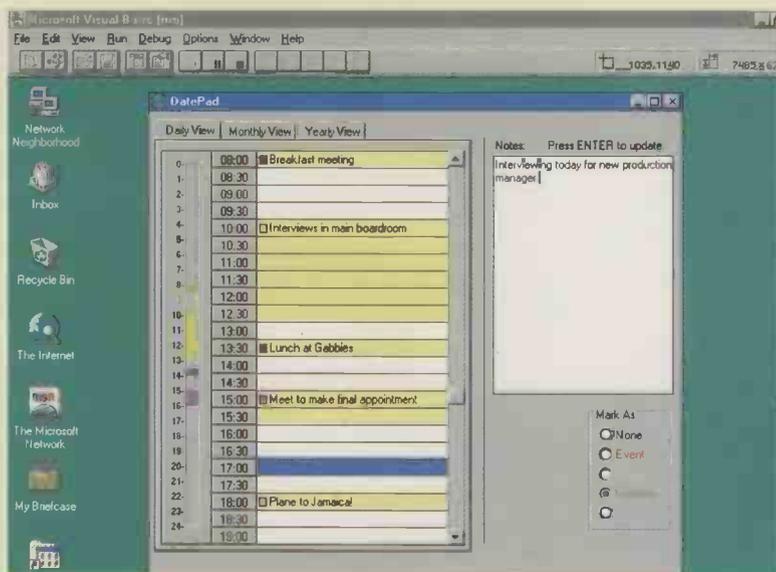
**The OCX is designed as a universal Windows component. Tim Anderson tries it in a calendar application, explores DLLs in Delphi and glances at Visual dBase.**

Fancy constructing your own PIM (personal information manager)? Sheridan's new Calendar Widgets makes the job easy. Calendar controls that show a month at a time are two a penny, but Calendar Widgets also offers yearly and daily view controls. The daily view control is what makes PIM construction so easy since it provides an editable grid of appointment slots complete with a time selection bar, and a facility to define overlapping tasks. The monthly and yearly controls can be bound to a table in an Access .MDB. There is also a date combo that drops down a graphical calendar, enabling users to enter dates by point-and-click. It's just the thing for applications like project management, scheduling, or presenting date-related information.

Calendar Widgets is useful, and interesting for the new techniques it demonstrates. Sheridan has hedged its bets by supplying three control types: version 3.0 VBXs for compatibility with VB 3.0 (but not Delphi), 16-bit OCXs for the likes of Access 2.0, and 32-bit OCXs for VB 4.0 or other OCX containers such as Visual FoxPro. Since Calendar Widgets plopped onto my desk before the final version of either FoxPro or VB 4.0, Sheridan has shown a touching faith in the stability of the OCX standard. All was well with

our late beta versions.

The main benefit of OLE controls is compatibility. The VBX standard is a way of extending Visual Basic, and to make VBXs work with other environments such as Delphi or Visual C++ requires emulating VB. By contrast, OCXs use OLE 2.0 communication. There is a price to pay for this application-independence. Some aspects of performance may be improved, especially in 32-bit OCXs, but other things will be slower: for example, there is a noticeable pause when inserting a Calendar Widget OCX into Access or FoxPro, and again to display its property page, compared to the snappy performance of the VBX equivalent in VB 3.0. It is like working with embedded OLE objects in documents: you sense that Windows is running very fast under the



### Calendar confusion

It is disheartening when the sample code supplied with a product fails to run. This was the case with Datepad, a simple PIM example in Calendar Widgets. The reason was a problem with international date formats. The code that failed was like this:

```
sMySQL = "select * from appoint
        where date = #" & sSelDate & "#"
Data2.RecordSource = sMySQL
Data2.Refresh
```

where sSelDate is the date returned from a calendar control, converted to a string. Because my PC is set up for UK dates, the calendar control was correctly returning a date in dd/mm/yy format. But JET's SQL expects a date in mm/dd/yy format, whatever the international setting in Windows. So the application failed with an error: "Syntax error in date in query expression."

VB and Access store dates internally as a double-precision number. You can take advantage of this to overcome the above problem. The following code works on both sides of the Atlantic:

```
Dim dDate as Double
dDate = DateValue(sSelDate)
sMySQL = "select * from appoint
        where date = " & str$(dDate)
Data2.RecordSource = sMySQL
Data2.Refresh
```

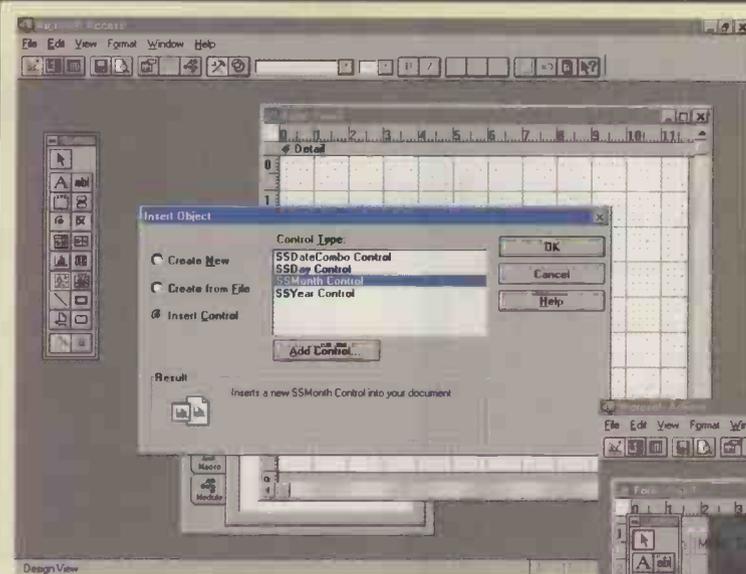
surface to present the illusion of seamless integration. But once the OLE object is up and running, performance should be as good or better than a VBX. Processors are getting quicker, and the concept of universal components has great appeal, so I guess it's worth it.

Another area of doubt is over compatibility. You would have thought that OCX support would be all or nothing, but in fact

OCX containers vary in the level of compatibility they offer. For example, Visual FoxPro does not support the ISimpleFrame interface, which means that you cannot embed one control in another. In practice, while all OCX controls should work in FoxPro, and in other OCX container environ-

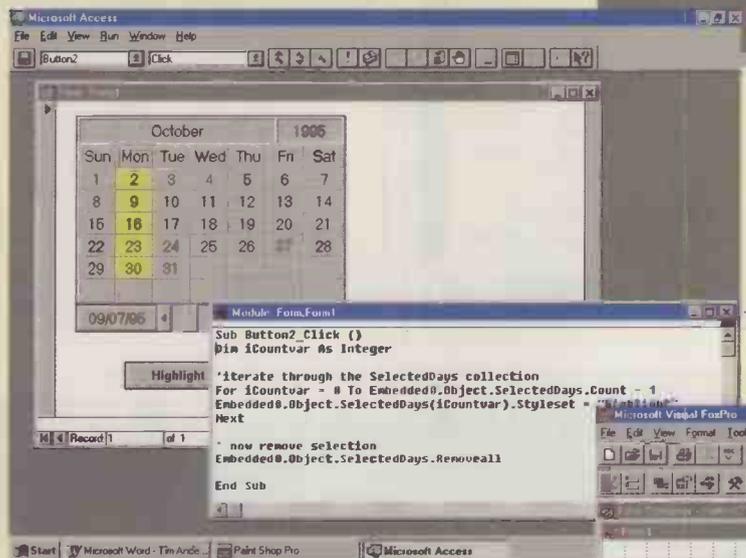
*Build your own PIM with Calendar Widgets. This VB 3.0 application demonstrates the DayView control*

## Using OCXs in other applications

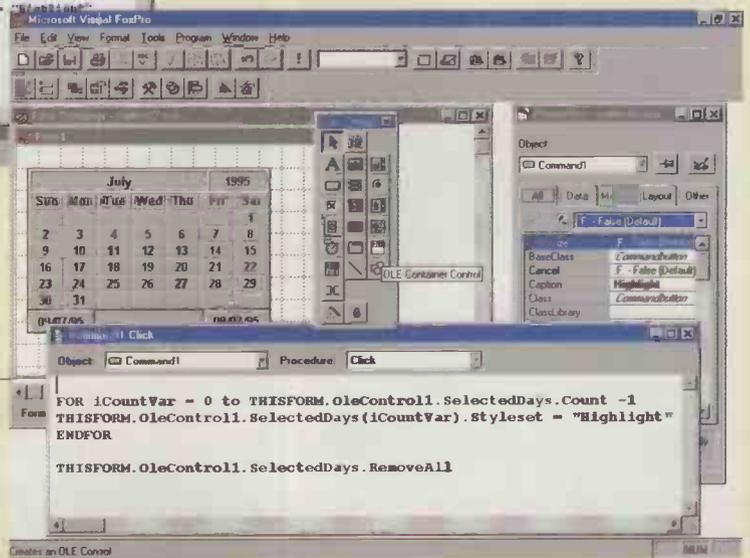


To use an OCX in Access 2.0, first place an Object Frame on a form. From the dialogue which opens, select Insert Control. Then you can choose from all the OCXs registered on the system. Note that Access 2.0 can only use 16-bit OCXs, which are likely to be less common than the 32-bit variety

Next, the control can be customised by setting properties at design-time. The Property Sheet is a dialogue created by the OCX control itself, normally accessed by right-clicking on the control. That is one reason why OCXs are larger than VBXs: they contain their own user interface. This example adds a user-defined styleset to the control. A styleset in Calendar Widgets defines the appearance of a date cell



The form at runtime, showing some highlighted date cells. The code which does the work refers to the OCX control, laboriously, as Embedded0.Object. Access 95 supports the With ... End With construct to tidy up code like this



Using a Calendar Widget in Visual FoxPro requires painting an OleControl frame on a form, then inserting the control from a list of available OCXs. Right-click brings up the property page; and xBase code addresses the control in much the same way as Basic

**PIO Mode 3 and 4 Enhanced IDE drives**

540Mb £114 + VAT ... £133.95  
 850Mb £149 + VAT ... £175.08  
 1.2GB £205 + VAT ... £240.88  
 2GB SCSI £589 + VAT £692.08  
 Micropolis HDD - 2.1 to 9 GB - CALL  
 Mode 3, 4 & 5 Enhanced IDE  
 Controller - PCI or VLB  
 £35 + VAT = £41.13  
 £5 off with any drive.

**SIMM SWAPPER**  
 Converts 4 x 30 pin  
 SIMM's to one 72  
 pin SIMM, for use  
 on the new 486 and  
 Pentium boards.  
 90% of SIMM's  
 made since 1989  
 are suitable!  
 £28 + VAT = £32.90

**CD WRITERS** Supplied with SCSI Interface & WinOnCD  
 To Go or Corel CD Creator, terminator etc.

- Yamaha CDR 100 Quad Speed Internal  
 Complete Kit £1695 + VAT - £1991.63
- Sony CDU920S Dual Speed Internal  
 Complete Kit £1287 + VAT - £1512.23

**TDK** 74 min Branded CDR Media

5	£27.25 + VAT.....	£32.02
20	£98.00 + VAT.....	£115.50
50	£235.00 + VAT.....	£276.13

Please call for quantity prices

**Panasonic PD Drive - Quad speed CD-ROM / 650Mb Optical Drive -**  
 Please Call

**IOMEGA ZIP DRIVE** .... £154 + VAT - £180.95  
 Fast external parallel / SCSI drive with 100Mb capacity!  
 100 Mb Disks £13 + VAT - £15.28

**FAX MODEMS** Cables & software included  
 The fastest modem ever! Rockwell Technology V34  
 28.8 bps Internal £109 + VAT..... £128.08

14.4 Fax Modem £52 + VAT..... £61.10  
 19.2 Windows Modem £53 + VAT..... £62.28  
 14.4 External Fax Modem £74 + VAT..... £86.95

**BABT Approved X-Link FAX / MODEM CARDS** with Winfax Lite, Dosfax Lite and Comit Lite Fax & Comms Software.  
 14.4k £75 + VAT= £88.13 V34 £155 + VAT = £182.13  
 If you're on the NET, visit our WWW Site:  
<http://www.linefeed.com/linefeed/home.html>

**CD-ROM DRIVES**

- NAKAMICHI MBR-7 External SCSI-2 Dual Speed 7 disk CD-ROM Autochanger £249 + VAT .... £292.58
- Pioneer DR-JA124X The FASTEST and most reliable Quad Speed IDE CD-ROM £119 + VAT . £139.83
- Panasonic CR663B Dual Speed £74 + VAT ... £86.95
- MS Encarta 95 with any drive £19 + VAT ..... £22.33

We stock Trust, Gravis, Turtle Beach & AWE32 Soundcards

**MULTIMEDIA UPGRADE KIT**  
 Panasonic dual speed CD-ROM, 16 bit  
 A2tech Labs soundcard, & Speakers  
 Including VAT & Delivery **£139**

**MOTHERBOARDS**

- Supermicro P55CMA Triton P75 to 133+ Motherboard  
 If you are moving to Pentium this is THE advanced PCI board to buy  
 • Intel Triton Chipset • USA manufactured • Modular Cache  
 Without CPU £205 + VAT ..... £240.88  
 With P100 CPU £494 + VAT ..... £580.45
- Call for Pentium CPU prices & other Pentium motherboards
- Gigabyte GA486AM Motherboard Probably the best 486 PCI EIDE board on the market £108 + VAT = £126.90  
 With any CPU £103 + VAT = £121.03
- AMD DX4-100 CPU £85 + VAT = £99.88  
 Cyrix DX2-66 CPU £49 + VAT = £57.58  
 SGST DX2-66 CPU £55 + VAT = £64.63

We stock a complete range of quality components - Call!!!

**PROFESSIONAL QUALITY BULK DISKS**  
 High clip Sony / Dysan / Verbatim bulk.  
 The error-free, durable disks used by commercial software distributors.  
 (DISK PRICES INCLUDE VAT, LABELS AND UK DELIVERY.)

	20	50	100	200	500
DSDD 3.5"	£9.40	£18.50	£28.95	£54.35	£126.95
DSHD 3.5"	£10.95	£21.50	£34.50	£64.63	£152.75

5.25" Disks & Cheap DSHD 3.5" - Please Call

**SPECIAL OFFERS (Including VAT & Delivery)**

- 100 DYSAN / VERBATIM BULK DSHD 3.5" Disks £34.50
- 100 DYSAN BULK DSDD 3.5" (720k) Disks £28.95
- 100 BRANDED prefomatted DSHD 3.5" disks £38.95
- ANY ONE WITH 100 CAPACITY LOCKABLE BOX - add £3.50

**Duplication Overruns**  
 New ex-software DSHD 3.5" Disks

Qty	Price	Carriage
50	£9.00 + VAT.....	£10.58 £3.50
100	£17.00 + VAT.....	£18.80 £3.50
200	£29.00 + VAT.....	£34.08 £3.50

Please call for quantity prices

COMPUTER TRADE DIRECTORY UK SUPPLIERS... £5.50  
 BUILD YOUR OWN PC New Edition ..... £5.00

ALL PRICES INCLUDE VAT at 17.5%.  
 Carriage: DISKS - FREE CONSUMABLES - £3.50 HARDWARE £5

**LINEFEED 0171 474 1765** 24 HOURS  
 Unit 7 Ashmead Business Centre, North Crescent,  
 Cody Road, London E16 4TG Fax 0171 474 3440

E-mail Sales@linefeed.com  
 NO CREDIT CARD SURCHARGES



# Karlton



## Special Offers

For a Limited Period

### Karlton's Top Twenty

Microsoft Office 4.2	£259	Microsoft Office Pro	£359
Microsoft Word 6	£189	Lotus Smart Suite 3	£259
Microsoft Project 4	£249	Microsoft Excel 5	£189
Microsoft Access 2	£189	Microsoft Works 3	£69
MS Visual Basic Pro V3	£179	Lotus 123	£189
WordPerfect	£159	Lotus AmiPro 3.1	£89
MS Visual C++ Pro V2	£199	MS PowerPoint	£149
Novell Netware 4.1 (5 users)	£399	Borland Paradox v5	£189
MS FoxPro 2.6	£69	Corel Draw 5.0 (CD-3.5)	£259
Sage Payroll + 2	£99	MS Encarta 95	£39
MS Windows 3.11 (with upgrades)	£59	MS DOS 6.22 upgd	£19

**❖❖ Other Specials ❖❖**

MS Windows 95.....£69  
 4 Mb SIMMS Memory Chip.....£99  
 540 Mb Hard drive.....£129  
 CD ROM Drive - Quad Speed.....£109

Prices exclude delivery and VAT (17.5%)  
 Delivery £7 + VAT

VISA - MasterCard - EuroCard - Amex - COD

E.&O.E. Availability, Prices and Specifications are  
 subject to change without notice.  
 All sales are subject to Karlton's Standard Conditions  
 of Contract. Copies available on request.

**Karlton Computers Limited**  
 30 Metro Centre, Kangley Bridge Rd, London SE26 5BW  
 (Next to Lower Sydenham BR Station - 18 min from Charing Cross)



# Karlton



## PRINT REVIVAL

### INKJET REFILLS

E.G: HP DESKJET £1.80  
 HERE'S HOW!

- \* OUR KITS CONTAIN RE-USABLE INK INJECTORS WITH SAFETY NOZZLES
- \* FIRST KIT CONTAINS EVERYTHING NEEDED INCLUDING INK
- \* AFTER THE FIRST KIT YOU ONLY NEED TO BUY BULK INK
- \* SIMPLE ONE MINUTE OPERATION, NO MESS, NO FUSS

**TOP QUALITY INKS MANUFACTURED TO HIGHEST SPECIFICATION**

- \* SHARP SOLID BLACKS AND BRIGHT, CRISP COLOURS
- OUR KITS REFILL OVER 170 PRINTER MODELS
- COLOURS: BLACK, CYAN, MAGENTA, YELLOW, RED, BLUE, GREEN, BROWN

	INITIAL KIT	NO. OF REFILLS	BULK INK	NO. OF REFILLS
HP DESKJET	£15.85	5	£45.00	25
HP HIGH CAPACITY	£19.95	4	£64.00	16
CANON BJ10	£12.99	3	£34.00	15

ALL PRICES INCLUDE VAT AND FIRST CLASS POSTAGE  
 REMEMBER OVER 170 PRINTERS SUPPORTED.  
 SO CALL US FOR A PRICE FOR YOUR PRINTER

### REMANUFACTURED INKJET CARTRIDGES

- \* TOP QUALITY AND PERFORMANCE GUARANTEED
- \* SAME PRINT YIELD AS ORIGINALS
- \* FULLY PRINT TESTED BEFORE DESPATCH
- \* WHY PAY A LOT MORE FOR NEW CARTRIDGES?

HP HIGH CAPACITY	£13.50	INC. VAT
HP DESKJET	£8.99	& DELIVERY
CANON BC01	£11.99	

PLUS CANON, EPSON, APPLE, ETC.

### WANTED USED INKJET/BUBBLEJET CARTRIDGES

- \* MUST BE ONCE USED ONLY
- \* ANY QUANTITY CONSIDERED
- WE PAY UP TO £5 EACH
- RING US FOR MORE DETAILS

**PRINT REVIVAL**  
 DEPT. PCW 152, ENTERPRISE COURT  
 WITHAM, ESSEX CM8 3YS  
 TEL: 01376 511288 OR 01376 520628 FAX: 01376 511232





## DISKS, CD ROMS, HARD DISKS & RIBBONS + TONERS

**A Grade Disk Guaranteed 2 for 1**

### FORMATTED DISKS

BUY FROM THE BEST! WHY RISK THE REST?  
 QUALITY DISKS AT LOWEST PRICES

**High Density 3.5" HD's from 30p**

A-GRADE Bulk. Professional Grade		CD-ROMS - Lowest Prices	
With Labels	50 100 200 300	Mitsumi Qual spd 4X.....	£109
3.5" DSHD FORMATTED	0.55 0.36 0.34 0.33	Panasonic 562B dual spd.....	£69
3.5" DSHD	0.55 0.36 0.34 0.33	External CD - Roms available	
3.5" DSDD	0.39 0.33 0.32 0.31	<b>CD ROM BUNDLE</b>	
5.25 DSHD	0.39 0.35 0.33 0.31	Mitsumi Quad Speed with 16 Bit Soundcard, 11 CDs incl. Encarta Encyclopaedia	£189 + VAT

These disks are the best quality available.  
 Best choice for storing data and for backups.

B-GRADE. Bulk Disks.		HARD DISK DRIVES	
With Labels	50 100 200 300	420MB.....	£109 560 MB.....£135
3.5" DSHD FORMATTED	0.50 0.33 0.31 0.30	850MB.....	£165 1080 MB.....£175
3.5" DSHD	0.48 0.33 0.31 0.30	Laser Toners and Printer Ribbons Available	

These disks are OK for general PC use.

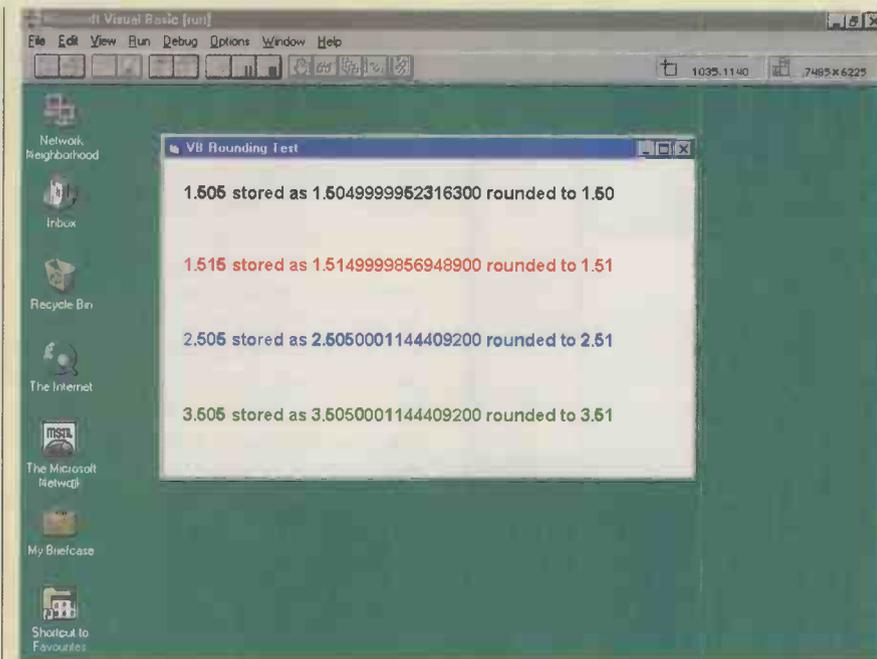
DISK PRICES INCLUDES VAT & FREE 48 HOURS DELIVERY. STORAGE BOX £3 WHEN ORDERING WITH 100 DISKS. NEXT DAY DELIVERY: £1 COLOURED DISKS AVAILABLE - CALL FOR DETAILS

**MEMORY AND MOTHER BOARDS**

1MB 70 ns. SIMMS	£27.00
4MB 70 ns. SIMMS	£99.00
486 DX4-100	£185
486 DX2-66, 256K	£139
17" SVGA Monitor 0.28dp	£375

**DISK DUPLICATION SERVICES WITH 24HR TURNAROUND**  
**HOTLINE: 0181-886 3078**

WEEKDAYS: 9AM-9PM WEEKEND: 9AM-5PM Credit Cards: Cheque and PO's to:  
**SQUIRE INTERNATIONAL LTD.,**  
 (DEPT SQ2), 129 POWYS LANE, LONDON N13 4HL. TEL: HOTLINE 0181-886 3078 FAX: 0181-882 8885  
 A-Grade disk guaranteed 2 for 1. No credit card surcharges. Prices are subject to change.



ments, they do not all offer the same functionality. As another example, OCXs in FoxPro have no data-aware capabilities. A final problem is that Visual C++ in its current version (2.1) has no integrated support for OCX controls. Expect this to change soon. Borland also intends to support OCXs in future versions of Delphi, dBase and C++. In the meantime, don't assume that an OCX control is really plug-and-play and check before purchase that it will do what you need. At worst, a particular OCX could be next to useless; at best, the vendor will have developed with each of the main supporting environments in mind.

### Not just Delphi

Following the discussion of floating point rounding in the August issue, thanks to John Plumbley for the following email:

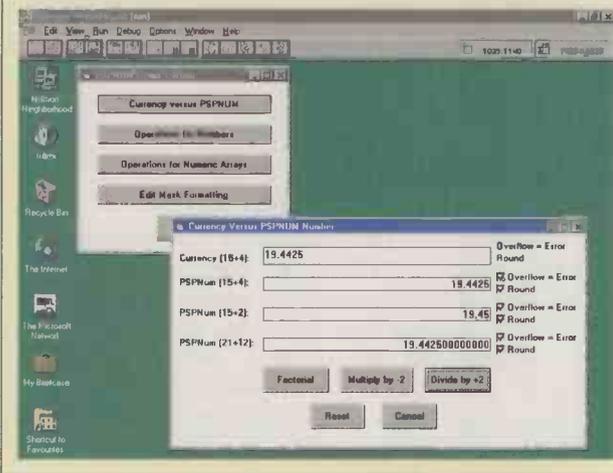
"This does not seem to be banker's rounding — Borland (or the company that does the tech support for them) must have been wrong when it said it was.

It is caused by the way computers store fractional floating point numbers and is a well known problem for the unwary.

To see what's going on use FmtStr with %.15f and you will see that:

1.505 is stored as 1.50499999999200 (which %.2f rounds down to 1.50);  
 1.515 is stored as 1.51499999999418 (which %.2f rounds down to 1.51);  
 2.505 is stored as 2.505000000001019 (which %.2f rounds up to 2.51);  
 3.505 is stored as 3.505000000001019 (which %.2f rounds up to 3.51).

A similar thing happens in C, and it also



Above John Plumbley's demonstration that VB has rounding problems too

Left Prospero's PSPNUM is a VBX to handle fixed-length precision numbers and arrays

**UNILAB**

## Visual Basic™ for Instrumentation

Peter Bates  
Eric Webster

### Using Visual Basic™ for Windows™

- A new book using Visual Basic in sampling & control, includes a comprehensive tutorial for beginners on Visual Basic

Opens the door to the use of sensors, transducers and instruments with your PC. Links directly to hardware via RS232 serial ports & GPIB (IEEE-488). Shows the use of Analogue to Digital/Digital to Analogue conversion, Control, Counting, Stepper motors, Digital I/O control, Power control, inc. Mains control. (Comprehensive modular hardware is also available if required).

- A must for Industrial/Educational users & even Inventors!

If you want to be a user and manipulator of live data, then this 430 page book is a must for you. Extensive use is made of DLL, DDE and OLE, so that you can integrate your programs into other Windows applications.

- Includes 3.5" disk of sample programs

- Price is just £29 + £6 post & packing (£35 total inc VAT)

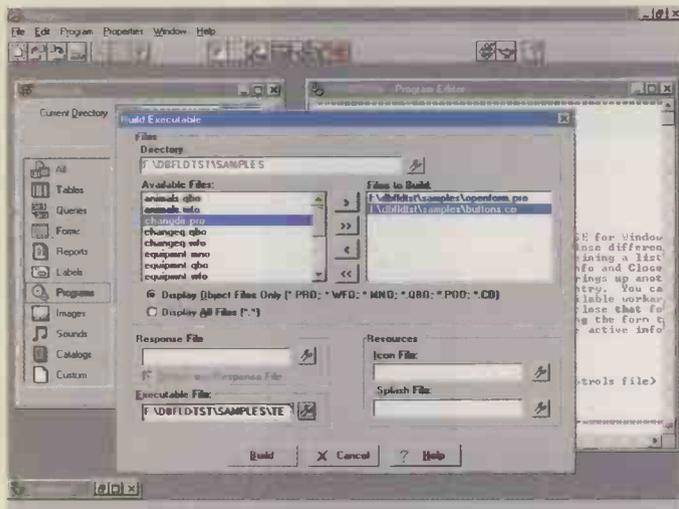
24 hour credit card orders  
Tel: 01254 665511



Cheques payable to "UNILAB Limited", with orders by post:

Unilab Limited, The Science Park, Hutton Street, Blackburn BB1 3BT  
Please allow 28 days for delivery. General Enquiries: 01254 681222

From this dialogue you can build an executable in Visual dBase, although in dBase "compiled" is just another word for interpreted



happens in VB, not only in Delphi.

In my opinion this behaviour is not a problem, as anyone doing this kind of work should not be using fractional real numbers. They should scale all numbers to avoid fractions (i.e. work internally in pennies, or tenths of a penny, instead of pounds)."

John includes listings in Delphi, VB and C to prove his point. So if you are rounding matters in your application — you have been warned. I've also received a VBX intended to overcome exactly this kind of problem from a small company called Prospero. PSPNUM.VBX is a masked edit control which allows you to work with fixed-length precision numbers; a more flexible version of VB's Currency data type. It's a specialist tool which could be valuable for accounting and business applications.

### dBase gets Visual

The word "visual" is beloved of marketing departments worldwide, judging by the way it pops up in new product versions. The latest casualty is dBase, now at version 5.5 and called Visual dBase. The xBase language is about as non-visual as you can get, but both Microsoft and Borland have added object-orientated language extensions which, combined with visual design tools, lend some credibility to the "Visual" tag.

I looked at a late beta of the product. Despite the change of name, Visual dBase is not a major upgrade, but adds significant enhancements to the original dBase for Windows. It is not a 32-bit product, although it does recognise Windows 95 with limited support for long filenames. Since neither the IDAPI database engine nor the Crystal Reports report writer support long filenames, dBase developers

should stick with 8.3 names until the release of 32-bit versions of these products. OLE automation is now supported, but not OCX controls. There are few language changes but two are particularly welcome: class definitions can now include protected properties (without which true encapsulation is impossible), and at last SQL queries can be executed on local tables without the need for any special SQL mode of operation.

Borland has long been rumoured to be working on a dBase compiler that would create true executables in the style of Delphi or C. Sadly, the project seems to have been abandoned, as the compiler now released for Visual dBase is no more than a runtime version. It's nicely integrated into the product and comes with an Install Builder for creating distribution disks. Overall, Borland has plugged many of the gaps between dBase and Microsoft's Visual FoxPro, arriving on the market at about the same time. Borland's product has a snappier, less cluttered interface and slightly more modest system requirements.

Despite the new features this is an interim release, although likely to be the last 16-bit version, and the dBase to watch for will be the 32-bit version for Windows 95 and Windows NT. It's strange how it always seems to be the next version that promises to deliver the goods.

### Calling DLLs in Delphi

Alan Bontoft sent the following query:

"I am a recent convert to the world of Delphi (from VB of course) and am trying to write software which involves the use of third-party DLLs.

"When used with VB, one simply has to declare the procedure/function in a .BAS file and it can then be accessed by any of

the forms in the application. I came to use a DLL called INPOUT.DLL with Delphi, and after much searching in both the on-line help and Delphi manuals I came up with the following declaration:

```
procedure Out(Port, Value: integer);
far; external 'D:\DLLS\INPOUT';
```

"This seems to work fine, but only if placed in the implementation part of a unit. As soon as it is placed in the interface part, which is where a declaration has to be in order for other units to access it, an error occurs. Does this mean a DLL procedure has to be declared in every unit in which it is used?"

You can declare a .DLL in the interface part of a unit. For example:

```
unit CallDll;
interface
procedure Out(Port, Value: integer);
function DiskSpaceFree(DiskID: byte):
longint;

implementation
procedure Out; external
'D:\DLLS\INPOUT'
function DiskSpaceFree; external
'SETUPKIT';
end.
```

I've included a function (from the SETUPKIT.DLL distributed with VB) alongside your procedure. Remember, that even though you declare the function in the interface section, to make it public you still need to make an entry in the implementation section to show that its implementation is to be found externally. Another point is that procedures in the interface section are implicitly far; you don't need the "far" keyword.

The most common method is to stuff DLL declarations into a unit on their own. Then, any units in your application which need to call these functions can simply add the unit name to the "uses" clause. That is how Delphi handles the Windows core functions, which are defined in units called WINTYPES and WINPROCS.

### PCW Contacts

Tim Anderson welcomes your feedback, tips and suggestions. Contact him at the usual PCW address or as [freer@cix.compulink.co.uk](mailto:freer@cix.compulink.co.uk), or [100023.3154@compuserve.com](mailto:100023.3154@compuserve.com)

PSPNUM: Prospero Software Products  
01624 681090

Calendar Widgets: Contemporary  
Software 01727 811999

Visual dBase: Borland 01734 320022

# SYSTEM SCIENCE

## Windows Development

Doc-To-Help - Int. ver	£259
Robo-HELP - help authoring	£345
Tools.h++, Linpack.h++, Math.h++	£call
SmallTalk/V Visual - <i>new</i>	£945
Zinc new 4.0 for Win & NT	£call
Graphics Server SDK new version	£195
Heap Agent & SmartHeap Win	£545
TCP/IP Development tools	£call
CodeBase or CodeBase++	£229
Greenleaf CommLib 5.2 Prof	£345
C-Tree Plus - with source	£595

## VB Value

Disctinct TCP/IP Visual Ed	£225
Spyworks by Desaware	£110
Spread/VBx	£165
TrueGrid Pro	£99
VB Assist 3.5 / VB Tools 4.0	£135/£110
Designer Widgets or Data Widgets	£95
QuickPak Professional for Windows	£139
PDQ Comm/Net Pak Pro Win	£95/£129
Grid/VBx, Tab/VBx, and Tab/Pro - <i>new</i>	£call
Visual Tools Suite - 4 products	£235
Gantt/VBx, Schedule/VBx	£call

## Windows 32

SmartHeap Win/32	£525
WinMaker Pro 6.0 - Win & NT	£349
Win Widgets/32	£295
VtoolsD for Device Drivers	£call
InstallShield for Win95 & NT	£call

## Mathematics & Science

- Mathematica - DOS, Win, Mac, Workstations, Education & Student pricing.
- Derive - version 3 ● Gauss 386i
- Origin windows scientific plotting.
- Lindo & What's Best Linear Programming  
...many more for maths & stats.

## UNIX

- SCO UNIX operating & dev. systems.
- SCO Open Desktop, TCP/IP and NFS.
- FoxPro for SCO UNIX (NEW)
- PC TCP, NFS and Xwindow servers

## For FORTRAN

Lahey FORTRAN 90 - new	£625
NAG Fortran Library - PC/Unix	£call
MS FORTRAN-77 5.1 - DOS	£145
MS FORTRAN Powerstation - DOS	£229
MS FORTRAN Powerstation - NT	£399
IMSL Numerics for MS Fortran	£call
IMSL Exponent Graphics for NT	£595

## Cross Development

Hi-Tech C Cross - many targets	£call
Introl C Cross - many targets	£call
2500AD Cross Asm & Simulators	£call

## Phar Lap

TNTIDOS Extender SDK - 32 bit	£329
286IDOS Extender SDK - 16 bit	£329

## SOFTWARE DEVELOPMENT TOOLS FOR WINDOWS, DOS, UNIX, & OS/2

Call for our new Sept/Nov CATALOGUE

## Microsoft

Visual C++ 2.0 CD, & VC++ 1.5 16-bit	£299
Visual C++ Cross for MAC target	£call
Visual Basic PE 3.0	£229

## WINDOWS 95 VISUAL TOOLS

Order NOW for priority!

Visual C++ 4.0 Visual Basic 4.0

Visual SourceSafe 4.0 Visual Test 4.0

Macro Assembler 6.11- NT or DOS	£110
SQL Workstation - NT ver 6.0	£379

(See FORTRAN Section)

## Editors and Tools

CodeWright Prog Editor Win	£159
Fusion-drop in editor for VC++ 1.x & 2	£99
InstallShield Windows or Win NT	£call
PC Lint C/C++ - Lint code checking	£145
System Commnader-multi-boot loader	£69
PC-Install DOS or Win	£call
DemoShield - Build Windows Demos	£call
Winstall MultiPlatform - Install Tool	£325

## MKS

MKS Toolkit of Unix tools	£210
Source Integrity (ex RCS) <i>New ver</i>	£315
MKS Lex & Yacc for C, C++ & TP	£215
Internet AnyWhere - UUCP or SLIP/PPP	£65

For Windows/Dos, OS/2 & NT, call for multi-user licences on all MKS products.

QUALITY IN CUSTOMER SERVICE AND SUPPORT

0171 833 1022

FAX 0171 837 6411

1-6 BRADLEY'S CLOSE,  
WHITE LION STREET, LONDON N1 9PN



Your first choice for better development tools

## Watcom

Watcom C/C++ 10.5 CD <i>New</i>	£139
Watcom Fortran-77 <sup>32</sup> - DOS, OS/2, NT	£345
Watcom SQL - DOS, Win, OS/2	£195
SQL Servers for Win, Netware, NT or DOS	
VX.REXX/VX.REXX Client Server-OS/2	£call

## Borland

Borland C++ 4.5 - Win, NT & 95	£285
Borland C++ 4.5 & Dbase Frameworks	£415
Turbo C++ 4.5 Windows - <i>New</i>	£69
Borland C++ OS/2 new version 2.0	£325
Delphi - <i>Special</i>	£189
Delphi RAD Pack	£129
Visual Solutions Pack of Vbx	£59
Turbo Assembler	£69
Borland Pascal & Turbo Pascal	£call

## Nu-Mega

BOUNDS-CHECKER Win 95 <i>New</i>	£195
BOUNDS-CHECKER Win	£195
BOUNDS-CHECKER Win/NT	£195
Soft-ICE/W with 32-bit functions	£295

Call for savings on Nu-Mega bundles

## PVCS Specialists

- PVCS Version Manager is available for Win, Win NT, OS/2 and many Unix platforms in single user and work-group configurations for all development teams. *New new ver 5.2*

## OS/2

OS/2 Warp for Windows - 3.5" or CD	£call
OS/2 Warp Win-OS/2 - CD/3.5"	£99/£115
Visual Age C Set++	£call
Visual Age 2.0 for OS/2 or Windows	£call

## CLIENT/SERVER

Btrieve Dev Kit - Win, NT, DOS, or OS/2	£395
Btrieve Client Engines DOS or Windows	£645
Scalable SQL for Netware	£call
PowerBuilder Desktop <i>Comp. Advantage</i>	£call
Component PowerPack for PB4 <i>New</i>	£199
Delphi Client/Server	£795

## CASE

EasyCASE Professional Win 4.2	£645
EasyCASE DataBase Eng for SQL	£call
InfoModeller Desktop	£call

## NEWS

- **WinHelpOffice** - includes RoboHelp, Help Decompiler, WinHelp Inspector, Moving to WinHelp 95 and more.
- **Crescent Power Pak Pro** - with QPP, True Grid, VSView, SpyWorks and more - call for upgrades
- **Delphi** - low prices while stocks last - **Delphi RAD** pak with Visual Solutions, VCL Source and Resource Workshop
- **Btrieve** Win NT Dev Kits and Server Engines, and new 6.15 Netware Server Engines now shipping.
- **VBA Companion** for OLE automation, VBX and OCX tracking
- **Watcom C++ 10.5** - with new Visual Programmer MFC code generator, for multi-platform support - special offer pricing and upgrades available
- **Visual Foxpro** now shipping - Professional includes OLE controls, Upsizing Wizard to SQL Server and Class Browser for Code re-use



## Equal opportunities

**Mike Liardet investigates some equation-solving techniques, using both symbolic and numerical methods, and includes a practical and efficient Basic implementation of a numerical method that can be applied in a large number of problem areas.**

**M**ost computer programs are based in part on theories that include some mathematical equations. For example, financial applications encode the equations for profit, loss, compound interest, and so on. Many games and graphics programs use the equations of projective geometry. Scientific software typically borrows the equations of physics, with anything from an elementary Fahrenheit to Celcius formula through to the equations of atomic theory and beyond. Even a simple accounting program must encapsulate the equations for VAT.

In many cases it's possible for the programmer to solve the equations while the program is being written, hard-wiring his solution explicitly in the code with the appropriate formulae. Experienced programmers do this almost subconsciously, forgetting that they are actually implementing something that's based on a firm mathematical theory. For example, the equations for VAT might be written in this form:

```
VAT_on_Goods = Invoice_Total -
  Goods_Value
VAT_on_Goods = Goods_Value * VAT_Rate
VAT_Rate = .175 (at present!)
```

For a typical invoicing system it is likely that, when the program needs to work with these equations, the Goods\_Value is already known (it is simply the sum of the prices of all the items on the invoice, which were presumably typed in by the user) and that the VAT\_on\_Goods and Invoice\_Total are

the unknowns. In this context these are the values for which the equations must be solved. With the aid of a trivial manipulation of the first equation and some straightforward re-ordering of the equations themselves, the VAT calculations can be (pseudo-) coded as:

```
Sub VATCalc(Goods_Value,VAT_on_Goods,
  Invoice_Total)
  Set VAT_Rate = .175
  Set VAT_on_Goods = Goods_Value *
    VAT_Rate
  Set Invoice_Total = Goods_Value +
    VAT_on_Goods
End
```

This may be enough for most accounting software, but it's interesting to note that this simple little routine does only half the job of the original equations, since it can work in only one direction. Specifically it can only determine VAT\_on\_Goods and Invoice\_Total when given Goods\_Value, but it is unable to determine, for example, Goods\_Value, given Invoice\_Total. This is something

that a VAT Inspector may want to know, and the only way to provide it with a conventional program is for the programmer to code another routine to provide this functionality, working with the same set of equations as before, but using them in a different way.

For the small set of VAT equations above it is simple enough for the programmer to hand-solve them and then implement all the necessary routines to support the application. For more complicated situations this may not be feasible. Either the formulae may become too complicated for reliable hand solution, or the "direction" of use may not be known in advance — for example, spreadsheet systems often have a "back-solver", where the user can specify any combination of variables in a formula as input, to derive the remainder as output.

In these situations the program itself needs equation-solving capability. There are two ways of tackling the problem: by symbolic manipulation or by a numerical

**Fig 1 A set of three simultaneous equations, with three unknowns: x, y and z**

$$\begin{aligned} x y z &= 450 & (A) \\ 5 y^2 + 5 x y &= 50 x & (B) \\ 3 x^2 - 30 x &= -75 & (C) \end{aligned}$$

**Fig 2 A Lisp-like internal representation of the equations in Fig 1, using list structures**

$$\begin{aligned} (= (* (* x y) z) 450) & (A) \\ (= (+ (* 5 (^ y 2)) (* (* 5 x) y)) (* 50 x)) & (B) \\ (= (- (* 3 (^ x 2)) (* 30 x)) 45) & (C) \end{aligned}$$

method. A symbolic solution generally provides 100 percent accurate answers, whereas there is always an error factor with a numerical method. Neither approach guarantees a solution in every case — symbolic manipulation can get overloaded by the complexities of symbol manipulation, and numerical methods can miss the mark either because of accumulated rounding errors, or else because the underlying iterative method diverges away from the theoretical solution instead of converging onto it.

Outside of the Artificial Intelligence laboratories there is comparatively little equation-solving software that uses symbolic manipulations; Wolfram's Mathematica is one notable exception. Most other equation-solving software uses numerical techniques. There are a number of reasons for this, not least because most of the common programming languages (e.g. C, C++, Cobol, Fortran, Basic) are better equipped to handle numbers rather than symbols.

In this month's Low Level we will explore some of the equation-solving techniques, using both symbolic and numerical methods, and finish off with a practical and efficient Basic implementation of a numerical method that can be applied in a wide number of problem areas.

To get a flavour of what's involved we will start work with a set of three simple simultaneous equations (Fig 1), which are to be solved for the three unknowns:  $x$ ,  $y$  and  $z$ . To solve these equations symbolically by computer, it is essential to first represent them in an appropriate data structure, such as the "nested list" which is a standard construct in programming languages like Lisp or Prolog. Fig 2 shows how these equations can be converted into lists.

Once held in list form it's much easier to operate on the equations, but this begs the question of what operations can usefully be performed on them. There are various rules which are commonly used when attempting to solve equations. Fig 3 outlines the common manipulations, although we have glossed over some of the mathematical niceties: for example, you have to be careful not to divide equations by zero. To show how these rules are used in practice the solution process for the equations is given in Fig 4.

Using rule 1 we can see that there are three variables and three equations, so it's likely that it will in fact be possible to reach a solution. Fewer equations would

**Fig 3 Ten rules of thumb for solving equations**

1. To be solvable the number of equations should equal the number of unknowns.
2. Equations involving powers of 2 (e.g.  $x^2 - 7x = -12$ ) have two solutions ( $x = 3$  or  $4$  in this case). With powers of three there are three solutions, and so on.
3. Equations can be shuffled into any order without affecting their solution.
4. Sub-expressions within an equation can be shuffled and re-arranged in various ways, controlled by mathematical rules and identities.
5. A value, or expression (possibly including unknowns) can be added to or subtracted from both sides of any equation.
6. A value or expression can be used to multiply or divide an equation. This is done by applying it to both sides simultaneously.
7. The left- and right-hand sides of an equation can be swapped.
8. Two or more equations can be added (or subtracted) to make a new equation by adding (or subtracting) the left-hand sides of each, giving one side of the new equation, and performing the same operation on the right-hand sides of each for the other side of the new equation.
9. Two or more equations can be multiplied together (or divided) to make a new equation by simultaneously applying the appropriate operation to the respective equation, adding (or subtracting) the left-hand sides of each for one side of the new equation, and the right-hand sides of each for the other.
10. When an unknown is isolated on one side of an equation, it can be eliminated from all the equations by replacing its every occurrence in the other equations by the expression that it's equal to. The original equation need play no further part in the solution process.

**Fig 4 Solving the equations in Fig 1**

Divide (C) by 3

$$x^2 - 10x = -25 \quad (C1)$$

Add 25 to each side of (C1)

$$x^2 - 10x + 25 = 0 \quad (C2)$$

Rearrange LHS of (C2)

$$(x - 5)(x - 5) = 0 \quad (C3)$$

So  $x = 5$ , substitute in (A) and (B)

$$5y + z = 450 \quad (A1)$$

$$5y^2 + 25y = 250 \quad (B1)$$

Divide (B1) by 5

$$y^2 + 5y = 50 \quad (B2)$$

Subtract 50 from each side of (B2)

$$y^2 + 5y - 50 = 0 \quad (B3)$$

Apply identity

$$ax^2 + bx + c = 0 \Rightarrow x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

to (B3)

$$y = -5 \pm \sqrt{25 + 200} / 2 \quad (B4)$$

$$\text{So } y = 5 \text{ or } y = -10 \quad (B5)$$

Substitute in (A1)

$$25z = 450 \text{ or } -50z = 450 \quad (A2)$$

Divide one equation in A2 by 25 and the other by -50

$$\text{So } z = 18 \text{ or } z = -9$$

$$\text{Solutions: } (x = 5, y = 5, z = 18) \text{ or } (x = 5, y = -10, z = -9)$$

leave the problem under-constrained, with not enough information to reach a solution. More equations would over-constrain the problem, and, unless there was

some redundancy (such as one of the extra equations being a trivial variant of another equation) there is likely to be an inconsistency with no solution possible.

Rule 2 tells us that there may be multiple solutions for  $x$  and for  $y$  as well. Most of the other rules are used in the solution process itself. With an appropriate programming language, such as Lisp or Prolog, each rule can easily be encoded as an operation that can be performed on a list structure. For example, adding a quantity  $Q$  to each side of an equation (= LHS RHS), converts it to the form (= (+ LHS  $Q$ ) (+ RHS  $Q$ )). List processing languages can easily manipulate lists in this fashion.

Notice that, contrary to expectations, the equations produce only one solution for  $x$  ( $x = 5$ ). Equation C3 shows why — there are in fact two solutions, but they are both the same!

With a symbolic solver it's not enough simply to implement the equation manipulation rules. The solver needs some strategy to guide the solution process and apply the rules in the right order and in the right way. This is the hardest part to implement, and the area in which symbolic solvers are most likely to fail.

We won't go into the strategy in much detail here, but in general a good overall aim is to isolate any one variable on one side of one equation so that it can be substituted in all the other equations, effectively reducing the number of variables by one. If all goes well, after repeating this process several times, a single equation in one variable is left, and hopefully this is solvable directly, and its solution can then help get solutions for the other remaining variables. This may not always work out as planned — for example, there's a well known mathematical result that there's no general solution method for polynomials of degree 5 or more (e.g. equations like  $x^5 + \dots = \dots$ ).

Numerical methods are less likely to founder in this way, but often require some complex participation by the user

**Fig 5 Three simultaneous linear equations**

$$\begin{aligned} 6x + 6y + 12z &= 54 \\ 3x + 2y + 4z &= 19 \\ 2x + 3y + 4z &= 20 \end{aligned}$$

**Fig 6 An array representation of the linear equations**

```
[ 6 6 12 54]
[ 3 2 4 19]
[ 2 3 4 20]
```

as a part of the solution process. For example, the user may have to provide a first guess for the solution, and if the guess is a bad one then the method may fail to arrive at a solution, or if there are multiple solutions it may only find the one nearest to the guess.

With a numerical method it is also sometimes necessary for the user to differentiate the equations by hand and then write a function that calculates the differential. This is a pity because it's not too difficult to implement a symbolic differentiation routine that could do the job automatically, but the programming languages commonly used to implement numerical methods cannot readily be used in this way. Firstly they are not very good at symbol manipulation in any case, but the main problem is that programs written in languages like C and Pascal are compiled before they are used, and cannot then create new compiled routines dynamically; they simply cannot be used in this way.

There is one special area of equation-solving, where a numerical method works particularly well. This is the Gaussian elimination technique, which can be applied to systems of linear equations. A linear equation can contain any number of unknowns but these can only be combined in a very simple way. There are no unknowns multiplied together and exponentiation, trigonometry or other awkward expressions are not allowed.

Fig 5 shows a typical set of simultaneous linear equations, with three unknowns:  $x$ ,  $y$  and  $z$ . These equations could be solved symbolically, using the rules given in Fig 3, but Gaussian elimination formalises the process, so that the solution, if it exists, is found quickly, efficiently and accurately.

Because of the simple structure of linear equations they do need to be held in list structures and can easily be represented by arrays containing the essential coefficients. The unknowns don't need to be mentioned at all. For example, the equations in Fig 5 can be adequately represented by the array shown in Fig 6, on the understanding that each row represents an equation, with the first three columns in the array giving the coefficients of the  $x$ ,  $y$  and  $z$  unknowns, and the last column giving the right-hand side values of each equation.

Gaussian elimination systematically manipulates this array representation until it uncovers the solution. Fig 7 shows roughly how it works in practice. All the

**Fig 7 Gaussian Elimination in action.**

The technique systematically manipulates the array representation of the linear equations to obtain the solution

```
[ 6 6 12 54]
[ 3 2 4 19]
[ 2 3 4 20]
```

Pivoting on the  $x$  coefficient in the first equation, eliminate  $x$  from the equations below...

```
[ 6 6 12 54]
[ 0 -1 -2 -8]
[ 0 1 0 2]
```

Pivoting on the  $y$  coefficient in the second equation, eliminate  $y$  from the equation below...

```
[ 6 6 12 54]
[ 0 -1 -2 -8]
[ 0 0 -2 -6]
```

The last equation now gives  $z = 3$  immediately. Eliminating  $z$  from the equations above, and eliminating this equation from further consideration...

```
[ 6 6 0 18]
[ 0 -1 0 -2]
```

The last of the remaining equations now gives  $y = 2$  immediately. Eliminating  $y$  from the equation above...

```
[ 6 0 0 6]
```

The last remaining equation gives  $x = 1$  immediately. The equations are solved

operations on the equations (or rather, rows in the array) are covered by one or other of the rules we mentioned earlier, but because linear equations are so highly structured the solution process

**Fig 8**

After a minor rearrangement of the equations there are problems with pivoting, when a zero element is found in the critical position.

$$\begin{aligned} 6x + 12z + 6y &= 54 \\ 2x + 4z + 3y &= 20 \\ 3x + 4z + 2y &= 19 \end{aligned}$$

The equations have been rearranged, but their solution is the same. The array representation is:

```
[ 6 12 6 54]
[ 2 4 3 20]
[ 3 4 2 19]
```

As before, pivoting on the  $x$  coefficient in the first equation, eliminate  $x$  from the equations below:

```
[ 6 6 12 54]
[ 0 0 1 2]
[ 0 -2 -1 -8]
```

Pivoting on the (second)  $z$  coefficient in the second equation is not now possible as it is zero...

**Fig 9** A subroutine in Basic, that performs Gaussian elimination

```

Sub Gauss (N As Integer, A() As Single, xans() As Single)
'Do Gaussian elimination on a(1..N,1..N) where RHS is in a(1..N,N+1)
'Answer is given in xans(1..N)
Dim i As Integer
Dim j As Integer
Dim k As Integer
Dim mx As Integer
Dim t As Single

'Eliminate...
For i = 1 To N
  mx = i
  For j = i + 1 To N
    If Abs(A(j, i)) > Abs(A(mx, i)) Then mx = j
  Next j
  For k = i To N + 1
    t = A(i, k): A(i, k) = A(mx, k): A(mx, k) = t
  Next k
  For j = i + 1 To N
    For k = N + 1 To i Step -1
      A(j, k) = A(j, k) - A(i, k) * A(j, i) / A(i, i)
    Next k
  Next j
Next i
'Substitute...
For j = N To 1 Step -1
  t = 0#
  For k = j + 1 To N
    t = t + A(j, k) * xans(k)
  Next k
  xans(j) = (A(j, N + 1) - t) / A(j, j)
Next j
End Sub

```

moves forward very methodically. Notice that at the third stage, when we are at the point of deriving the value of  $z$ , all the array values below the array diagonal are zero. This is the so-called "triangular" form, from which the solution tumbles out, in a straightforward fashion as shown in the example.

There is only one major complication (see Fig 8) with the method, which we have so far glossed over by carefully constructing the problem in the first place. But suppose the second and third equations are swapped, and the order of variables is changed to  $x, z, y$ . The solution method is in danger of breaking down here, because when working on the second variable ( $z$ ) the pivot element turns out to be zero, and it cannot be used to eliminate the elements below. There's a simple work-around for this: search for the most appropriate pivot element, looking down the column from the diagonal to the bottom and swap the positions of the equations so that the best pivot element is in the frame and

can then be used. If all the potential pivot elements are zero then there is no solution to the equations.

So much for the theory. The code to perform the Gaussian elimination is given in Fig 9. It can work on any number of variables/equations, although the solution process inevitably slows down as the problems get bigger. This is a result of the execution time being proportional to the cube of the array size (notice the three nested loops in the routine).

### PCW Cover Disk

The full code for this month's Low Level is on the cover disk given with this Issue of PCW.

### PCW Contacts

Mike Liardet is a freelance programmer and writer. He can be contacted via the PCW editorial office or on email as [mliardet@cix.compulink.co.uk](mailto:mliardet@cix.compulink.co.uk)

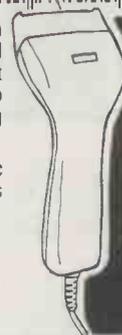
## Eliminate Errors and Speed Throughput



Your existing computer system and software can be upgraded to accept Barcode input at minimal cost and with no changes to existing procedures.

We make electronic identification equipment that's effective and simple to use.

- ☆ Barcode
- ☆ Electronic Tagging
- ☆ Magstripe



Altek Instruments Ltd, 44-46 Terrace Rd  
Walton-on-Thames, Surrey. KT12 2SD  
Phone: 01932 244110 Fax: 01932 227279



## PROTECT YOUR SOFTWARE

Prevent copying of your software with the Ultimate Copy Protection System ...

### COPYCONTROL.

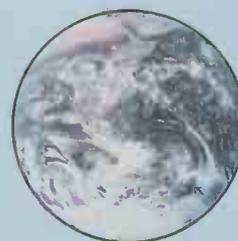
- User friendly & secure
- Beats all bit copiers & disassemblers
- Supports networks, backups, disk caches, Windows, CD ROMS, cover discs, etc
- Remote changing of parameters
- No add-on hardware or special disks required
- Control where, when & how often your programs are run
- Works with all IBM PC compatible computers
- Control the number of simultaneous network users

CALL TODAY FOR DETAILS  
**0117 983 0084**  
FAX: 0117 983 0085

### MICROCOSM LTD

1 Eastfield Road, Westbury-on-Trym, Bristol BS9 4AD, UK

## REMANUFACTURED TONER CARTRIDGES & INKJET REFILLS



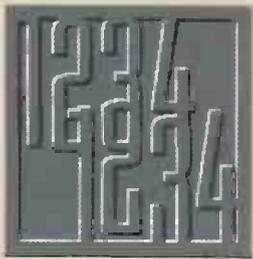
## THAT DON'T COST THE EARTH



Tel: 01873 854913  
Fax: 01873 858040



Inkwell, 8 Brecon Road, Abergavenny NP7 5UG



## Base Solution

### The Smarandache Function revisited, plus a reader's miscellany, by Mike Mudge.

Regular readers of Numbers Count will be familiar with the definition of the Smarandache Function. But it is reproduced here in recognition of the widespread interest that it has attracted.

The Smarandache Function,  $S(n)$ , is defined for positive integers,  $n$ , as the smallest integer such that  $S(n)!$  is divisible by  $n$ .

Note:  $n!$ , read as factorial  $n$ , denotes the product of all positive integers up to and including  $n$ : further  $0!=1$  by definition.

#### Problem A

Due to Charles Ashbacher, Cedar Rapids, IA 52401, USA.

For what triplets  $n, n+1, n+2$  does the Smarandache function satisfy the Fibonacci recurrence:

$$S(n)+S(n+1)=S(n+2).$$

Charles has found the solutions:

$n=9, 119, 4900, 26243, 32110, 64008, 368138$  and  $415662$ .

His comment: "I am unable to discern a pattern in these numbers that would lead to proof that there's an infinite family of solutions." Perhaps another reader can?

#### Problem B

Due to I M Radu, Mathematical Spectrum, vol 27, no 2.

Show that, except for a finite set of numbers, there exists at least one prime number between  $S(n)$  and  $S(n+1)$ .

Among the finite set of numbers referred to above are:

$224-225, 2057-2058, 265225-265226$  and  $843637-843638$ ...

Factors of the last two pairs of numbers include prime pairs:  $(103, 101)$  &  $(151, 149)$  respectively... does this provide the clue in the search for additional values?

#### Problem C

Due to A Stuparu, Valcea, Romania.

Consider numbers written in Smarandache Prime Base or Smarandache Square Base: how many

are prime, how many are perfect powers? (In particular, perfect squares and perfect cubes.) e.g.  $101$  in Smarandache Prime Base  $1,2,3,5,7,11\dots$  is equal to  $1.3+0.2+1.1=4_1$ , and is therefore not prime in The Smarandache Prime Base, but is prime in the decimal base.

Note: Academic Press will publish *The Encyclopedia of Integer Sequences* by N.J.A.Sloane and S. Plouffe in 1995; a disk with the sequences will also be available.

#### Feedback — positive and negative

● Prime Pairs: i.e.  $n\pm 1$  which are both prime, have attracted much attention recently. Tony Forbes of Surrey, using a 33MHz 486 microprocessor, upgraded to 100MHz, programmed in a combination of Yuji Kida's UBASIC and PC assembler to discover a pair of the order of  $10^{4662}$  (20th July 1995) — a result worthy of publication in the "learned journals"! — he has also made a study of prime  $k$ -tuple patterns up to  $k=14$ , details from M.M.

● Email Addresses. I would like to thank George Sassoon for the following: "A list of email addresses of people interested in computational number theory compiled by Andrew Odlyzko is available on [amo@research.att.com](mailto:amo@research.att.com) or from George at New Farm, Tytherington, Warminster, Wiltshire, BA12 7AA. Tel: 01985-840205."

● Factorisation of "LARGE" Integers. Paul C Leyland of Aylesbury wishes PCW readers to know (4th June 1995) that the Cunningham files are available for anonymous ftp at [ftp.ox.ac.uk](ftp://ftp.ox.ac.uk) in directory/pub/math/cunningham. His email address is [pcl@oucs.ox.ac.uk](mailto:pcl@oucs.ox.ac.uk) and he would be pleased to hear from other people interested in factoring. Sam Wagstaff's address is [ssw@cs.purdue.edu](mailto:ssw@cs.purdue.edu).

LIP multiprecision package written in C and supporting arithmetic on integers of arbitrary size, written by Arjen Lenstra, is available at no cost for non-commercial use from [ftp.ox.ac.uk](ftp://ftp.ox.ac.uk) in the

[/pub/math/freelip](ftp://pub/math/freelip) directory in source code. But, Paul warns: "An hour's thought will often make more progress than a month's computation."

Complete or partial responses to these Smarandache problems, along with work on prime  $k$ -tuples and related problems may be sent to Mike Mudge, 22 Gors Fach, Pwll-Trap, St Clears, Carmarthen, Dyfed. Tel: 01994 231121, to arrive by 1st January 1996. Any complete or partial solutions received will be judged using suitable subjective criteria and a prize of a £25 book token or equivalent overseas voucher, will be awarded by Mike Mudge to the best solution arriving by the closing date.

● Stop press! A communication from Roger Tirtia of Wareme, Belgium requests a proof (assuming it to be correct) of the result that: all integers that are not the sum of less than four squares are given by the formula,  $2^{2n}(8k+7)$  where  $n, k = 0, 1, 2, 3, \dots$  Can anyone help?  
● Review of *Numbers Count* 143, March 1995, Beginners Lesson One, (GCD) Wang Tiles and Dr Reg Silvapulle's problem.

The latter problem was solved most elegantly, using Fermat's method of descent and the well known formula for representing a Pythagorean Triple as  $2k(r^2+s^2)$ ,  $2k(r^2-s^2)$  &  $4krs$ , by Michael Behrend of Cambridge. Details on request to MM. The introduction of a Beginners Start Here, with an investigation of Greatest Common Divisor of a set of positive integers produced a mixed response. Many found the whole idea too simple to be worthwhile... one respondent returned to the recursive Euclid's Algorithm as he had learnt it at school c.1920 and programmed it in Pascal as a Function.

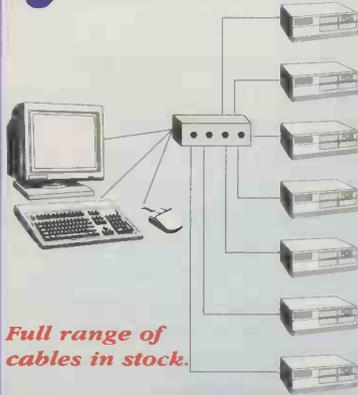
The Wang Tiling Problem produced responses at many levels; worthy of mention is that of Fred Nooitgedacht of Apeldorn in The Netherlands. His interest began when he met "an old man in 1986, who had been trying to trace all 2,339 ways in which the 12 petominos can fill a  $10 \times 6$  rectangle". He uses "backtracking" and invites mail at [Pallietergaarde 219, 7329 HC Apeldorn, The Netherlands](mailto:Pallietergaarde@219.7329.HC.Apeldorn.The.Netherlands). Fred's second mailing solves the problem as posed. The prizewinner is Gustaaf Lahousse, of St Donatuslaan, 4B 1850, Grimbergen, Belgium.

#### PCW Contributions welcome

Mike Mudge welcomes correspondence from readers on any subject within the areas of number theory and computational mathematics, together with suggested subjects and/or specific problems for future Numbers Count articles.

# KEYBOARD, MONITOR & MOUSE SWITCHES

**Connect several PCs, LAN Servers, etc. to a single Keyboard, Monitor & Mouse.**



Full range of cables in stock.

## Keyboard & Monitor Switches

- 2 Device Manual Switch £ 28
- 4 Device Manual Switch £ 44
- 8 Device Manual Switch £165
- 12 Device Manual Switch

Excluding cables

## Keyboard, Monitor & Mouse

- 2 Device Manual Switch £ 80
- 3 Device Manual Switch £100
- 4 Device Manual Switch £120
- 5 Device Manual Switch £140
- 6 Device Manual Switch £160

Supplied with ALL cables  
Excluding cables

## Keyboard, Monitor And Mouse Switches With Automatic Emulation

- Control multiple Computers for one Keyboard, Monitor & Mouse Made In USA
- Allows automatic booting of servers.
- Hot-Key to select output port from your keyboard or front panel.
- Automatic Keyboard and Mouse emulation.
- Supports PS/2 & AT compatible keyboards and PS/2 or Serial mouse.
- Keyboard modes 1,2 & 3 are automatically saved for PS/2 & Compaq.
- Built in daisy-chaining to support up to 256 computers.
- Scan mode automatically switches through each CPU in turn.
- Rack mounting kit available 19".
- Multi-Access upgrade allows multiple master Keyboard, Monitor and mouse to access all connected servers. Supports cable length of 75M.
- Upgrades for MAC & SUN available.

**Server 4 Device Switch £ 545 8 Device Switch £ 945**  
**View 12 Device Switch £1495 16 Device Switch £1850**

**MasterView 4 Device Switch £350 MasterView 6 Device Switch £350**  
(Non-Expandable & PS/2 Compatible) (Non-Expandable & Non-PS/2 computers)

## NETWORK PRODUCTS

### Network Cards

- ✓ 8 interrupts and 8 I/O addresses.
- ✓ NE2000 Compatible.
- ✓ 35% Performance improvement.
- ✓ Complies to IEEE 802.3 standard.
- ✓ 10 Mbps transmission rate.
- ✓ Diagnostic software for detecting hardware Configuration / failure.
- ✓ IPX, ODI for Novell NetWare.
- ✓ NDIS for MS LAN Manager.
- ✓ Windows for Workgroup.
- ✓ Packet drivers for TCP/IP.

Genius £28 £32  
Zero One £35  
New Low Price

### Genius Pocket LAN Adaptor

- ✓ Additional multiplexer parallel port.
- ✓ 80% Performance improvement.
- ✓ Bi-directional & Enhanced Parallel Port.
- ✓ Phantom power cable steals power from PS/2 keyboard or mouse.
- ✓ Spare Power Adaptor supplied.
- ✓ Diagnostic software supplied.
- ✓ ODI drivers for NetWare.
- ✓ NDIS for MS LAN Manager.
- ✓ Windows for Workgroup.
- ✓ Packet drivers for TCP/IP.

### Genius PCMCIA Adapter

PCMCIA Ethernet Adapter (BNC+TP) £99

### Genius 10Base-T Hubs

- 8 Port ( 8x UTP + BNC) £115
- 12 Port (12x UTP + BNC + AUI) £249

### Ethernet Transceivers

- Genius AUI to BNC or AUI to TP £32

### Genius Ethernet Repeaters

- 2 Port Repeater 2xBNC + 2xAUI £200
- 4 Port Repeater 4xBNC + 4xAUI £310

### Network Connectors

- BNC Heavy Duty Crimp Tool £30.00
- Coaxial Cable Stripper £15.00
- 100 Metres Ethernet Cable £25.00
- BNC Plug £1.00
- BNC Strain Relief Boots £0.25
- BNC T-Piece £2.50
- BNC Terminator £2.00
- BNC Barrel Connector F/F £2.00
- Single wall plate with 1xBNC £3.50
- Dual wall plate with 2xBNC £4.00
- Back box (Universal) £2.50
- Make-Before-Break Box (Safertap) £19.50
- Safertap access leads 2 Metres £13.00

### Network Cables

- Thin Ethernet cable BNC/BNC (RG58)
- 1M £3.50 2M £4.00 Fully Moulded
  - 3M £4.50 5M £5.50 Just add 50p per additional metre
  - 7M £6.50 10M £8.00
- UTP Category 5 RJ45/RJ45
- 1M £3.50 2M £4.00 Fully Moulded
  - 3M £4.50 5M £5.50 Just add 50p per additional metre
  - 7M £6.50 10M £8.00

Please call for cables made to order

### Print Servers

- Plug-in-and-go single port parallel print server for Netware (BNC+TP) £175
- 3 Port print server (2 parallel & 1 Serial) for Netware (BNC+AUI+TP) £275
- Multi-protocol print server £325
- Expandable print server for Netware NetPrint Master £250 NetPod Slave £95
- Plug in print server CARD for the HP LJ4si, LJ4si... series Netware £255
- Multi-Protocol print server £285

## MONITOR SPLITTERS

Connect multiple monitors & speakers to a single computer.

Monitor SPLITTERS	Speaker SPLITTERS
2 Way £135	2 Way £ 40
4 Way £185	4 Way £ 75
8 Way £285	8 Way £125
16 Way £385	16 Way £175



VGA/SVGA/XVGA Compatible.  
Built in line amplifiers on all ports (250FT Max)  
Connect multiple stereo speakers to one computer.  
Ideal for demonstrations & exhibitions  
Teacher's monitor can be displayed on student's PC using AB switch box.

Teacher / Student AB switch box £25  
VGA Booster £70 (250FT)  
2M VGA/SVGA Monitor cable £15.00 Add £2.50 for each additional metre.  
100M Reel VGA/SVGA coaxial cable (3 Coax + 4 Conductors) £180

## AUTOMATIC PC REMOTE LINK

ACCESS YOUR PC REMOTELY



Automatic PC Remote Link allows multiple users each with a Keyboard, Monitor &/or Mouse to access a single PC (CPU) on a first come first serve basis. The units will split the monitor signal to allow the same screen to be displayed on all connected monitors.

Keyboard, Monitor & Mouse	Keyboard & Monitor
2 Users 250FT Max £179	2 Users 60FT Max £ 40
4 Users 250FT Max £249	2 Users 150FT Max £ 60
6 Users 250FT Max £299	2 Users EGA 40 FT £ 30

## AUTO MODEM SHARERS

Auto Modem Sharers allows multiple users to share a single modem on a single telephone line. No additional software or hardware is required. Compatible with all external modems 4 to 1 £59 6 to 1 £99

## BI-TRONICS PRINTER SHARERS

SmartShare is a new generation of high performance peripheral sharer that supports bi-directional interface (BDI) ports such as Hewlett-Packard's Laser Jet IV series supplied with Remote Control Panel and LexMarks MarkVision. BDS 4 to 1 £199 BDS 6 to 2 £219

## PRINTER SHARERS

MANUAL	AUTOMATIC	AUTO BUFFERS 256K
Bi-Directional	PC Printer Parallel Serial	Free your computer fast
2 Way can be used as 2 to 1 or 1 to 2	1 2 £45 £50	PC Printer Parallel Serial
2 Way £ 11	2 1 £30 £35	1 1 £99 £160
3 Way £ 14	2 2 £65	1 5 £550
4 Way £ 17	4 1 £45 £65	2 1 £120 £120
5 Way £ 30	4 2 £80 £85	2 2 £180 £230
6 Way £ 42	5 1 £70	4 1 £140 £140
2x2 Way £ 19	8 1 £90 £96	4 2 £185 £285
2x3 Way £ 50	8 2 £120	6 1 £225
		7 3 £315
		8 1 £240
		8 2 £315 £360

**Port Saver**  
Protects your computer port from wear caused by plugging and unplugging of cables. £6.00

## CABLES

- 2M Parallel printer cable £ 4
- 2M Parallel cable D25 M/M £ 5
- 2M Centronics cable C36 M/M £ 6
- 2M Serial Printer cable £ 12
- 2M Serial modem cable £ 5
- 2M Serial null modem cable £ 6
- 2M Keyboard extension cable £ 6
- 2M Standard monitor extension £ 9
- 2M Universal Laplink/Interlink £15
- 1M SCSI I peripheral cable C50 £12
- 1M SCSI II cable £22
- 2M keyboard cable 5 pin M/M £ 7
- 2M Keyboard cable 6 pin M/M £ 7
- 2M Keyboard conv. 5M/6M £ 9
- 2M Monitor cable 15HD M/M £ 9

## VGA TO TV CONVERTERS

- VGA to TV Pro
- Flicker free TV display.
- Allows simultaneous monitor/TV viewing.
- High resolution 800x600 64,000 colours.
- Supports Microsoft Windows.
- Bundled with microphone for audio out.
- Free presentation software 'Media Mate'
- Output to Scart (RGB), Composite or S-VHS £199
- VGA to TV Converter (Res. 640 x 480) £105
- UHF (Aerial) Upgrade for above £35
- VGA to TV Genlock Overlay allows you to superimpose computer graphics or text directly on top of video recording. £305

## EXPANDABLE PRINTER NETWORK

Connect up to 24 PC's to 8 printers.  
The printer sharer that grows with your needs  
Fully automatic function.  
Access printers up to 366 Metres away.  
Printer selection via Windows and DOS utility.  
No external power supply required.  
Uses inexpensive 4 core telephone cable.  
7 Metres of cable included with each unit.

PC Unit (TX) £35  
Printer Unit (RX) £35

**ORDER NOW** FOR DELIVERY TOMORROW

454 Sunleigh Road, Alerton, Wembley, Middx HA0-4NW

**Tel: 0181 900 1525**  
**Fax: 0181 903 1486**

All prices are exclusive of delivery and VAT

Keyzone Computer Products Ltd.

14 Days money back guarantee on all products

VISA MasterCard American Express



## Internet in an instant

**Instant Internet simply plugs in to a Netware or PowerLAN network — configure your software and, as Stephen Rodda discovered, you're ready to go in no time at all. And, there's something interesting you can do with a Scotchbrite pad, too.**

I have downloaded Windows 95 (build 490) from the Microsoft Network (MSN). Although MSN seemed to think that it would take 18 minutes per file (there were 19 of them), in actual fact the files took around 25 minutes each to download. Averaging it out, I took around ten and a half hours (file 19 is a fairly big one) to download the whole shebang. Having finished, I was impressed: it was very stable.

The Microsoft Network, on the other hand, is about as unstable as a pyramid on its tip. Due to this lack of stability it took me two late nights to download the software update. Now, I presume that because of this release being downloaded, the MSN is almost impossible to use. Its response times are a joke: it can take around three minutes just to open a few windows. Once you get there you find that very little has changed — sometimes it just hangs while trying to log in. If Microsoft is going to try to compete with the likes of CIX and Compuserve, then it is going to have to pull its socks up.

### Instant Internet

I've had a play with Instant Internet (from Performance Technology): it simply plugs into a Netware or PowerLAN network to provide direct Internet access. The unit is housed in a standard computer case with keyboard and monitor connections.

The one I tested had a built-in network connection and modem, although a bridge version (for a permanent Internet connection) exists with two network interface cards. This acts as a networking router. Physically, the installation is simple: plug the box into a telephone point, the LAN

and the mains, and you're ready to go. Software configuration is less simple, but thanks to the comprehensive list of British and European services it's easy to connect to any Internet supplier's point of presence. It allows distributed Internet access for up to 50 concurrent users, without the hassle of having to set up TCP/IP for each workstation on the LAN.

If you are going to have that number of people using it at the same time, the supplied 28Kb 8-baud modem would probably be woefully inadequate, although for my own smaller LAN it was quite good enough. In this case, you would probably want to use a dedicated Internet feed from your supplier.

For those who know about Internet connections, you will see that this is a considerable amount of work saved. For others, I shall describe the work that would normally be needed. First, you would have to get a currently unused Internet address range from the authorities (to allow you to have a complete domain where your network allocation numbers won't interfere with anyone else), then you would have to convert the whole

*Setting up the Instant Internet unit from a remote PC*

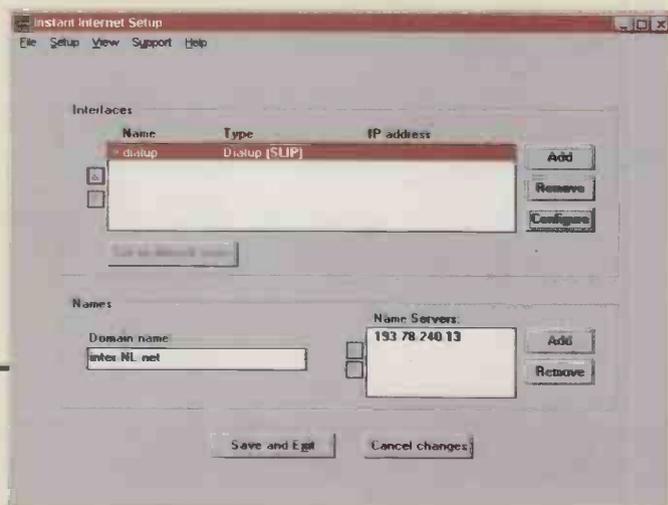
LAN to using TCP/IP protocols rather than IPX/SPX (in the case of Netware) over the LAN. This would entail changing the server's protocol stack as well as that in use on every workstation. Having done that, you would have to get and maintain a hosts file in order for the workstations to have somewhere for the Internet services to look up domain names — those names which follow the commercial version of "at" (i.e. @, such as cix.compulink.co.uk in the case of cix) in an Internet address.

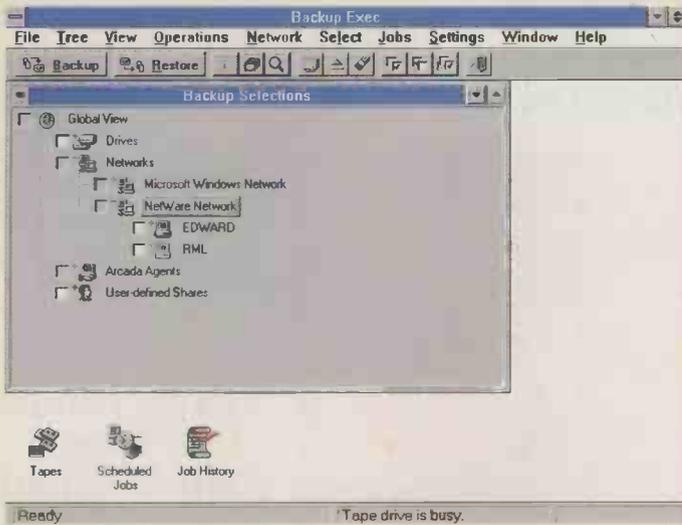
Now all you have to do is connect. This could take up to half an hour per workstation, and perhaps an hour in the case of a server. Regarding the standard number of workstations (50) at which this unit is targeted, this could save about 26 man-hours. A name server would have to be running, which could take more time and hardware too.

I configured the server in about a minute. The program is well-designed and performs efficiently. The package comes with WinWeb and Eudora — an SMTP mail package. But for those of you who prefer, say, Netscape or Mosaic (since the unit supports the Winsock socket interface) you may use whichever software you desire which utilises Winsock sockets.

The whole operation was completed in less than no time. I took another minute to configure a second PC to attach through the Instant Internet unit. It was simple, and worked within minutes of plugging it in — I like hardware like that.

An Internet firewall is included straight out of the box. For those who don't know anything about the Internet; once you have a connection you immediately have the problem of packets which can go both ways. Of course, you will want to send and receive your own packets, but while you are connected (even through a telephone line) you immediately have the problem





*The Arcada Backup Exec saw the shared drive although not the Agent, which proclaimed itself as running*

reasonably easy; all I had to do was share out the other machine's hard disk.

that anyone else can access your machine, or in extreme cases your whole LAN. If you're running a dial-up link, they would have to target you from a dedicated Internet link and check every so often that you were or weren't on the Internet, as the case may be: in the case that you *had* connected to the Internet, then the snooping program could fire off a login sequence or manipulate packets directly.

**Preventing snoopers**

A firewall prevents all this simply by erecting an Internet barrier between the TCP/IP packets on your side of the network and those on the Internet side. On a small system where data might not be sensitive, this would be unnecessary: the chances that someone would be snooping on your Demon connection are highly remote. But where a large proportion of time is spent connected to the Internet, and the network is of a large or sensitive nature, then you should be aware of the necessity of using a firewall. Instant Internet accomplishes this feat because it just translates directly between TCP/IP and IPX/SPX. Since your machines have no complete Internet address, nobody outside can manipulate your data. The simplicity is impressive.

**Arcada**

I've eventually managed to get hold of the full version of Arcada Backup Exec for Windows NT, and although I'm still waiting for the various Backup Agents which allow the executive to talk to networked computers, I've tried (unsuccessfully as it turned out) to use the Windows 95 agent.

Although the installation file said that I had to have IPX/SPX networking, the only way I managed to get the thing to back up a remote Windows 95 machine was to use the file-sharing method. This was

partner's getting into World Wide Web page design and he wanted to use Word 6 with the Web Author package from Quarterdeck, so I ended up walking from one end of the flat to the other (where his machine now is) to set up the recalcitrant backup agent. I certainly lost weight. I must have walked the distance at least twenty times.

Certainly, we know that these conditions, although they work, are not ideal: I wondered what others would do to enable the wretched thing to work. The advantage is that the agent type share is special and other users can't attach to the drive and slow the machine down. I even installed the version (not provided with Windows 95) but the one on the installation CD from Arcada. Despite this, I still find Arcada to be one of the better backup solutions.

**Scotchbrite and suckers**

I've been getting lots of support calls from my clients lately. Admittedly, we're in the middle of a heatwave as I write and most of these calls are due to the fact that their machines are overheating. So remember, get a vacuum cleaner and use it to take all the dust out of the fans in your server and workstations. It's a better bet (if you feel you are capable) to reverse the fan, so that it blows air into the machines, rather than sucking it through the floppy drives. Many's the floppy drive in a server which failed to load a disk simply because of the accumulated dust.

A good move would be to tape a Scotchbrite pan shiner over the fan intake. This will filter out most of the airborne detritus which would otherwise circulate over your hardware. So, all you'll have to do is replace the pan shiner (or wash it out, making sure you dry it thoroughly) to achieve effective filtration again.

**NETLAND (UK) LIMITED**



Unit 5F, Lynx Business Park, Newmarket, Cambs CB8 7NY

**TEL: 01638 720999**

**NETWORKING FAX: 01638 721424**

**NETWORKING NOVELL OEM NETWORK KITS**

**£45 with card**

NetWare 5 user with Network Card	v.3.12 £399.00	v.4.1 £419.00
NetWare 10 user with Network Card	£899.00	£930.00
NetWare 25 user with Network Card	£1399.00	£1399.00
NetWare 50 user with Network Card	£1699.00	£1995.00
Personal NetWare with Network Card	£45.00	

**SMC SMC Combo £49.95**

SMC ELITE ULTRA TP	£45.00
SMC ELITE ULTRA BNC	£47.00
SMC ELITE ULTRA COMBO	£49.00

**3Com 3Com Combo £69**

3COM 3C509 TP	£49.00
3COM 3C509 BNC	£57.00
3COM 3C509 COMBO	£58.00
3COM 3C589 PCMCIA	£149.00

**APC UPS APC 600VA £224**

APC UPS 600 SMART	£224.00
APC UPS 900 SMART	£389.00
APC UPS 1250 SMART	£599.00

**LAN PROFESSIONAL HUBS HUBS from £129!**

LAN PROFESSIONAL 5 PORT TP HUB, 1 BNC	£58.00
LAN PROFESSIONAL 8 PORT TP HUB, 1 BNC	£98.00
LAN PROFESSIONAL 16 PORT TP HUB, 1 BNC	£198.00
LAN PROFESSIONAL 24 PORT TP HUB, 1 BNC	£349.00
LAN PROFESSIONAL 32 PORT TP HUB, 1 BNC	£399.00

**LAN PROFESSIONAL NE2000 BNC/TP NE2000 BNC/TP from £25.00**

**L.S. PRINT SERVER 1 PARALLEL, 1 SERIAL £179.00 !!**  
**TEL: 01638 720999**  
**FAX: 01638 721424**

All prices exclude V.A.T. & carriage. All services offered by Netland are chargeable. All trademarks acknowledged. Product specification and prices subject to change dependent on availability. Subject to availability goods will be dispatched immediately on receipt of cleared payment. E&OE. Systems received may differ from the illustrations. All Netland products are sold on a product only basis.

# NOVELL

## System House

**AUTHORISED NOVELL SYSTEM HOUSE, AWARDED 1994/95**  
**AUTHORISED NOVELL SERVICE CENTRE, AWARDED 1994/95**

One of only seven companies in the British Isles who have been awarded Novell Authorised System House and Novell Authorised Service Centre, for our recognised excellence in quality of sales, service and support.

# In terms of Network Solutions, should you be talking to anyone else?

## Netware 4.1, Groupwise, Notes, cc: Mail

### Netware SFTIII, Version 4.1 Module

Less than 100 £995  
Greater than 100 £2195

### Netware upgrades?

We will beat any price!  
3-Day turnaround! Call now.  
All Netware sourced through UK authorised distributors.

### Netware 3.12

5-User £425  
10-User £965  
25-User £1445  
50-User £2230  
100 £2865  
250 User 5750

### Netware 4.1

5 User £450  
10-User £990  
25 User £1515  
50, 100, 250, 1,000-User £2045  
100 USER 2865  
250 USER 5750  
500 & 1000 USER £Call

Talk to Mtec for all your hardware and software requirements

### Network Interface Cards.

3 COM 3C509 BNC £55  
3 COM 3C509 TP £55  
3 COM 3C509 COMBO £59  
3 COM 3C527B MCA £353  
3 COM 3C579 EISA £199  
Novell NE2000 +BNC or TP £75  
Novell NE3200 BNC or TP £347  
SMC Elite 16 Ultra NEW £55  
SMC Elite 16 TP Ultra New £55  
SMC Elite 16 Ultra Combo £65  
\*UPTO 12% FASTER\*  
SMC MCA BNC or TP £140  
SMC EISA Elite 32 Dual Channel £474  
2 X BNC or TP £474  
Intel Ether Express BNC or TP £80  
Intel Ether Express 16 Combo £119  
M-Tec NE2000 BNC & TP £40  
M-Tec Arcnet 16 Bit Card £79  
M-Tec Pocket Adaptor £99  
D-Link Pocket Ethernet £149  
Madge 16/4 TR £399  
Please call for prices on any cards not listed.

## Microtechnics, connecting user to user.

Since 1987 Microtechnics have consistently made available the latest in network technology. Providing you the customer with the highest quality products with the best components at the most competitive prices always supported by technically certified personnel. And backed by multi million £ network distributors like Azlan, Frontline, Merisel & CPU. You won't find a better assurance.

## Expect only the best from Microtechnics networking.

- Established network experience since 1987.
- Second to none pre & post sales support.
- FREE on-site consultancy. We will be happy to accurately assess your networking requirements.
- Full installation on local & wide area network connectivity.
- All major brand components available.



Authorised dealers for Novell, Compaq, Hewlett Packard, US Robotics, Panasonic, Synoptics Hayes, 3COM etc.

Authorised engineers for Novell, Hewlett Packard, Compaq, & Synoptics. Novell certified engineers. CNE & ECNE & we have now been awarded the position of Lotus Business Partner.



Minimum of 1 year RTB warranty to full network support contracts available.

Same day delivery in selected areas available.

Local government and educational volume discounts available.

Consultancy, Installation, Training & Support are all available from us.

Microtechnics, connecting user to user, & businesses to profit.

tel: 01252 724446  
fax: 01252 713990



## Questions & Answers

### Printer sharing under Netware

In a recent *Networks* column, in the "Questions & Answers" section, referring to memory problems you said: "Remember that under Netware, printer sharing to and from a Windows workstation can be problematic to say the least."

I am presently studying Novell Netware 3.12 and 4.1 to achieve the CNI certificate. I am using a simple network consisting of three computers: two clients and a server. I have tested printing with a dedicated print server and the PSERVER.NLM for a period of six months with Netware 3.12 and have encountered no difficulties whatsoever, either with Windows for Workgroups or with standard Windows 3.1.

As I am a novice Netware student, it would be a great help if you could explain the problems in Netware print sharing. Since Netware is widely used, I think it would be of interest to other readers of your very rewarding column.

**Kalevi Nyman, Norrtälje, Sweden**

*Thanks for the compliment, Kalevi. Actually, what I was getting at in my reply to the letter which you read, was the fact that although using a Netware printer is simplicity itself (whether it is run from the file server, acting as a print server, or from a dedicated print server), it isn't the easiest thing in the world to service a print queue from a Windows workstation by loading RPRINTER on top of DOS and under Windows.*

*Fortunately, people can now escape this problem simply by upgrading to Windows 95, which contains a Novell-type print server. For those not lucky enough to be running under Windows 95, there is a new version of RPRINTER which, although a little slow, will run under Windows 3.x.*

### SCSI drive replacement

I need to move a 1Gb SCSI drive out of a Netware 3.12 server in order to replace it with a 2Gb SCSI drive. I have enough memory to do this. The old 1Gb drive already has a new home, but I want to get the data off it as simply as possible. What method would you recommend — preferably the easiest way possible?

**TonyG@cix**

*Back up: not once, not twice, but three times. I always recommend this many backups whenever you're going to do anything which might just possibly have an affect on your data.*

*Now, add the drive to the SCSI bus (say it's drive 1, with the original as drive 0). Using FDISK, partition some of it into a DOS partition to take all the Netware DOS files, and DOS itself. Remember that it is not possible at this time to make this partition active, since the drive is recognised as the secondary drive. Now format the partition with the /s switch to add the DOS system files, making sure that you have a copy of FDISK on the floppy. Now format a floppy disk with the /s switch so that you have a bootable floppy.*

*Start netware so that the server comes on line, and at the console, load the install module.*

*Partition the new disk so that you have a partition of exactly the same size as the old drive. Now, since you are using SCSI (which includes its own hot-fix area) create another partition which uses up*

*the rest of the drive space. Bear in mind that when you do this, you can decrease the hot-fix area, since SCSI already has one allocated. Now mirror the old drive and the first new Netware partition. Go away for as long as it takes to establish the mirror — at this point, lunch might be a good idea.*

*Once the mirroring has taken place, make sure there are no users connected, nor open files, and break the mirroring arrangement.*

*Now, down the server and remove the 1Gb disk, remembering for the sake of tidiness to reallocate the SCSI to device 0 on the new disk. Then boot the server with the floppy disk you prepared earlier. Run FDISK and mark the DOS partition on the new drive as active. Remove the floppy disk and reboot the server.*

*Your system will now start as normal. Once the server has started, all you have to do is use what's commonly known as drive spanning (actually partition spanning) to add the extra unallocated Netware partition on the new disk to the first, original partition. And bingo! — you now have a 2Gb Netware drive.*

### Wiring up a LAN

I've been asked to specify a network wiring system for quite a large LAN (probably about 30 users). How should I do it?

**SimonT@cix**

*Firstly, you need to consider where the desks are going to be in a couple of months' time, and the answer to that is: just about anywhere. So put in LAN cabling (Unshielded Twisted Pair since nobody's using thin ethernet for larger installations any more) and pluggable points behind where you think the plants, filing cabinets, coffee machine and such like are going, as well as behind the desk positions — even put one or two in the kitchen.*

*Make sure that you don't penny-pinch and connect only four of the cables in each connector. Do connect all eight because in future, you could use 100Mbit/sec networking for no extra outlay in cabling over certain segments, if you subsequently discover data transfer to be slow. While you are wiring the network cabling, remember that you can get the telephone wiring installed simultaneously, by the same people.*

*If you're really circumspect, you might plump for an integrated wiring system so that a given cable could carry either telephone or data communication at any specified time. This means that you should neither run out of telephone nor data points since any connection can do either job.*

*Try to arrange for the same generous spread of mains outlets. And don't forget that the trend is no longer to plug a monitor into the system case: they tend nowadays to be plugged directly into the wall. Don't forget desk lights, printers, modems, possibly other external devices like tape drives and removable cartridge drives. I'd suppose that each desk should have a minimum of four or five power sockets available. And add to the specification from there. Remember too that the server will need a few extra sockets, and budget for a good UPS so that the server will work continuously.*

Machines in sunlight can cause problems, too. Apart from the heating consideration and the bright light flooding out screen images, you may find that users with graphical user interfaces find their mice performing erratically. This is

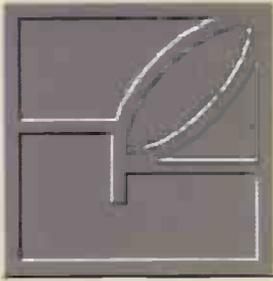
because the mice are optical and sunlight leaks through the cases, giving false signals to their optical detectors. Move the mouse out of the sunshine, or paint the inside of the case (black), or change the mouse. This should solve the problem.

### PCW Contacts

Arcada 01628 771299

Stephen Rodda is an independent computer consultant specialising in DTP and networking. He can be contacted as [the\\_bear@cix.compulink.co.uk](mailto:the_bear@cix.compulink.co.uk)





## Face facts

**The look of your desktop can greatly enhance the enjoyment you get from using your machine. Chris Cain shows how to give your Mac a facelift.**

One of the best things about Windows 95 is how much better it makes the PC look and feel. But so as not to let us Mac users be outdone, especially by Microsoft, I'll show you how to give your Mac OS a facelift: there are hundreds of commercial, shareware and public-domain programs to brighten up your desktop. But first, let me bring you up to date with the latest developments.

The biggest recent event in the Mac world was the arrival of the first range of PowerPC-based PowerBooks. Comprising both full PowerBooks and PowerBook Duos, they offer the highest level of power and portability yet from Apple.

Specifications include either a 100MHz or a 117MHz 603e processor, making them faster than many desktop Macs, including the new 5200. Each comes with a minimum 8Mb of RAM, 500Mb hard disk, and either a 9.5in greyscale or a 10.4in colour screen, supporting 256 or thousands of colours, depending on the model. Lithium Ion battery technology provides

between three and five hours of use, and there's even AppleTalk-compliant infra-red communication built in.

For those who don't quite need the power of the 603e, a new 680LC40-based PowerBook, the 5300, has been unveiled. For a full review, see this month's *First Impressions* (page 61).

### Sound Manager 3.1

Existing Mac users will be pleased to learn that the new version of Apple's Sound

Manager, incorporating native PowerPC code, has arrived. Sound Manager is that part of the Mac OS which deals with audio recording and playback in all its forms. The new version 3.1 provides better performance all round, and there are vast improvements when it is used with PowerMacs.

Sound Manager's first notable new feature is support for two additional audio-compression formats: IMA and  $\mu$ Law (pronounced "mu-law"). The IMA format is based on a standard proposed by the Interactive Multimedia Association and can compress 16-bit sound with a ratio of 4:1. IMA is particularly good at compressing CD-quality music for integration into QuickTime movies.

The  $\mu$ Law codec is an international standard for compressing voice-quality audio, typically 16-bit at 8kHz, with a 2:1 ratio. It's often used in telephony applications and on the Internet as the encoding format for .au sound files.

Perhaps the most significant change is the inclusion of more native PowerPC code. Previously, Sound Manager was written entirely in 68000 code and ran under the 680LC40 emulation on PowerMacs. This could drastically slow the machine down during a sound-intensive task, and the effect was especially noticeable in multimedia applications and games with music soundtracks that

played through the action. With its improvements, the new version is between four and seven times more efficient, enabling applications to do much more while sound is playing or recording.

Thanks to a number of bug-fixes, this system extension is more robust too, and Mac OS alert sounds will no longer freeze the machine while it's playing — Sound Manager 3.1 supports asynchronous alert sounds.

I've been running a beta test version of Sound Manager 3.1 for the last three months on two different

Sound Manager 3.1 CPU Usage		
Playback on 6100/60	Emulated 68k	Native PowerPC
8-bit, mono	5%	1.6%
8-bit, mono, w/sample rate conversion	12%	2.2%
16-bit, stereo	13%	1.9%
16-bit, stereo, w/sample rate conversion	26%	2.3%
16-bit, stereo, w/sample rate conversion, IMA	41%	6.6%

### Utility of the Month

This month's award would have gone to Greg D. Landweber's wonderful Aaron extension: installing it has totally transformed the look of my desktop and it's amazing what 3D shaded buttons and windows can do. But as it's not really a utility, I've given the award to the Stuffit Expander from Aladdin Systems.

Downloadable from eWorld, Aladdin's Internet Home Page and any other good Mac bulletin board, Stuffit Expander can be used to decompress archived files in the popular Stuffit and Compact Pro formats. It will unencrypt Internet files that have been "encoded" using BinHex and MacBinary formats, and when combined with another product called DropStuff with Enhanced Expander (also available from the Internet) it will additionally cope with AppleLink, Zip, Arc, Gzip, Unix .Z compression and unencoded files. In short, it's the best drag-and-drop compliant decompression util available.

If you're keen to find these shareware programs and try them for yourself, the address of Aladdin's Web Page is <http://www.aladdinsys.com>.

PowerMacs. The difference between it and version 3.0 is noticeable, particularly on Marathon which seems to move more smoothly than before. I highly recommend it and you can download it from Apple's Web Servers.

Another impending new addition to the Mac OS is a native edition of SCSI Manager. I've been running a beta release of this too for a while now, and have enjoyed definite performance gains with it installed. This SCSI Manager, plus Sound Manager 3.1 and other system refinements, are likely to make up the next System 7.5 Update disk.

Finally, news just in reveals that there may be compatibility problems with some third-party Quark Xpress extensions running on a 9500. Due to the nature of the 604 and its use of cacheing, any extensions which use self-modifying code (a bad programming habit) may break when run on the new system. Apple UK says that during tests only three of some 40 additions caused problems and all used 68k code. However, if you rely heavily on such an extension and are thinking of upgrading, it may be wise to contact the manufacturer to check that it will run.

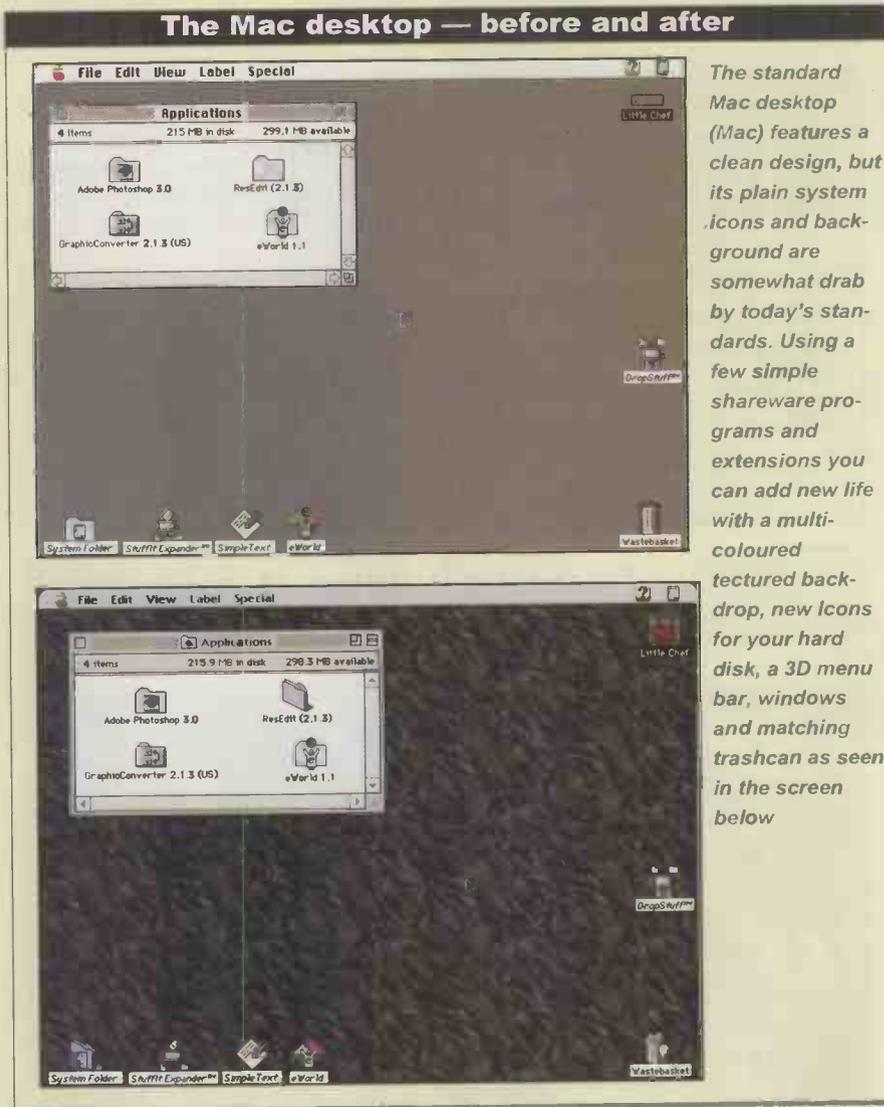
### The right image

While Microsoft has been steadily improving the look and feel of Windows, it's fair to say that Apple has neglected the Mac's on-screen appearance. It's true that System 7.5 is one of the best-looking GUIs around, but it's nowhere near as customisable as the competition. All you get is a small selection of desktop patterns and the option to change the system font — there's no standard way to install a proper backdrop or change the way the windows look.

Apple is aware of this and will be addressing many points in the next release of the Mac OS (codenamed Copland). But there's no need to wait — several public domain, shareware and commercial utilities are available to help dress up your desktop.

The right background image can make all the difference to your desktop, be it a simple pattern or a work of fine art. One of the best ways to change it is to use the popular shareware package, Desktop Textures Suite. This comprises a Texture Installer and one or more data files filled with pretty patterns.

To install a new texture you double-click a data file, which loads the installer and allows you to browse through a collection of textures. When you find one you like, clicking "Install" sets it up as your



*The standard Mac desktop (Mac) features a clean design, but its plain system icons and background are somewhat drab by today's standards. Using a few simple shareware programs and extensions you can add new life with a multi-coloured textured backdrop, new icons for your hard disk, a 3D menu bar, windows and matching trashcan as seen in the screen below*

backdrop until you decide to change it. Newer versions of Desktop Textures feature a Texture Randomiser, which will change your background every time you restart.

For those who want a picture rather than a repeated pattern, Berkeley Systems, of After Dark fame, makes a product called Screen Posters. There are two versions currently available, Marvel and Star Trek, which will fill your screen with comic-book heroes or images from the Final Frontier. Screen Poster images are JPEG-compressed to provide maximum quality with the minimum of RAM requirements. Although the images are in full 24-bit colour, Screen Posters will apply dithering to make them presentable at lower bit depths. You can even use your own images by saving them as JPEG files and dropping them into the Screen Posters folder.

Other desktop pattern programs worth a look include BackSplash, an extension that places a PICT file in the background, and Before Dark.

An interesting piece of shareware for customising the look of the user interface is Greg's Buttons. Now on version 3.7.2, this often-updated Control Panel lets you change the colour and appearance of dialogue boxes, menus and windows. Options include a 3D bas-relief metallic look for buttons, and a choice of colours for window frames, menu bars and menu text items. Five minutes with Greg's Buttons can transform your system's appearance, but beware: going overboard with the colouring can produce truly horrible results.

The author of Greg's Buttons, Greg D. Landweber, has also recently released a new extension called Aaron (presumably named after Copland, the American composer). Dropping it into your System Folder and restarting will give you a chance to see what Copland will look like before it ships. Greg has taken all the new OS elements seen in preview screenshots, such as a 3D trashcan, new-look window frames and smart standing folder designs, and put

**Giving your Mac a makeover**



Freshen up the look of your dialogue boxes, menus and windows with the shareware *Greg's Buttons*



**Tasha**

them into a small program. The result is a much improved interface. It's surprising what a modest alteration can do — check out the before and after screenshots [page 309] to see what a difference it makes.

**Icon do that**

Backdrop textures and colourful windows are important but they are only part of the visual desktop experience. Icons are another main desktop feature, and there are plenty of well-drawn ones to be found on bulletin boards and public-domain disks. Popular icon collections include characters from *The Simpsons* and *Looney Tunes* cartoons, and faces from old and new generations of *Star Trek*.

Adding a custom icon to a program or your desktop is easy. Once you've chosen the icon you want, select it and call up its information box using Command I or Get Info (from the Finder File Menu). Now highlight the picture of the icon in the box and copy it to the clipboard in the normal way. Bring up the Info box for the icon you want to replace, then paste the new one over the picture inside. Simple. Users who want to create their own, original icons can use a package such as Photoshop and paste in other icons in the same way. This is not always successful though — Apple's ResEdit is a much better bet.

Another way to bring the personal touch to your Mac is to assign sounds to functions, such as emptying the trash and ejecting a disk. If you like the idea, check out a little package called Kaboom, available from Softline.



*Desktop Textures* is one of the most popular ways to bring your desktop into the nineties



Popular replacement icons for your favourite programs include characters from *Star Trek: The Next Generation*, and *The Simpsons*

**PCW Contacts**

Chris Cain welcomes all comments, questions and suggestions from Mac users. He can be contacted via the usual PCW address or by email as [chris\\_cain@pcw.ccmil.compuserve.com](mailto:chris_cain@pcw.ccmil.compuserve.com), [chris@cix.compulink.co.uk](mailto:chris@cix.compulink.co.uk) or [caln@eworld.com](mailto:caln@eworld.com)

Apple 0181 569 1199  
Berkeley Systems' **Screen Posters** costs £10.99 and **Kaboom** £39.99. Both are available from Softline on 0181 401 1234

**Sound Manager 3.1** is downloadable from the software section of Apple's Web Page on <http://www.apple.com>



Your sign of quality



THE ESSENTIAL BUYERS GUIDE

Drop into



for Internet Email & file transfer

- > Internet email
- > Offline Mail Readers
- > Usenet
- > Files Library
- > Realtime conferences
- > Technical support & information

Subscriptions start at £5.00+VAT per month  
Novice ? Call (0181) 224 5555 for help

Immediate access: **0891 615 010** 300-14400  
Subscribers: **0181 224 6810** 8N1 ANSI, 24 hours

0891 calls charged per minute at 39p cheap rate, 49p at all other times.  
CafeNet, PO BOX 150, E. Molesey, Surrey, KT8 9YW

## TRAVEL ABROAD WITH A FAX/MODEM?

### THE PROBLEM



If you're an executive who regularly travels abroad with a notebook PC you will recognise the problem. **TeleAdapt** are the experts in the field of modem connectivity to any form of telephone network, allowing data and fax communication from any location around the world.

- Foreign hotels - **TeleDaptors™**
- Digital Phones - **TeleSwitch™**
- Pay Phones - **TeleFast™**
- Hard Wiring - **Executive TeleKit™**
- Modem Cellular Interfaces - **Solutions for analogue & GSM networks**

Why not give our specialist team a call & they will be pleased to assist you with a solution to **any** communication problem.

### THE SOLUTION



TeleDaptors™

UK: TeleAdapt Ltd • Leeway House  
Leeway Close • Hatch End  
Middlesex • HA5 4SE  
Tel: +44 (0) 181 421 4444  
Fax: +44 (0) 181 421 5308  
CompuServe: 100111, 2713  
Internet: teleadapt@delphi.com

USA: Tel: +1 408 370 5105  
Fax: +1 408 370 5110  
CompuServe: 72623, 706  
AUS: Tel: +61 (0) 2 966 1744  
Fax: +61 (0) 2 966 1077  
CompuServe: 100116, 637



## Arcus Pro-Stat

"Anyone after a statistics package need look no further than Pro-Stat 3"  
*Personal Computer World, March 94.*

- Integrated statistical guidance
- Comprehensive coverage of methods
- Excellent data handling
- Biomedical & educational user groups
- Editable hypertext
- State-of-the-art algorithms
- Very easy to use, even by non-statisticians

£139 (1 user), £389 (10 user), Site POA  
Version 3.23 for PC

New Windows version available in October

Medical Computing UK  
Tel 01695 424 034 Fax 01695 424 645  
Call for your free information pack ...

## LINUX + X-WINDOWS

from £26.00 inc VAT

- Bulletin Board £25.00PPPA
- Support Desk £POA
- Internet Recovery £POA

- Operating System .....£25.95 inc VAT
- Linux+X-Windows.....£39.00 inc VAT
- OS + X + Source .....£50.00 inc VAT
- Linux Guides from.....£3.00
- Linux CD ROM
- Internet Tools
- Linux Developer Resource
- Archives
- Ingres for Linux.....£95.00 inc VAT

A Unix System 5 clone for 80386/486 cpu's. Networking including tcp/ip and nfs.

DOS emulator. X-Windows and Full source code.

V1.0 Upgrade Available Now!

Full documentation and install guides available.

Full information on request. All prices include VAT. p&p extra

3.5" Pre-Formatted Diskettes (1.44Mb DSHD)

10	.....£6.50	200	.....£105.00
50	.....£30.00	500	.....£235.00
100	.....£60.00		

Hardware: INT Data/Fax Modem 14.4kbs with MNP 2-5.....£116.00 inc VAT  
INT Voice/Data/Fax Modem 14.4kbs with MNP 2-5.....£146.00 inc VAT  
IDEK LIYAMA 15" COLOUR MONITOR.....£305.00 inc VAT  
IDEK LIYAMA 17" COLOUR MONITOR.....£669.00 inc VAT

CHAOS Associates  
6 The Seagulls, Lee-on-Solent  
Hampshire PO13 9QD

Enquiries: 01705 553281  
Fax: 01705 553786  
Company No. 2499488  
VAT No. 544224268

L I N U X

## SPECTRUM TRADING (UK) Ltd

Computers - Peripherals - Multimedia Systems & Accessories

CYRIX UPGRADE		386 TO 486 - 386 DX	
DX	16MHZ.....TO	486	32MHZ.....£135
DX	20MHZ.....TO	486	40MHZ.....£135
DX	25MHZ.....TO	486	50MHZ.....£155
DX	33MHZ.....TO	486	66MHZ.....£185
386 SX			
SX	16MHZ.....TO	486	32MHZ.....£135
SX	20MHZ.....TO	486	40MHZ.....£135
SX	25MHZ.....TO	486	50MHZ.....£155
PSION SERIES 3A			
	512K.....		£220
	1Mb.....		£249
	2Mb.....		£299
COMPAQ PRESARIO			
	528.....		£1375
	742.....		£1240
	772.....		£1497
	942.....		£1297

Other PC Upgrades, call for details. All prices exclude vat at 17½% and delivery. Open Monday to Friday 5pm to 10pm Saturday and Sunday 10am to 10pm.

CALL NOW TEL/FAX: 0181 470 8357  
SPECTRUM TRADING (UK) LTD, 75 CHURSTON AVENUE, PLAISTOW, LONDON E13 0RJ

## HARD DISKS



### MICROPOLIS

2.0 GB	£627
4.3 GB AV	£903
9.1 GB AV	£1649

## MEMORY

### 72 Pin SIMMs

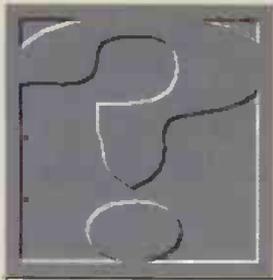
4 MB	32bit	£89
4 MB	36bit	£99
8 MB	32bit	£189
8 MB	36bit	£199



EDO Memory - £phone

Price exclusive of VAT & delivery

ALPHA BUSINESS COMPUTERS  
01734 758808



## Any questions?

If you've got a PC problem or think you could help other readers out, contact **Frank Leonhardt**.

### Getting the boot

There is one problem about which I get more calls than any other: the desperate soul on the other end of the line has been locked out of their hard disk for some reason or other. The machine won't boot. Their files are inaccessible and they are not very happy about it.

The problem is nearly always due to something in the machine's operating system having been changed (either deliberately or accidentally). So the machine's operating system, thus amended, is terminally confused.

A PC's operating system is normally stored on the hard disk (although it can be stored on a floppy). What generally happens is that the PC searches its floppy drive for a disk containing an operating system, and if it finds one it will run it. If the floppy drive is empty, it will attempt to run an operating system from the hard disk. This sequence can often be reversed by editing the BIOS configuration. The method for achieving this varies between machines, so you should check your computer's manual for details.

The first step in repairing a corrupted operating system on a hard disk is to boot a working operating system from a system floppy disk. This is often referred to as a boot floppy — it pays to have one handy.

The normal way to get hold of a boot floppy is to make one using the method appropriate for your operating system — and they are all different. For OS/2 (3.0) you should run the program "Create Utility Diskettes" which is found in the System Setup folder under the OS/2 System icon. Just follow the prompts and have a supply of blank disks ready.

For Windows NT users, creating a boot floppy disk is not that simple. Nevertheless, Windows NT has many features designed to make recovery easy. In the first instance there is a boot-up option to revert to a previously known working version of the system. If this fails, because the hard disk is corrupted, you will have to boot from the installation diskettes. Before re-installing everything you will be given the option to repair a damaged system in

several ways. I've never known this to fail, but you can improve your chances still further by making a recovery disk which contains important setup information. This is achieved using the RDISK.EXE utility which can be found in `WINNT3x\system32`.

Windows 95 has a utility for creating a traditional boot floppy, but it is well hidden. From the Control Panel select the Install/Remove Programs icon. The far end tab is labelled "Startup Disk", and when selected you just follow the prompts.

Anyone still running plain old MSDOS (with or without Windows) will have to create a boot disk manually. This is how:

1. Insert a blank disk into drive A. It is important that it is drive A, because your machine will not be able to boot from B.
2. At the command prompt, type  
`FORMAT A: /U /S`

If it complains about the /U parameter, omit it when you try again. The /U parameter only applies to recent versions of MSDOS. This process will format the floppy disk, erasing anything which may already be stored there. It will then transfer important system files to the new disk.

3. Using the DOS copy command, copy the following files to A:\. They are normally found in C:\DOS.

```
CHKDSK.EXE
EDIT.COM
QBASIC.EXE
DEBUG.EXE
UNFORMAT.COM
FDISK.EXE
FORMAT.COM
SYS.COM
XCOPY.EXE
UNDELETE.EXE
```

Older versions of MSDOS don't include some of these programs. If QBASIC.EXE does not exist, copy EDLIN.COM instead. Other missing files can be ignored. If there is space on your disk, copy SCANDISK.EXE too, if you have it.

Next, make a directory on drive A: and copy AUTOEXEC.BAT and CONFIG.SYS to it. The sequence to do this from DOS would be:  
`MD A:\BACKUP`

```
COPY C:\AUTOEXEC.BAT A:\BACKUP
COPY C:\CONFIG.SYS A:\BACKUP
```

This collection of files isn't exhaustive, but it should be enough to get you started if the worst should happen.

Once you have created your boot disk, write-protect it and keep it in a safe place. If you find you are locked out of your hard disk, it will help either you or someone else to repair your system. If you haven't got a boot floppy to hand, an engineer will have to turn up with one, in person, which generally costs somewhat more than instructions over the phone.

### VLB card doubts

"I have just upgraded my system with a new 486DX2-80 motherboard with 16Mb of RAM, replacing my original trusty 386SX with 12Mb of RAM and a Cyrix upgrade chip. Naturally, all my existing I/O expansion cards are the traditional 16-bit type but I decided, after a successful transformation, to change my standard 16-bit multi I/O card for an all-singing, all-dancing (so it claims) VLB multi I/O card (CMD chipset).

I ran Wintune 2.0 and the PCtools system consultant before and after. Imagine my surprise on finding that the data transfer rate is lower with the new 32-bit card than my old 16-bit card.

I have two WDCaviar drives on my system: the Master reports to be a Mode 3 drive, and the slave reports Mode 1.



Data transfer problems caused by a video card like this one could be down to driver software

## Fonts found

In July's Computer Answers we published a letter from B.G.Joyce-iy1i9198@lmu.ac.uk, who was suffering from a mysterious loss of printer fonts when installing Word 6 for Windows.

Since then, several readers have contacted me, all suggesting the same solution. If you don't have a graphics-compatible printer connected to your system, Word won't allow you to use graphics fonts in your document, but this is easily cured by installing a graphics printer, or at least telling Windows that you have one.

Paul Fitzgibbon (Paul.Fitzgibbon@p11.f302.centron.com) had a different idea: apparently WIN.INI is limited in size. When Word installed it might have added too much and pushed WIN.INI over the limit, thus making its font definition lines inaccessible. The solution would be to remove unnecessary entries.

Thanks to all those who wrote, mailed, faxed or phoned.

*improve matters dramatically. If this delay isn't enabled, the processor can spend ages fumbling around while it transfers data from the card.*

*With a PCI bus, an IDE adaptor has the option of transferring data through DMA. This is actually around 20 percent faster than the 11Mb/sec which can be achieved using the CPU to read data from an E-IDE VLB card.*

*Given unrestricted access to the*

*address space on a VESA local bus card at 33MHz, the CPU can transfer and manipulate data at four times the speed of an 8MHz ISA bus. In most instances this can only help, so don't be put off. VESA video boards can be considerably faster than ISA ones.*

## Play cache or check

"I have a 486DX2 66MHz PC with 16Mb of standard RAM. My machine also has a VL Bus and 128Kb of cache RAM. I would like to know whether it is worth buying another 128Kb to make a total of 256Kb, or even upgrading to 512Kb? Would system performance be improved significantly for the use of DOS-based games? (This is its primary use.) For example, some graphically intense programs appear to run slightly slower than I would have expected. Is this related to the size of the cache RAM? Or is it related to the speed and memory of my 1Mb VLB Cirrus Logic 5424 graphics card."

**Andrew Little**

**100633,3441@compuserve.com**

*It isn't really possible to say whether extra cache RAM would help with your configuration or not. According to the academic theory on cache sizes, going from 128Kb to 256Kb should only make a marginal difference to the machine's performance.*

*However, some cache controllers like to have a block of cache for each bank of SIMMs, so having half your cache missing could be significant.*

*The graphics card you are using should not be causing any bottleneck.*

*The CPU itself is one feature which can make a huge difference to the performance of graphics-intensive games, and 3D simulations in particular. Regular readers will probably notice that this isn't my usual tack, as I normally stress the importance of fast peripherals before the processor for most applications. Games and graphics are the exception. You could always start saving up for a P6.*

## How do I get on the Web?

Lots of people want to know how to make a fortune by becoming Internet service providers. I never tell them of course, but it does help to be a networking expert; if you aren't one of these, you will have to hire someone who is because I'm not explaining it here, or over the phone. It also helps a lot to have started ten years ago.

A more reasonable request is for details on how to get your own personal World Wide Web page. There are two versions to this story. Firstly, it is actually free if you can persuade anyone with a machine permanently connected to the Internet to let you have a bit of space. Most pages belonging to individuals and non-profit organisations are found on space loaned by a college or university.

Secondly, if you have some commercial use in mind, or have a lot of data you want to make available, then you will probably have to pay for space on a bureau computer. There are wild stories about large Internet providers charging well in excess of £500 per annum for this service — unfortunately they are true. But there are others offering 5Mb of space at rates of around £25 a month or less. I don't dare list companies and prices here as anything to do with the Internet is, by nature, volatile. Just try shopping around.

Once you have your file area, it is actually very easy to publish pages: type whatever you want with a text editor using a special mark-up language, called HGML, to identify the special formatting you require. HGML, which is similar to SGML, is not difficult to use. If you prefer, there are several editors available which allow you to format your documents on-screen and will produce the HGML-format text file for you.

The final stage is to upload your file using FTP or some other file transfer mechanism and tell all your friends where to look.

## PCW Contacts

Frank Leonhardt is an independent computer boffin who can sometimes be contacted on 0181 429 3047 or via email as [frank@dircon.co.uk](mailto:frank@dircon.co.uk) or [leo2@cix.clink.co.uk](mailto:leo2@cix.clink.co.uk). Letters may be sent to PCW at VNU House, 32-34 Broadwick Street, London W1A 2HG, but individual replies are not normally possible. Please do not ask about cover disks or CD-ROMs.

# A+P COMPUTERS LTD.

QUALITY! RELIABILITY! GOOD SERVICE!

NOVELL - SCO UNIX - LANTASTIC NETWORK

Authorised Dealer

MODEL	AP386SX	AP486SX	AP486/66DX	AP586/75	AP586/90
CPU	80386SX	80486SX2	80486DX	PENTIUM-75	PENTIUM-90
SPEED	40MHz	50MHz	66MHz	PCI-75MHz	PCI-90MHz
RAM	2MB	4MB	4MB	8MB	8MB
MAX. RAM	16MB	64MB	64MB	128MB	128MB
CACHE		256KB	256KB	256KB	256KB
FLOPPY	1.44MB	1.44MB	1.44MB	1.44MB	1.44MB
HARD DISK	130MB	420MB	420MB	520MB	520MB
VIDEOCARD	1MB SVGA	VL 1MB	VL 1MB	DS PCI 2MB	DS PCI 2MB
SVGA MONO	£445	£615	£655	£985	£1,075
SVGA COL.	£525	£695	£735	£1,065	£1,155

ALL PC SYSTEMS INCLUDE KEYBOARD, MOUSE, TWO SERIAL, ONE PARALLEL, AND ONE GAMES PORT DS-DIAMOND STEALTH 64.

## BEST QUALITY MOTHERBOARDS (0 KB)

80386SX-/33/40MHz 1-16 MB EMS Shadow RAM Half size	£65
80386DX/40MHz (64/128KB CACHE) 1-32MB onboard	£95
80486SX2/50MHz (256KB CACHE) 1-64MB onboard	£150
80486DX2/66MHz (256KB CACHE) 1-64MB onboard	£175
80486DX4/100MHz (256KB CACHE) 1-128MB onboard	£255
Pentium 75 (256KB CACHE) 3-PCI, 5-ISA, 1-128MB onboard	£310
Pentium 90 (256KB CACHE) 3-PCI, 5-ISA, 1-128MB onboard	£415

## HARD DISK DRIVES

420MB (13ms) IDE	£115	5.25" 360 KB or 1.2MB	£45
540MB (12ms) IDE	£125	3.5" 720KB/1.44MB	£30
730MB (11ms) IDE	£150	SCSI Toshiba CD ROM (3601)	£255
850MB (11ms) IDE	£165	Panasonic CD ROM (Dual Speed)	£75
1GB (10ms) IDE	£195	Nec/Sony Quad CD ROM	£130

## RAM UPGRADE/CO-PROCESSORS

SIMM 1MB (30 Pins)	£30	KEYBOARDS/FAXES/TAPE DRIVES	£20
SIMM 4MB (72 Pins) (NO PARITY)	£110	102AT KEYBOARD	£150
SIMM 8MB (72 Pins) (NO PARITY)	£215	US ROBOTICS SPORTSTER 14,400 F/M	£195
387SX-33MHz	£49	TAPE STREAMER 420MB	£135
387DX-33/40MHz	£59	EXTERNAL KIT	£90

## CASES

Slim Case + 200W PSU	£59	DISPLAY ADAPTERS	£59
Desktop + 200W PSU	£59	Trident 1mb svga Card	£65
Mini Tower + 200W PSU	£59	VL-Cirrus 1mb svga card	£75
Mid Tower + 220W PSU	£69	PCI-Cirrus 1mb svga card	£105
Full Tower + 220W PSU	£89	VL-Diamond Stealth 64 1MB Dram	£155
		VL-Diamond Stealth 64 2MB Dram	£155

## POWER SUPPLY

150W PSU	£45	14" VGA MONO	£99
200W/220W PSU	£45	14" AOC SVGA NI LR COL	£179
220W IBM AT PSU	£75	17" AOC SVGA COL. NON-INT	£525

## MEMORY EXPANSION, I/O & SOUND CARDS

AT I/O 2S/1P/1G	£21	RS232 Dual Ports	£18
Multi-I/O Fdd/Hdd 2S/1P/1G (16550)E25	£25	Dual Parallel Ports	£18
Sound Blaster Pro 16 Sound Card	£79	Sound Blaster AWE 32 (full kit)	£195

## PC NETWORKING & MULTI-USERS

KINGSTON NE2000 COMBO	£50
WD/SMC 16 BIT ULTRA	£59
3COM ETHERNET III	£79
ETHERNET POCKET ADAPTER includes PRINTER PORT	£169
LANTASTI/II version 6.0 DOS + WINDOWS per NODE	£79
LANTASTI Starter Kit (2 x AE-2 cards, software & cabling)	£329
NOVELL 3 - 5 USERS	£479
NOVELL 3.12 10 USERS	£1059
NOVELL 4.01	POA
WINDOWS FOR WORKGROUPS 3.11	£59
MICROSOFT OFFICE - STANDARD	POA
MICROSOFT OFFICE - PROFESSIONAL	POA
LOTUS 123 v3.4 DOS	POA
LOTUS123 WINDOWS	POA
WORDPERFECT FOR WINDOWS v6.0	£75
OTHER SOFTWARE AVAILABLE - PLEASE PHONE	

## PRINTERS/VIDEO EXPANDERS/NOTE BOOKS PC

CANON BJ-30	£159	HP 4L Laser	£425
EPSON STYLUS COLOUR	£369	HP 4 PLUS	£995
HP 540	£229	HP 5P	£639
HP 660 C	£349	PANASONIC 6100 GBDI	£299

Monitor Tester for Mono CGA, EGA, VGA, TTL & ANALOG	POA
VOPEX to drive several monitors at the same time	POA
VDU & Keyboard Amplifier to drive VDU & Kbd. up to 500ft away	POA
Palm-Top & Note-Book Personal Computers	POA

OPEN: MONDAY-SATURDAY

ALL PRICES EXCLUDE VAT (at 17.5%) & CARRIAGE

Specification and prices maybe changed without notice.

ALL PRODUCTS INCLUDE ONE YEAR WARRANTY. WE INSTALL NETWORK, CABLING AND BUILD COMPUTERS TO YOUR SPECIFICATIONS. WE ALSO REPAIR & UPGRADE PCs. PLEASE CALL FOR LATEST PRICE, SPECIFICATION AND OTHER UNLISTED PRODUCTS.

(OCT 1995)

# A+P COMPUTERS Ltd,

35 WALNUT TREE CLOSE  
GUILDFORD, SURREY GU1 4UN

Tel: 01483 304118 (6 Lines)

Fax: 01483 304124

# WHY PAY MORE!

Computer Supplies at Wholesale Prices

## Laser Toner Cartridges New Drums

Apple Laser Writer 3.2NT, Brother HL8 Series	£40.00
Canon LBP8 Series, HP2 Series (92295A)	£40.00
Apple Laser Writer LS, NT, NTR, Brother HL 4 Series	£40.00
Canon LBP 4 Series, HP 2P (92275A)	£40.00
HP4L/ 4ML/ 4MP	£37.00
Hp4/ 4M	£59.00
HP35i/ 4 Si	£68.00
HP 4V	£95.00
Oki 400-800 (Drum £135 Special offer)	£19.00

All makes & Models Stocked +Drums & Fusers. Call us for the best prices

## Remanufactured Toner Cartridges

Apple III, IINT Brother HL8, Canon LBP8	£33.00
Hewlett Packard 11 Series (9985A)	£29.50
Apple Laser Writer LS & NT, Brother HL4	£29.50
Canon LBP 4 Series, HP IIP (92275A)	£29.50
HP4L (92274A)	£33.50
HP4M (92298A)	£48.00
HP4V (C3900A)	£88.00

All Remanufactured Toners are triple tested with a 100% guarantee. If your machine is not listed call us for pricing.

Inkjet Cartridges		Inkjet Refills	
HP 51626A	£12.50	HP 51626A	£6.50
3 Colour 51625A	£14.50	HP 51625A	£15.00
Canon Bj 10E	£11.95	Canon Bj 10E	£6.00
Bubble Jet Bj 481	£10.50		
Bubble Jet Bj 642	£10.50		

Most makes stocked. Call for details

## High Quality laser & Inkjet Paper & Labels

A4 White Laser/Inkjet Paper	80	£6.50	Labels
500 sheets per pack	90	£8.50	A4 pages 100 sheets
Price shown is per pack	100	£9.50	only £14.00
A4 White coated Inkjet paper	90	£10.95	per box
	100	£14.50	Labels per page

Very high quality paper same as branded.

1,2,4,6,8,12,14,16,21

## Continuous paper

Labels per box	per box 2000 shts
one up 4" x 2"	1500 £11.50
one up 4" x 1.5"	2000 £8.90
one up 3.5" x 2"	1500 £9.20
one up 3.5" x 1.5"	2000 £8.25
two up 3.5" x 1.5"	4000 £18.95
three up 3.5" x 1.5"	6000 £22.50
four up 3.5" x 1.5"	8000 £24.50

## Fax Paper

Kaleidoscope Reclaim	210 x 30	£2.90
Recycled fax paper	210 x 50	£4.30
100% Recycled base	210 x 100	£5.99
216mm width paper	As above	

The Green business Company is an Eco friendly trading company where possible all packaging and supplies are able to be re-manufactured recycled. Call us for information.

## The Green Business Co.

1 Pavilion Parade, Woodlane, London W12 0HQ Tel: 0181 749 7790 Fax: 0181 741 4135

# CALL 0181 749 7790

Terms & Conditions  
Trading Hours: 9.00AM - 5.30PM (Mon-Fri). Payment must accompany all orders. Telephone credit orders are normally dispatched same day, please allow 5 working days for cheques to clear. We accept: Visa, Mastercard, Access, Delta & Switch. No credit card surcharge (all trademarks acknowledged). Goods offered subject to availability. All prices exclude VAT at 17.5% & delivery at £3.95 (E&OE)

## SCANNERS FROM SCANNER EXPERTS

ALL TYPES OF SCANNER SUPPLIED SPECIALISTS IN AGFA

AGFA Arcus II  
"The scanner professionals use."  
£2499

Used by Universities, Graphic Designers and Printers throughout the world. Integrated transparency module, 12 months on-site warranty, Full Photoshop and Ornlpage Direct are included in the software.

AGFA Studio Scan IIS/  
"Best on Test" ...NOW 3 TIMES FASTER

£849 with Full Photoshop version 3.0 or £775 LE Photoshop Version 2.5  
Microtek, Umax & Sharp Desktop scanners  
DI - Nippon Screen Drum scanners.

AGFA Horizon Plus A3  
Nikon New LS - 4500AF 35mm to 4" x 5" & LS - 1000 35mm Auto - slide feeder now in!

SCANNER EXPERTS  
0973 331992

"Call for a quote"

All prices are subject to VAT and delivery  
Installation service available E&OE

## the Phoenix<sup>75</sup> from Graham Jacobs

From **£375** (+ VAT)

## pentium<sup>®</sup> PROCESSOR

The Phoenix is an upgrade for existing AT clone computer systems. It is based on us re-manufacturing & fitting a new PCI/VLB/ISA motherboard complete with the new intel pentium<sup>®</sup> 75Mhz processor. We have 30 pin to 72 pin adaptors so that in most instances we can use your present memory. We offer a full range of upgrades for most AT class computers and new LEO computer systems based on the Intel micro-processor family from only £195. Memory, Hard Disk and Controller upgrades, FAX/MODEM's (Approved) 14,400 from £99 and 28800 true V34 bis from £199. Finance available (subject to status). Why not give one of our Engineers a call & get help on selecting your upgrade or new computer system. You will not have to listen to music, You will not be held in a stack, because we have 4 lines you probably won't get the engaged signal. Why should you phone us? Since 1990, 1000's have.

(Graham Jacobs has been selling PC's since 1981)

TEL (01332) 20 53 53  
FAX (01332) 20 53 63

Email 1000162325@COMPUSERVE.COM

Units 2 & 3 The Business Centre, Beaufort Street, Derby DE21 6AX.  
Members of PCDMA & NASCAR - Licensed Credit Brokers  
Prices & Specifications Correct at time of going to press E&OE ©1995  
The Intel Inside and Pentium Processor Logos are the registered trademarks of the Intel Corporation

## PRICE BUSTERS 486 £559

MULTIMEDIA OPTION WITH 8MB RAM	£839.00
486 PCI DX2-66 4MB RAM	
540MB HARD DRIVE	
SVGA MONITOR	£599.00

SCSI CABLES IN STOCK  
VISIT OUR SHOWROOM FOR 100'S OF BARGAINS

1000 DIFFERENT CABLES IN STOCK PLEASE PHONE

14400 INTERNAL FAX MODEM £55.00\*

28800 INTERNAL FAX MODEM £130.00\*

\*NOT BUILT APPROVE

2120 BACKUP TAPE £7.95

MINI TOWER CASE £28.00

MIDI TOWER CASE £49.00

FULL TOWER CASE £65.00

8MB £689.00

5 YEAR WARRANTY (1 YEAR RTB & 4 YEARS LABOUR)

## SPECIAL OFFERS

MICROSOFT ENCARTA 95	£24.95
MITSUMI QUAD SPEED CD	£114.95
MOUSE + MOUSE MAT	£7.65
80W MULTIMEDIA SPEAKERS	£34.95
100 DSHD 3.5" FLOPPY DISKS	£24.00
LAPLINK CABLES	£7.95
540MB HARD DRIVE	£125.00
486 SX-50 15A M/BOARD	£65.00
486 DX2-66 MOTHERBOARD	£115.00
SHARER SAWITCH 2-1	£8.95
SHARER SAWITCH 4-1	£12.95
102 PC KEYBOARD	£11.95
MS DOS 6 5.25"	£14.95
486 HEAT SYNC FAN	£5.95

## DISKS

QUANTITY	50	100	500
DSDD 3.5"	£15.00	£25.00	£120.00
DSDH 3.5" FORMATTED	£14.00	£24.00	£115.00

## SPECIAL OFFERS

100 DISKS 100 LABELS 100 CABLE STORAGE BOX & A FREE MOUSE MAT  
WITH 3.5" DSDD DISKS £28.00  
WITH 3.5" DSHD DISKS FORMATTED £27.00

## SCSI WIDE CABLES NOW IN STOCK

CARRIAGE £ 3.50 £ 6.00 £ 8.00 ACCORDING TO PACKAGE SIZE

0181 509 9994 FAX: 0181 509 1430

SHOWROOM MICROTRONICS LTD

THE RED BUILDING 13A/B HOE STREET WALTHAMSTOW LONDON E17 4SD

ACCESS, VISA & SWITCH (NO SURCHARGE)

E & OE PRICES DO NOT INCLUDE CARRIAGE PLEASE ADD VAT @ 17.5%



## A Word in your ear

**The simple word processor is now more akin to a multifunctional app, so many novice users are put off exploring a program's really useful functions. Eleanor Turton-Hill comes to the rescue, focusing on particular features and shortcuts to help you get the most from Word 6.0.**

**W**ord processors have changed beyond all recognition during the past few years. They used to be simple, easy to understand programs with basic screens and a small selection of typefaces and layout functions. Now they're massive multifunctional applications which let you create and combine graphic images, tables and text.

In many ways, word processors are now easier to use than ever before. The interface, thanks to Windows, has made most common tasks far easier to grasp, and there's more online help in case things go wrong.

The major stumbling block for beginners, however, is the sheer proliferation of functions to be found in a modern word processor. Common procedures may be easier to use, but you'll find they're embedded in a massive quagmire of complex features and utilities. In short; word processors are now much, much, bigger. But to the uninitiated, this vastness can be so daunting that much of the application can remain unexplored.

The Windows word processor market is divided between three main packages: Microsoft Word for Windows, WordPerfect for Windows, and Lotus Ami Pro. By far the biggest seller is Word for Windows (currently at version 6.0).

This month, I've taken a look at a range of features in Word, which ought to come in handy no matter whether you use Word daily or are completely new to the package.

### Customising the icon bars

One of the first things you'll need to do when you start Word is to set up your toolbars so that the functions you use most will be readily available.

It's annoying having any more than two

toolbars at the top of your screen, as each one you add makes the working area progressively smaller. To get the ideal combination of buttons simply right-click (use the right-hand mouse button) anywhere on the toolbar at the top of the screen, and a

### Shortcuts

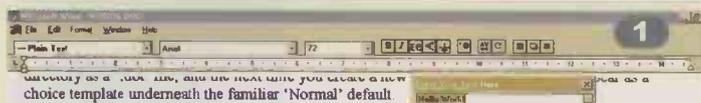
#### Selecting text

- Double-click anywhere on a word to select it.
- Triple-click within a paragraph to select that paragraph.
- Place the cursor at the beginning of an area of text to be selected, hold down the Ctrl key and use the four arrow keys to highlight an area manually.
- Use Ctrl+Shift+End keys to highlight all text from the current point onwards.
- Use Ctrl+Shift+Home keys to highlight all text before the current point.
- Use Ctrl+A to select all the text in the document.
- To select a sentence, hold down the Ctrl key and click anywhere within that sentence.
- Hold down the Alt key and at the same time select an area of the screen using the mouse. This allows you to select irregular shapes, which is useful for deleting graphics from the screen.

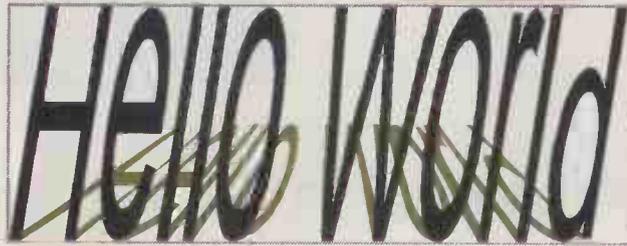
#### Other shortcuts

- Capital letters — Place the cursor on any word and press the Shift and F3 keys. If you hold down the Shift key and keep pressing F3, you'll see the word toggle between three modes as shown below:
  - (1) example
  - (2) Example
  - (3) EXAMPLE
- Place the cursor anywhere in a paragraph and use Ctrl+2 to create double-spaced lines.
- Use Ctrl+1 to turn a double-spaced paragraph back to single spacing.
- To add end-notes (appendices) to a document hold down the Alt and Ctrl keys, and press E. For footnotes, use Alt, Ctrl and F.

## Getting to know Word



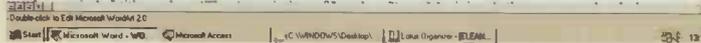
1 *Text enlarged using WordArt*



2 *Autotext saves you having to retype long names*

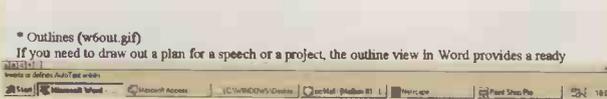
Autotext  
If a certain group of words occur over and over again in a document, this function can save you from having to continually re-type them. For example if you need to refer repeatedly to an organisation with

3 *Outline provides a ready-made structure for making notes*



Autotext  
If a certain group of words occur over and over again in a document, this function can save you from having to continually re-type them. For example if you need to refer repeatedly to an organisation with a long-winded title such as "The Association of London Street Musicians", the name need only be written once. Then, all you need to do is highlight the words and select Autotext from the Edit menu. A dialog box appears allowing an acronym or short word to be substituted for the organisation name. In this case you could use ALSM. Now, all you have to do when you refer to the Association is type "ALSM" and then press F3, and the full title will be inserted.

Outlines (w6001.gif)  
If you need to draw out a plan for a speech or a project, the outline view in Word provides a ready



Outline  
If you need to draw out a plan for a speech or a project, the outline view in Word provides a ready



menu appears. Select Customise and a dialogue box pops up displaying a list of available menus with their relevant button icons alongside. You can browse through the menu categories to find whichever buttons you need — just select the ones you want to use by clicking on them and dragging them over to your existing icon bar.

document, "lethead1" will appear as a choice template beneath the familiar Normal default.

### Playing around with text

The WordArt feature (see Fig 1) allows you to play around with text so that it can be made to sit on its side, climb up the

edge of the page, or even run right off into the distance.

It's easy to set up for a letterhead or poster design: just place the cursor where you want the text to go and select Object from the Insert menu. Then scroll down the list of object types and select Microsoft WordArt 2.0. Click OK, and a small box appears on-screen. Enter your text in the box and click on the Update Display button.

The selection of icons on the left-hand side of the toolbar allows you to manipulate the text in various ways. Fig 1 shows text which has been enlarged, slanted and shadowed. When you've finished playing with the text functions, simply close down the small box and click anywhere on the screen to get back to the normal document view. The box containing text now has handles and can be resized across the page, or even deleted if you want to start again.

### Creating letterheads

One of the most common and useful word processor facilities is the ability to create templates. In Word, these are saved as files with a .dot extension. The most useful application of this is in the creation of document headers, which are used repeatedly when writing letters.

For a simple illustration of this, create a new document and type your address at the top left-hand side of the page. Go into the File menu and select Save As. In the Save File As Type box, select Document Template and enter a name such as "lethead1". The new template is then automatically placed in the winword directory as a .dot file, and the next time you create a new docu-

### Autotext

If a certain group of words is to be repeatedly used in a document, the autotext function (see Fig 2) can save you having to continually re-type them.

For example, if you need to refer repeatedly to an organisation with a long-winded title such as "The Association of London Street Musicians", the name need only be typed once. Then, all you need to do is highlight the words and select Autotext from the Edit menu. A dialogue box appears, allowing either an acronym or short word to be substituted for the organisation's full name. In this case you could use ALSM. Now, all you have to do when you refer to the Association is type "ALSM", then press F3, and the full title will be inserted.

### Outlines

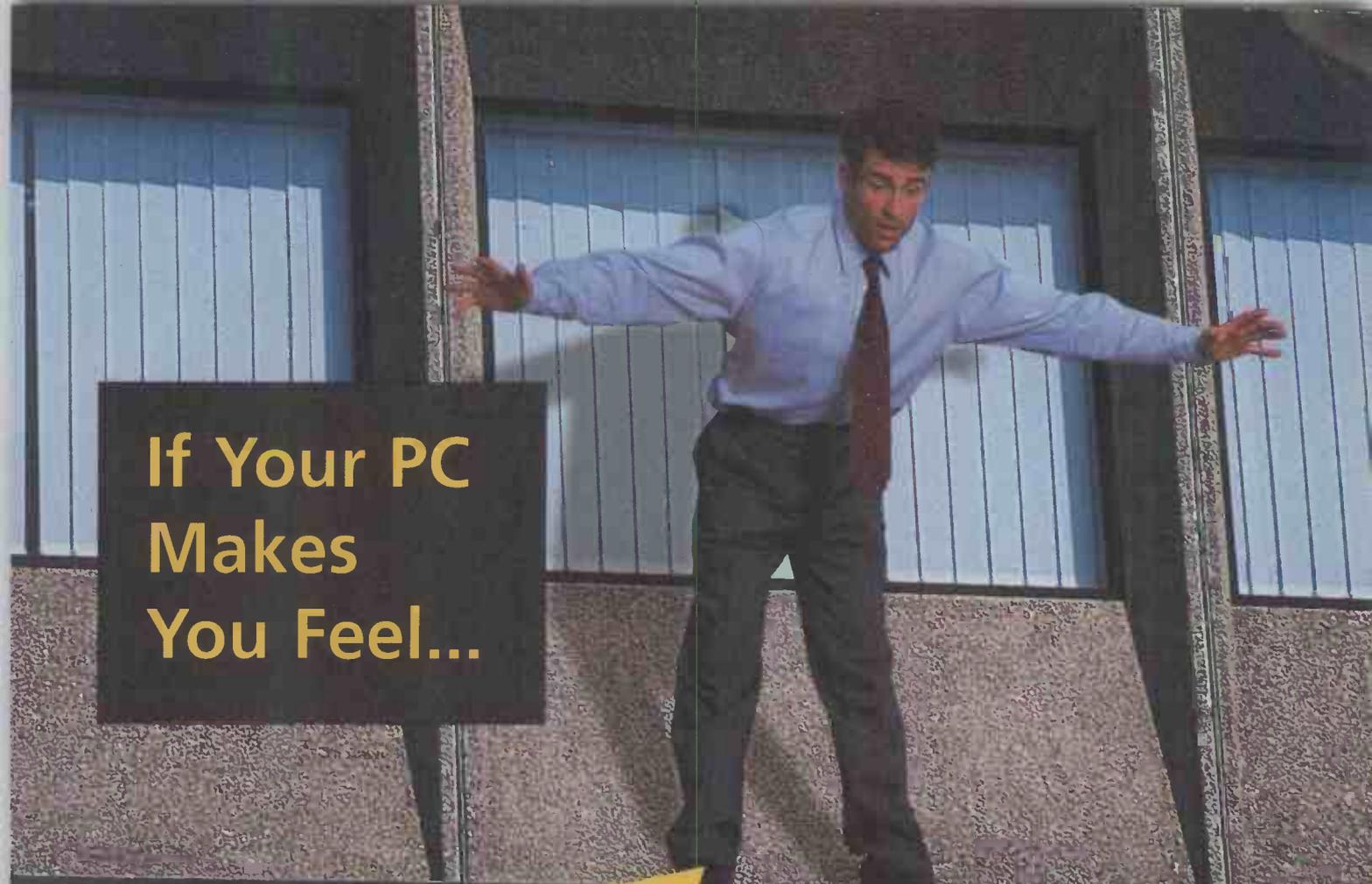
If you need to draw up a plan for a speech or project, the outline view in Word (Fig 3) provides a ready-made structure for this.

Go into the View menu and select Outline. When you begin typing, the font defaults to Heading 1 — the largest of the three heading styles. You can toggle between them by holding down the Ctrl and Alt keys and pressing the number keys 1, 2, or 3. Each type of heading is indented from the margin to a different degree, as shown in Fig 3.

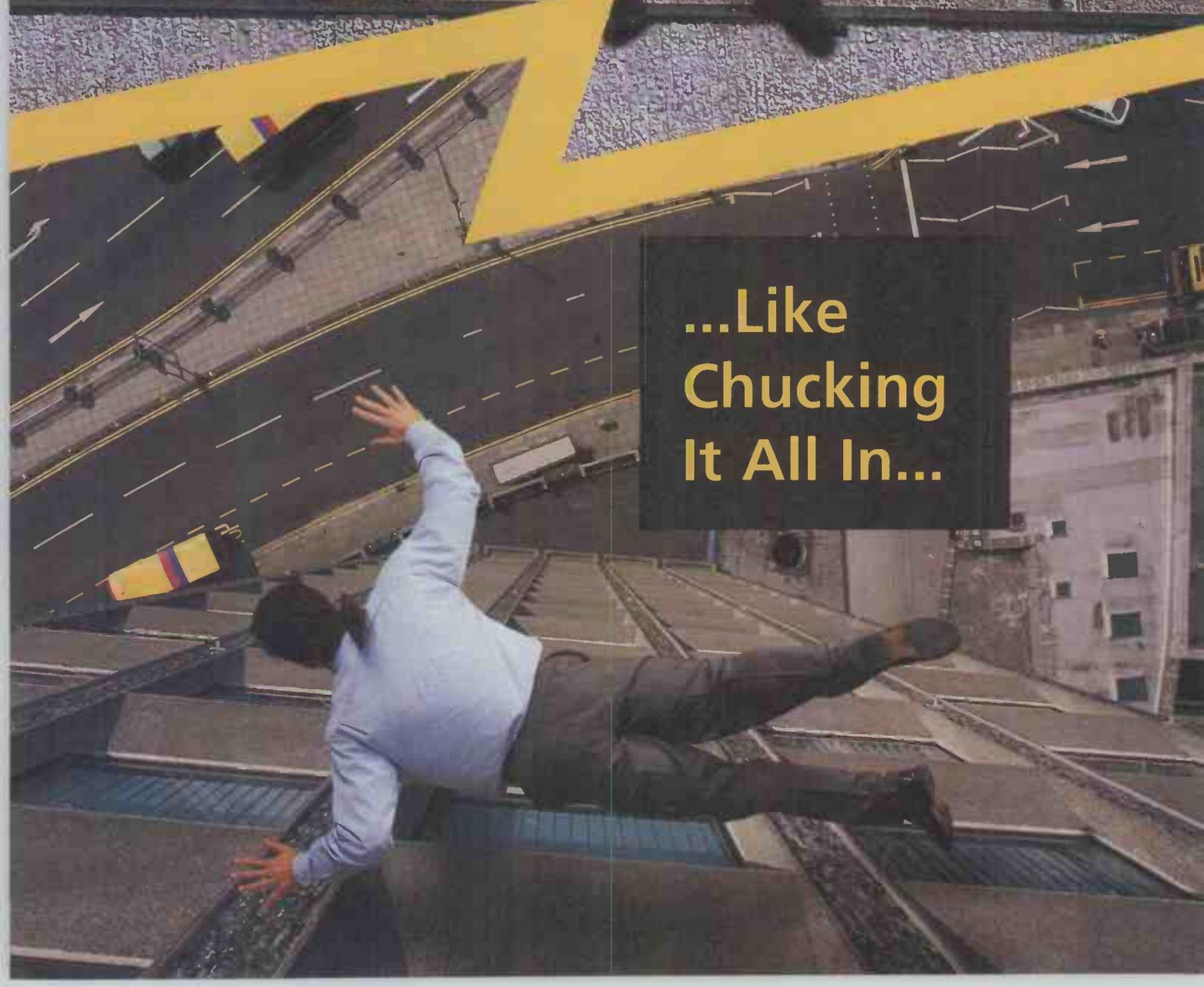
PCW

### PCW Contacts

Eleanor Turton-Hill would welcome any feedback and suggestions, on:  
ellie@pcw.cmail.compuserve.com



**If Your PC  
Makes  
You Feel...**



**...Like  
Chuckling  
It All In...**

M J

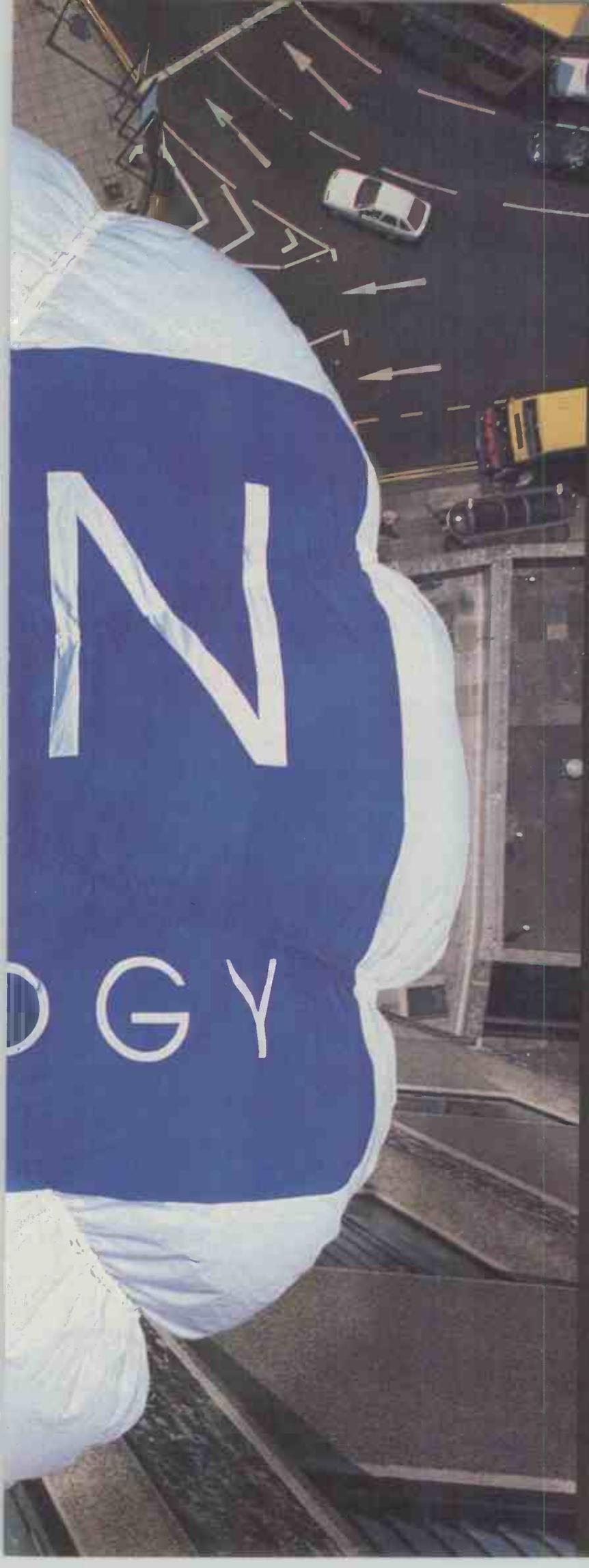
TECHNOL



pentium  
PROCESSOR



Certificate No.  
FS28122



# ...Let MJN Cushion The Fall!

Buying a new computer system needn't be a leap in the dark. Choose MJN and you'll be investing in a system that not only offers the highest levels of reliability, flexibility, performance and value for money, but one that offers the latest advances in the I.T. industry.

At the leading edge of technology, MJN can supply you with a high performance computer system that will suit your needs today and in the future. As part of the massive Granville Technology group of companies with over 200,000 customers throughout the UK we enjoy the financial strength of one of the largest IT groups in the industry. MJN consistently delivers the lowest prices and the highest quality and value - always keeping one jump ahead of the competition.

One of the few major PC manufacturers to have achieved BS EN ISO 9002 quality standard, we use only the highest performing components available today. And by buying in volume at very competitive prices, we are able to pass the savings on to you without cutting any corners. Which is why our products give you more features and power for less pounds than anyone else in the business. With MJN, our prices will always cushion your purchase.

**(01282) 777555**

# No matter how tight the situation, MJN has the Business PC to save your bacon

## POWERFUL PENTIUM BASED PCs

Our high performance business systems range from the 486DX2-66P at just £829 to the super-powered Pentium based MJN P-133P/CD, the fastest performing PC money can buy at under £2200.

## FREE SOFTWARE - NO STRINGS ATTACHED

You'll also get all the extras MJN systems are famous for, including our famous Lotus software bundle, six industry-leading application software programs - worth well over £1000.

These Lotus packages are designed to work together so that when you have mastered

one, the others are easy to use. If you wish, for just an additional £50, you can trade in one of your free applications - Lotus Notes Express, for an additional four - Lotus Freelance Graphics, Screen-Cam, Improv and CC:Mail. And, as they are pre-loaded, your new business system will perform to its full potential from the day it's installed.



## WINDOWS '95 AND MORE RAM

Windows '95 will bring you many performance benefits, but to run it your machine requires 8MB RAM. Therefore as we now ship it as standard, all of our business PCs come with at least 8MB of RAM.

## BEST BUY - P-75P/CD

Our Pentium P-75P/CD, priced at just £1049 is a winner - it comes equipped with a mighty 850MB hard disk with access times of 11ms, 8MB RAM, a screamingly quick PCI local bus IDE interface, PCI 64-bit accelerated graphics for



phenomenally fast screen redraw times and a quad speed CD-ROM drive.

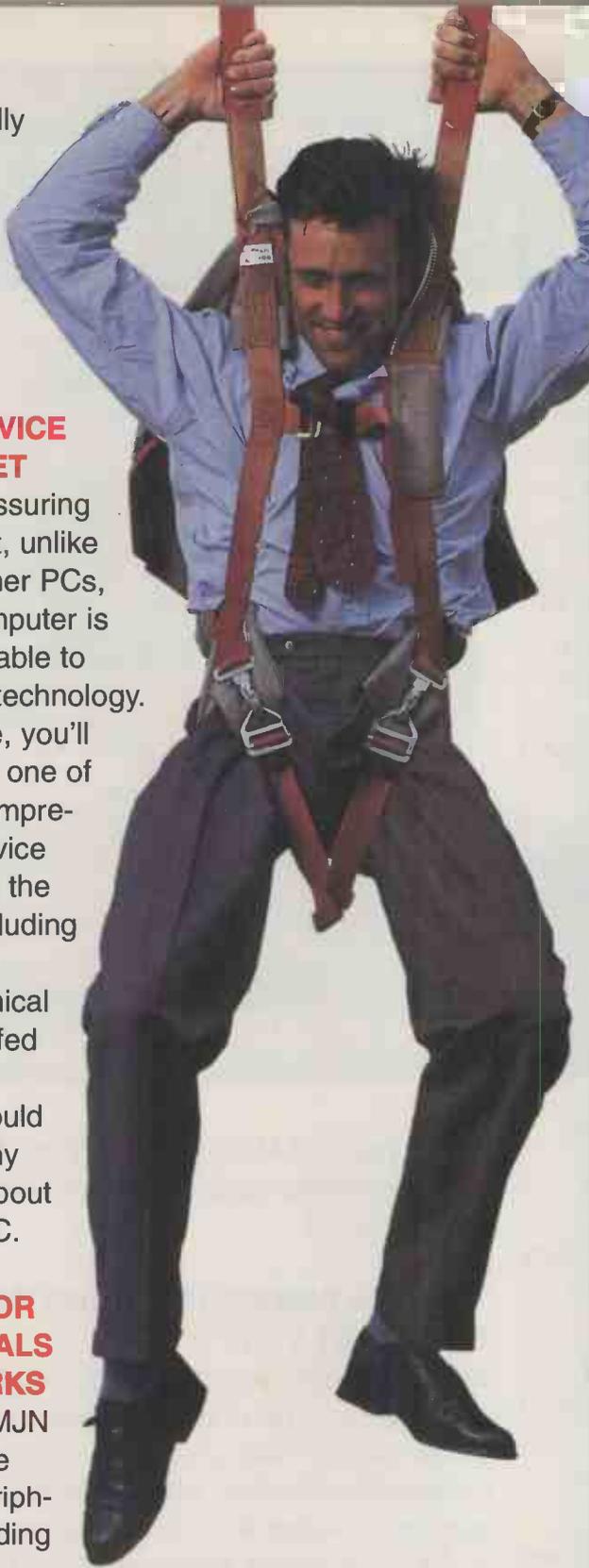
### YOUR SERVICE SAFETY NET

It's also reassuring to know that, unlike so many other PCs, an MJN computer is fully upgradable to tomorrow's technology. Furthermore, you'll benefit from one of the most comprehensive service packages in the industry, including lifetime telephone technical support staffed by friendly experts, should you have any questions about your new PC.

### ON-LINE FOR PERIPHERALS & NETWORKS

Of course, MJN offers a wide range of peripherals - including high performance monitors, high speed fax/modems and mono and colour printers. We also have extensive experience in Novell and Windows for Workgroups, offering you everything you'll need from ready-to-go network systems to professional consultancy, installation and support.

Whatever your requirements, whether you're interested in a single PC or a multi-user network, no-one gives you more room to manoeuvre than MJN.



## Down-to-earth priced business PCs

### 486/DX4-100P

- 100MHz 486/DX4 Processor
  - Intel Pentium Technology Ready
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 540MB 11ms Enhanced IDE Disk
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 1Mb Video RAM
  - 14" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case
  - Enhanced keyboard & Mouse
  - Windows 95
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● SmartPics
  - Organizer
  - Lotus Notes Express
- £859**
- 486/DX2-66P - £829
  - P-75P - £899

### P-75P/CD

- Intel 75MHz Pentium Processor
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 850MB 11ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 1Mb Video RAM
  - 14" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case
  - Enhanced keyboard & Mouse
  - Windows 95
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● SmartPics
  - Organizer
  - Lotus Notes Express
- £1049**
- P-90P/CD - £1129
  - P-100P/CD - £1209

### P-90P/CD

- Intel 90MHz Pentium Processor
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 1.08GB 11ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 2Mb Video RAM
  - 15" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case
  - Enhanced keyboard & Mouse
  - Windows 95
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● SmartPics
  - Organizer
  - Lotus Notes Express
- £1289**
- P-75P/CD - £1209
  - P-100P/CD - £1369

### P-100P/CD

- Intel 100MHz Pentium Processor
  - Advanced Intel Triton Chipset
  - 16MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 1.6GB 10ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 2Mb Video RAM
  - 15" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case (Tower)
  - Option) Enhanced keyboard & Mouse
  - Windows 95
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● SmartPics
  - Organizer
  - Lotus Notes Express
- £1689**
- P-133P/CD with 17-inch ProScan Colour Monitor - £2159

### Options For Desktop Systems

- Per additional 4MB - £110
- Video RAM Upgrade to 2MB-£40
- 540MB to 850MB Disk - £50
- 14,400bps Fax/modem - £80
- 28,800bps Fax/modem - £160
- 800MB Tape Backup Unit - £150
- 3.2GB Tape Backup Unit - £220
- CD Quality Sound Card, CD Interface, Stereo Speakers & Joystick plus Microsoft Golf, Encarta '95, Beethoven & Dangerous Creatures CD-ROM Titles - £90
- Quad Speed CD-ROM - £100
- 14 to 15" ProScan MPRII-£70
- 15 to 17" ProScan MPRII - £230
- Upgrade Software Bundle to Lotus Freelance, ScreenCam, Improv and CC:Mail instead of Lotus Notes Express - £50

**(01282) 777555**

# Multimedia systems and Notebooks to make you jump for joy!

High technology has never been more affordable with PC prices descending at a rate of knots! Whether you want a system for personal computing, for family entertainment, education, or for a small business application - for versatility and value for money MJN are unassailable!

As soon as you switch on your new MJN multimedia PC, you'll find five of the best software application programs available on the market. We install Lotus Ami Pro, 1-2-3, SmartPics, Organizer and Approach directly onto your hard disk, saving you time and eliminating any potential installation errors.

## MULTIMEDIA P-75P - BEST BUY

The Multimedia P-75P personal computer gives you all the advanced computing features needed for a top quality multimedia set-up. It's armed with the latest quad speed CD-ROM, stereo speakers, 16-bit CD quality sound card and joystick, a whopping 1.08GB hard disk, 64-bit accelerated PCI graphics with 2MB of Video RAM and a 15-inch ProScan colour monitor - all priced at £1299.

Using the latest interactive technology, this advanced quad speed CD-ROM system combines text, graphics, animation, sound and video in one PC set-up, allowing you to bring educational, leisure and business software applications spectacularly to life, opening up an exciting new world of knowledge and information in the home.

With its encyclopedic capacity, CD-ROM is the format of the future. It gives you access to fascinating programs for all the family. And, to start your home library we're



giving you four Microsoft CD titles - Encarta '95, Golf, Beethoven and Dangerous Creatures - on the house!

## THE NEW POWERLITE SERIES II STARTING FROM JUST £1079

MJN's latest lightweight notebooks give you the portability you need without having to sacrifice performance. They are the most advanced notebooks available, with powerful 486 processors and packed with features and delivered at a price that leaves the competition up in the air.

## REVOLUTIONARY NEW TOUCHPAD!

Roll over trackballs! All MJN Powerlite Series II notebooks come equipped with the revolutionary new super-sensitive touchpad. It's the easiest and most natural way to move the pointer - putting the latest technology at your fingertips.

## BRIGHTEST COLOUR DISPLAY

Whether you buy a mono or colour MJN portable, you'll be impressed by the quality of

display. With the TFT based Powerlite II you'll get a super bright, crisp colour screen. The pin-sharp dual-scan colour VGA backlit LCD boasts a large 10.5-inch screen. While the mono VGA LCD has the ability to display 64 shades of grey.

### A FINISH AS SMOOTH AS SILK

Designed not only to perform well, our notebooks also look good and are silky smooth to the touch.

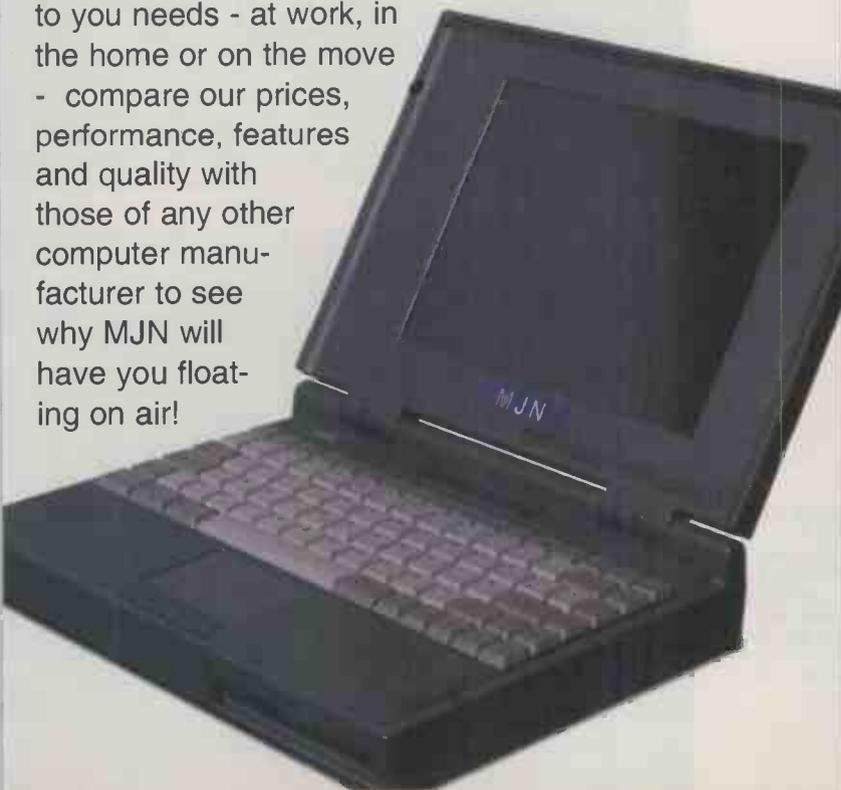
### LIGHTWEIGHT YET LOADED WITH EXTRAS

In true MJN style, we've packed a host of extras into our lightweight portables - advanced power management features, multiple PCMCIA slots, refreshingly fast accelerated VESA local bus graphics, a high performance removable hard drive, and a removable floppy drive that can be replaced with a battery to double the power life. We've also loaded on our legendary Lotus software bundle: 1-2-3, Ami Pro, SmartPics, Organizer, Approach, plus Quicken and AutoRoute Express, so you'll be up and running the moment your new portable arrives.

### A SOUND INVESTMENT ALL ROUND

The Powerlite II colour notebooks have built-in speakers and microphone. Add the optional sound card and using our full docking station - add a CD-ROM drive to add an exciting new dimension to business presentations and personal computing. And of course, our range of portables can always be linked to other peripheral equipment, including monitors, printers and modems.

So you see, whichever type of system is best suited to you needs - at work, in the home or on the move - compare our prices, performance, features and quality with those of any other computer manufacturer to see why MJN will have you floating on air!



## Great value home & multimedia PCs

### Multimedia 486/DX2-66P

- 66MHz 486/DX2 Processor
  - Intel Pentium Technology Ready
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 540MB 11ms Enhanced IDE Disk
  - Double Speed CD-ROM Drive
  - Stereo Speakers, 16-bit CD-Quality Sound Card & Joystick
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics w/1Mb
  - 14" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case
  - Enhanced keyboard & Mouse
  - Windows 95
  - MS CD Pack: Encarta '95, Golf, Beethoven & Dangerous Creatures
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● Organizer
  - SmartPics
- £969**
- Multimedia 486/DX4-100P - £999
  - Multimedia P-75P - £1039

### Multimedia 486/DX4-100P

- 100MHz 486/DX4 Processor
  - Intel Pentium Technology Ready
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 850MB 11ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - Stereo Speakers, 16-bit CD-Quality Sound Card & Joystick
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics w/1Mb
  - 14" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case
  - Enhanced keyboard & Mouse
  - Windows 95
  - MS CD Pack: Encarta '95, Golf, Beethoven & Dangerous Creatures
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● Organizer
  - SmartPics
- £1099**
- Multimedia P-75P - £1139
  - Multimedia P-90P - £1219

### Multimedia P-75P

- Intel 75MHz Pentium Processor
  - 8MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 1.08GB 11ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - Stereo Speakers, 16-bit CD-Quality Sound Card & Joystick
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 2Mb Video RAM
  - 15" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case (Tower)
  - Option)
  - Enhanced keyboard & Mouse
  - Windows 95
  - MS CD Pack: Encarta '95, Golf, Beethoven & Dangerous Creatures
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● Organizer
  - SmartPics
- £1299**
- Multimedia P-90P - £1379

### Multimedia P-90P

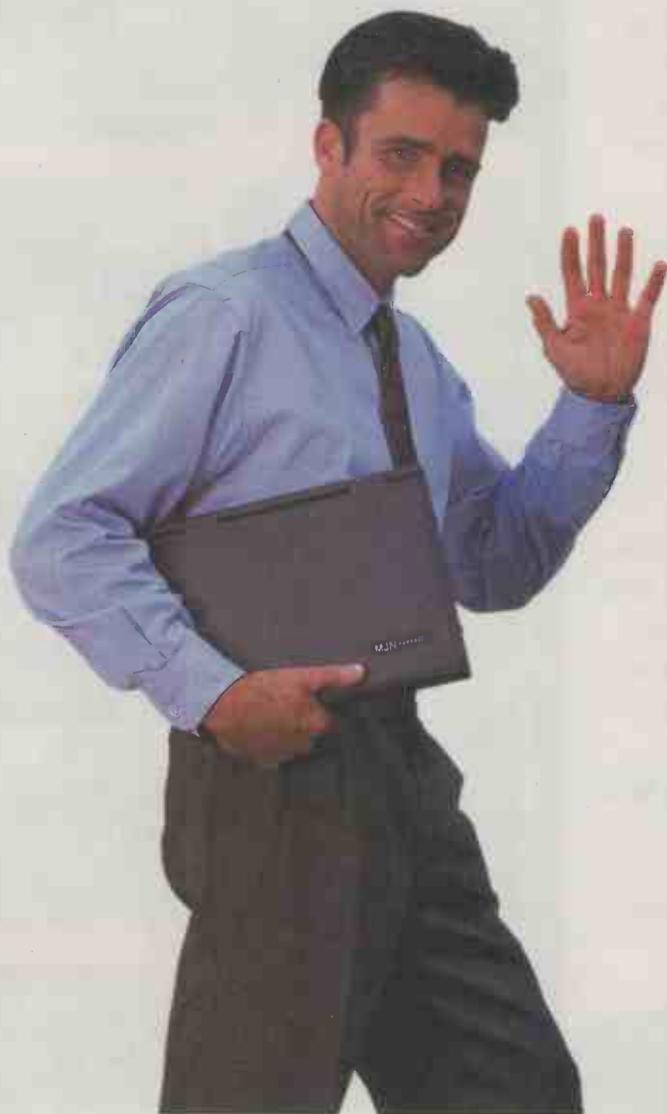
- Intel 90MHz Pentium Processor
  - Advanced Intel Triton Chipset
  - 16MB RAM, 256K Cache
  - 1.44MB 3.5" Floppy Drive
  - 1.6GB 10ms Enhanced IDE Disk
  - Quad Speed CD-ROM Drive
  - Stereo Speakers, 16-bit CD-Quality Sound Card & Joystick
  - PCI Local Bus IDE Interface
  - PCI 64-bit Accelerated Graphics with 2Mb Video RAM
  - 15" ProScan MPRII SVGA 1024 x 768 Colour Monitor
  - Stylish Desktop Case (Tower)
  - Option)
  - Enhanced keyboard & Mouse
  - Windows 95
  - MS CD Pack: Encarta '95, Golf, Beethoven & Dangerous Creatures
  - Lotus Software Packages
  - 1-2-3 ● Approach
  - Ami Pro ● Organizer
  - SmartPics
- £1699**
- Multimedia P-100P - £1779
  - Multimedia P-133P - £2019

### Options For Desktop Systems

- Per additional 4MB - £110
- Video RAM Upgrade to 2MB-£40
- Video RAM Upgrade to 2MB of VRAM - £140
- Video RAM Upgrade to 4MB of VRAM - £260
- 540MB to 850MB Disk - £50
- 14,400bps Fax/modem - £80
- 28,800bps Fax/modem - £160
- 800MB Tape Backup Unit - £150
- 3.2GB Tape Backup Unit - £220
- PCTV Card with Teletext - £160
- 14 to 15" ProScan MPRII - £70
- 15 to 17" ProScan MPRII - £230

**(01282) 777555**

**Safely on your feet, and on your way again**



MJN TECHNOLOGY LTD

GRANVILLE HOUSE • BLACKBURN ROAD • SIMONSTONE • BURNLEY • BB12 7GT  
FAX (01282) 770844. SALES HOURS 9-5.30PM WEEKDAYS, 10-4PM SAT.

For personal customers we accept credit/ direct debit cards and personal cheques. For commercial customers we also offer lease and credit facilities. Prices exclude delivery and VAT. E & OE. Prices and specifications are subject to change without notice. All trademarks are recognised. The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation. Lotus applications are pre-loaded with online documentation. Retail packaging shown for illustration purposes only. Backup disks and full printed manuals available as an option. Options/upgrades are sold with the purchase of a system.

**Notebook prices to make you light-headed**

**Powerlite II 4DX4-75/M**

- 75MHz 486/DX4 Processor
  - 4MB RAM, Exp. to 32MB
  - Removable 1.44MB 3.5" FDD
  - Removable 340MB IDE Disk
  - 2 PCMCIA Type II/1 Type III Slots
  - Built-in Stereo Speakers
  - VESA Local Bus Graphics w/1MB
  - 9.4" VGA Dual-Scan Mono LCD
  - Built-in Touchpad
  - Dimensions: 287x200x47mm
  - Weight: 6.2lbs
  - MS-DOS 6.22, Windows 3.11
- (Windows 95 Optional)
  - AutoRoute Express and Quicken V4.0
  - Lotus Software Packages
  - 1-2-3 ● Organizer
  - Ami Pro ● Approach
  - SmartPics
- £1079**
- With 540MB Disk and 8MB RAM - £1409
  - 486/DX4-100 - £50 Extra

**Powerlite II 4DX4-100/C**

- 100MHz 486/DX4 Processor
  - 4MB RAM, Exp. to 32MB
  - Removable 1.44MB 3.5" FDD
  - Removable 340MB IDE Disk
  - 2 PCMCIA Type II/1 Type III Slots
  - Built-in Stereo Speakers
  - VESA Local Bus Graphics w/1MB
  - 10.5" VGA Dual-Scan Colour LCD
  - Built-in Touchpad
  - Dimensions: 287x200x47mm
  - Weight: 6.2lbs
- (Windows 95 Optional)
  - AutoRoute Express and Quicken V4.0
  - Lotus Software Packages
  - 1-2-3 ● Organizer
  - Ami Pro ● Approach
  - SmartPics
- £1499**
- With 540MB Disk and 8MB RAM - £1729

**Powerlite II 4DX4-100/CT**

- 100MHz 486/DX4 Processor
  - 8MB RAM, Exp. to 32MB
  - Removable 1.44MB 3.5" FDD
  - Removable 540MB IDE Disk
  - 2 PCMCIA Type II/1 Type III Slots
  - Built-in Stereo Speakers
  - VESA Local Bus Graphics w/1MB
  - 9.4" TFT Colour LCD
  - Built-in Touchpad
  - Dimensions: 287x200x47mm
  - Weight: 6.2lbs
  - MS-DOS 6.22, Windows 3.11
- (Windows 95 Optional)
  - AutoRoute Express and Quicken V4.0
  - Lotus Software Packages
  - 1-2-3 ● Organizer
  - Ami Pro ● Approach
  - SmartPics
- £2229**
- With 810MB Disk and 8MB RAM - £2399
  - With 1.2GB Disk and 16MB RAM - £2899

**Options For Notebook Systems**

- Per additional 4MB - £140
- 16-bit Internal Sound Card - £80
- High Quality Carrying Case - £29
- Docking Station - £369
- Port Replicator - £95
- 12 Volt Car Adaptor - £69
- NiMH Battery - £70
- SMART Battery - £85

**(01282) 777555**



# DIRECT BUYERS' WORLD

**Direct  
Buyers',  
World**

**Competitive  
prices from quality  
suppliers**

# "Panrix opening up new "The ultimate in desktop performance"



**WINDOWS  
'95  
READY**

"Stunning performance with a high standard of build quality and well integrated components, makes this machine excellent value for money...Quality and overall design of this machine lives upto Panrix's usual high standard."

**Panrix P120  
PERSONAL COMPUTER WORLD  
August 95**

"The Titan is an exceptionally fast machine... It just proves that attention to design detail is just as important as powerful components. Packing in the performance and delivering features too, made Panrix an obvious choice for the value winner."

**PC PRO 'Value'  
June 95**

# PANRIX®

## What the experts say!



DUAL PENTIUM® MARCH 95 †



TRITON 100 APRIL 95 †



PANRIX PHANTOM  
486-DX2 66 SEPT 94 †



PANRIX TITAN  
JUNE 95 †

**PC PRO 'Recommended'  
April 95**



DX2 66 NOV 94 †



PENTIUM® 90 DEC 94 †



PANRIX PREDATOR  
SEPT 94 †



AUTHORISED RESELLER

"A power user's dream. Blistering performance and impressive features. Bench testing the Triton was a pleasure, simply because it took little time. The Panrix Triton is the fastest machine we've tested to date... All in all this is one desirable PC."

"This is an impressive system. The performance is excellent, the expansion capabilities are good, and it was fitted with high quality components. If you want to make NT apps fly, no matter what the workload, look no further."

**Panrix Bison  
PC PRO 'Recommended'  
March 95**

CALL IN AND SEE US AT OUR SHOWROOM OPEN MON-FRI 9.30-6.00pm, SATURDAY 10-4pm

# horizons."

"The obvious choice."

## "A power user's dream.

Blistering performance and impressive features."

"No matter what the work,  
look no further."

### PANRIX HOME PC

Your Best Value In Pentium® Power

- Intel 75MHz Pentium® Processor
- Intel Triton Core-Logic Chipset
- 256K Write-back Cache
- Flash BIOS
- Plug & Play Intel Spec 1.21
- Stealth 64 2MB DRAM PCI Graphics Card
- ATAPI IDE Quad Speed CD ROM
- Soundblaster 16 Stereo + 25 Watt Speakers
- 14.4 Fax/Modem & Winfax Lite
- 1.44 MB Floppy
- Mini Tower or Desktop Case with Tool-Free design
- 102 Key Keyboard & MS Mouse
- MS DOS 6.22 & WFWG 3.11
- Microsoft Family CD Pack
- Trial CompuServe subscription
- 24 Months on Site Warranty to BS 5750



**Option A** 8MB EDO RAM, 540MB E-IDE Hard Drive 14" Monitor **£1,565**

**Option B** 8MB EDO RAM, 840MB E-IDE Hard Drive 15" Iiyama Monitor **£1,685**

**Option C** 16MB EDO RAM, 1GB E-IDE Hard Drive 17" Iiyama Monitor **£2,275**

With 90MHz Pentium® add £60  
With 100MHz Pentium® add £145  
With 120MHz Pentium® add £290

### BISON DUAL PENTIUM®

Fastest PC To Run Windows NT **£3,575**

- Intel Dual Pentium® 90MHz CPUs
- Intel Neptune Chipset
- 32MB 72pin SIMM Memory
- 3PCI, 5 EISA Slots
- Adaptec Fast SCSI-2 & Fast & Wide
- 1GB SCSI Hard Disc Drive
- Toshiba XM3601B CD ROM
- Diamond Stealth 64 4MB VRAM
- 17" Iiyama (Idek) Monitor
- Full Tower Case
- 102 Key Keyboard & MS Mouse
- Windows NT 3.5 Workstation

### PANRIX MICRON

100 120 133 MHz

- Intel 100MHz Pentium® Processor
- Intel Triton Core-Logic Chipset
- 256K 7ns Sync-Burst™ Sram Cache
- Flash BIOS
- Plug & Play Intel Spec 1.21
- Stealth 64 2MB Video VRAM PCI Graphics Card
- ATAPI IDE Quad Speed CD ROM
- Soundblaster 16 Stereo + 80 Watt Speakers
- 1.44MB Floppy
- Mini Tower or Desktop Case with Tool-Free design
- 102 Key Keyboard & MS Mouse
- MS DOS 6.22 & WFWG 3.11
- 24 Months On Site Warranty to BS 5750

**Option A** 8MB EDO RAM, 1GB E-IDE, 15" Iiyama Monitor Microsoft Multimedia works v3 CD (on line documentation) **£1,895**

**Option B** 16MB EDO RAM, 1GB E-IDE, 17" Iiyama Monitor Microsoft Office Professional 4.3 CD (on-line documentation) Microsoft Bookshelf CD **£2,545**

With 133MHz Pentium® add £250  
With 120MHz Pentium® add £145  
With 90MHz Pentium® subtract £60

### LEO NOTEBOOK

Options

DISPLAY OPTIONS	MONO	DUAL SCAN COLOUR	TFT COLOUR
486 DX2-66 340MB HDD	£995	£1,395	£2,165
486 DX2-66 540MB HDD	£1,115	£1,495	£2,265
486 DX4-100 340MB HDD	£1,095	£1,475	£2,255
486 DX4-100 540MB HDD	£1,195	£1,575	£2,355

- Upgrade from 4MB to 8MB **£140**
- Upgrade from 4MB to 12MB **£279**
- Upgrade from 4MB to 20MB **£510**
- Padded Carry Case **£39**
- PCMCIA Ethernet Card **£175**
- Docking station **£349**



### PANRIX MICRON PLUS

- Intel 120MHz Pentium® Processor
- Intel Triton Core-Logic Chipset
- 256K 7ns Sync-Burst™ Sram Cache
- PCI 32-bit Fast SCSI-2 Controller
- Quad Speed SCSI-2 CD ROM Drive
- Soundblaster 16 Stereo + 80 Watt Speakers
- Stealth 64 2MB Video VRAM Graphics Card
- Mini Tower or Desktop Case with Tool-Free design
- Microsoft Mouse & 102 Key Keyboard
- MS DOS 6.22 & WFWG 3.11 CD
- MS Office Pro 4.3 CD & MS Bookshelf CDs (on-line documentation)
- 24 Months On Site Warranty to BS 5750

**Option A** 16MB EDO RAM, 1GB SCSI-2 Hard Drive 17" Iiyama Monitor (1280 N-I) **£3,195**

**Option B** 32MB EDO RAM, 2GB SCSI-2 Hard Drive 21" Iiyama MT9121 Monitor (1600 N-I) **£4,795**

With 133MHz Pentium® add £105  
With 100MHz Pentium® subtract £145

LOCAL AUTHORITY AND EDUCATIONAL ORDERS WELCOME

Free On-Site Maintenance undertaken by



**PANRIX**  
40 ROSEVILLE ROAD LEEDS LS8 5EA  
TEL: (0113) 244 4958  
FAX: (0113) 244 4962



PLEASE ADD DELIVERY + VAT @ 17.5% TO ABOVE PRICES. DELIVERY HARDWARE £9.00. SYSTEMS £20.00 (EX VAT).

ACCESS VISA WELCOME CHARGED @ 2%. PRICES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE E & OE.

PENTIUM® IS A TRADEMARK OF INTEL CORPORATION. MICRON IS A TRADEMARK OF MICRON ELECTRONICS. ALL OTHER TRADEMARKS ARE ACKNOWLEDGED. † PREVIOUS ENDORSEMENTS FOR REFERENCE ONLY.

PRODUCED BY KLUDO STUDIOS (0113) 234 3747  
© COPYRIGHT KLUDO STUDIOS

TEL: (0113) 244 4958 FAX: (0113) 244 4962

# PANRIX®

# Personal Computer World

August 1995 £2.50

Overseas Price £2.95  
France 50 FF Germany DM 17.00  
Italy 13,400 Lire Spain 925 PTS  
Holland HFL 14.25 Belgium 272.00 Bfr  
Finland FIM 39.50 Malta Lm2.25c

VNU Business Publications

157,544 readers can't be wrong • Bri

## Color Inkjet

Brilliant colours  
you can afford

**On Test**  
133MHz Pentiums  
Flow-charting software  
Multimedia software

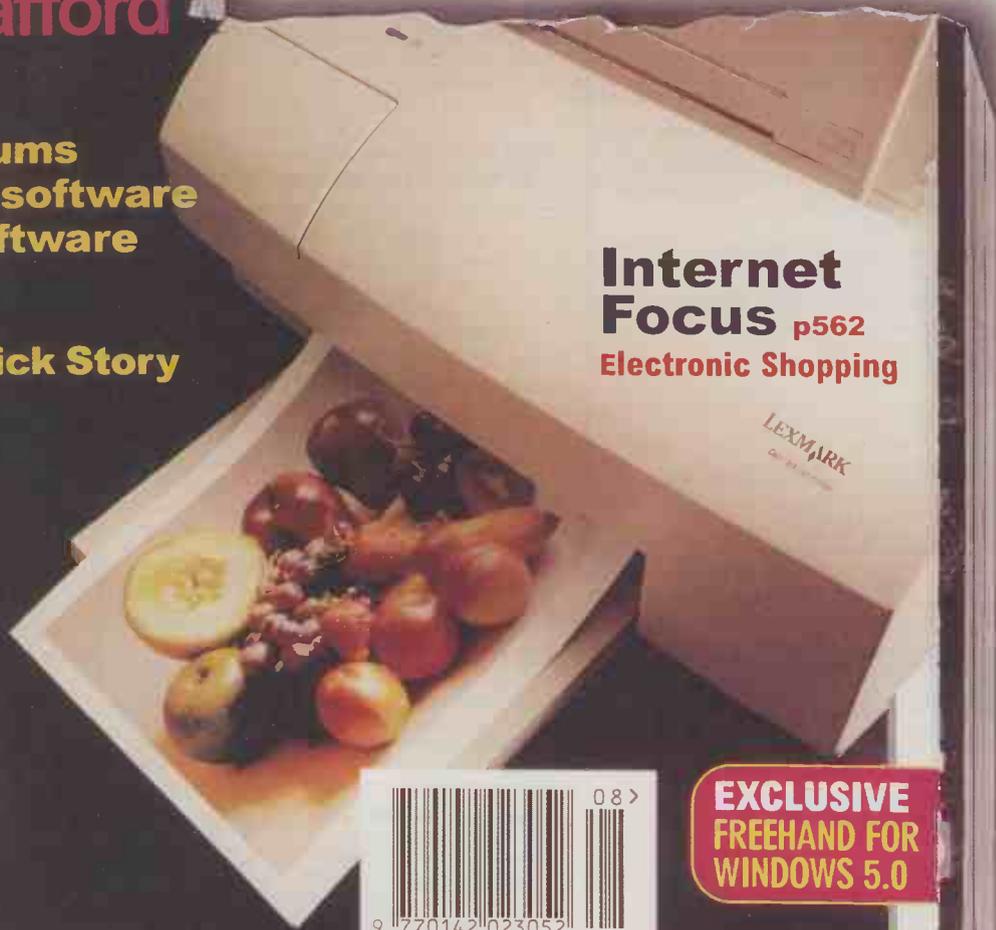
**Hackers**  
The Kevin Mitnick Story

**Apple's  
Speedster**  
Power Mac  
9500

If your Disk or  
CD is missing,  
please ask  
your  
Newsagent

# 30% OFF

for all new subscribers



**Internet  
Focus** p562  
Electronic Shopping

LEXMARK  
Color Inkjet



**EXCLUSIVE  
FREEHAND FOR  
WINDOWS 5.0**



# Buyer's Charter

## MAIL ORDER PROTECTION SCHEME

**H**ello, I'm Anthony George, your Customer Services Manager. My job is to assist you when things go wrong or when you have a complaint about advertisements in *Personal Computer World*. If you encounter a problem, write to me with details of the complaint and I will contact you.

### Ten rules to buy safely

1. Always use a PERSONAL COMPUTER WORLD order form.
2. Keep a copy of the original advert.
3. Keep copies of all correspondence, and if you speak on the phone make a note of who you spoke to.



4. On large orders obtain a written quotation.
5. Wherever possible pay with a personal credit card. All transactions over £100 should be covered by the card company's insurance scheme.
6. Does the price quoted include everything discussed? Is VAT extra?
7. Check how they will deliver and if times are guaranteed.
8. Is telephone support or on-site maintenance included in the price? If a return to base warranty can be extended, how much does it cost?
9. Check that all branded components are genuine.
10. Is the supplier reputable? Do they comply with BS5750 or ISO900? If in doubt, ask to see customer testimonials.

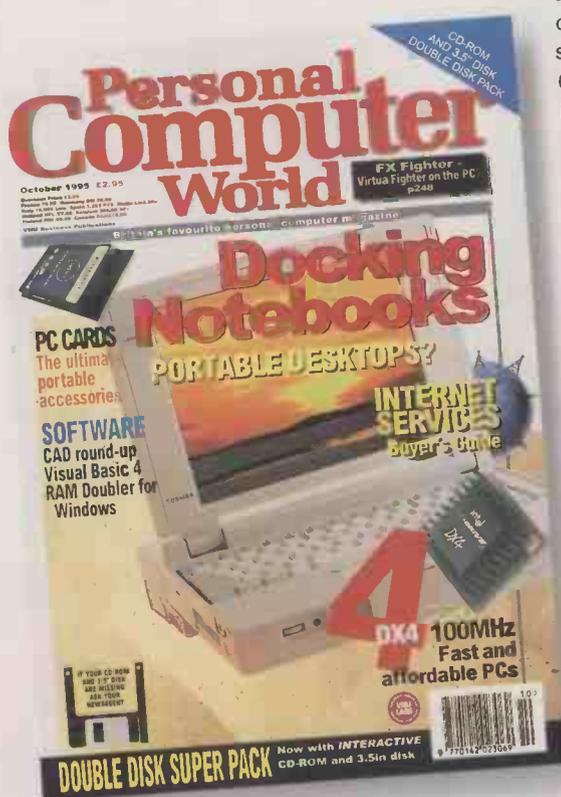
### Personal Computer World Buyer's Charter

When you purchase goods as a private individual reader from an advertisement appearing in this magazine and pay in advance of delivery, and that supplier ceases to trade and subsequently goes into Receivership, Liquidation, and/or Bankruptcy, you may be protected under our "Buyer's Charter" providing you have:

1. Not received the goods for which you have paid or had your money returned.
2. Followed all our guidelines when placing your order.
3. Retained a copy of the magazine's original Order form and the original advertisement, together with comprehensive proof of payment.
4. Submitted a detailed claim in writing to the magazine's customer services manager not earlier than 28 days and not later than three months from the official on-sale date of the magazine from which the goods were ordered. For example, by the end of June for the May issue (which is on sale at the beginning of April).

#### The following limitations apply:

1. Personal Computer World's liability under the Buyer's Charter will not exceed £2,000 in respect of any claim submitted by any one Private Individual Reader or more than £100,000 in respect of claims in any one calendar year. Any additional payments are at the sole discretion of the Publisher.
2. The Buyer's Charter only applies to goods advertised in this magazine. It does not cover goods depicted in classified advertisements, loose inserts, catalogues or any other sales material obtained from any relevant advertiser, or products that have not been advertised even if they are from the same supplier.
3. The "Buyer's Charter" will not safeguard any commercially orientated outlet, neither will it cover goods which are purchased outside Great Britain or any goods which are obtained for resale.



## ORDER FORM

Use this form when you order by phone, fax or post.

ALWAYS  
KEEP A COPY !

**SUPPLIER'S DETAILS**

COMPANY .....

SALESPERSON'S NAME .....

ADDRESS .....

.....

.....

..... POSTCODE .....

DATE OF TELEPHONE ORDER ..... / ..... / ..... TIME .....

**CUSTOMER DETAILS**

NAME .....

COMPANY .....

ADDRESS .....

.....

.....

..... POSTCODE .....

DATE OF TELEPHONE ORDER ..... / ..... / .....

ORDERED BY:  TELEPHONE  FAX  POST

ORDER REFERENCE NUMBER (IF QUOTED) .....

DISPATCH REFERENCE NUMBER .....

**ADVERT APPEARED IN PCW:**

ISSUE DATE ..... PAGE .....

QUANTITY	DETAILS OF ORDER	UNIT COST £	TOTAL £

**METHOD OF PAYMENT**

PERSONAL CHEQUE  PURCHASE ORDER  CREDIT CARD

C.O.D  CHARGE CARD  OTHER (SPECIFY) .....

CREDIT CARD COMPANY ..... START DATE ..... / ..... / .....

CHARGE CARD COMPANY ..... START DATE ..... / ..... / .....

CARD NUMBER ..... EXPIRY DATE ..... / ..... / .....

**SUB TOTAL** .....

**DISCOUNT** .....

**CARRIAGE** .....

**SURCHARGES** .....

**VAT** .....

**TOTAL** .....

**DELIVERY DETAILS**

DELIVERED TO (ADDRESS)  
(IF DIFFERENT FROM ABOVE) .....

.....

.....

..... POSTCODE .....

AGREED DELIVERY DATE ..... / ..... / .....

TERMS OF WARRANTY  MONEY BACK

RETURNS POLICY  COST OF EXTENDED WARRANTY

HELPLINE

Details: .....

.....

SIGNED ..... DATE ..... / ..... / ..... DAYTIME TELEPHONE NUMBER .....

# "The Secret of 'Power' Teletext....."

## "Keep a finger on the pulse of world events...." - Computer Buyer

**FREE! THE 'PROFIT' GAME!** 25,000 copies free!!  
 Now, with 'Optimum Profit', you can play the 'investment' game! Includes real price histories and graphical analysis. Discover whether you could earn millions! Can you beat the city 'wiz kids'? The game and simulation that lets you answer that burning question, "Can I really make money playing the markets?" For your free copy, simply send a blank unlabelled high density disk, and a stamped addressed mailer to: Optimum 'Profit' Offer, Sunny Gardens Parade, Great North Way, London NW4 1JA (Offer while stocks last!)

**"Teletext at the push of a button...." - Daily Telegraph**  
 Discover the 'teletext' solution! Simply connect a tv antenna and benefit from up-to-date World/Local news and Newsflashes, Indices, Share Prices (incl. Teletext 2000' service), Traded Options, Currencies, City News, Weather, Roads/Traffic, Entertainment, TV and radio, Sports, Racing, Holidays/Travel, Computing and much more... Receive a constant stream of up-to-the-minute data / information, free of on-line costs, 24 hours a day.

**"... the OPT-III works beautifully." - What PC**  
 ■ **OPT-III PC Card @ £169** - a precision, state-of-the-art proven design - a half-length card with integral UHF tuner and four acquisition circuits, that offers an ideal combination of high performance, stability and reliability.  
 ■ **OPT-III/S External Teletext Receiver @ £295** - connecting via a standard RS-232 connection, is ideal for notebooks, PS/2's as well as Macs, Unix boxes etc. Its simplicity and easy data access is ideal for developers.  
**"... offers intelligent management of an excellent service" - Pract. PC**  
 ■ **OPT-III Dos Software (included)** - features 'Fastext' page facility, 16 page review. Automatic printing and saving of pages (ASCII or 'raw'). Automatic saving of share prices as ASCII data, (-includes 'Teletext 2000' - all 2000+ overnight closing share prices) - easily import this ascii data into your spreadsheet for subsequent analysis/graphing. 'Live' dynamic 'Carousel'. 'SetClock' clock feature. Device driver for custom programming etc.  
 ■ **OPT-III For Windows @ £49** - includes ASCII share save, powerful 'keyword search' - scan specified teletext pages for user-defined information of interest. Automatic page print. Automatic page save (ascii .bmp or 'raw'). Multiple windows / channels, 'live' DDE spreadsheet links for customised analysis/graphing and much more....

- OPT-III Software**
- OPT-III Dos Software (included)**
- Save pages to disk as ASCII or 'raw'
  - Automatic shares price retrieval
  - Automated page saving - with timed option
  - Automated page printing - with timed option
  - 'Carousel' feature with dynamic update
  - 'Fastext' 'intelligent' page facility
  - Review facility of last 16 pages
  - 'Set Clock' real-time-clock PC utility
  - Device Driver for custom programming
- OPT-III Teletext for Windows Software - New low price! £49**
- Multiple teletext windows with 'Fastext'
  - Multi-channel 'simultaneous' reception
  - Automatic 'keyword' search with actions
  - Automated share price retrieval
  - Automated page saving and printing
  - Save pages as ASCII, BMP or 'Raw'
  - 'D.D.E.' 'live' links to spreadsheets etc
  - Sample DDE file/graph for Excel for Win
  - Sample DDE file for Lotus 1-2-3 for Win
  - Sample DDE file for Quattro Pro For Win
  - 'Carousel' feature with dynamic update
  - Review facility of up to 64 last pages
  - Free Windows Developers Toolkit now available on request - phone for details.

The image displays several windows from the OPT-III software. At the top, there's a 'Prices' window showing a list of stocks and their prices. Below it, a Microsoft Excel spreadsheet is open, showing a 'PORTFOLIO' with columns for 'No.3', 'AD', and 'AD'. A chart window shows 'C/\$ vs FT-SE for last 28 day trading sessions' with a line graph. Another window shows 'Teletext on 3' with a news headline: 'BUDGET BOOM SEES SHARES SURGE £12bn 303'. A 'Sport Index' window shows various sports news. The background shows a desktop with a clock and other icons.



- OPT-III Hardware**
- |  |             |   |             |
|--|-------------|---|-------------|
| <b>OPT-III Teletext Internal PC Card</b> | <b>£169</b> | <b>OPT-III/S External Teletext Receiver</b> | <b>£295</b> |
|--|-------------|---|-------------|
- New low price!**
- Half-length PC card
  - Precision UHF tuner
  - High Stability PLL tuning
  - Precision CITAC circuitry
  - SAWF filter
  - Four acquisition circuits
  - Easy plug-in installation - Unique hardware feature - no 'com' ports or IRQ's required
  - Details as OPT Card, with:
    - Standard RS-232 interlace
    - Attractive compact unit
    - High performance CPU
    - Non-Volatile RAM for tuning
    - 'Viewdata' mode
    - 'Dumb Terminal' mode
    - Added flexibility - Suitable for work and home PCs, notebooks, Macs, Unix boxes etc.

The image shows the 'Update' software interface. It features several overlapping windows. One window shows 'SHARES - LEADERS' with a list of stock symbols and prices. Another window shows 'FINANCIAL' with a large line graph. A third window shows 'FT-SE - INDICES' with a smaller line graph. The interface is complex and data-rich, typical of professional financial software.

**"Teleshares', 'Shares' and 'Invest' For Windows**

**"Update offers powerful charting functions that rival even the ones the professional investors use...." - The Daily Telegraph**

Update Software's products, together with our teletext receivers, makes available to you the same analytical investment techniques used, and considered to be an absolute necessity, by city traders. Perhaps Update's greatest attraction is a superb blend of power with ease of use - ideal for both the experienced trader as well as the private investor.

- **'Update Teleshares' @ £95** (special offer), captures, sorts, stores and displays all 2000+ overnight closing share prices from the 'Teletext 2000' service. Functions include a range of price displays, 'leaders and laggards' etc. Includes export to Excel, ASCII import/export, 'DDE' export etc. Also adds full 'Teletext 2000' capability to Update's 'Shares' and 'Invest'.
- **'Update Shares' @ £195** - a powerful share tracking and analysis tool - captures, sorts, stores and graphs the 'Teletext 400' shares. Powerful viewing, graphing and analysis tools include trends, overlays, averages, targets etc etc.
- **'Update Invest' @ £495** is targeted at the serious investor and adds even more to the functionality of 'Update Shares', yet still maintaining its ease of use. Includes currencies, 'leaders and laggards', short term indicators and much more....
- **'Update For Networks'** - an ideal solution for the corporate customer.

Call for information / pricing on our network products and site licenses.

**"Excellent package for the small investor or company that needs to keep an eye on the markets..... Superb!"**

Personal Computer Magazine.

• Please call for full details of Update's range of products.

**SPECIAL OFFERS! - For 'Shares' and 'Invest'**

- Free historical data set containing a full 10 years of the Top 100 Shares
- Free historical data set containing 3 years of the remaining shares on teletext.
- 'Superb' Charting Manual' for the new investor.
- 1 years free membership of the 'Club Update' User Group (Above offer while stocks last!)

- YES! I WISH TO STAY AHEAD! - PLEASE RUSH ME:**
- FREE!** - A fully illustrated information 'Datapak' covering the full Optimum teletext range of products.
- |   |  |
|---|--|
| <input type="checkbox"/> - OPT-III Internal Teletext PC Card (inc DOS software) <b>£169</b>                                 | <input type="checkbox"/> - OPT-III Teletext For Windows Software <b>£49</b>  |
| <input type="checkbox"/> - OPT-III/S External Teletext Receiver (uses RS232 - inc DOS software) <b>£295</b>                 | <input type="checkbox"/> - Update 'Teleshares' For Windows - 'Teletext 2000' Retrieval <b>£95</b>                    |
| <input type="checkbox"/> - PC cable for OPT-III/S <input type="checkbox"/> 9-way <input type="checkbox"/> 25-way <b>£15</b> | <input type="checkbox"/> - Update 'Shares' For Windows - 'Teletext 400' Shares/Graphing System <b>£195</b>           |
| <input type="checkbox"/> - 'Export' VHF/UHF 'PAL' - add £50 to above receiver prices - made to order - call for details     | <input type="checkbox"/> - Update 'Invest' For Windows - 'Teletext 400' Shares/Graphing Prof. System <b>£495</b>     |
| <input type="checkbox"/> - Win/tv 'Celebrity' - TV Card / 24 bit Video Capture (inc. limited teletext) <b>£CALL</b>         | <input type="checkbox"/> - <b>SPECIAL OFFERS!</b> - Shares+Teleshares - deduct £50 - Invest+Teleshares - deduct £100 |

**TOTAL AMOUNT: £** \_\_\_\_\_ **including £5 carriage, then 17.5% VAT. I enclose a cheque / please debit my credit card as below.**  
 (We do welcome posted / faxed official orders from 'quoted' PLC's, Govt, Local Authority and Major Organisations) **ALL PRICES EXCLUDE VAT**

Card No: \_\_\_\_\_ Expiry: / 9

Cardholders Name: \_\_\_\_\_ Telephone No: \_\_\_\_\_

Cardholders Address: \_\_\_\_\_

Post Code: \_\_\_\_\_

**OPTIMUM TECHNOLOGY LTD**  
**FREEPOST, Sunny Gardens Parade, Great North Way, London NW4 4YP**  
**Sales Desk: 0181-203 0220 Sales Fax: 0181-203 7004**  
**24 hour Fax-on-Demand: 0181-203 5500**  
**EMAIL: teletext@opt.com INTERNET WEB URL: http://www.opt.com/opt/**

**Order Now!**  
**At last! Up-to-date information - with no 'on-line' charges!**

**Datapak Request**  
 Phone: 0181-203 0220  
 Fax: 0181-203 7004  
 Email: teletext@opt.com

**Fax-On-Demand**  
 Or why not call our 24 hour automated fax-on-demand system: 0181-203 5500. Call from any touch-tone phone, 24 hours a day, enter your fax number, and we do the rest.

**World-Wide-Web**  
 Access our Internet Web, <http://www.opt.com/opt/> and get immediate data on our full teletext product range. Includes sample output, screen shots, full specifications, developers info, and much more....

**ATT** are authorised dealers for the following:

**Microsoft**  
**EPSON**  
**NEC**



**SEIKOSHA**

**Canon**

**WYSE**



**TOSHIBA**

**Lotus**

**AST**  
COMPUTER



**LEXMARK**

**SAMSUNG**

**QMSE**

**3Com**

Authorised  
Dealer  
IBM Personal  
Computers

**COMPAQ**

**brother**

**AS ADVERTISED ON RADIO**

★ <b>IBM</b> APTIVA ★		
2144-745	(i486sx2 50MHz - 270MB)	£749
2144-855M	(i486dx2 50MHz - 270MB)	£999
2168-857	(i486dx2 66MHz - 540MB)	£1319
★ <b>IBM</b> PC300 ★		
PC330 IDE VESA	(i486dx2 50MHz - 270MB)	£719
PC330 IDE VESA	(i486dx4 100MHz - 540MB)	£1249
PC350 IDE PCI	(Pentium 75MHz - 540MB)	£1689
PC350 IDE PCI	(Pentium 90MHz - 850MB)	£1989
★ <b>IBM</b> PC700 ★		
PC730 IDE ISA	(Pentium 75MHz - 540MB)	£1609
PC730 SCSI MCA	(Pentium 90MHz - 540MB)	£2259
PC750 IDE ISA	(Pentium 90MHz - 540MB)	£2099
PC750 SCSI MCA	(Pentium 90MHz - 540MB)	£2329
★ <b>IBM</b> SERVERS ★		
77i-VNT	(i486dx2 66MHz - 1.0GB)	£2299
95-SOC	(Pentium 90MHz - 1.0GB)	£5369
300-CNT	(i486dx2 66MHz - 1.0GB)	£2389
500-STC	(Pentium 90MHz - 0MB)	£7259
720-4ZS	(Pentium 100MHz - 4.9GB)	£28369
★ <b>IBM</b> THINKPADS ★		
TP340-DS1	(i486slc2 50MHz - 200MB)	£1359
TP360-DS4	(i486dx2 50MHz - 340MB)	£1939
TP370-TC2	(i486dx4 75MHz - 540MB)	£2689
TP701-TF1	(i486dx2 50MHz - 360MB)	£3229
TP755-CD1	(i486dx4 100MHz - 540MB)	£5329
TP755-CX3	(idx4 100MHz - 810MB)	£6222
★ <b>IBM</b> PERIPHERALS ★		
14" COLOUR MONITOR 14L10		£275
14" COLOUR MONITOR 14X		£365
15" COLOUR MONITOR 15X		£455
17" COLOUR MONITOR 17X		£920
21" COLOUR MONITOR 17X		£1769
21" COLOUR MONITOR 21X		£145
PS/2 ENHANCED KEYBOARD		£40
ENHANCED DESIGN MOUSE		£110
IBM DOS 6.1		£69
OS/2 WARP 3.0		

★ **WE SPECIALISE IN** ★

A.S.T., TOSHIBA, NEC AND ALL OTHER  
MAJOR BRAND NAMES, ALSO ALL  
UPGRADES FOR P.C.'S

★ <b>COMPAQ</b> PROLINEA ★		
PROLINEA 4/33s 200/W LB		£689
PROLINEA 4/50 200/W LB		£895
PROLINEA 4/66 340/W LB		£1029
PROLINEA 4/100 525/W LB		£1279
PROLINEA (5/5) 575/420/CDS PCI		£1749
PROLINEA MT 4/50 420/W LB		£1029
★ <b>COMPAQ</b> DESKPRO ★		
COMPAQ DESKPRO XE 433s 270/W		£999
COMPAQ DESKPRO XE 466 525/W		£1189
COMPAQ DESKPRO XE 4100 525/W		£1379
COMPAQ DESKPRO XE 560 720/W		£1499
COMPAQ DESKPRO XE (3x3) 466 270/W PCI		£1170
COMPAQ DESKPRO XE (4x4) 575 720/W PCI		£1930
COMPAQ DESKPRO XE (5x5) 5100 720/W PCI		£2405
COMPAQ DESKPRO XL 450 270/W		£1295
COMPAQ DESKPRO XL 466 535/W		£1885
COMPAQ DESKPRO XL 560 270/W		£1840
COMPAQ DESKPRO XL 566 535/CDS		£2589
COMPAQ DESKPRO XL 590 1GB/W		£2950
COMPAQ DESKPRO XL 5100 1GB/W		£3165
★ <b>COMPAQ</b> PC SERVERS ★		
PROSIGNIA VS 486DX/33 M535		£1595
PROSIGNIA VS 486 DX2/66 M1050		£2185
PROSIGNIA 300 5/75 M2100		£3120
PROSIGNIA 300 5/90 M1050		£2850
PROSIGNIA 500 5/90 M2100		£3860
PROLIANT 1500 5/100 M4200A		£8680
PROLIANT 4500 5/100 M8600A		£15585
★ <b>COMPAQ</b> PORTABLES ★		
CONTURA AERO 4/25 250/W		£820
CONTURA AERO 4/33C 170/W		£1050
CONTURA 410C 350/W		£1719
CONTURA 410CX 350/W		£2179
LTE ELITE 4/40C 170/W		£1999
LTE ELITE 4/50CX 340/W		£2979
LTE ELITE 4/75CXL 810/W		£4299
★ <b>COMPAQ</b> PERIPHERALS ★		
14" VGA MONOCHROME DISPLAY		£155
14" VGA COLOUR DISPLAY		£190
14" SVGA COLOUR DISPLAY		£225
14" 1024 COLOUR DISPLAY		£275
17" QVISION 172 COLOUR MONITOR		£849
QVISION 1024/E CONTROLLER		£185
COMPAQ MS-DOS 5.0		£50

**RING NOW: 0181-520 1007**

**ATT Corporation (UK) PLC**

75 BROOKDALE RD, LONDON E17 6QH  
TEL: 0181-520 1007. FAX: 0181-509 3519



## NOVELL

## D-LINK NEW LOW PRICES

## NETLAND

## SMC

## ALLIED TELLESYN



### NOVELL NETWORK 4.1 & 3.12 STILL THE BEST PRICING IN THE U.K.

NetWare 3.12	5 user	£459.00
NetWare 3.12	10 user	£999.00
NetWare 3.12	25 user	£1520.00
NetWare 3.12	50 user	£2235.00
NetWare 3.12	100 user	£3359.00
NetWare 3.12	250 user	£5950.00
NetWare 4.1	5 user	£459.00
NetWare 4.1	10 user	£999.00
NetWare 4.1	25 user	£1520.00
NetWare 4.1	50 user	£2235.00
NetWare 4.1	100 user	£3359.00
NetWare 4.1	250 user	£5950.00
NetWare 4.1	500 user	£9999.00
NetWare 4.1	1000 user	£14999.00

### NOVELL Personal NetWare

**£39.95** With Network Card **£39.95**

5 pack inc 5 Cards **£190 !!**

Personal NetWare 2 User Kit £79.95  
 Personal NetWare 1 User Add-on Kit £49.00  
 Above Kits include: NE2000 clone adapters, Cables, T Pieces, Terminators

NETWARE LITE 1.1 **£69.95**

### DLINK NETWORK CARDS FROM ONLY £44.50

DE220CAT	BNC/AUI/TP	ISA	£49.50
DE220	BNC/AUI	ISA	£47.00
DE220C	BNC	ISA	£44.50
DE220T	TP	ISA	£44.50
DE220TP	TP/AUI	ISA	£49.00
DE220CT	BNC/TP	ISA	£52.00
DE320CT	COMBO	MCA	£135.00
DE400	COMBO	EISA	£245.00
Novell Boot Rom For 3.12			£19.00

### UNMANAGED HUBS

DE809T	9 PORT	£199.00
DE809IP	9 PORT	£199.00
DE812TP+	12 PORT	£269.00
DE816TP	16 PORT	£349.00

### REPEATERS

DE802	2 PORT	£285.00
DE804	4 PORT	£369.00
DE808C	8 PORT	£444.00



### THE BEST VALUE THE BEST PERFORMANCE NETLAND RECOMMENDED NEW NETLAND PLUG & PLAY CARDS



### NETLAND NETWORK CARDS COMBO ONLY £59 !

### NETLAND 18 PORT UTP HUB 16 UTP 1XBNC 1XAUI £219

### NETLAND 9 PORT UTP HUB 8 UTP 1XBNC £99

### NETLAND PCI 32 BIT CARD COMBO ONLY £57.50

### NETLAND LIGHTNING NE2000 COMBO CARD ONLY £22.50 EACH AVAILABLE IN 10/15/20/25 PACKS ONLY.

### ULTRA BEST PRICES !!!

### ULTRA Combo £49 ULTRA BNC £45 ULTRA TP £45



### ETHEREZ Combo £79 ETHEREZ BNC £65 ETHEREZ TP £65

ELITE/A	MCA	£143.00
ELITE 10T/A	MCA	£143.00
ELITE EISA COMBO	TP or BNC	£199.00
SMC3812	HUB TP 12 Port	£399.00
SMC3608	HUB TP 8 Port	£375.00
ELITEPORT Pocket Adapter		£199.00
TOKEN RING MAU	Passive 8 Port	£439.00
TOKEN RING MAU	Passive 16 Port	£599.00
PCI CARD		£199.00
PCMCIA		£169.00
TIGER TP6 HUB 6 UTP PORTS		£159.00
TIGER TP12 HUB 12 UTP PORTS		£299.00

### CentreCOM MX10



BNC Micro Transceiver	£25.99
BNC Slimline Micro Transceiver	£24.99
10 BaseT Micro Transceiver	£25.99
10 BaseT Slimline Micro Transceiver	£24.99
Fibre Optic FOIRL/SMIA Micro Trans	£139.00
Fibre Optic FOIRL/ST Micro Trans	£139.00

Micro Repeater AUI to UTP	£189.00
Micro Repeater BNC to UTP	£199.00
Micro Repeater UTP to FIBRE	£249.00
Micro Repeater BNC to FIBRE	£339.00
Micro Repeater AUI to FIBRE	£329.00
Micro Repeater BNC to BNC	£249.00
Micro Repeater AUI to AUI	£229.00
Micro Repeater AUI to BNC	£229.00

UTP Mini Hub 4 UTP Ports + 1 AUI	£119.00
UTP Mini Hub 8 UTP Ports + 1 AUI	£139.00
UTP Hub 12 UTP Ports + 1 AUI	£229.00
UTP Hub 12 UTP Ports + 1 AUI + 1BNC	£299.00
UTP Hub 16 UTP Ports + 1 AUI + 1BNC	£399.00
UTP Hub 24 UTP Ports + 1 AUI + 1BNC	£999.00
Stackable Hub 24 UTP Ports	£999.00
Stackable Hub 48 UTP Ports	£1499.00

## UNIX CONNECTIVITY

LAN WorkGroup v4.2.5 user	£728.00
LAN WorkGroup v4.2.10 user	£1211.00
LAN WorkPlace for DOS 1 user	£189.00
LAN WorkPlace for DOS 10 user	£975.00
NetWare NFS Gateway v1.2.5 user	£1040.00
NetWare NFS Gateway v1.2.10 user	£1730.00
NetWare NFS Starter Kit	£728.00
NetWare /IP v1.1.5 user	£745.00
NetWare /IP v1.2.10 user	£441.00
NetWare /IP v1.2.25 user	£679.00
UnixWare Personal Edition CD	£ring
UnixWare Personal Edition Tape	£ring

### ENTERPRISE CONNECTIVITY

NetWare for SAA 16 session	£973.00
NetWare for SAA 64 session	£2919.00
NetWare HostPrint 16 session	£581.00
NetWare HostPrint 128 session	£1456.00
NetWare Connect 2 Port	£287.00
NetWare Connect 8 Port	£1071.00
NetWare Connect 32 Port	£2919.00
NetWare Multi Protocol Router	£728.00
NetWare Multi Protocol Plus	£504.00
NetWare for Macintosh v3.12 200 user	£483.00
NetWare for Macintosh v4 Unlimited	£581.00

### NETWORK MANAGEMENT

LANalyzer for MS Windows v2.1	£728
NetWare LANalyzer	£728
Agent 1-segment	£728
NetWare LANalyzer Agent multi-seg	£1211
NetWare Management Sys v2.0	£1211

EITHER POST OR FAX YOUR ORDERS TO:  
 Netland (UK) Ltd.  
 5F Lynx Business Pk.  
 Newmarket. Cambs.  
 CB8 7NY

TEL: 01638 720999  
 FAX: 01638 721424



All prices exclude V.A.T. & carriage. All services offered by Netland are chargeable. All trademarks Acknowledged. Product specification and prices subject to change dependant on availability. Subject to availability goods will be dispatched immediately on receipt of cleared payment. E.O.E. Systems received may differ from the illustrations. All Netland products are sold on a product only basis.

## TCP/IP



### FTP 3.1 FTP ONNET 1.2

FTP 3.1	£284.00
FTP ONNET 1.2	£389.00

SPRY AIR NFS 3.0 £595.00  
 WALKER RICHER & QUINN TCP £399.00  
 FRONTIER TECH CORP SUPER TCP PRO FOR WINDOWS £595.00

### THE BEST PRICE REMOTE ACCESS HE CRAY MATCHBOX REMOTE ROUTER ONLY £1249.00.....! THATS LOW....!!

## SONIX LAN & WAN

Sonix Communications  
 Arpeggio Remote Ethernet Bridge  
 Arpeggio Remote Ethernet ISDN Bridge  
 ISDN Interface Card Remote Ethernet ISDN Bridge

## GANDALF

LANLine5210; LANLine5220	
LANLine 5221 (PC Card)	
LANLine 5220; Optimiser Option	
ANLine 5221 (PC Card); LANLine522L	
Simply The Best Prices!	

## Sun NFS



Includes TCP/IP

### NEW PC-NFS

Special Promotion Price	£299
-------------------------	------

## DAT TAPE DRIVES

HP Jetstore 5000 4GB Ext DDS-1 Drive	£915.00
C1526A 4GB Int DDS-1 Drive	£799.00
C1524E-ALN 4GB Ext DDS-1 Drive for Novell with Arcserve and ISA Controller	£1592.00
HP Jetstore 6000 8GB Int DDS-2 Drive	£928.00
C1529A 8GB Ext DDS-2 Drive	£1044.00
C1531A-ALN 8GB Int DDS-2 Drive for Novell with Arcserve and ISA Controller	£1888.00
HP Jetstore 2000 2GB Ext DDS-1 Drive	£825.00
C1525A 2GB Int DDS-1 Drive	£739.00
C1523E-ALN 2GB Ext DDS-1 Drive for Novell with Arcserve and ISA Controller	£934.00
SONY DAT DRIVES	
8 - 16 GB Internal	£799.00
8 - 16 GB External	£899.00
Int KIT inc Software and Card	£899.00
Ext KIT inc Software and Card	£999.00

## WOLLONGONG TCP/IP



### PC-Xware £349

PC-Xware from NCD is simply the best way to link Windows into UNIX

## CHAMELEON TCP for Windows

## CHEYENNE

ARCserve FOR NETWORK - DOS EDITION	
ARCserve for NetWare NLM 5-user	£229.00
ARCserve for NetWare NLM 10-user	£379.00
ARCserve for NetWare NLM 25-user	£629.00
ARCserve for NetWare NLM 50-user	£739.00
ARCserve for NetWare NLM 100-user	£899.00
ARCserve FOR NETWORK - WINDOWS EDITION	
ARCserve for NetWare VAP 5-user	£199.00
ARCserve for NetWare VAP 10-user	£349.00
ARCserve for NetWare VAP 100-user	£549.00
ARCserve FOR NETWORK - WINDOWS EDITION	
ARCserve for NetWare Windows 5-user	£239.00
ARCserve for NetWare Windows 10-user	£425.00
ARCserve for NetWare Windows 25-user	£629.00
ARCserve for NetWare Windows 50-user	£899.00
ARCserve for NetWare Windows 100user	£1029.00
ARCserve for NetWare Windows 250user	£1495.00
ARCsolo	
ARCsolo for DOS	£149.00
ARCsolo for Windows	£139.00
ARCsolo for OS/2	£299.00

## INTERNET SOLUTION



### EVERYTHING YOU NEED TO CONNECT TO THE INTERNET IN ONE BOX

3400 ONLINE	£199.95
3400 PRO MAC	£224.95
3400 PRO PC	£199.95

## INSTANT INTERNET

### LOW COST !!

One Price provides up to 50 concurrent sessions supporting LANs with over 200 PCs.

No extra hardware is required and high maintenance and installation fees are avoided

### INSTANT INTERNET FOR £2950



## PCMCIA ETHERNET



### BNC & TP £89.95

## SCO



Best Prices for SCO from Netland REGISTERED RESELLER

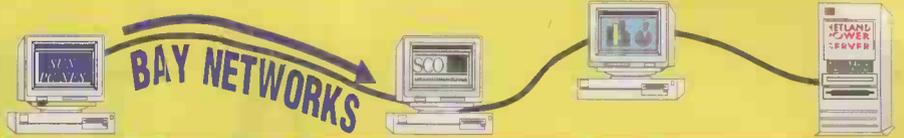
## US ROBOTICS MODEMS

Sportster 14.4 + Fax Ext	£149.00
Sportster 14.4 + Fax Int	£152.00
Courier V34 + Fax External	£274.00
Courier V34 + Fax Internal	£289.00
Worldport HST dual std PCMCIA	£192.00
Worldport PCMCIA 2496 + Fax	£155.00

Tel: 01638 720999 Fax: 01638 721424

Fill in The Blanks N\_T\_A\_D The Leading Network Specialist Over £10,000,000 of Products just waiting for a FAST, FAST Delivery !!

# NETWORKING



## INTEL

Etherexpress 16 BNC or TP	£69.95
Etherexpress PRO TP	£64.95
Etherexpress PRO BNC/TP	£79.95
Etherexpress PRO BNC/TP W/FLASH	£79.95
Etherexpress PRO TP	£69.95
Etherexpress 32 EISA	£295.95
Etherexpress FLASH 32	£199.95
Etherexpress MCA BNC or TP	£179.95
Etherexpress ISA HUB	£ Ring
Etherexpress EISA HUB	£ Ring
Etherexpress Expansion HUB	£ Ring
Etherexpress RJ45 Harmonica	£ Ring

## 3COM

3C509B BNC	£55.00
3C509B TP	£49.00
3C509B TP & BNC COMBO	£59.00
3C503 16 TP or BNC	£123.00
3C527B TP or MCA 32	£467.00
3C529 TP or BNC MCA	£155.00
3C579 TP or BNC	£199.00
3C589 TP PCMCIA	£118.00
3C589 TP & BNC PCMCIA	£159.00

NEW 100 MEGABITS PER SECOND  
 3COM Fast EtherLink PCI 10/100 £199.00  
 3COM Fast EtherLink EISA 10/100 £324.00

## 3COM

### 3C509B COMBO BNC & TP £59

## WEB HUBS NEW LOW PRICES

10 Base T 5 Port Hub + 1 X BNC	£89.95
10 Base T 8 Port Hub	£109.00
10 Base T 8 Port Hub Internal Card	£109.00
10 Base T 12 Port Hub + 1 X BNC	£199.00
10 Base T 16 Port Hub + 1 X BNC	£239.00
10 Base T 16 Port Hub + 1XBNC+1AUI	£249.00
10 Base T 12 Port SNMP Hub + 1XBNC	£499.00
10 Base T 16 Port Hub Internal Card	£499.00
10 Base T 24 Port Hub + 1 X BNC	£399.00
10 Base T 24 Port SNMP Hub + 1XBNC	£699.00
10 Base T 24 Port SNMP Hub Int. Card	£899.00
10 Base T 32 Port Hub + 1 X BNC	£479.00

## WEB CARDS

### WEB TURBO NE2000

yes NetWare Tested and Approved

**Best buy !!!**

Intel NetPart II TP/UTP £309.00  
 Intel NetPart II BNC £309.00  
 Intel NetPart II Token Ring £429.00  
 Intel Express XL Ethernet £329.00  
 Intel Express XL Token Ring £439.00  
 Intel Express EL Ethernet £289.00  
 Intel Express EL Token ring £419.00  
 Intel LANDesk Manager £799.00  
 TokenExpress MCA 16/4 £249.95  
 TokenExpress ISA 16 £249.95  
 TokenExpress EISA 16/4 £249.95

## NEW SWITCH TECHNOLOGY

Link Switch 500	£RING
Link Switch 1000	£RING
Link Switch 1200	£RING
Link Switch 2200	£RING
Link Switch 2700	£RING

## LinkBuilder HUBS

Linkbuilder TP/8 Hub	£149.00
Linkbuilder TP/12 Hub	£249.00
Linkbuilder FMS II 12 Port TP Hub	£439.00
Linkbuilder FMS II 24 Port TP Hub	£779.00
Linkbuilder FMS II Fibre Hub	£1249.00
Linkbuilder FMS II Management Module	£349.00
Linkbuilder Transcend Wkpg Manager	£359.00

3C509B Combo	£59
3C509B BNC	£55
3C509B TP	£49
3C590 PCI TP 10/100	£199
3C595 PCI TP 10/100	£199

## 3Com 3C589 TP PCMCIA CARD

only £118

We are so confident about the WEB Hubs we are offering an Advanced Swap-Out service for problems encountered within the first 3 months of purchase

### WEB TURBO 32 BIT PCI

yes NetWare Tested and Approved

only £79.95

## WEB TURBO NE2000 ETHERNET COMBO CARD BNC/TP ONLY £27.50

TP ONLY £23.50  
 BNC ONLY £23.50

## 5 YEAR WARRANTY OVER 10,000 SOLD

16 Bit NE-2000 BNC	£23.50
16 Bit NE-2000 BNC + WD8013	£29.95
16 Bit NE-2000 TP	£23.50
16 Bit NE-2000 BNC/TP	£27.50
16 Bit NE-2000 BNC/TP/AUI	£34.00
16 Bit NE-2000 BNC/TP + WD8013	£29.95
16 Bit NE-2000 BNC/TP TURBO	£27.50
16 Bit E/net Card Plug/Play EISA Ethernet Card	£65.00
VL-Bus Local Ethernet Card	£99.00
MCA PS/2 Ethernet Card	£99.00
PCI 32 Bit Ethernet Card	£79.00
Pocket Adapter works off Parallel Port	£69.95
PCMCIA Ethernet Card	£89.95
Fiber Optic Ethernet Cards	£RING
16 Bit BUS ARCNET	£99.00
16 Bit Star ARCNET	£99.00
16 Bit 16/4 Mbps TOKEN RING	£199.00
16 Bit 16/4 Mbps MCA TOKEN RING	£RING
8 Port Token Ring STP MAU (Type 1)	£RING
8 Port Token Ring UTP MAU (Type 3)	£RING

Etherexpress PRO 16C BNC/TP £79  
 Etherexpress PRO Flash 16C BNC/TP £89

## XIRCOM

THE POCKET ADAPTER COMPANY

### PCMCIA CARD ONLY £179.00

Ethernet III Adapter BNC £189.00  
 Ethernet III Adapter TP £189.00  
 Ethernet III Adapter Combo £199.00  
 Token Ring II Adapter 16/4 £495.00  
 Token Ring II Adapter 16/4 TP £495.00  
 External Ethernet Adapter £295.00  
 External Token-Ring Adapter £395.00  
 Pocket Token-Ring Adapter £395.00  
 Pocket Ethernet Print Server BNC £399.00  
 Pocket Ethernet Print Server TP £499.00  
 Credit Ethernet Adapter BNC PCMCIA £179.00  
 Credit Ethernet Adapter TP PCMCIA £179.00

## TOKEN RING 16/4 Cards

SMC TOKEN RING 16/4 16bit ISA	£199.00
SMC TOKEN RING 16/4 16 bit MCA	£199.00
SMC TOKEN RING MAU Passive 8 Pt	£439.00
SMC TOKEN RING MAU Passive 16 Pt	£599.00

### 3COM TOKEN RING

3COM TOKENLINK III 16/4 ISA	£199.00
3COM TOKENLINK III 16/4 MCA	£324.00
3COM TOKENLINK III 16/4 32 BIT EISA	£389.00
3COM TOKENLINK III 16/4 PCMCIA	£299.00

### IBM TOKEN RING

IBM TOKENRING 16/4 ISA	£239.00
IBM TOKENRING 16/4 MCA	£299.00
IBM TOKENRING 16/4 32 BIT EISA	£389.00
IBM TOKENRING 16/4 PCMCIA	£299.00

## APC UPS

APC 400VA SMART	£213.00
APC 600VA SMART	£224.00
APC 700VA SMART	£282.00
APC 900VA SMART	£389.00
APC 1250VA SMART	£539.00
APC 1400VA SMART	£634.00
APC 2000VA SMART	£915.00
APC 600VA BACK UP	£161.00
APC 900VA BACK UP	£313.00
APC 1250VA BACK UP	£380.00
APC MATRIX 3000	£2292.00
APC MATRIX 5000	£3364.00
POWERCHUTE	£42.00

only £69.95

## WEB

### WEB COMBO POCKET ADAPTER

only £69.95

yes BNC AND TP

## WEB ETHERNET REPEATERS

2 port Repeater 2 X BNC	£139.00
2 port Repeater 2 X BNC 1 X AUI	£159.00
2 port Repeater 2 X BNC 2 X AUI	£169.00
2 port Repeater 2 X BNC 1 X AUI 1 X TP	£179.00
2 port Repeater which can be up-grade to 4 port (2 X BNC 2 X AUI)	£239.00

2 PORT INTERNAL CARD £149.00

4 port Repeater 4 X BNC	£199.00
4 port Repeater 4 X BNC 4 X AUI	£279.00
4 port Repeater Rack Mount 4BNC 4AUI	£299.00
7 port Repeater 4 X BNC 2 X AUI 1 X TP	£269.00

6 port Repeater 6 X BNC 1 X AUI £349.00  
 6 port Repeater fiber Optic Repeater £ LOW PRICE

## MODEMS ALL FULLY BABT APPROVED

INTERNAL 14.4K V.32 Bis Modem Fax	£93.00
INTERNAL 14.4K V.32 Bis Modem Fax	£103.00
EXTERNAL 28.8K V.34 Bis Modem Fax	£170.00
EXTERNAL 28.8K V.34 Bis Modem Fax PCMCIA	£184.00
EXTERNAL 14.4K V.32 Bis Modem Fax	£140.00

THE LIGHTNING MODEM  
 FREE SOFTWARE: COMIL, Winfax & DosFax software for DOS and Windows, lite versions  
 External Modem Uses Serial Port, 28,800 baud full duplex modem, V.34 Modem MNP EN420bis data compression, Auto answer and auto dial, 14,400 baud fax send and receive, Hayes compatible, Class 2 compatible fax

£199

## 100 MBPS ETHERNET 2 USER STARTER KIT

ONE CARD FITS IN EXISTING NOVELL SERVER ONE CARD FITS IN YOUR PC TO GIVE 100 MBPS TODAY

KIT CONTAINS:  
 2 X 100 MBPS TX WEB CARDS  
 1 X 100 MBPS 10 MTR CABLE  
 1 X NOVELL 3.11 & 4.1 drivers

£239.95

## HEWLETT PACKARD

### HP Special Promotion J2552A JET DIRECT ONLY £299

Ethertwist Adaptor Card BNC	£119.00
Ethertwist Adaptor Card TP	£89.00
Ethertwist Adaptor Card 32	£139.00
HP Jetstore 2000	£1449.00
HP Jetstore 5000	£2399.00

JetDirect Ethernet Thin Laserjet II, IIJ, III, IIJ  
 JetDirect Ethernet 10BT Card Laserjet II, IIJ, III, IIJ  
 JetDirect Token Ring Laserjet II, IIJ, III, IIJ  
 JetDirect Ethernet for Unix 10BT Laserjet JetDirect HP-IB Laserjet 4, IIISI, PJ XL300, DJ600

## MICROSOFT

WINDOWS WORKSTATION	£249.00
WINDOWS 3.5 SERVER	£599.00
WINDOWS NT Client Pack Single user	£39.99
WINDOWS NT Client Pack 20 user	£469.00
WF/WG Starter Kit 2 user with cards	£269.00
WF/WG Starter Kit 1 user with card	£187.50
WF/WG Add-on Kit 2 user with cards	£180.00
WF/WG Add-on Kit 1 user with card	£95.00

£139

## WEB

COMPACT 2 PORT REPEATER 2 X BNC PORTS 1 X AUI

EITHER POST OR FAX YOUR ORDERS TO:  
 Netland (UK) Ltd.  
 5F Lynx Business Pk  
 Newmarket, Cambs.  
 CB8 7NY

TEL: 01638 720999  
 FAX: 01638 721424

## GENIUS LOWEST PRICES IN UK

10 BASE T £3000 BNC/TP  
 £69.00

GE2000 BNC/TP £27.95

## 100 MBPS ETHERNET CARDS NEW LOW PRICES

3COM Fast EtherLink PCI 10/100 TX	£179.00
3COM Fast EtherLink EISA 10/100 TX	£224.00
SMC EtherPower PCI 10/100 TX	£169.00
SMC EtherPower EISA 10/100 TX	£149.00
INTEL EtherExpress PRO/100 TX	£229.00
WEB 10/100 ETHERNET CARD TX	149.00
WEB 100 ETHERNET CARD VG	229.00

## PRINT SERVERS 1 PARALLEL, 1 SERIAL ONLY £179.00!!

EVERY NOVELL NETWORK WITH A PRINTER DESERVES ONE OF THESE

- 2 Parallel Ports
- Serial Port
- BNC & AUI & TP Connections
- Simple Installation
- 2 Year Warranty

only £279

## WHAT COULD BE EASIER !!!

ORDER TODAY BY PHONE OR FAX

BARCLAYCARD VISA

## NETLAND (UK) LIMITED

ORDER TODAY BY PHONE OR FAX NETWORKING

Tel: 01638 720999 Fax: 01638 721424

Just Pick Up The Phone Today, They Could Be Yours Tomorrow !! For Solution to Puzzle Please ring 01638 720999

NETLAND Tel: 01638 720999 Fax: 01638 721424 NETWORKING

# AJP



## FIRST in notebook technology

- Upgradable LCD display –  
AJP 7500- mono VGA(9½")  
dual scan colour (10.3") or  
TFT active colour (9½")  
AJP 8500- dual scan colour (11.3") or  
TFT active colour (10.3")  
AJP 7600- dual scan colour (10.3") or  
TFT active colour (9½"/10.3")
- Built-in FDD, 16 bit stereo sound card,  
speakers & microphone
- 1 MB video RAM windows accelerator
- 32 bit VESA local bus VGA
- PCMCIA  
(type III or 2 x type II) slot



AJP 8500  
illustrated

- AJP 7600 series –  
upgradable Intel Pentium®  
processor 75 & 90 MHz  
256 KB cache memory
- AJP 7500/8500 series –  
upgradable Intel CPU from  
486 DX4-75 to 486 DX4-100
- User removable/interchangeable  
'pocket size' hard disk in  
up to 810 MB capacity
- RAM upgradable –  
AJP 7500 series - 36 MB  
AJP 8500 series - 20 MB  
AJP 7600 series - 40 MB



Built-in SCSI controller, 2 x  
VESA Local Bus slots, 2 x ISA  
slots, HDD bay and CD-ROM bay  
**£319**



The Intel Inside Logo  
is a trademark of  
Intel Corporation

## Pentium® technology and DX4 multimedia

	AJP 7500		AJP 8500		AJP 7600	
	4MB RAM 340MB HDD		4MB RAM 340MB HDD		8MB RAM 340MB HDD	
	7575 486DX4-75	7599 486DX4-100	8575 486DX4-75	8599 486DX4-100	7675 Pentium® 75 chip	7690 Pentium® 90 chip
M Mono VGA	£ 875	£ 925	N/A	N/A	N/A	N/A
D Dual scan colour	£ 1175	£ 1225	£ 1210	£ 1260	£ 1495	£ 1595
T TFT active colour	£ 1575	£ 1625	N/A	N/A	£ 1895	£ 1995
RAM upgrade per MB .....	£40.00		Upgrade HDD to 525MB .....		£149.00	
MS DOS 6.2 & Windows 3.11 .....	£79.00		Extra NiMH battery pack .....		£95.00	
					PCMCIA Ethernet Adaptor .....	
					£165.00	
					PCMCIA Fax/Modem (14,400) ..	
					£225.00	

Government & educational orders welcome • 12 months RTB parts & labour warranty  
Free lifetime technical support

**Call Us Now 0181-452 9090**

**VISIT OUR SHOWROOM**

Showroom hours: Mon-Fri 9.00–5.30, Sat 9.00–2.00



**No Surcharge On  
Credit Cards**

**AJP Business Computers Ltd**

Units 6 & 7, The Edge Business Centre, Humber Road, London NW2 6EW

Tel: 0181-452 9090 Fax: 0181-450 6360

# THE Showman

THE ULTIMATE IN PRESENTATION & DEMONSTRATION THE POWER OF PROJECTION



The Portable MultiMedia Workstation that combines power portability and overhead projector presentation

Three easy steps to producing a perfect meeting, educational lecture or just entertaining your friends

*It's as easy as...*

- A ✓ Remove the tablet from the back of the TFT panel
- B ✓ Set the adjustable stand to the correct height, and attach the supplied fan
- C ✓ Place the TFT Screen over the Overhead Projector and switch on.

## PRESENTING THE SHOWMAN:

- In-Built Overhead Projector Tablet
- In-Built CD ROM 5.25" Dual Speed
- 4 Mb Ram Expandable to 64 Mb
- 3.5" (1.44Mb) Floppy Disk Drive
- 32 Bit Vesa Local Bus 1Mb Graphics
- Trackpoint for easy use, no cleaning
- Built-In 16 Bit Sound Card ♦ Built-In Speakers, Microphone
- 1 x Type III PCMCIA 2 x Type II PCMCIA
- Portable 340Mb HDD Drive ♦ 16 cell RTG NIMH Battery
- 2 x Serial Ports & Parallel Port
- External Keyboard Port & SVGA Port
- Auto-Switching Mains Battery Charger
- Midi/Joystick Port ♦ Carry/Brief Case with accessory pockets
- Full Three Year Warranty Plan ♦ Fan & Stand

*Showman*



**PROJECTOR TABLET & PORTABLE TFT COMPUTER**



## OPTIONS AVAILABLE

**TV TUNER: £149.00**  
For Video Conferencing, Television, Video Capture

**MPEG LIVE VIDEO: £299.00**

Play your video CD's on the Overhead Projector screen

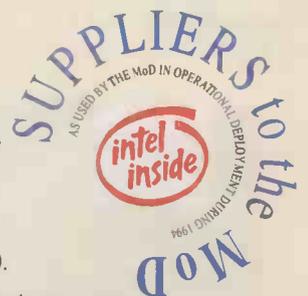
Includes 340Mb Hard Disk and 8Mb Ram

486DX2-66	£2649.00
486DX4-75	£2699.00
486DX4-100	£2749.00
Pentium - 75	£2999.00
Pentium - 90	£3049.00

## WHY CHOOSE XITEC ...

- ✓ Guaranteed delivery dates at point of order. Same day delivery available
- ✓ Lifetime technical support and Three Year Warranty plan
- ✓ The independent British company with one of the largest installed notebook bases in the UK

- ✓ We are told that we offer the highest level of support on notebook computers in the UK.
- ✓ A notebook solution for every requirement. We fulfill contracts from £800 to £2,000,000.
- ✓ Our UFS (unique friendly service) ensures that our Sales Team recommends the best notebook for your need.



### NAME OF THE UPGRADE OPTIONS AVAILABLE

Upgrade per 4Mb RAM £160.00	Upgrade to 510Mb Hard Disk £99.00
400 IBM Fax Modem £199.00	Upgrade to 810Mb Hard Disk £199.00
PCMCIA Ethernet Card £129.00	Docking stations £299.00



Lotus SmartSuite v. 3 £349.00  
Mini Docking Station £55.00  
Range of PCMCIA products £CALL



**CALL OUR SALES OFFICE ON**  
**TEL: 0181 287 4000**  
**FAX: 0181 287 4242**

UNIT 7, PRINCESS MEWS, HORACE ROAD,  
KINGSTON, SURREY KT1 1SZ





## BENEFITS OF THE ELITE PRO



- ◆ 486 Upgradeable Processor Socket
- ◆ V.2 PCMCIA Slot
- ◆ Removeable 340Mb Hard Disk Drive
- ◆ 3.5" (1.44Mb) Internal Floppy Disk Drive
- ◆ Award Winning Toshiba Display Mono/Dual Scan/TFT
- ◆ 4Mb Expandable to 16Mb RAM
- ◆ 2 Serial/1 Parallel/1 PS2 Mouse Port
- ◆ Built-In Trackball ◆ Carry Case with accessory pockets
- ◆ Autoswitching Mains Battery Charger
- ◆ AT Expansion slot for expansion box
- ◆ External SVGA Monitor & Keyboard Port
- ◆ Slimline Design 28cm x 21cm x 4cm ◆ Weight 5.7lbs
- ◆ Simultaneous Display (not dual scan models)
- ◆ Three Year Warranty Plan

Includes 340Mb Hard Disk & 4Mb Ram

Processor	Mono	Dual Scan	TFT
486DX2-66	£699	£999	£1299
486DX4-100	£899	£1199	£1499

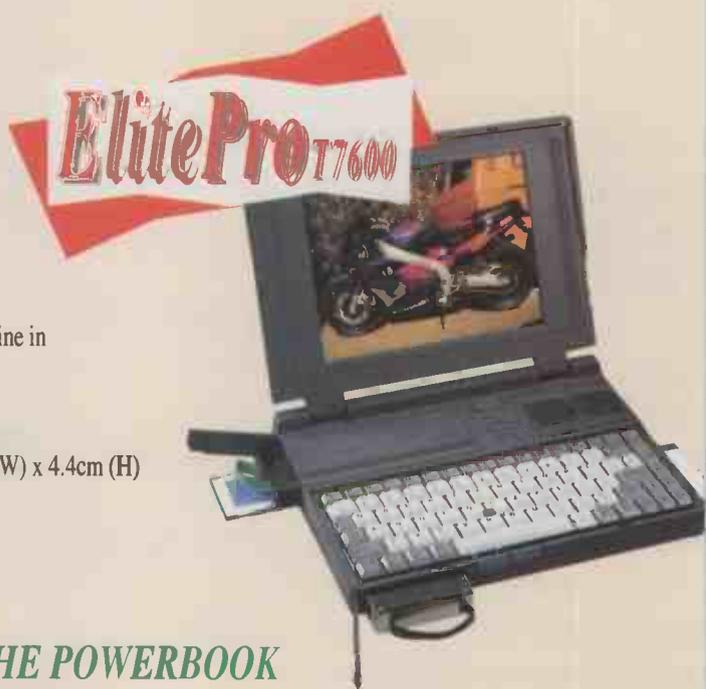
## BENEFITS OF THE ELITE PRO T7600

- ◆ 486 Upgradeable Processor
- ◆ 2 x Type II PCMCIA Slots
- ◆ Removeable 2.5" 340Mb Hard Disk Drive
- ◆ 3.5" (1.44Mb) Floppy Disk Drive
- ◆ Mono/Dual Scan/TFT Screen Options
- ◆ 4Mb RAM upgradeable to 32 Mb
- ◆ 32 Bit Vesa Local Bus
- ◆ Removeable NIMH Battery Pack
- ◆ Auto-Switching mains battery charger
- ◆ Trackpoint situated between G & H Keys
- ◆ COM 1, Parallel Port, CRT Port

Includes 340Mb Hard Disk & 4Mb Ram

Processor	Mono	Dual Scan	TFT
486DX2-66	£799	£1049	£1399
486DX4-75	£849	£1099	£1449
486DX4-100	£899	£1149	£1499

- ◆ MIC, Midi Joystick Port, Speaker out, Line in
- ◆ 16 Bit Audio System
- ◆ 128Mb External Cache, Level 2
- ◆ Physical Dimensions 29cm (L) x 22cm (W) x 4.4cm (H)
- ◆ Weight 6.2 lbs ◆ Carry Case
- ◆ Three Year Warranty Plan



## BENEFITS OF THE POWERBOOK

- ◆ PGA Motherboard takes 3.3V or 5V CPU's
- ◆ 128KB External Cache ◆ 32 bit Vesa Local Bus
- ◆ 4Mb Expandable to 36Mb Ram
- ◆ Removeable Upgradeable Hard Disk Drive
- ◆ 3.5" (1.44Mb) Floppy Disk Drive
- ◆ Mono, Dual Scan or TFT 10.4" Screen Options
- ◆ Microsoft Sound System
- ◆ 8 bit Sound Card, Sound blaster compatible
- ◆ Built-In speaker ◆ Built-In 25mm Trackball
- ◆ PCMCIA Type IV expansion slot
- ◆ External Microphone and Speaker Connections
- ◆ 1 Serial/1 Parallel Port
- ◆ Autoswitching Mains Battery Charger
- ◆ External SVGA Colour Monitor Port & External Keyboard Port ◆ Docking Station Port
- ◆ 28cm (W) x 22cm (D) x 5cm (H)
- ◆ 2 NiMH Batteries with hot swap facility
- ◆ Carry Case ◆ Three Year Warranty Plan

Includes 340Mb Hard Disk & 4Mb Ram

Processor	Mono	Dual Scan	TFT
486DX2-66MHz	£849	£1149	£1529
486DX4-75MHz	£869	£1169	£1549
486DX4-100MHz	£889	£1189	£1589

PENTIUM STANDARD WITH 4Mb Ram, 340 HARD DISK AND 16 BIT SOUND

PENTIUM 75	N/A	£1339	£1689
PENTIUM 90	N/A	£1399	£1749



A DIVISION OF ELITE CORPORATION EUROPE LIMITED

**TEL: 0181 287 4000**  
**FAX: 0181 287 4242**

All prices exclude VAT at 17.5% & delivery. E & OE  
The Intel logo is a trademark of the Intel Corporation



**RENTAL & HIRE PURCHASE OPTIONS NOW AVAILABLE ON ALL XITEC NOTEBOOK**

# MULTIMEDIA

## THE

# MediaPro

MULTIMEDIA TECHNOLOGY - COMPUTES, EDUCATES AND ENTERTAINS



## Make a professional move into the world of multimedia with options that are set to *amaze!*

### BENEFITS OF THE MEDIAPRO

- ▶ Upgradeable 486 or Pentium processor socket & CPU Options
- ▶ 256K External Cache
- ▶ Upgradeable 5.25" Built-In Dual Speed CD ROM Drive
- ▶ Trackpoint (easier to use than trackball - no cleaning required)
- ▶ Two Built-In speakers, Built-In microphone
- ▶ 16 Bit Sound blaster compatible card
- ▶ VESA 32 Bit Local Bus, 1Mb graphics card
- ▶ Removeable, upgradeable and easily interchangeable Hard Disk
- ▶ 8Mb Expandable to 64Mb RAM
- ▶ 1xType III or 2xType II PCMCIA Slots

- ◆ 3.5" (1.44Mb) Floppy Disk Drive
- ◆ Upgradeable Dual Scan (10.4"), TFT (9.5"/10.4") Screen options
- ◆ External Keyboard Port and SVGA Monitor Port
- ◆ 2 Serial/1 Parallel Port/1 Midi/Joystick Port
- ◆ NiMH Battery 16 cell with special RTG feature for extra life
- ◆ Autoswitching Mains Battery Charger
- ◆ Carry Case with accessory pockets
- ◆ External microphone and speaker ports
- ◆ MPEG live video option
- ◆ Full Three Year Warranty plan

### ACCESSORIES AND UPGRADES

Upgrade per 4Mb RAM	£160
Lotus SmartSuite V.3	£349
Upgrade to 510Mb HDD	£99
Upgrade to 810Mb HDD	£199
PCMCIA 14.400	
IBM Fax Modem	£199

Includes 340 Hard Disk, 4Mb Ram & CD Rom

Processor	Dual Scan	TFT
486DX4-75	£1399	£1749
486DX4-100	£1449	£1799
Pentium 75	£1539	£1889
Pentium 90	£1599	£1949

### VIDEO MPEG OPTION

This option for live video film integrates the MPEG I decoder for video CD and CD-I, making it a perfect partner for education, entertainment and practical programs £299.00

PLEASE TEST OUR PRICE PLEDGE

### TV TUNER OPTION

Keep up with current affairs with this TV Tuner option and capture still images from a video camera to your notebook with this module £149.00



CALL OUR SALES OFFICE ON

**TEL: 0181 287 4000**

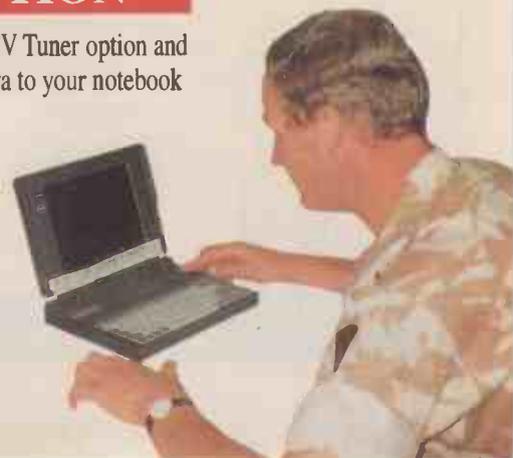
**FAX: 0181 287 4242**

UNIT 7, PRINCESS MEWS, HORACE ROAD, KINGSTON, SURREY KT1 1SZ

Please note: all prices exclude VAT at 17.5% & Delivery prices & specifications are subject to change without notice.



Purchase orders are subject to approval, business leasing programs available. All prices, specifications and availability are subject to change without notice. All products and company names are trademarks of their respective holders. Intel Inside and Pentium Processor are trademarks of Intel Corporation.



**THE FUTURE TOGETHER**  
A DIVISION OF ELITE CORPORATION  
EUROPE LIMITED

Big on features.  
 Big on value.  
 Big on choice.  
 (The only thing  
 you don't pay for  
 is a big name.)



**£799**

TFT colour: £1449

### The 4021i Notebook

The Mitac 4021i is very powerful, truly modular (you can upgrade the hard-drive, system memory and battery pack), boasts superior high speed graphics, an advanced screen and longer battery life.

Intel 486 DX2-66 • VESA Local Bus for VGA • 4MB RAM standard, 20 MB maximum •  
 250 MB removable HDD • 9.5" Mono STN screen • Internal 1.44 MB Floppy Disk Drive •  
 PCMCIA 1x type 3, 2 x type 2 • NiMH battery • Power Management •  
 Weight 6.5 lbs • Dimensions W299mm x D236mm x H52mm

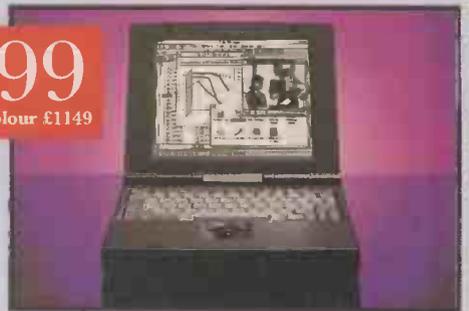
### The 4023i Notebook

The 4023 is one of the smallest and lightest notebook computers available today, yet delivers as much power and functionality as a full-size notebook. It sets new standards for convenience, flexibility and price/performance.

486 DX2-66 • 486PGA Upgradeable to DX4 • VESA Local Bus for VGA • 4MB RAM Standard, 20 MB  
 maximum • 250 MB removable HDD • 9.5" Mono STN screen • Internal 1.44 MB Floppy Disk Drive •  
 PCMCIA 1 x Type 2, 1 x Type 3 • Battery • Power Management • Weight 4.4lbs •  
 Dimensions: W 268mm x 204mm x H45mm

**£799**

Dual scan colour £1149



All machines come with free DOS and Windows, power adaptor, technical support, 12 months return-to-base warranty and free carry case. On-site warranty £49. Delivery £15.

With features and options you'd normally associate with much more expensive notebooks, Mitac has unequalled price/performance.

Mitac products are also supported by

a network of sales, service and customer care staff, based at our European manufacturing and service centre in Telford.



All prices exclude VAT and delivery and are subject to change without notice E & OE.

Call Actinet Computers Limited now on 01902 871001.  
 Order line open 9am-5.30pm Mon-Fri, 9am-1.00pm Saturdays.

**MITAC**  
 The Quiet Giant.

PCW/B/10/95.

338  
 PERSONAL COMPUTER WORLD  
 OCTOBER 1995

# Big Servers

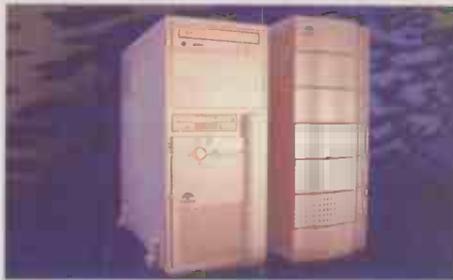
Amazingly, sophisticated large servers can be found at incredibly reasonable prices! Look no further. Adams have two basic types of large server system to offer. The Accura Modular offers flexibility and expandability whilst the Accura Integrated has many performance and redundancy enhancements engineered in. Both systems are based on R.A.I.D. technology and offer very high equipment quality levels, flexible warranty and service plans with a pricing structure that is truly amazing!

**Modular** Accura Modular, features a new "building block" style external disc array, providing the ability to upgrade your server as requirements dictate, from disc mirroring to full RAID level 5, even peripherals like DAT, can be added.

**Integrated** Accura Integrated gives a traditional server layout, with up to 6 removable drives integrated into the case. Features include a redundant power supply system with "quick change" spare, a high efficiency cooling system and the ability to integrate further peripherals like DAT, CD-ROM and optical drives. The Accura Integrated is one of the most cost effective high performance server systems available.

Call technical sales on 0161 877 8822 to find out more.

## Accura Modular Server



### Modular features

- Intel Pentium® 90/100mhz CPU
- Plug and play compatible with auto configuration (PCI and ISA bus)
- 512k external cache
- 32mb RAM (max 192mb)
- Modular expandable RAID enclosure with redundant PSU's
- 2.0gb addressable RAID level 5 array, with 3 x 1gb fast SCSI-II hard drives
- DPT 2124 PCI 32-bit bus mastering RAID controller with 4mb cache memory
- SCSI CD-ROM drive, 4.4 speed, multi session,
- 3.5" 1.44mb floppy drive
- Fast PCI graphics card with 1mb RAM
- 14" Accuscan energy saving, MPR-II monitor, NI, max res 1024 x 768
- 2 serial (16550), 1 parallel port (EPP/ECP)
- 32 bit 100mbps PCI bus mastering ethernet card
- Accura tower case with 250w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Operating systems: OS/2 Lan Server, Novell, SCO Unix, Windows NT (not supplied).

## Powered by

Prices	Accura Modular RAID Server with Intel Pentium® 90 CPU, as specified	£4899
	Accura Modular RAID Server with Intel Pentium® 100 CPU, as specified	£4999

Options	1gb → 2gb fast SCSI-II HDD (per drive)	£369
	1gb → 4gb fast SCSI-II HDD (per drive)	£699
	Main system memory upgrades per 1mb	£36
	RAID upgrade to 5 drives (4gb capacity)	£970
	2 extra 1gb drives and 2 mount modules	
	5 x 1gb RAID → 5 x 2gb RAID	£1995
	8gb total capacity	
	5 x 1gb RAID → 5 x 4gb RAID	£3495
	18gb total capacity	
	Motherboard and RAID controller ECC memory upgrade (per 1mb)	£CALL
Options	2-4gb DDS-1 DAT drive mounted in mount module (ready to stack)	£749
	4-16gb DDS-2 DAT drive mounted in mount module (ready to stack)	£899
	100mbps PCI bus mastering ethernet card	£199



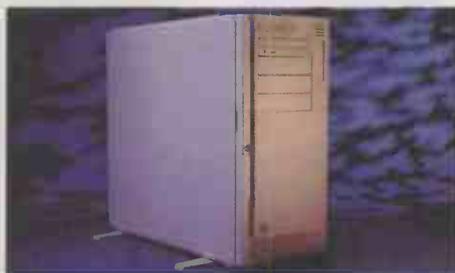
Extra peripherals (ie DAT) can be added to the Modular RAID unit | Extra mount modules just clip on, no cabling is required | Full redundancy and hot swapability of drive modules and PSU's

# Whoppers!

## Accura Integrated Server

## Powered by

Prices	Accura Integrated RAID Server with single Intel Pentium® 90 CPU as specified	£7899
	Accura Integrated RAID Server with dual Intel Pentium® 90 CPU's as specified	£8149
	Accura Integrated RAID Server with single Intel Pentium® 100 CPU with 8gb array	£9699
	Accura Integrated RAID Server with dual Intel Pentium® 100 CPU's with 8gb total	£9949



### Integrated features

- Intel Pentium® 90/100mhz CPU
- Dual Pentium motherboard with Intel Neptune II 3.3v chipset, PCI and EISA slots.
- Plug and play compatible with auto configuration (PCI and EISA bus)
- 512k external cache
- 32mb RAM (max 512mb)
- 3 channel bus mastering, PCI RAID fast wide SCSI-II controller with 8mb cache. Max data transfer as configured 50-60mbs
- 4.0gb addressable RAID level 5 array, with 5 x 1gb fast wide SCSI-II hard drives, mounted on alloy "hot pluggable" mounts.
- SCSI CD-ROM drive, 4.4 speed, multi session
- 3.5" 1.44mb floppy drive
- Fast PCI graphics card with 1mb RAM
- 14" Accuscan energy saving, MPR-II monitor, NI, max res 1024 x 768
- 2 serial (16550), 1 parallel port (EPP/ECP)
- 32 bit 100mbps PCI bus mastering ethernet card
- Accura Integrated Server case with 2 x 400W redundant power supplies and 1 x 400W pluggable spare.
- Power supply failure alarm
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Operating systems: OS/2 Lan Server SMP, SCO Unix with SMP extns, Windows NT 3.5 (not supplied).

## Adams service

**Warranty:** For your peace of mind Adams offer a 3 year parts and labour warranty on your Accura Server. The first year of this warranty is on-site with BS5750 standard eight hour response provided by our partner ICL. All main system components are covered except monitors which are warranted by their own manufacturers. The on site service can be extended up to 3 years, and in certain areas, a four hour response time can be provided. Please call for specific quotations.

**Ordering:** We are pleased to accept enquiries between 9am and 6pm Monday to Friday. All Accura Servers are normally shipped within 2 weeks of order. We accept cheque with order, Visa, Mastercard or American Express. PO's are welcome from FTSE100 listed companies and government departments. Carriage charges at cost, normally around £25 per system. All prices quoted are subject to VAT.



Adams' are the official computer supplier to Williams Renault for 1995

0161 877 8822

Options	2gb → 4gb fast SCSI-II HDD (per drive)	£299
	Main system memory upgrades per 1mb	£36
	RAID cache upgrades per 1mb	£36
	5 x 1gb RAID → 5 x 2gb RAID	£1800
	8gb total capacity (see above)	
	5 x 1gb RAID → 5 x 4gb RAID	£3050
	18gb total capacity	
	Motherboard and RAID controller ECC memory upgrade (per 1mb)	£CALL
	Secondary external RAID unit	£CALL



Case accommodates 6 removable RAID drives and 5 secondary units | HDD's mounted in alloy glitch free carriers, hot spare provision | 400w PSU's can be hot swapped, spare unit fitted in lower case



Advanced Computer Technology

ADAMS TECHNOLOGY LTD, CITY POINT, CHESTER RD, OLD TRAFFORD, MANCHESTER M32 0RW UK, FAX: 0161 877 8684

339 PERSONAL COMPUTER WORLD OCTOBER 1995

# Alain!

Who? If you wondered what the logo is at the bottom of our ads., then we thought we better introduce you to Swiss star Alain Menu, who together with Will Hoy, drives the Adams sponsored Williams Renault Laguna in the British Touring Car Championship.



Alain Menu on the way to victory in the Adams sponsored Williams Renault Laguna, in the British Touring Car Championship.

Adams supply all data gathering, telemetry and administrative computers for Williams Touring Car Engineering, an affiliate of the Williams F1 Grand Prix team.

Williams wanted a company who could offer the technology required, flexibility and service; choosing Adams to give that all important overall balance of value for money, quality and service. Why don't you choose Adams too?

## Accura Premium

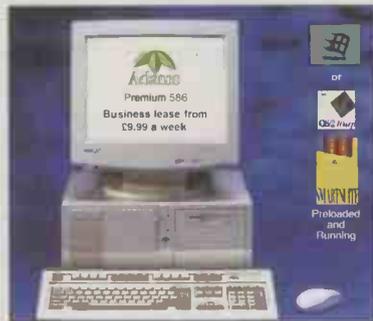
P  
r  
e  
m  
i  
u  
m  
  
4  
8  
6



DX2-66	£849	DX4-75	£899
DX4-100 £949			

- 486DX2-66 or DX4-75/100 CPU
- 256k external cache
- 4mb RAM (max 128mb)
- 540mb sub 12ms IDE hard drive with built in IDE controller
- 3.5" 1.44mb floppy drive
- Accelerated local bus graphics engine with 1mb RAM (max 2mb)
- 14" Accuscan energy saving, MPR-II monitor, NI, max res 1024 x 768
- 2 serial, 1 parallel port
- Slim desktop case
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 V3.0 or Windows 95 preloaded

P  
r  
e  
m  
i  
u  
m  
  
5  
8  
6



P75	£1149	P90	£1249
P100 £1349			

- Intel® Pentium® 75/90/100mhz CPU
- PCI local bus
- 256k external cache
- 8mb RAM (max 128mb)
- 540mb 11ms IDE hard drive with PCI 32-bit EIDE controller
- 3.5" 1.44mb floppy drive
- Ultra fast PCI graphics engine with 1mb RAM
- 15" Accuscan energy saving, MPR-II monitor, NI, max res 1280 x 1024
- 2 serial, 1 parallel port
- Desktop case with 200w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 Warp or Windows 95 preloaded
- Lotus SmartSuite for OS/2 included with Warp preloads

# What's on

**Software** We're now shipping a choice of operating systems with our range of desktop PC's. Pre installed is Windows 95, Dos and Windows or Win OS/2 Warp. Your choice. With OS/2 installs, Lotus Smart Suite for OS/2 is included. We are currently negotiating an "Office" bundle for Windows 95, we should be shipping by the time you read this. Call for more information.

**Premium** With our Accura Premium range we thought we better point out that unlike some manufacturers "low cost" products we don't skimp. We include the same high quality heavy duty keyboard, the same injection moulded, stainless steel lined cases, the same Microsoft mouse as our "big brother" Professional range.

**Professional** For those speed freaks among you, our Accura Professionals now feature a new 133mhz model which also incorporates the Matrox Millennium graphics card capable of 85hz refresh at 1600 x 1200, also with new faster VRAM. This out paces VRAM and is upgradeable to 8mb.

Adams offer a 3 year warranty with service support from ICL. We've many more delicacies to wet your appetite, so why not call sales now on 0161 877 8822 and find out what makes Adams different!

**PS:** Editors choice for the Accura Professional WS



## Accura Professional

P  
r  
o  
f  
e  
s  
s  
i  
o  
n  
a  
l  
  
5  
8  
6  
W  
S



P90	£2049	P100	£2149
P120	£2299	P133	£2449

- Intel Pentium® 90/100/120/133 mhz CPU
- Intel Triton® chipset
- Plug and play compatible with auto configuration
- 256k synchronous SRAM
- 16mb EDO RAM (max 128mb)
- 1.2gb sub 10ms IDE hard drive with PCI 32 bit mode 4 enhanced IDE controller
- Quad speed multi session ATAPI CD-ROM drive
- 3.5" 1.44mb floppy drive
- Soundblaster Pro 16 with speakers
- Matrox Millennium graphics card with 2mb VRAM (w/g to 8mb)
- 15" Accuscan energy saving, MPR-II monitor, NI, max res 1280 x 1024, 75hz refresh
- 2 serial (16550), 1 parallel port (EPP/ECP)
- Desktop Case with 200w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 Warp or Windows 95 preloaded
- Lotus SmartSuite for OS/2 included with Warp preloads

P  
r  
o  
f  
e  
s  
s  
i  
o  
n  
a  
l  
  
5  
8  
6  
M  
M



P90	£2549	P100	£2649
P120	£2799	P133	£2949

- Intel Pentium® 90/100/120/133 mhz CPU
- Intel Triton® chipset
- Plug and play compatible with auto configuration
- 256k synchronous SRAM
- 16mb EDO RAM (max 128mb)
- 1.2gb sub 10ms IDE hard drive with PCI 32 bit mode 4 enhanced IDE controller
- Quad speed multi session ATAPI CD-ROM drive
- Soundblaster® AWE32 sound card and pro-dig spkrs
- 3.5" 1.44mb floppy drive
- Matrox Millennium 2mb VRAM graphics card (w/g to 8mb)
- 17" Iodek MF8617 energy saving, MPR-II monitor, NI, max res 1600 x 1200, max refresh 100hz
- 2 serial (16550), 1 parallel port (EPP/ECP)
- Desktop Case with 200w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 Warp or DOS 6.22/Win FWG 3.11 preloaded
- Lotus SmartSuite for OS/2 included with Warp preloads

superb quality and value for money

Premium 586



Work Station

<b>P90 £1399</b>	<b>P100 £1499</b>
<b>P120 £1649</b>	<b>P133 £1899</b>

- Intel® Pentium® 90/100/120/133mhz CPU
- PCI local bus with 256k external cache
- 8mb EDO RAM (max 128mb)
- 1gb sub 10ms IDE hard drive with PCI 32-bit mode 4 enhanced EIDE controller
- Quad speed, multi session ATAPI CD-ROM drive
- 3.5" 1.44mb floppy drive
- #9 Fx Vision 330 64 bit PCI graphics card with 2mb DRAM
- 15" Accuscan energy saving, MPR-II monitor, NI, max res 1280 x 1024
- 2 serial, 1 parallel port
- Desktop case with 200w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 V3.0 or Windows 95 preloaded
- Lotus Smartsuite for OS/2 included with Warp preloads

Premium 586



Multi Media

<b>P90 £1999</b>	<b>P100 £2099</b>
<b>P120 £2249</b>	<b>P133 £2399</b>

- Intel® Pentium® 90/100/120/133mhz CPU
- PCI local bus with 256k external cache
- 16mb EDO RAM (max 128mb)
- 1.2gb sub 10ms IDE hard drive with PCI 32-bit IDE mode 4 controller
- Quad speed, multi session ATAPI CD-ROM drive
- Soundblaster® Pro 16 and speakers
- 3.5" 1.44mb floppy drive
- #9 FX Motion 771 64 bit PCI graphics card with 2mb VRAM (u/g to 4mb)
- 17" Accuscan MPR-II monitor, NI, max res 1280 x 1024
- 2 serial, 1 parallel port
- Desktop case with 200W PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Win OS/2 V3.0 or Windows 95 preloaded
- Lotus Smartsuite for OS/2 included with Warp preloads

Accura options

Premium

540mb IDE → 1gb 10ms IDE HDD	£99
1gb IDE → 1.2gb 10ms IDE HDD	£55
Std memory upgrades per 1mb	£31
EDO memory upgrades per 1mb	£36
Ultra fast PCI graphics 2mb →	£59
#9 Fx Vision 330 with 2mb DRAM	
→ #9 Fx Vision 330 with 2mb DRAM	£99
→ #9 FX Motion 771 2mb VRAM	
VRAM upgrades 2mb → 4mb	£150
14" → 15" Accuscan Monitor	£80
1280 x 1024, MPR-II	
15" → 17" Accuscan Monitor	£219
1280 x 1024, MPR-II	
Sound Blaster Pro 16 (includes Speakers)	£99
NE2000 compatible ethernet card	£39

Professional

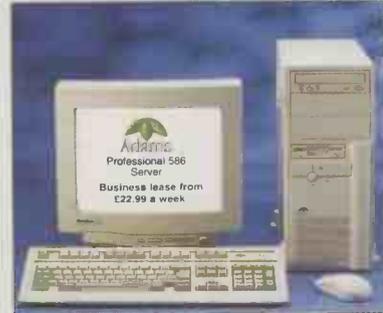
1gb IDE → 1gb 8.5ms fast SCSI-II including 32 bit DPT 2024 PCI fast SCSI-II controller (cache and RAID upgradeable)	£299
1gb fast SCSI-II → 2gb 9ms fast SCSI-II	£349
DPT CM4000 cache module (0 mb) for DPT 2024	£349
Memory for CM4000 (per 1mb)	£36
DPT DM4000 RAID module for DPT2024	£349
Matrox Millennium 2mb → Matrox Millennium with 4mb WRAM	£150
Matrox Millennium 4mb → 8mb WRAM u/g	£270
2mb → 4mb VRAM upgrade	£185
17" Idek → 21" Idek MF-9121 Diatron Pro 1600 x 1200, MPR-II	£899

PLEASE CALL FOR MANY MORE OPTIONS

# the Menu?

no compromises for power users

Professional



586 Server

<b>P90 £2499</b>
<b>P100 £2599</b>

- Intel Pentium® 90/100mhz CPU
- Plug and play compatible with auto configuration (PCI and ISA bus)
- 512k external cache
- 16mb RAM (max 192mb)
- 2.0gb 8.0ms fast SCSI-II hard drive with DPT PCI 32-bit bus mastering SCSI controller (caching and RAID upgradeable)
- 4.4 speed multi session SCSI CD-ROM drive
- 3.5" 1.44mb floppy drive
- Fast PCI graphics card with 1mb RAM
- 14" Accuscan energy saving, MPR-II monitor, NI, max res 1024 x 768
- 2 serial (16550), 1 parallel port (EPP/ECP)
- 32 bit PCI bus mastering ethernet card
- Tower case with 250w PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Operating systems: OS/2 Lan Server, Novell, SCO Unix, Windows NT (not supplied).

Professional



586 Dual Server

<b>P90 £3099</b>
<b>P100 £3299</b>

- Two Pentium® 90/100mhz CPU's
- Plug and play compatible with auto configuration (PCI and EISA bus)
- 512k external cache
- 16mb RAM (max 192mb)
- 2.0gb 8.0ms fast SCSI-II hard drive with DPT PCI 32-bit bus mastering SCSI controller (caching and RAID u/g)
- 4.4 speed multi session SCSI CD-ROM drive
- 3.5" 1.44mb floppy drive
- Fast PCI graphics card with 1mb RAM
- 14" Accuscan energy saving, MPR-II monitor, NI, max res 1024 x 768
- 2 serial (16550), 1 parallel port (EPP/ECP)
- 32 bit PCI bus mastering ethernet card
- Server case with 300 W PSU
- Accutouch 102 key UK keyboard
- Microsoft Ergonomic Mouse
- 3 year parts and labour warranty (first year on site)
- Operating systems: OS/2 Lan Server SMP, SCO Unix with SMP extns, Windows NT 3.5 (not supplied).

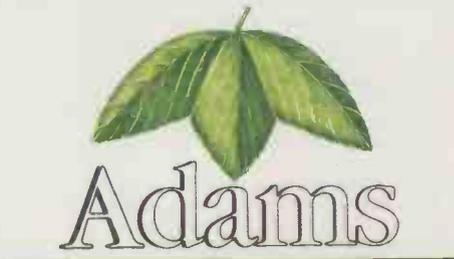
ordering

Adams Technology sales lines are open from 9am till 6pm from Monday to Friday. Technical sales staff are available to answer questions on any of our products to help you with any differing requirements that you might have. Please add VAT to all prices quoted. We welcome payment by Visa, Mastercard and American Express, or on a cheque with order basis. We charge £20 for carriage on all systems and servers and £12 for portables. A 14 day money back guarantee\* is offered on all purchases.

All sales are subject to Adams Technology Ltd's terms and conditions of sale. These are available on request. Please call for any further information you may require.



0161 877 8822



Advanced Computer Technology  
 ADAMS TECHNOLOGY LTD, CITY POINT, CHESTER RD,  
 OLD TRAFFORD, MANCHESTER M32 0RW UK. FAX: 0161 877 8864



# Hot Stuff!

As we've been shivering our way through another "awful" British summer, we thought that many of you wouldn't be interested in computers at this time of year. But we've been wrong! Judging by the sales of our portables, summer computing is getting more and more popular all the time.

At Adams we've been busy enlarging our range of notebooks to give you more choice, we've also been hammering away at the negotiating table to try and offer an even better price structure, to bring you the best ever value for money.

This month we have split our notebook ad. into two. Featuring our 2 latest portables on the left and on the right our best selling lines

**Portable+** Our latest product is the Accura Portable Plus, with many features of the original Accura Portable, but now with a larger 10.3" LCD which displays 800 x 600 SVGA resolution. There is an optional built in CD-ROM which can be interchanged with the floppy drive or secondary battery for super long battery life. An MPEG-1 upgrade is also available.

**750** The Accura 750 we launched last month as a quality entry level machine. It's near sub-notebook size belies it's power and performance. Above all it represents outstanding value.

Call Adams sales on 0161 877 8822 to find out more about the right notebook to suit you and your budget.

## Accura 750

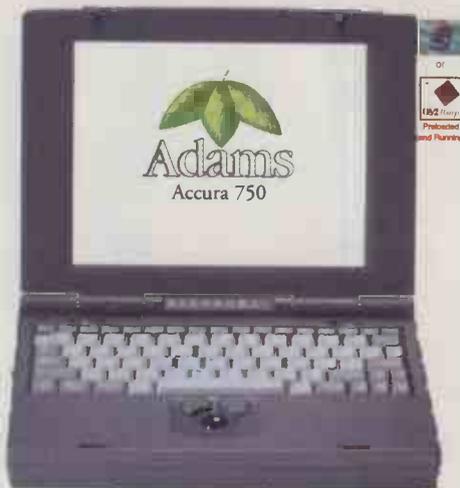
The Accura 750 represents a true compact, near sub notebook sized, entry level solution that is both rugged and extremely portable. Weighing only 2.2kgs the Accura 750 features a 9.5" LCD either mono or dual scan, with memory upgradeability to 20mb and CPU choices of 486DX2-66 or DX4-100. A large front mounted trackerball and type III PC card slot completes the value for money feature list.

## Accura 750

### features

- 486DX2-66 CPU upgradeable to 486DX4-100
- 4mb standard memory upgradeable to 20mb
- 340mb 2.5" fast IDE hard drive upgradeable to 1.2gb.
- 9.5" Mono LCD with 64 grey levels, Dual Scan passive colour displaying 256 colours.
- Local bus graphics accelerator giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- 1.44mb floppy disk drive built in
- BIOS controlled dual level power management facility
- Built in LED status indicator
- 19mm trackerball built in
- 1 PC Card type III slot (takes type I and II also)
- Ni CD battery standard
- 1 serial port, 1 parallel port, external CRT port, external keyboard port
- Full function 84 key UK keyboard
- Multi voltage 90-240v charger power supply (2 hour charge time)
- Light weight 2.2kgs with hard drive and battery
- Compact size - near sub-notebook dimensions
- 1 year parts and labour warranty
- 14 day money back guarantee of satisfaction

## Our new value for money entry level notebook



## Accura 750

### prices

Model	Price	Price with 20mb
486DX2-66	£849	£1199
486DX4-100	£929	£12

# Latest &

## Accura Portable+

## Our new SVGA, CD-ROM multimedia notebook

## Accura Notebook

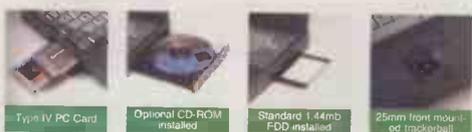
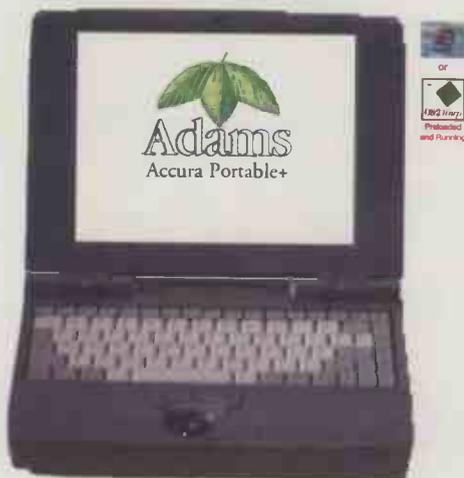
### some options

The new Accura Portable+ offers a state of the art high resolution graphics LCD combined with full multimedia features and an in built CD-ROM option. With either 66 or 100mhz 486 CPU's, the Portable+ comes standard with a removable floppy drive bay. This can be replaced by an additional battery to give up to 4 hours use, the CD-ROM also fits in the same bay. The 10.4" SVGA (800x600) DSTN display can be upgraded to a 10.4" SVGA TFT model. An internal MPEG-1 hardware decoder is optional

## Accura Portable+

### features

- 486DX2-66 CPU upgradeable to 486DX4-100
- 4mb standard memory upgradeable to 32mb
- 340mb 2.5" enhanced IDE hard drive upgradeable to 1.2gb.
- 10.4" SVGA DSTN LCD with 800 x 600 resolution, 10.4" TFT VGA LCD with 640 x 480 resolution
- Local bus graphics accelerator giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- 1.44mb removable FDD built in
- 16 bit stereo sound card built in with speakers
- CD-ROM or secondary battery inserted in FDD slot
- BIOS controlled dual level power management facility
- Built in LED status indicators
- 25mm trackerball built in
- Type IV PC Card slot (Takes type 1 x III and 1 x II also)
- Ni MH battery standard (secondary optional)
- 1 serial port, 1 parallel port, external CRT port, external keyboard port
- Full function 84 key UK keyboard
- Multi voltage 110-240v charger power supply (2 hour charge time)
- Weight 3.2kgs with hard drive and battery
- 1 year parts and labour warranty
- Windows 95, MS-DOS 6.22/WFWH 3.11 or Win OS/2 v3 preloaded and running
- 14 day money back guarantee of satisfaction



## Accura Portable+

### prices

Model	Price with SVGA colour	Price with Windows
486DX2-66	£1399	£1899
486DX4-100	£1479	£1979

## 750

Memory upgrade to 8mb	£159
Memory upgrade to 12mb	£299
Memory upgrade to 20mb	£649
Upgrade HDD from 340mb - 520mb	£99
Upgrade HDD from 340mb - 810mb	£279
Upgrade HDD from 340mb - 1gb	£439
Additional main battery	£89
Car power adaptor	£55
Docking station	£399

## Portable +

## Hard drive upgrades as Accura 750

Memory upgrade to 8mb	£159
Memory upgrade to 12mb	£299
Memory upgrade to 20mb	£649
Internal x2 speed CD-ROM	£199
Internal MPEG-1 card	£229
TFT upgrade to SVGA	£CALL
Secondary battery	£79
Port replicator	£55

## General

Deluxe carry case	£39
PC Card 9600/2400 modem	£139
PC Card V32bis fax modem from	£199
PC Card ethernet card from	£139
PC Card external CD-ROM (x2 spd)	£219
PC Card SCSI adaptor	£199

Terms and conditions: \*14 day money back guarantee does not apply to special orders. \*\*Desktop 3 year warranty subject to warranty terms and conditions. Carriage charges: Notebooks £12, Systems £20. All prices quoted are subject to change without notice, availability and VAT. Payment by cleared funds, VISA or Mastercard. P.O.'s welcome from FTSE100 companies, universities, government departments and local authorities. Adams Technology was established in 1989 and is already a corporate, university and MOD supplier. E & O E

**Accura Portable** Top selling modular notebook



- 486DX2-66 CPU upgradeable to 486DX4-100
- 4mb standard memory upgradeable to 20mb
- Quick removable 340mb 2.5" fast IDE hard drive upgradeable to 1.2gb.
- Yamaha audio chip providing Sound Blaster® compatibility with built in speaker and microphone
- 9.5" Mono LCD with 64 grey levels, Dual Scan Passive Colour or TFT active colour displaying 256 colours, quickly interchangeable
- Local bus graphics accelerator with 1mb RAM giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- Removable 1.44mb floppy disk drive
- BIOS controlled power management with SMM stop clock with suspend to disk function and built in battery meter
- 19mm Logitech trackball built in
- 2 PCMCIA type II and/or 1 type III slot
- Ni MH battery standard (quickly interchangeable)
- 1 serial port, 1 enhanced parallel port (EPP/EPS), external CRT port, external keyboard/mouse port, d/station port
- Full function 86 key UK keyboard
- Multi voltage 90-240v charger power supply (1.5 hour charge time)
- Weight 2.4kgs mono, 2.7kgs colour, carry slip and utility disk included
- 1 year parts and labour warranty and 14 day money back guarantee

Model	Main Colour	Dual Scan Colour	TFT Active Colour
486DX2-66	£999	£1319	£1789
486DX4-100	£1079	£1399	£1869

**Accura 7600** Value 586



- Intel Pentium® P75 or P90 CPU with 256k level 2 cache
- 8mb standard memory upgradeable to 40mb
- VESA local bus IDE HDD interface with 340mb 2.5" fast IDE hard drive upgradeable to 1.2gb
- Sound Blaster® 16 bit stereo compatibility with built in speakers
- 10.3" DSTN passive colour or 9.5" TFT active colour display
- VESA local bus graphics accelerator giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- Built in 1.44mb floppy disk drive
- BIOS controlled power management
- 2 PCMCIA type 2 and/or 1 type 3 slot
- Ni MH battery standard (quickly interchangeable)
- 1 serial port, 1 enhanced parallel port (EPP/EPS), external CRT port, external keyboard/mouse port, d/station port
- Full function 86 key UK keyboard and 19mm trackball built in
- Multi voltage 90-240v charger power supply (2.0 hour charge time)
- Dimensions(mm) 283w x 232d x 53h Weight 2.9kgs
- Utility disk set Included
- 1 year parts and labour warranty and 14 day money back guarantee

Model	Price	TFT Active Colour
P75	£1699	£2099
P100	£1799	£2199

**Accura 5000** Premier 586 notebook



- Intel Pentium® P75 or P90 CPU with 256k level 2 cache
- 8mb standard memory upgradeable to 40mb
- 32 bit PCI local bus mode 3 hard drive controller with 340mb 2.5" fast IDE hard drive upgradeable to 720mb.
- Sound Blaster® 16 bit stereo compatibility with built in speaker
- 10.3" STN double refresh (Quad Scan) Passive Colour or 10.4" TFT active colour displaying 256 colours
- PCI 32 bit local bus graphics accelerator with 1mb RAM giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- Built in 1.44mb floppy disk drive
- BIOS controlled power management with suspend to disk function
- 2 PCMCIA type 2 and/or 1 type 3 slot and infrared comm port
- Ni MH battery standard (quickly interchangeable)
- 1 serial port, 1 enhanced parallel port (EPP/EPS), external CRT port external keyboard/mouse port, d/station port
- Full function 86 key UK keyboard and 16mm trackball built in
- Multi voltage 90-265v charger power supply (2.0 hour charge time)
- Dimensions(mm) 279w x 218d x 51.5h Weight 3.09kgs
- Carry slip and utility disks included
- 1 year parts and labour warranty and 14 day money back guarantee

Model	Dual Scan Colour	TFT Active Colour
P75	£1949	£2799
P90	£2049	£2899

# Greatest!

**Accura 6000** Power users dream



The Accura 6000 is now available with 100 or 133 mhz CPU's and with a 10.4" SVGA 800 x 600 TFT LCD display. With built 16 bit stereo sound and a ruggedised magnesium alloy case, super fast SCSI-II hard drive, the Accura 6000 is the notebook of the future.

- Intel Pentium® 100/133mhz CPU
- 16k level 1 and 256k level 2 cache
- 8 mb standard memory upgradeable to 128mb (64 bit)
- 32 bit PCI local bus controller with 340mb 2.5" fast SCSI-II hard drive upgradeable to 1.2gb.
- Sound Blaster® 16 bit stereo compatibility with built in speakers and microphone
- 10.4" TFT active colour displaying 65,536 colours, max res 800 x 600
- PCI 32 bit local bus graphics accelerator (WD90C24A2) with 1mb RAM giving simultaneous LCD/CRT display and CRT resolutions up to 1024 x 768
- External 1.44mb ultra-low profile floppy disk drive
- BIOS controlled power management with sleep, suspend & resume functions
- Trackpoint, pointing device integrated into keyboard
- 2 PC card type 1/2 or 1 type 3 slot
- Ni MH battery standard (quickly interchangeable)
- 1 serial port, 1 enhanced parallel port (EPP/EPS), external CRT port, external keyboard/mouse port, d/station port
- Full function 82 key Lexmark UK keyboard
- Multi voltage 110-240v charger power supply (2.0 hour charge time)
- Dimensions(mm) 300w x 216d x 51h Weight 3.4kgs
- Leather carrying case Included
- 1 year parts and labour international warranty

Model	Price
P100	£4480
P133	£4810

**Accura Notebooks** some options

Portable	Memory and HDD upgrades as Accura 750	Price
	Additional main battery	£89
	Docking station	£375
	Car Power Adaptor	£49
	Deluxe Carry Case	£39

7600	HDD upgrades as Accura 750	Price
	Memory upgrade to 16mb	£309
	Memory upgrade to 24mb	£679
	Memory upgrade to 32mb	£988
	Memory upgrade to 40mb	£1358
	Additional main battery	£95
	Docking station	£CALL
	Car Power Adaptor	£CALL

5000	HDD upgrades as Accura 750	Price
	Memory upgrade to 16mb	£309
	Memory upgrade to 24mb	£679
	Memory upgrade to 32mb	£988
	Memory upgrade to 40mb	£1358
	Additional main battery	£95
	Docking station (with speakers and floppy drive)	£399

6000	Price
Memory upgrade to 16mb	£320
Memory upgrade to 32mb	£960
Memory upgrade to 64mb and 128mb	£CALL
Upgrade SCSI HDD from 340mb - 540mb	£149
Upgrade SCSI HDD from 340mb - 810mb	£349
Additional main battery	£115

**Our pledge**

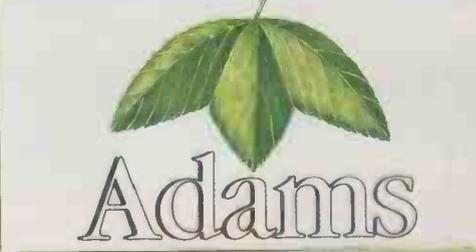
Adams Technology pride ourselves on our products and service. We offer a 14 day money back guarantee\* on all Accura Portables and most systems. A direct technical support line and technical information line are available during business hours. We do our best to ship notebooks within 2-3 days and desktops within 7-10 days. Please don't forget to add VAT to all prices quoted. See previous page for ordering details.

We will keep you up to date with the latest technological advances and where possible offer advantageous upgrades to your Accura Computer

Try something different, try Adams Technology for quality, value for money products and a service second-to-none



0161 877 8822

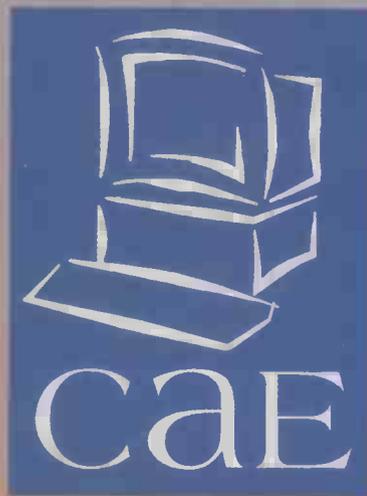
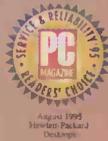


Advanced Computer Technology  
 ADAMS TECHNOLOGY LTD. CITY POINT CHESTER RD.  
 OLO TRAFFORD, MANCHESTER M32 0RW UK Fax 0161 77 990 2

## HP VECTRA V-LINE PC's

HP Vectra VE 4/50	4Mb	M270	<b>£722</b>
HP Vectra VE 4/50	8Mb	M420	<b>£905</b>
HP Vectra VE 4/66	8Mb	M420	<b>£934</b>
HP Vectra VE 4/66	8Mb	M840	<b>£1017</b>
HP Vectra VE 4/100	8Mb	M420	<b>£1099</b>
HP Vectra VE 4/100	8Mb	M840	<b>£1184</b>
HP Vectra VE 5/75	8Mb	M270	<b>£1048</b>
HP Vectra VE 5/75	8Mb	M540	<b>£1108</b>
HP Vectra VE 5/90	8Mb	M270	<b>£1237</b>
HP Vectra VE 5/90	8Mb	M540	<b>£1297</b>
HP Vectra VL 5/75	8Mb	M420	<b>£1187</b>
HP Vectra VL 5/75	8Mb	M840	<b>£1270</b>
HP Vectra VL 5/90	8Mb	M420	<b>£1376</b>
HP Vectra VL 5/90	8Mb	M840	<b>£1459</b>
HP Vectra VL 5/100	8Mb	M420	<b>£1489</b>
HP Vectra VL 5/120	8Mb	M840	<b>£1840</b>

All HP Vectras come as standard with a 3 Year warranty (1st year on site)  
Upgradeable to 3 years on site using HP Support Pack (£115)



## HP OMNIBOOKS

600C 4/50	4Mb	M170	<b>£1323</b>
600C 4/50	4Mb	M260	<b>£1429</b>
600C 4/75	8Mb	M170	<b>£1626</b>
600C 4/75	8Mb	M260	<b>£1728</b>
4000C 4/50	4Mb	M260	<b>£1500</b>
4000C 4/50	8Mb	M340	<b>£1576</b>
4000C 4/50	8Mb	M520	<b>£1788</b>
4000CT 4/75	8Mb	M340	<b>£2090</b>
4000CT 4/75	8Mb	M520	<b>£2242</b>
4000C 4/100	8Mb	M340	<b>£1980</b>
4000C 4/100	8Mb	M520	<b>£2132</b>
4000CT 4/100	8Mb	M810	<b>£2646</b>



## HP MONITORS



HP 14" SVGA 1024i	<b>£195</b>
HP 14" SVGA 1024i	<b>£209</b>
HP 15"	<b>£383</b>
HP 17"	<b>£604</b>
HP 21"	<b>£1470</b>

## HP DESKJET PRINTERS



HP DeskJet 850C	<b>£408</b>
HP DeskJet 660C	<b>£306</b>
HP DeskJet 540	<b>£220</b>
HP DeskJet 320	<b>£175</b>

## HP LASERJET PRINTERS

HP LaserJet Printer 4L	<b>£370</b>
HP LaserJet Printer 5P	<b>£605</b>
HP LaserJet Printer 5MP	<b>£755</b>
HP LaserJet Printer 4 PLUS	<b>£1025</b>
HP LaserJet Printer 4M PLUS	<b>£1360</b>
HP LaserJet Printer 4V	<b>£1435</b>
HP LaserJet Printer 4MV	<b>£2079</b>
HP LaserJet Printer 4Si	<b>£2192</b>
HP LaserJet Printer 4Si MX	<b>£3099</b>



## HP MULTIMEDIA PC's

HP Vectra L2 4/100	8Mb	M540	<b>£1392</b>
HP Vectra M2 4/66i	8Mb	M540	<b>£1339</b>

## HP CD-ROM DRIVES

HP Multimedia Kit	<b>£317</b>
HP CD ROM Double Speed IDE	<b>£137</b>
HP CD ROM Double Speed SCSI-2	<b>£183</b>

## HP MEMORY

### HP VECTRA VL2, VE & VL SÉRIES 3

D2690A	4Mb	Memory	<b>£119</b>
D2691A	8Mb	Memory	<b>£245</b>
D2974A	4Mb	Memory	<b>£125</b>
D2975A	8Mb	Memory	<b>£255</b>
D2297A	16Mb	Memory	<b>£495</b>
D2298A	32Mb	Memory	<b>£975</b>

### HP NETSERVER LC, LF & LM SERIES

D2974A	4Mb	Memory	<b>£119</b>
D2975A	8Mb	Memory	<b>£245</b>



**01923 210923**



**01923 210305**

D2297A	16Mb	Memory	<b>£495</b>
D2298A	32Mb	Memory	<b>£975</b>

### HP NETSERVER LH SERIES

D3597A	4Mb	Memory	<b>£295</b>
D3592A	8Mb	Memory	<b>£565</b>
D3593A	16Mb	Memory	<b>£1095</b>

Memory also available for  
HP OMNIBOOK, DESKJET & LASERJET  
ranges



**ALL PRICES EXCLUDE  
VAT & DELIVERY.  
PRICES AND  
SPECIFICATIONS SUBJECT TO  
CHANGE WITHOUT NOTICE. E&O**

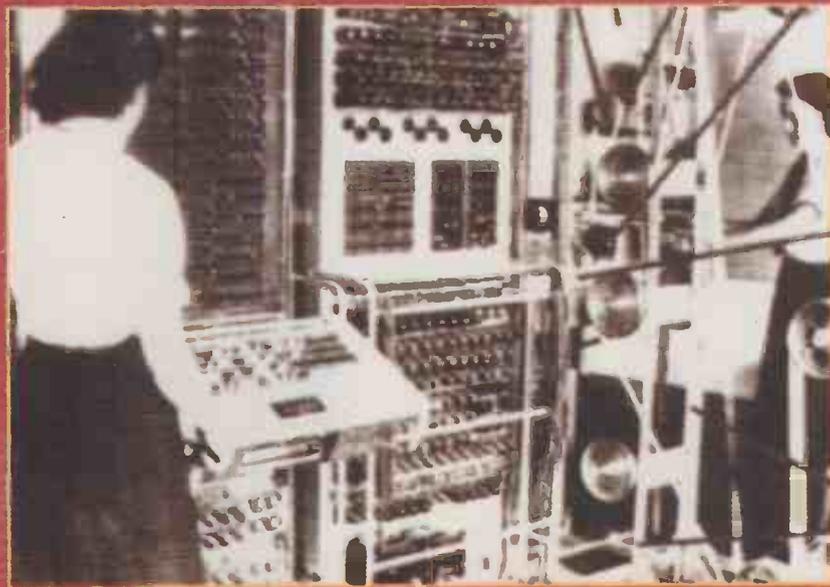
**CAE OFFICE SYSTEMS  
VICTORIA HOUSE  
49 CLARENDON ROAD  
WATFORD, HERTS, WD1 1HP**

**PLEASE CALL FOR OTHER  
MANUFACTURERS PRICES  
AND FULL RANGE OF  
CONSUMABLES**

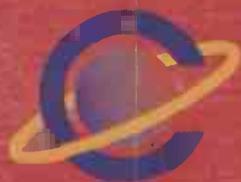
"The earliest programmable electronic computer was a 1500 valve  
giant code named Colossus.

Formulated by Professor Max HA Newman and built by  
TH Flowers, it was installed at Bletchley Park, Bucks in December  
1943 to break the German coding machine "Enigma".

Today, more than 50 years on, Colossus Computer Corporation  
Limited announce a comprehensive new range of PC systems,  
workstations, servers, notebooks, portables and multimedia specially  
built and formulated (SBF) to your individual needs plus  
software, solutions and support".



Welcome please, the New Colossus SBF Series



COLOSSUS

# Meet the New Colossus SBF Office Series

## About Colossus

We are Colossus Computer Corporation Ltd, a wholly owned subsidiary of the Granville Technology Group of Companies, the UK's premier direct PC supplier, with a customer base approaching 200,000. While we are fascinated about the early history of electronic computers (and happy to send you more information), our main task, of course, is to ensure that you, our customer, get the best deal around.

The Colossus Company is uniquely positioned in the PC marketplace in that we enjoy the stability of being part of a thoroughly and financially sound parent company, however, at the same time we have the flexibility of a manufacturing base that enables us to build and formulate system(s) and solution(s) specifically and, indeed, individually to our customers needs.

## Colossus Quality and Service

Our manufacturing facility is streamlined. We use the most advanced design and engineering techniques and our "Burn In" testing procedures coupled with the fact that we buy only the finest components for our systems will guarantee "Award Winning" Colossus reliability. As far as our service is concerned, from placing your order, through the delivery process, right through to free Technical Support, you will find at Colossus only knowledgeable and helpful people to advise you.

## The Colossus Range

Whatever system or systems you choose, you will discover that we can meet your every need to enable you to cope with today's, and importantly, tomorrow's fast moving developments in software and hardware technology. At Colossus we build every PC, client server, workstation, and transportable using our "Building Block" principle of upgrade paths right through to full solutions. Our Networking Division provide advice on complete range of advanced networking services which include Mission Critical Raid Level 5 Fault Tolerant Systems. Our service also includes consultancy, comprehensive quotations, full installation, cabling, implementation of multi-user network applications, training and support.

## Colossus BS5750

Having achieved BS EN ISO 9002 (BS5750 Quality Standards), we at Colossus have proven beyond doubt our ability to build, configure, install and maintain computer systems, and it is testament to the quality of our service and the reliability of our product, as well as our consistent value for money that the majority of our business comes from existing and recommended customers.

## Colossus Warranties

In our book "The Customer is King". (that's part of our mission statement), so, customer satisfaction and peace of mind are key objectives for us at Colossus. All our systems carry a full back-to-base 12 months parts and labour warranty as well as technical telephone support and we also offer a choice of on-site maintenance options and extended warranties.

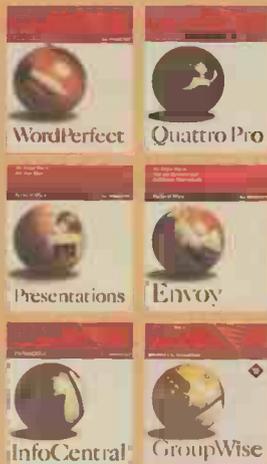
## Colossus Terms of Trading

We offer credit facilities and business leasing to corporate customers (according to status). Official Government and Educational orders are welcomed. Payment can also be made by Visa, Access, Amex, cheque, etc. We can also offer finance facilities for individual customers, please ask for our Finance brochure.

## The Colossus Range - Want to know more?

Just give us a call on the number below and you will be in touch with one of a team of knowledgeable and highly trained sales staff.

With Perfect Office and Windows 95 as standard, anything less than DX4-100 processor, 8Mb RAM, PCI plug and play and quad speed CD-ROM drive, is really "old hat". Compare us like-for-like with any of the competition and you will find our systems really do stack up as the "Perfect Office Systems".



Now with DX4-100 processor as standard

## Colossus SBF Office Systems Standard Specification

- 486DX4-100 processor
- High performance PCI bus
- Pentium® upgradeable
- 64 bit PCI graphics 1Mb
- 256k fast cache
- 8Mb RAM
- 3.5" 1.44Mb floppy drive
- 7 bay desk top case
- 14" low radiation 0.28 DP colour monitor Non interlaced SVGA
- 1 parallel and 2 serial ports
- 540Mb 11ms enhanced IDE drive
- Quad speed CD-ROM drive
- 102 keyboard and mouse
- Latest MS Windows 95 (or MS DOS and Windows for Workgroups 3.11 optional)
- Novell PerfectOffice with 6 leading software applications pre-loaded and ready to use

£999 +VAT

## Colossus SBF Office Series Processor options (specifications as above)

DX4-100 £999 +VAT	Pentium® processor models are inclusive of the Intel Triton Chipset	75MHz Pentium® £1099 +VAT	100MHz Pentium® £1259 +VAT
DX2-66 £949 +VAT		90MHz Pentium® £1179 +VAT	133MHz Pentium® £1499 +VAT

## Colossus SBF Upgrade Options (add the following amount)

<b>Card upgrades</b>	<b>Monitor upgrades</b>
16-bit sound card and stereo speakers _____ +£50	14" to 15" _____ +£70
16-bit Ethernet LR2000 combi card _____ +£40	14" to 17" _____ +£300
14,400 BAPT internal fax/voice/data modem with voice, fax and data software _____ +£80	<b>Memory upgrades</b>
<b>Hard disk drive upgrades</b>	System RAM upgrade for each 4Mb RAM _____ +£110
From 540Mb to 850Mb _____ +£50	Video DRAM upgrade to 2Mb _____ +£40
From 540Mb to 1.08Gb _____ +£100	Video upgrade to 2Mb VRAM _____ +£140
From 540Mb to 1.60Gb _____ +£200	Video upgrade to 4Mb VRAM _____ +£260



Certificate No. FS 28122  
BS EN ISO 9002:1994

NOVELL



pentium PROCESSOR



Telephone Northern Sales Office 01 282 77 00 88  
Facsimile 01 707 26 74 00  
**01 707 25 88 99**

Colossus Computer Corporation Ltd. Colossus House, Travellers Lane, Welham Green, Hertfordshire. AL9 7DA



All prices exclude delivery and VAT (17.5%). Delivery-Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. Software is Pre-loaded, back-up CD and manuals are available as options. E&OE.

Sales Lines are open Monday - Friday 9.00am - 6.00pm

# Meet the New Colossus SBF Servers & Workstations

We did think about giving you lists and lists of specifications of our Novell Server options, but, frankly, server specifications are so unique to each individual

business, our philosophy of specific build and formulation (SBF) means that we will build you a server (or servers) that are unique to your requirements. We list here examples of popular configurations; a typical file server and some workstations.

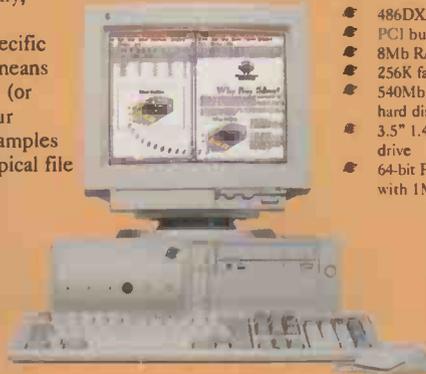


## Colossus SBF 90MHz Pentium® Processor Server

- Intel 90MHz Pentium® processor
- Intel Triton PCI chipset
- Heavy duty power supply
- 9 drive bay full tower
- 16Mb RAM
- 256K fast cache
- 1.6Gb IDE hard disk
- SCSI II drive options with Adaptec 2940 PCI SCSI controller available
- 16-bit Ethernet card
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphic with 1Mb
- 14" SVGA 0.28 colour monitor
- 102 keyboard and mouse
- Select desired Novell Netware operating system
- Select required server options

**£1479** +VAT  
100MHz Pentium +£80

## Colossus SBF Desktop Network Workstation



- 486DX2-66 processor
- PCI bus
- 8Mb RAM
- 256K fast cache
- 540Mb 11ms IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphics with 1Mb
- 14" 0.28 colour SVGA monitor
- 16-bit ethernet card
- 102 keyboard & mouse
- MS Windows 95 (MS DOS and Windows for Workgroups 3.11 optional)

**£839** +VAT

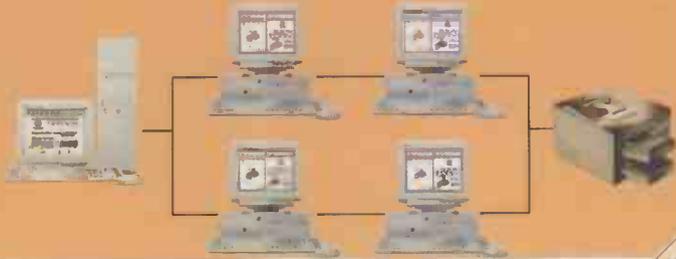
### Processor Upgrades

DX4-100 +£50 +VAT	75MHz Pentium® +£150 +VAT	90MHz Pentium® +£230 +VAT
----------------------	------------------------------	------------------------------

Midi Tower case +£10.00

### Networking Example

Network configurations are infinite. Whether you require a peer to peer Network or a Client Server Network, we can offer you a complete Network Solution. Just call the number below and ask for the Network Division. Our typical Client Server plus 4 Network Stations plus software can cost as little as £6,000.



## Colossus SBF Server & Networking Upgrade Options (add the following amount)

Hard Disk Upgrades	Memory Upgrades	Multimedia	Modems	Server Options (Call for details)
540Mb to 850Mb +£50	System RAM per 4Mb +£110	Double speed CD ROM +£60	14,400 BAPT Fax/Voice/Data modem including software +£80	Novell Netware 4.1 5 User
540Mb to 1.08Gb +£100	1Mb video RAM to 2Mb +£40	Quad Speed CD ROM +£100	28.8 Fax/Data Modem +£150	Novell Netware 4.1 10 User
540Mb to 1.60Gb +£200	Monitor Upgrade	16-bit soundcard +£40	Tape Backup	Novel Netware 4.1 25 User
850Mb to 1.08Gb +£50	14" SVGA to 15" SVGA +£70	Soundblaster AWE32 Value +£130	800Mb tape back-up +£150	Chyenne ARCServe Software
850Mb to 1.6Gb +£150	14" SVGA to 17" SVGA +£300	Network Cards	3.2Gb tape back-up +£220	APC Smart-UPS 600
1.08Gb to 1.60Gb +£100	Case Style	16-bit ethernet card combi +£40	2Gb SCSI DAT drive only +£600	APC Smart-Ups 900
1.6Gb to 2Gb SCSI II +£380	Midi tower case +£10	16-bit ethernet 3COM +£70	4Gb SCSI DAT drive only +£750	Powerhute Plus for Novell
Adaptec SCSI controller +£200	Full tower case +£50	32-bit PCI ethernet card +£150		Network installation & cabling
		Mylex Raid Level 5 (12Mb cache) Controller +£1899		

### Colossus SBF Stand Alone Workstation 1



486DX2-66  
**£799** +VAT  
DX4-100 CPU +£50

- 486DX2-66 processor with PCI bus
- 8Mb RAM
- 256K fast cache
- 540Mb 11ms IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphic with 1Mb
- 14" 0.28 colour SVGA monitor
- 102 keyboard and mouse
- MS Windows 95 (MS DOS and Windows for Workgroups 3.11 Optional)

### Colossus SBF Stand Alone Workstation 2



75MHz Pentium®  
**£999** +VAT  
90MHz Pentium +£80  
100MHz Pentium +£160

- Intel 75MHz Pentium® processor
- PCI bus with Intel Triton chipset
- 8Mb RAM
- 256K fast cache
- 850Mb 11ms enhanced IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphics with 1Mb
- 14" 0.28 colour SVGA monitor
- 102 keyboard and mouse
- MS Windows 95 (MS DOS and Windows for Workgroups 3.11 Optional)

### Colossus SBF Stand Alone Workstation 3



90MHz Pentium®  
**£1489** +VAT  
100MHz Pentium +£80  
133MHz Pentium +£320

- Intel 90MHz Pentium® processor
- PCI bus with Intel Triton chipset
- 16Mb RAM
- 256K fast cache
- 1.6Gb 10ms enhanced IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphics with 2Mb
- 14" 0.28 colour SVGA monitor
- 102 keyboard and mouse
- MS Windows 95 (MS DOS and Windows for Workgroups 3.11 Optional)

# Meet the New Colossus SBF Power Notebook Systems

The New Range of Colossus "on the move" Power Notebooks incorporate advanced features and high specifications such as exchangeable hard disk drives up to 1.2Gb, RAM capacity up to 32Mb as well as multimedia capabilities. With advanced touch pad mouse, Vesa Local

Bus Graphics, a choice of upgradeable screens and pre-loaded with Novell PerfectOffice (with its six leading applications), the high specification Colossus Notebook systems can be specifically built and formulated (SBF) by us for you at prices that are highly competitive.

Colossus SBF Mono



£1059<sup>+VAT</sup>

- 486DX4-100 Processor
- 4Mb RAM expandable to 32Mb
- Removable 1.44Mb 3.5" floppy disk drive
- Removable 340Mb hard disk drive
- Choice of mono, Dual Scan or TFT Screen
- 1Mb VESA local bus graphics
- 86 Key keyboard, 12 function keys
- One DB-25 pin parallel port. Bi-directional with EPP/ECP support. One 9 pin serial port (16550 UART), Keyboard, external monitor & mouse ports PS/2 type
- Additional ports for docking and optional IRDA and TV tuner modules.

Colossus SBF Dual Scan



£1529<sup>+VAT</sup>

- Two speakers built-in (Sound Blaster & Windows Sound System 2.0 compatible). Optional - Soundcard module
- Two type II, or one type III PCMCIA slot
- LCD icon indicators
- Nickel metal hydride (NiMH) battery. 120/240 auto-switching adaptor. Full APM support. System supports suspend to RAM and suspend to disk functions.
- Phoenix Systems BIOS, Flash upgradeable. Includes setup in ROM, user-defined power management options
- 8.85"(D) x 11.62"(W) x 1.97"(H). Weight 6.2 pounds
- Windows 95 (MS DOS & Windows for Workgroups optional)
- Novell PerfectOffice Suite pre-loaded

Colossus SBF TFT



£1999<sup>+VAT</sup>



### Upgrades & Options

Ram upgrade per 4Mb	+£140
From 340Mb to 540Mb hard drive	+£90
From 340Mb to 810Mb hard drive	+£260
From 340Mb to 1.2Gb hard drive	+£480
12v DC Car Adaptor	+£60
Additional NiMH battery	+£99
Docking station	+£329
SMART battery pack	+£120
Sound card Module	+£80
TV tuner module, Infra-red & Port Replicator	£TBA
28.8 PCMCIA modem	£199
486DX4-75	-£50

# Meet the New Colossus SBF Power Portable & Comms Systems



The new Colossus Power Portable range provides substantial computing power for users who need desktop performance in a portable package. They are designed for mobile and industrial applications that require speed, expandability, and ruggedness and the most popular uses are in network

management, instrumentation, data capture, presentations and multimedia applications. Add a 14.4 BABT voice/data fax modem card and you transform your power portable into a state of the art comms system.

Colossus SBF CRT Colour



£1679<sup>+VAT</sup>

- Colossus CRT portable features 9" Sony SVGA colour monitor
- Colossus "Lunchbox" portable case features LCD VGA Mono, Dual Scan Colour or TFT Colour screens
- 486DX4-100 processor
- 8Mb RAM expandable to 128Mb
- 256K External cache & PCI bus

Colossus SBF Mono



£1399<sup>+VAT</sup>

- 540Mb IDE hard drive
- 3 drive bays and 5 slots
- 3.5" 1.44Mb floppy drive
- PCI s3 64-bit 1Mb graphics on CRT model (special card in others)
- Parallel & 2 serial ports & Keyboard
- MS DOS & Windows 3.11 for Workgroups (Windows 95 optional)

Colossus SBF Dual Scan



£2099<sup>+VAT</sup>

### Colossus Portable Upgrades

From 540Mb to 810Mb	+£50
From 540Mb to 1.08Gb	+£100
From 540Mb to 1.60Gb	+£200
from 540Mb to 2Gb SCSI II	+£580
Adaptec 2940 PCI SCSI controller	+£200

### Processor Upgrades

From 486DX4-100 to P75 Triton	+£100
From 486DX4-100 to P90 Triton	+£180
From 486DX4-100 to P100 Triton	+£260
From 486DX4-100 to P133 Triton	+£500

### Alternative Processor

From 486DX4-100 down to 486DX2-66	-£50
-----------------------------------	------

Colossus SBF TFT



£2999<sup>+VAT</sup>

### Other Options

NEC 6Xi SCSI CD-ROM	+£300
NEC SCSI/AT adapter	+£60
16-bit soundcard	+£40
Soundblaster AWE 32 Value	+£130
14" additional screen	+£160
15" additional screen	+£230
17" additional screen	+£460
14.4 BABT Voice/Fax/Data Modem	+£80
28.8 BABT Fax/Data modem	+£150
800Mb Tape backup	+£150
1.7Gb Tape backup	+£220

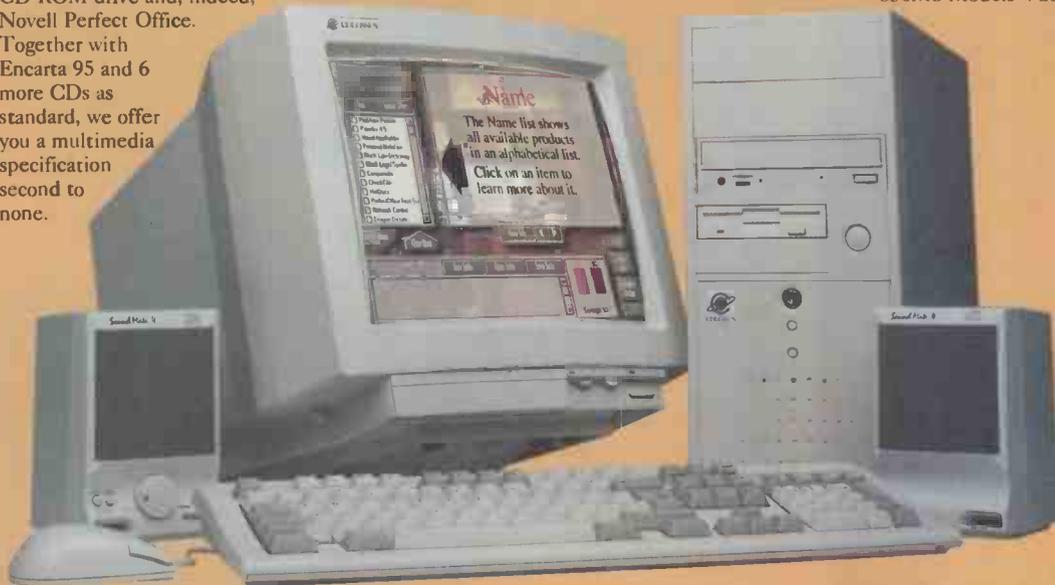
### Additional RAM

RAM per additional 4Mb	+£110
------------------------	-------

# Meet the New Colossus Home/Office High Spec Multimedia & More

If you are taking the plunge on Multimedia, PLEASE DO IT PROPERLY. We have taken a long, hard look at the minimum specifications we believe make sense for our Systems. We have decided to make Colossus High-spec's Internet ready and so include PCI plug & play, a voice/fax data modem, as well as a Pipex Internet 30 day trial pack. We have also included a top quality quad speed CD-ROM drive and, indeed, Novell Perfect Office.

Together with Encarta 95 and 6 more CDs as standard, we offer you a multimedia specification second to none.



**£1099** +VAT  
486DX4-100 +£50  
850Mb Models +£50



- 486DX2-66 processor
- High performance PCI bus
- 8Mb RAM
- 256K fast cache
- 540Mb 11ms IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit s3 PCI bus graphics with 1Mb
- 8 bay Midi-Tower case (or 7 bay Desktop case £10 less)
- 14" 0.28 colour SVGA monitor

- 102 keyboard and mouse
- BAPT approved 14,400 fax/data/voice modem
- Quad speed CD-ROM drive
- 16-bit sound card and speakers
- MS Windows 95 (MS DOS and MS Windows for Workgroups 3.11 optional)
- Novell PerfectOffice Software
- PIPEX Internet access pack

### CD Software

Pack now includes MS Encarta 95'

- Time Almanac CD
- Bodyworks 3.0 CD
- UFO for Windows CD
- Dinosaur Museum CD
- EZ Language CD
- Play & Learn Educational CD

### Colossus 75MHz Pentium® High-Spec Multimedia

**£1399** +VAT

- Intel 75MHz Pentium processor
- Intel Triton PCI chipset
- 8Mb RAM & 256K fast cache
- 1.08Gb 10ms enhanced IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphics with 1Mb
- 7 bay Desktop case (Midi Tower optional)
- 15" 0.28 colour SVGA monitor
- 102 keyboard and mouse
- 14,400 BAPT fax/data/voice modem
- Quad speed CD-ROM drive
- 16-bit sound card and speakers
- Novell PerfectOffice Software Suite
- Encarta 95 plus 6 CD multimedia titles
- PIPEX Internet access 30 day trial pack
- MS Windows 95 (MS DOS & Windows for Workgroups 3.11 optional)

### Colossus 90MHz Pentium® High-Spec Multimedia

**£1739** +VAT

- Intel 90MHz Pentium processor
- Intel Triton PCI chipset
- 16Mb RAM & 256K fast cache
- 1080Mb 10ms enhanced IDE hard disk
- 3.5" 1.44Mb floppy drive
- 64-bit PCI bus graphics with 2Mb
- 7 bay Desktop case (Midi Tower optional)
- 15" 0.28 colour SVGA monitor
- 102 keyboard and mouse
- 14,400 BAPT fax/data/voice modem
- Quad speed CD-ROM drive
- 16-bit sound card and speakers
- Novell PerfectOffice Software Suite
- Encarta 95 plus 6 CD multimedia titles
- PIPEX Internet access 30 day trial pack
- MS Windows 95 (MS DOS & Windows for Workgroups 3.11 optional)

### Colossus 100MHz Pentium® High-Spec Multimedia

**£2149** +VAT

- as 90MHz Pentium with
- Intel 100MHz Pentium processor
- 1600Mb 10ms IDE hard disk
- 64-bit PCI bus graphics with 2Mb
- 17" 0.28 colour SVGA monitor

### Colossus 133MHz Pentium® High-Spec Multimedia

**£2549** +VAT

- as 100MHz with 133MHz Pentium processor and 4Mb VRAM Video RAM

### High-Spec Multimedia Options

- PC TV card with Teletext \_\_\_\_\_ +£160
- Soundblaster AWE32 value upg. \_\_\_\_\_ +£90
- 14.4 to 28.8 Fax/Data modem upg. \_\_\_\_\_ +£70

All prices exclude delivery and VAT (17.5%). Delivery-Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No returns please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. Software is pre-installed, back-up CD and manuals are available as options. E&OE.

Sales Lines are open Monday - Friday 9.00am - 6.00pm



Telephone

**01 707 25 88 99**

Colossus House, Travellers Lane, Welham Green, Hertfordshire. AL9 7DA

Northern Office Sales 01 282 77 00 88  
Facsimile 01 707 26 74 00



# NEC

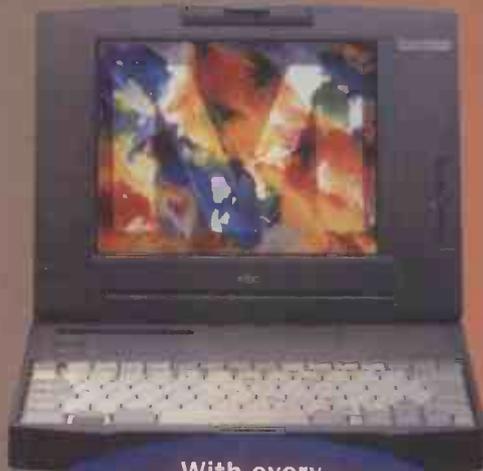
## POWERMATE V SERIES

PowerMate V466 8M6 M540 **£949**  
 PowerMate VP75 8M6 M540 **£1205**

## VERSA SERIES

### (NOTE BOOKS)

Versa S/33D 4Mb M210 **£995**  
 Versa S/50C 4Mb M260 **£1725**  
 Versa V/50D 4Mb M250 **£1550**  
 Versa V/50C 4Mb M340 **£2015**  
 Versa V/75C 4Mb M540 **£2415**  
 Versa M/100C 8Mb M540 **£3020**  
 Versa M/100T 8Mb M540 **£3195**  
 Versa M/100S 8Mb M540 **£3490**  
 Versa P/75C 8Mb M810 **£3450**  
 Versa P/75S 8Mb M810 **£3710**

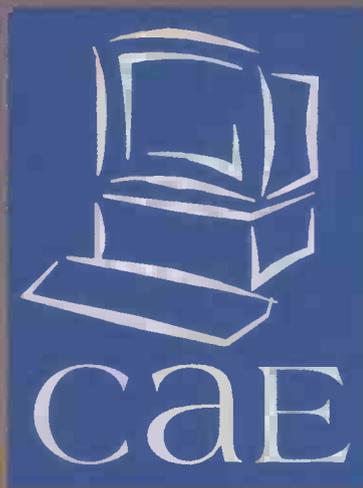


With every  
**Versa V Series Notebook**  
 you will receive a NEC docking  
 station *absolutely free!*  
**Worth £425 RRP**

WHILE STOCKS LAST

## NEC MEMORY

Versa 4Mb E,V,M & P **£175**  
 Versa 8Mb E,V,M & P **£345**  
 Versa 16Mb E,V,M & P **£685**  
 Versa 32Mb E,V,M & P **£1365**  
 Versa S Series 4Mb **£175**  
 Versa S Series 8Mb **£345**  
 PowerMate 4Mb D,M & V **£125**  
 PowerMate 8Mb D,M & V **£255**  
 PowerMate 16Mb D,M & V **£495**



## MONITORS



Monitor XV14 **£219**  
 Monitor XV15 **£294**  
 Monitor XE15 **£410**  
 Monitor XE17 **£724**  
 Monitor XP17 **£954**  
 Monitor XE21 **£1194**  
 Monitor XP21 **£1835**

## LASER PRINTERS



SuperScript 610 *plus* **£299**  
 SuperScript 660 **£425**  
 SuperScript 660i **£610**

## COLOUR THERMAL PRINTERS

SuperScript Color 3000 **£705**

## 24 PIN DOT MATRIX PRINTERS

Pinwriter P2Q **£104**  
 Pinwriter P3Q **£190**  
 Pinwriter P62 **£337**  
 Pinwriter P72 **£404**

## CD-ROMS READERS



Multispin 3Xp *plus* **£256**  
 Multispin 6Xi **£279**  
 Multispin 6Xe **£367**  
 Multispin 2Xc Change **£315**



**01923 210923**



**01923 210305**

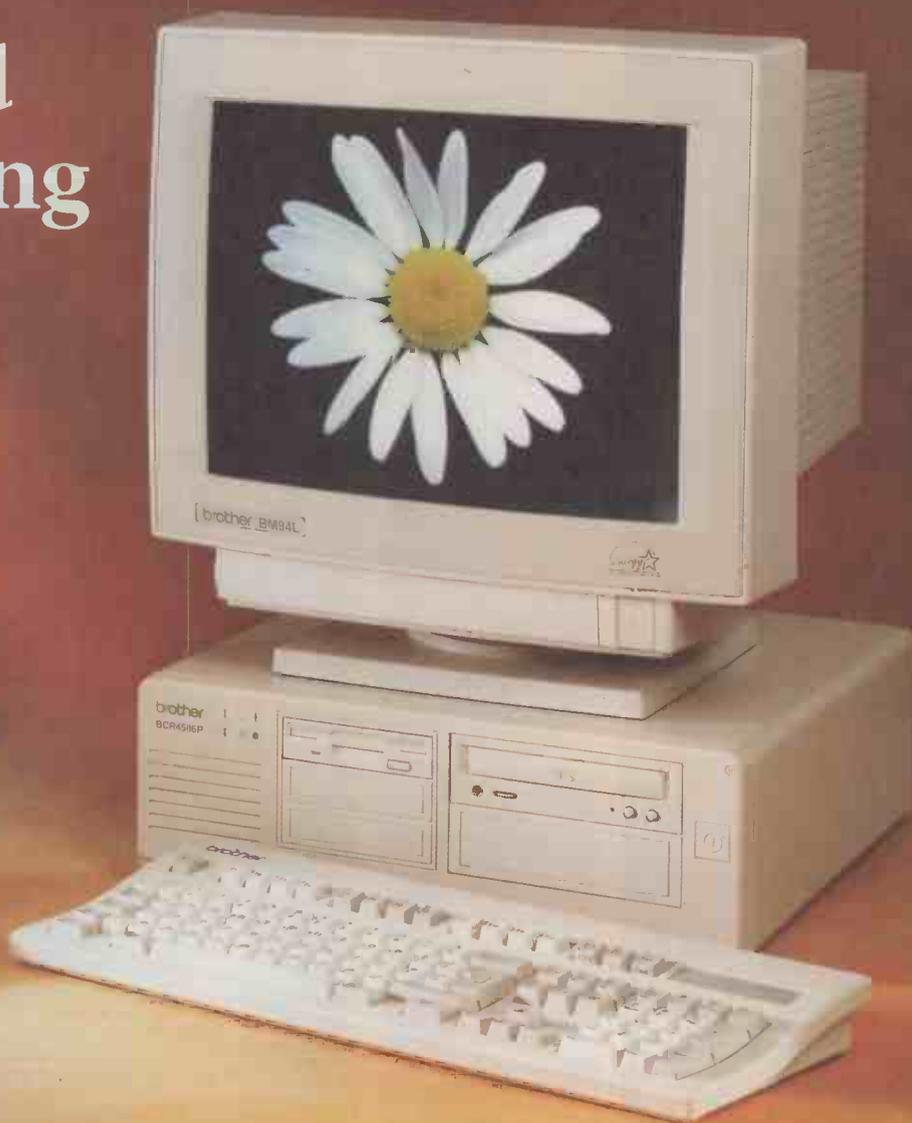
CAE OFFICE SYSTEMS  
 VICTORIA HOUSE  
 49 CLARENDON ROAD  
 WATFORD, HERTS, WD1 1HP



**ALL PRICES EXCLUDE  
 VAT & DELIVERY.**  
 PRICES AND  
 SPECIFICATIONS SUBJECT TO  
 CHANGE WITHOUT NOTICE. E&OE

**PLEASE CALL FOR OTHER  
 MANUFACTURERS PRICES  
 AND FULL RANGE OF  
 CONSUMABLES**

# 60 Years Old and Still Making Babies



Since 1934, Brother has conceived and produced a range of great products. From business machines to home appliances the Brother name has always stood for quality, ease-of-use and value for money.

And the new arrivals to the Brother family are no exception. No one offers you more - workstations, servers, multimedia systems, notebooks, systems with added value software... In fact everything from our latest bonnie baby, the Brother Pro'Book 700 to the big daddy of them all, the Professor P133 MultiMedia. Our attention to detail and tender loving care doesn't end there. We offer you one year's on-site warranty, a 30 day money back guarantee and our lifetime technical hotline.

Quality  
Reliability  
Support  
& Value

As the direct selling arm of Brother and a member of the international Brother Group, Kyodai is here to make sure there are no teething problems and you don't have any sleepless nights. So for business, education, government and the home, your very first word should always be "Brother".



Tel: 01279 416888 Fax: 01279 418130

**brother**

**Some recent Brother press quotes**

"An Absolute Bargain"  
PERSONAL COMPUTER WORLD

"Very good price for a system of this quality (Brother Pentium P60)"  
COMPUTER SHOPPER

"For the best home bargain the Brother MultiMedia Master pipped the XXX on raw price performance"  
WINDOWS USER

"This is a mother of a Brother especially at the price...Overall performance proved handsome"  
COMPUTER BUYER

**BROTHER PERSONAL CREDIT**

Our monthly payment scheme is available to private purchasers only, subject to status. Example: PC Costing £899 + £20 (delivery) + 17.5% VAT = £1079.82 total cash price. 10% deposit of £107.98 followed by 36 equal monthly payments of £38.13 (APR 26.8%). Written quotation on request. Additional payment protection insurance available.

Kyodai Electronics Ltd is a licensed credit broker.

**BUSINESS LEASING**  
Inc. 3 Year On-Site Warranty

3 Year Rental is offered to businesses trading 1 year or more (subject to status). Includes 3 Year On-site Warranty. Call for a competitive quotation on most products. Special leasing facilities also available for Education establishments.

**CREDIT CARD HOTLINE**

**01279 416888**

Fax: 01279 418130

2 Whitehall Estate,  
Flex Meadow, Harlow,  
Essex CM19 5TJ

Visit our Showroom  
Mon-Fri 9am-5pm  
Sat 9am-2.30pm

DELIVERY: Add £20+VAT per system for delivery in UK Mainland. Delivery will normally be effected on the next working day. Please allow 5 days for cheque clearance. Carriage will be charged for items returned within the 30 day guarantee period.

ALL PRICES EXCLUDE VAT

**Kyodai**  
A BROTHER COMPANY

**The Brother Tutor Series**

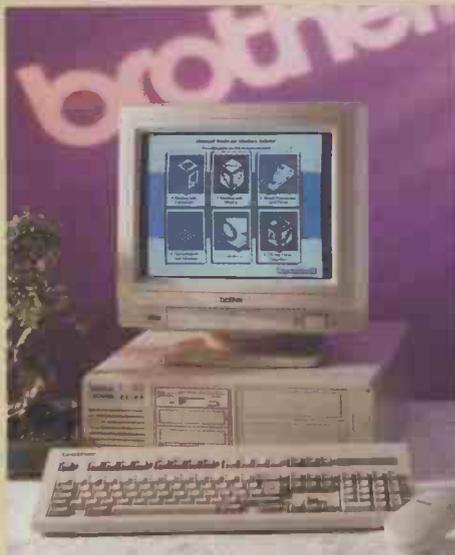
**Tutor DX**

- 486DX, 40MHz processor
- 210Mb hard disk
- 4Mb RAM exp. to 128Mb
- 14" SVGA colour monitor
- 1Mb VESA local bus graphics accel.
- 3.5" 1.44Mb floppy disk
- 200 Watt PSU
- 2 serial, 1 parallel ports
- 2 VESA local bus slots
- 6 x 16 bit, 1 x 8 bit expansion slots
- Keyboard and mouse
- Windows '95 or Windows for Workgroups 3.11 & MS-DOS 6.2
- Microsoft Works v3 for Windows
- 12 months on-site warranty

£679

PERSONAL CREDIT  
£29.00  
inc. VAT per month  
APR 26.8%

With 420Mb Hard Disk £699



**Lotus Tutor DX**

- 486DX, 40MHz processor
- 210Mb hard disk
- 4Mb RAM exp. to 128Mb
- 14" SVGA colour monitor
- 1Mb VESA local bus graphics accel.
- 3.5" 1.44Mb floppy disk
- 200 Watt PSU
- 2 serial, 1 parallel ports
- 2 VESA local bus slots
- 6 x 16 bit, 1 x 8 bit expansion slots
- Keyboard and mouse
- Windows '95 or Windows for Workgroups 3.11 & MS-DOS 6.2
- Lotus Bundle 1
- 12 months on-site warranty

£689

PERSONAL CREDIT  
£29.41  
inc. VAT per month  
APR 26.8%

With 420Mb Hard Disk £709

- Lotus Bundle 1 inc:
- Lotus 123 v5 Spreadsheet
  - Lotus Ami Pro 3.1 WP
  - Lotus Organiser 1.1
  - Lotus SmartCam
  - Lotus SmartPics 1.0 Clipart (disks & manuals available at extra cost)

**The Brother Graduate Series**

**Graduate**

- 486DX2 66MHz processor
- 540Mb 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- 128K Cache
- 8Mb RAM exp. to 128Mb
- 14" SVGA low radiation MPRII non-interlaced colour monitor (0.28 dot pitch)
- PCI 64-bit graphics accelerator
- 3.5" 1.44Mb floppy disk
- 2 serial, 1 parallel ports
- 3 x PCI/4 x ISA expansion slots
- Keyboard and mouse
- Microsoft Works v3 for Windows
- Windows '95 or Windows for Workgroups 3.11 & MS-DOS 6.2
- 12 months on-site warranty

£899

PERSONAL CREDIT  
£38.13  
inc. VAT per month  
APR 26.8%

- DX2-80MHz £919
- DX4-100MHz £939

**Brother Office Graduate**



Microsoft Office v.4.2 inc: MS Office Manager, MS Word v6 for Windows, MS Excel v5 for Windows, MS PowerPoint v4 for Windows, MS Mail Licence (Disks & Manuals included. Boxes shown for illustration only)

**Office Graduate**

- 486DX2 66MHz processor
- 540Mb 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- 128K Cache
- 8Mb RAM exp. to 128Mb
- 14" SVGA low radiation MPRII non-interlaced colour monitor (0.28 dot pitch)
- PCI 64-bit graphics accelerator
- 3.5" 1.44Mb floppy disk
- 2 serial, 1 parallel ports
- 3 x PCI/4 x ISA expansion slots
- Keyboard and mouse
- Microsoft Office 4.2 for Windows
- Windows '95 or Windows for Workgroups 3.11 & MS-DOS 6.2
- 12 months on-site warranty

£1079

PERSONAL CREDIT  
£45.51  
inc. VAT per month  
APR 26.8%

- DX2-80MHz £1099
- DX4-100MHz £1119

**The Brother Professor Series**

**Professor Series include:**

- Intel Pentium processor for lightning fast 64-bit power
- PCI bus optimises data speed
- 540Mb 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- 256K Cache exp. to 1Mb
- 8Mb RAM exp. to 128Mb
- 14" SVGA low radiation MPRII, non-interlaced colour monitor (0.28 dp), EPA EnergyStar
- PCI 64-bit graphics accelerator
- 3.5" 1.44Mb floppy disk
- 2 serial/1parallel/1games ports
- 4 x PCI, 4 x ISA (1shared) slots
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- Microsoft compatible mouse
- Desktop case and keyboard
- 12 months on-site warranty



pentium



EnergyStar compliant with advanced Power Saving Facilities

Pentium is a trademark of Intel Corporation

**Options & Upgrades**

- Monitor Upgrades**
- 14" LR NI to 15" LR NI £1
  - 14" LR NI to 17" LR NI £3
- Fax Modem**
- 14,400 £1
  - 28,800 £1
- RAM**
- 8Mb RAM to 16Mb £2
  - Quadspeed CD ROM £1

- MultiMedia Upgrade**
- CD-ROM, Soundcard, Speaker Microsoft Family CD's £1
  - Upgrade Case to 5000 Series Mini Tower Case £:
  - Upgrade Case to 8000 Series Full Tower Case £:



Shown here with 17" monitor, Mini Tower case and MultiMedia Upgrade Pack

**P75 with 75MHz Pentium® Processor**

3 Year Business Rental: £9.26 per week, inc. on-site warranty, ex. VAT & delivery

£999

**P90 with 90MHz Pentium® Processor**

3 Year Business Rental: £9.90 per week, inc. on-site warranty, ex. VAT & delivery

£1079

**P100 with 100MHz Pentium® Processor**

3 Year Business Rental: £10.46 per week, inc. on-site warranty, ex. VAT & delivery

£1149

**P120 with 120MHz Pentium® Processor**

3 Year Business Rental: £11.10 per week, inc. on-site warranty, ex. VAT & delivery

£1229

**P133 with 133MHz Pentium® Processor**

3 Year Business Rental: £12.91 per week, inc. on-site warranty, ex. VAT & delivery

£1429

# The Brother MultiMedia Series

brother

## "An Absolute Bargain"

PERSONAL COMPUTER WORLD June 1995

12 MONTHS ON-SITE WARRANTY  
EXTENDED WARRANTIES AVAILABLE

Including 6 Microsoft Titles worth over £400 (R.R.P.)



Model shown: Graduate MultiMedia. Boxes shown for illustration purposes only. Speakers supplied will be superior Deluxe Stereo Speakers

Enter a whole new dimension in creative computing with a MultiMedia PC. Integrate text, graphics, sound and live action on your PC to bring education, leisure and business software to life. With the new Microsoft Family CD Pack the Brother range

offers excellent value for the beginner through to the professional. And all hardware and software is installed, tested and ready to run straight from the box.



### Tutor Multimedia

- 486DX 40MHz CPU
- 128K Cache
- 270Mb Hard Disk
- 4Mb RAM exp. to 128Mb
- 14" SVGA Colour Monitor
- 1Mb VESA Graphics Accelerator
- Dual Speed CD-ROM
- SoundBlaster 16-bit Stereo Soundcard
- Stereo Speakers
- Microsoft Family CD Pack
- 2 x VL/5 x ISA expansion slots
- 3.5" 1.44Mb Floppy Disk
- 2 Serial, 1 Parallel, 1 Games Port
- 102 key enhanced Keyboard & Mouse
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- 12 months on-site warranty

£839

PERSONAL CREDIT £35.64 inc.VAT per month APR 26.8%

### Graduate Multimedia

- 486DX2 66MHz CPU
- 128K Cache
- 540Mb 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- 4Mb RAM exp. to 128Mb
- 14" SVGA Low Radiation Non- Interlaced Colour Monitor (0.28)
- PCI 64-bit Graphics Accelerator
- Dual Speed CD-ROM
- SoundBlaster 16-bit Stereo Soundcard
- Deluxe Stereo Speakers
- Microsoft Family CD Pack
- 3 x PCI/4 x ISA expansion slots
- 3.5" 1.44Mb Floppy Disk
- 2 Serial, 1 Parallel, 1 Games Port
- 102 key enhanced Keyboard & Mouse
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- 12 months on-site warranty

£949

PERSONAL CREDIT £40.20 inc.VAT per month APR 26.8%

- DX2-80 £969
- DX4-100 £989

### Professor Multimedia

- Intel Pentium 75MHz CPU
- 256K Cache
- 540Mb 11ms IDE Hard Drive with PCI Enhanced IDE Interface
- 8Mb RAM exp. to 128Mb
- 14" SVGA Low Radiation Non-Interlaced Colour Monitor (0.28)
- PCI 64-bit Graphics Accelerator
- Dual Speed CD-ROM
- SoundBlaster 16-bit Stereo Soundcard
- Deluxe Stereo Speakers
- Microsoft Family CD Pack
- 4 x PCI/4 x ISA expansion slots
- 3.5" 1.44Mb Floppy Disk
- 2 Serial, 1 Parallel, 1 Games Port
- 102 key enhanced Keyboard & Mouse
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- 12 months on-site warranty

£1169

PERSONAL CREDIT £49.33 inc.VAT per month APR 26.8%

- P90 £1249
- P100 £1319
- P120 £1399
- P133 £1599

**Microsoft Family CD Pack**  
With these Brother MultiMedia Systems

- Encarta 1995 CD Encyclopaedia
- Microsoft Works CD Integrated Package
- Dangerous Creatures CD Wildlife
- Microsoft Money CD Home Finances
- Microsoft Golf CD Entertainment
- Microsoft Encarta (5 disks) Backgrounds

Works and Money supplied on 1 CD

**EnergyStar**  
EnergyStar compliant with advanced Power Saving facilities

### MULTIMEDIA OPTIONS & UPGRADES



- Monitor Upgrades
- 14" SVGA to 14" SVGA LR 0.28 £40 (Tutor MultiMedia only)
- 14" SVGA LR to 15"SVGA LR £90
- 14" SVGA LR to 17"SVGA LR £390
- Joystick £12
- Fax Modem 14,400 £89
- Fax Modem 28,800 £179
- 4Mb RAM to 8Mb £109
- Upgrade Case to 5000 Series
- Mini Tower Case £20
- Upgrade Case to 8000 Series
- Full Tower Case £50

To the best of our knowledge the specifications and prices shown are correct at the time of press. Subject to change without notice. E.&O.E.

ALL PRICES EXCLUDE VAT

**brother**

# New Brother Pro'Book

**SPECIAL OFFER**  
**TFT Colour**  
 from £1499

Make Brother  
 your *First Choice*

Express Delivery from  
 Vast Stocks

Full 12 months  
 on-site warranty

30 day no-quibble  
 money back guarantee

MS-DOS, Windows and  
 mouse pre-installed  
 with original  
 documentation

Buy with confidence  
 from Kyodai - member  
 of the \$1.3bn  
 International Brother  
 Group

## BROTHER PERSONAL CREDIT

Our monthly payment scheme is available to private purchasers only, subject to checks. Example: PC Costing £899 + £20 delivery + 17.5% VAT = £1079.82 total cash price. 10% deposit of £107.98 followed by 35 equal monthly payments of £28.13 (APR 26.8%). Written quotation on request. Additional payment protection insurance also available. Finance available from a licensed credit broker.

## BUSINESS LEASING

Inc. 3 Year On-Site Warranty

Our flexible leasing scheme is available to businesses operating for a year or more (subject to status). Includes 3 Year On-site Warranty. Call for a quotation on most products. Leasing facilities also available for individuals. Finance available from a licensed credit broker.



**CREDIT CARD  
 HOTLINE**

**01279  
 416888**

Fax: 01279 418130

2 Whitehall Estate,  
 Flex Meadow, Harlow,  
 Essex. CM19 5TJ

Visit our Showroom  
 Mon-Fri 9am-5pm  
 Sat 9am-2.30pm

DELIVERY: Add £20 VAT per system for delivery in UK Mainland. Delivery will normally be effected on the next working day. Please allow 5 days for cheque clearance. Carriage will be charged for items returned within the 30 day guarantee period.

ALL PRICES EXCLUDE VAT

**Kyodai**  
 A BROTHER COMPANY



PCMCIA Card Slots  
 Type II and Type III



Removable long-life battery  
 with 5-level charge indicator



Removable Hard Disk for  
 Infinite Storage & Security



LCD Status Panel



Sleek design and  
 ergonomic palmrests

- Now with
- Built-in Sound
  - 420Mb Hard Disk
  - Free Carry Case



"A well designed portable, full of features that make it a pleasure to work with on the road... With its simple yet effective GlidePoint pointing device and its ergonomically positioned keyboard, the Brother ProBook BCP751T is extremely comfortable in prolonged use... With its impressive battery life, extensive power management facilities, hot-swapping support and an attractive TFT screen, the ProBook is ideally suited for life on the road. It's also light and small enough to be carried around in comfort."

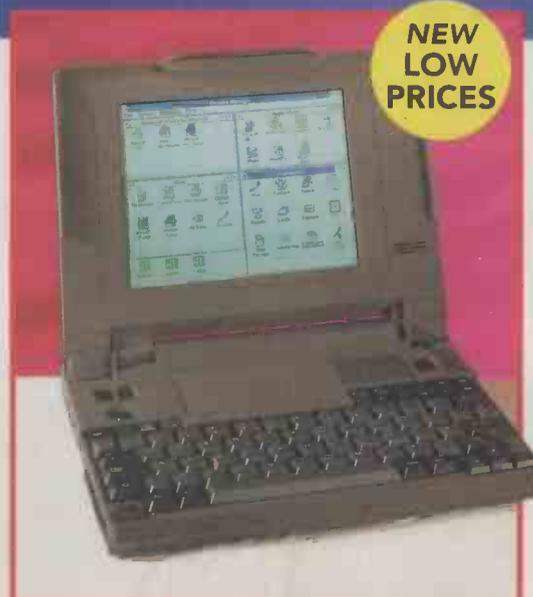


"A well designed portable... Of all the 256 Colour screens reviewed here, the Brother had the nicest TFT"



"The Brother performed well in our battery life tests - lasting an incredible four hours, which is, by far, the top score"

## The Brother Trekkers



**NEW  
 LOW  
 PRICES**

The Brother Trekker is the perfect business travelling partner. It is one of the world's smallest and most lightweight portable computers yet packs the power of the Superfast 486SLC2 50MHz processor and is equipped with a formidable array of features you would expect to find on your desktop PC. Giving you the power to run your applications while visiting customers on-site, while on the move or to bring work home.

Trekker 486 Mono 250Mb  
 £749 **PERSONAL CREDIT** £33.98 inc VAT per month APR 26.8%

Trekker 486 Colour 250Mb  
 £899 **PERSONAL CREDIT** £41.44 inc VAT per month APR 26.8%

- 486SLC2 50MHz processor
- 4Mb RAM expandable to 8Mb
- 250Mb hard disk
- Built-in 3.5" 1.44Mb floppy disk drive
- Mono: 9.4" VGA LCD 64 greyscale
- Colour: 8.25" passive matrix colour LCD
- External colour (800 x 600) SVGA port
- Micro Trackball module with left/right buttons
- 80-key keyboard with embedded numeric keypad
- Suspend/Resume feature
- Ports: 1 serial, 1 parallel, 1 SVGA + external keyboard
- 2-4 hour fast charge NiCd battery
- Microsoft Works v3.0 integrated package includes Word Processing, Spreadsheet, Database, Communications
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- 279mm x 210mm x 40mm
- Weight 2.3kg
- 12 Months on-site warranty

# The Professionals Choice

The New Brother Pro'Book 700 Series represents the next generation in portable computing. Now you can have more power in your notebook than you have on your desktop.

New to the 700 Series is built-in 16-bit stereo sound, the revolutionary GlidePoint® trackpad that makes pointing and clicking a dream, plus a large 420Mb hard disk.

Convenient upgradability has arrived with the modular design Pro'Book: the hard disk is removable allowing infinite storage and security; the LCD displays are exchangeable, easy access to the motherboard allows simple upgrades of memory, even the processor chip is upgradable.

In addition, the 3.3V technology design enhances the efficiency of the removable battery, which features a 5-level remaining capacity display.



The revolutionary new GlidePoint® makes pointing and clicking simpler than ever

To enhance the Pro'Book, PCMCIA slots give access to versatile applications including Fax/Modem, networking, SCSI devices and hard disks. Superb ergonomics, an extensive list of features, outstanding performance and superb pricing - the Pro'Book is the professionals choice.

## PRO'BOOK SPECIFICATIONS

- **Choice of Display:**  
Mono 9.4" VGA LCD 64 greyscales  
Dual Scan Colour 10.4"  
Colour Active Matrix TFT 9.4" and 10.4"
- **Choice of Processor:**  
486DX2 66MHz, 486DX4 100MHz
- 4Mb RAM exp. to 8Mb, 16Mb or 32Mb
- Removable 420Mb hard disk (810Mb option)
- Built-in 16-bit SoundBlaster compatible stereo sound system
- Built-in 3.5" 1.44Mb floppy disk drive
- 1Mb VESA Local Bus graphics accelerator
- PCMCIA slots: 2 x Type II and 1 x Type III
- Docking Station Connector
- Ergonomic Palmrests
- Full feature power management with doze, sleep, suspend and suspend to disk mode
- LCD Status Indicator
- Removable battery pack with 5 level LED display of remaining capacity
- External colour (1024 x 768) SVGA port
- GlidePoint® trackpad with dual buttons
- 84-key keyboard with embedded keypad
- Ports: 1 serial, 1 enhanced bi-directional parallel, 1 SVGA + external keyboard
- 2 hour fast battery charge
- Microsoft Works v3.0 integrated package includes Word Processing, Spreadsheet, Database, Communications
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- Weight 2.6kg, 286mm x 220mm x 45mm
- Free Carry Case
- 12 Months on-site warranty

## PRO'BOOK OPTIONS

RAM Upgrades		Executive Carry Case	£49
4Mb to 8Mb RAM	£149	Upgrade Hard Disk from	
8Mb to 16Mb RAM	£298	420Mb to 810Mb	£260
16Mb to 32Mb RAM	£596	PCMCIA Fax/Modems with	
Internal Battery Pack	£49	Delrina WinFax Lite Software	
Docking Station	£399	14,400bps	£149
NiMH Battery Pack	£73	28,800bps	£199
Car Adaptor	£49		

## Pro'Book BCP700 Series

Model	Processor	9.4" Mono	10.4" Dual Scan	9.4" TFT Colour	10.4" TFT Colour
BCP 741	486DX2-66	£1049	£1349	£1499	£1749
<b>Business Rental Per Week</b>		<b>£9.82</b>	<b>£12.46</b>	<b>£13.66</b>	<b>£16.11</b>
BCP 761	486DX4-100	£1199	£1499	£1649	£1899
<b>Business Rental Per Week</b>		<b>£11.02</b>	<b>£13.66</b>	<b>£15.31</b>	<b>£17.31</b>

All prices are for 420Mb Hard Disk.

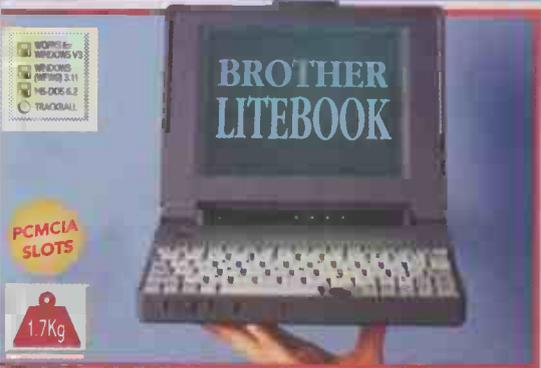
Brother Pro'Book 486DX2-66 Mono/420Mb & Lotus Bundle 1\* inc:  
 ● Lotus 123 v5 ● Lotus Ami Pro 3.1 ● Lotus SmartPics  
 ● Lotus Organizer 1.0 ● Lotus ScreenCam **£1059**

Brother Pro'Book 486DX2-66 Mono/420Mb and Lotus Smartsuite 3.0\* **£1119**

Brother Pro'Book 486DX2-66 Mono/420Mb and Microsoft Office 4.2 **£1229**

\*Disks and manuals extra. Does not include Microsoft Works.

## The Brother Litebook



No other Notebook is this lightweight, this powerful, this flexible or this affordable **£699**

PERSONAL CREDIT **£29.83** inc.VAT per month APR 26.8%

- 486SLC 25MHz processor
- Built-in co-processor
- 4Mb RAM exp. to 8Mb
- 80Mb Hard Disk
- PCMCIA slots:  
2 x type II, 1 x type III
- External 3.5" 1.44Mb FDD
- 8.5" VGA LCD 64 Greyscales
- External colour (1024 x 768) port
- Ports: 1 serial, 1 parallel, 1 SVGA + External keyboard, 1 External Floppy Disk Drive
- Built-in Micro Trackball
- Microsoft Works 3.0 package includes Word Processing, Spreadsheet, Database and Communications
- Microsoft Windows 3.11, MS-DOS 6.2
- Removable Long-Life NiHi battery
- 252mm x 192mm x 39mm
- Weight 1.7kg with battery
- 12 months on-site warranty

Brother Litebook with GemFax PCMCIA Fax/Modem and Communications Software

**£799**

## The Brother & Lotus Notebook



### Brother BCP431V Notebook

- 486DX 33MHz Processor
- Maths Co-processor
- Internal cache memory
- 250Mb Hard Disk
- 4Mb RAM exp. to 8Mb
- Power saving conservation feature on Hard Disk & LCD
- Easy to read back-lit 10" VGA Mono LCD with 64 greyscales
- 3.5" 1.44Mb fdd
- 2 x Serial, 1 x Parallel, SVGA monitor and keyboard ports
- 2-4 hours average charge time
- Password protection
- Microsoft compatible Mouse
- Lotus Software Bundle
- Windows '95 or Windows for Workgroups 3.11 and MS-DOS 6.2
- 292(w) x 217(d) x 46(h) mm
- Weighs only 3Kg
- 12 Month on-site warranty
- Wide range of options: carry case, car adaptor, trackball, extra battery, LAN Ethernet D link, keyboard adaptor.

Brother brings you an exclusive notebook solution that represents truly amazing value. The powerful Brother BCP431V notebook with its fast 486DX 33MHz processor and large 250Mb hard disk, together with a complete suite of Lotus Windows software (now upgraded to include Lotus 123 v5) pre-installed and ready to run for your convenience. This solution provides the answer to all your needs - word processing, spreadsheet, personal organising plus clipart graphics - and all Lotus documentation is pre-loaded to provide on-line help as you need it.

**£899**

PERSONAL CREDIT **£38.13** inc.VAT per month APR 26.8%

All this software Pre-installed and ready to run  
 ● Lotus 123 v5  
 ● Lotus Ami Pro 3.1  
 ● Lotus Smart Pics  
 ● Lotus Organizer 1.0  
 ● Lotus ScreenCam

To the best of our knowledge the specifications and prices shown are correct at the time of press. Subject to change without notice. E & O.E.

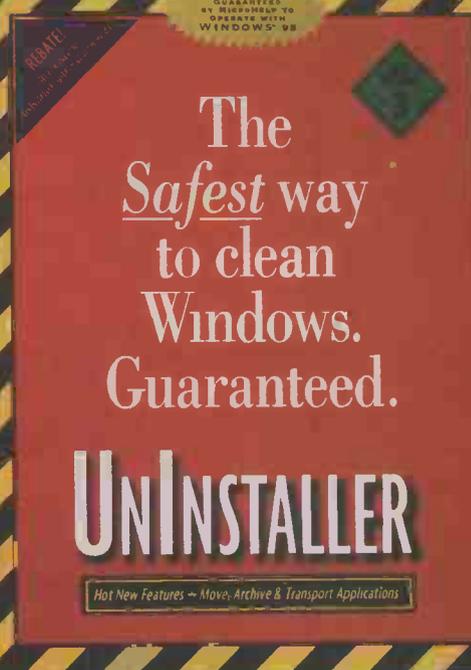
ALL PRICES EXCLUDE VAT

Say, isn't it about time you did some weeding inside that hard drive of yours?

At last, a simple software utility you can truly trust to clean things up. UnInstaller™ 3 is the newest version of 1994's No. 1 selling Windows application.

Every Windows application places bits and pieces of itself in hidden places throughout your system. This takes up memory and can lead to rather catastrophic consequences if not dealt with effectively.

UnInstaller 3 uncovers loads of unwanted files lurking about in your system and lets you remove them whenever you want to. It's the safest way to clean Windows — guaranteed.



- New features allow you to move, archive and transport applications (this lets you take advantage of a second drive, save space by storing compressed files, and transporting applications and data to another PC).
- Saves megabytes of disk space by deleting unwanted applications, uncovering duplicate files, and removing all those pesky fonts, clip art and temp files which have been left behind to clog your system.
- Includes Duplicate File Finder, a feature which roots out files that your Windows applications have been creating over and over and over...



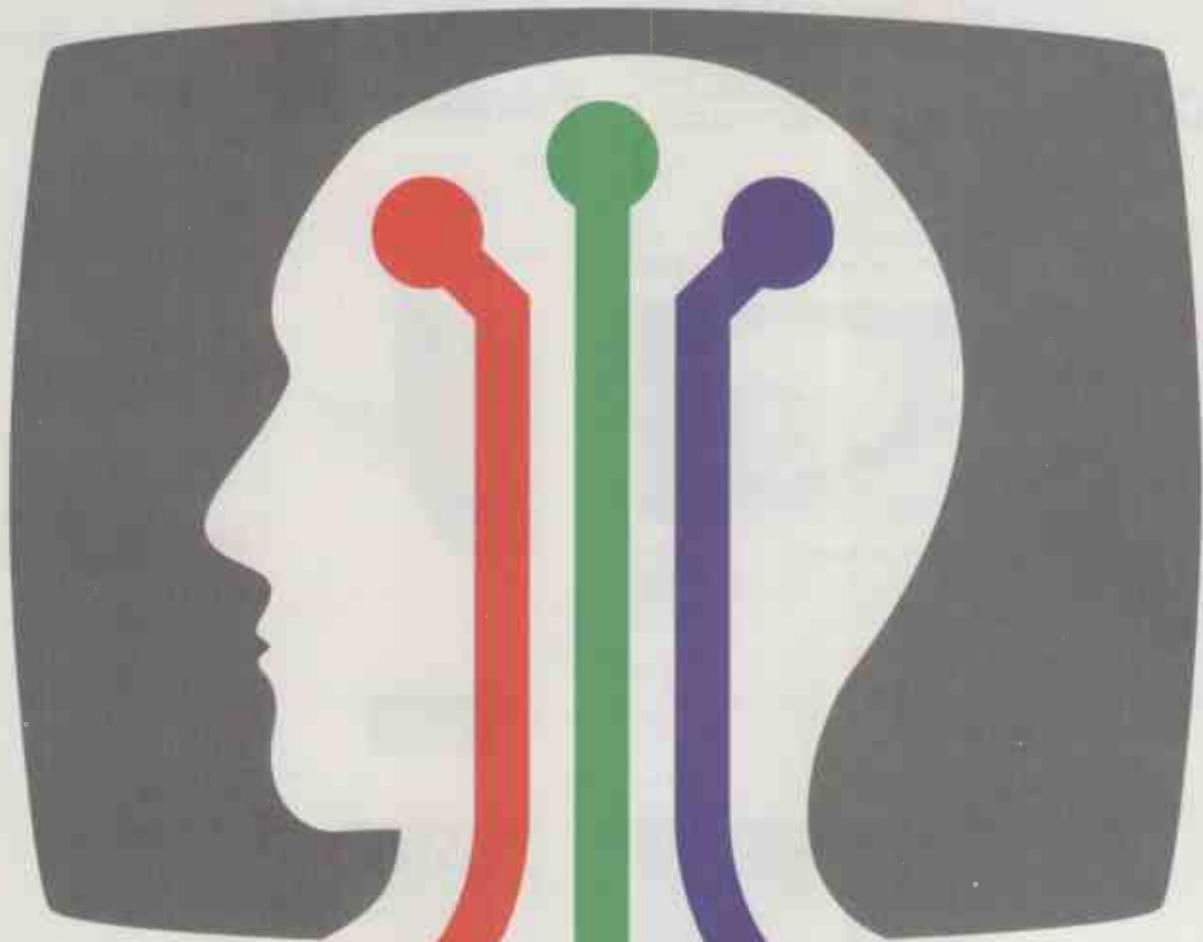
Available from your local software seller. For information call the MicroHelp UK Service Centre.

01703 814822

**MicroHelp**

REMEMBER,  
IT'S A JUNGLE  
IN THERE.

# Expand Your Memory...



...it's as easy as

**A**

30 Pin

**B**

72 Pin  
PARITY

**C**

72 Pin  
NON PARITY

Amstrad  
7 Series  
9 Series

AST  
BravoLC,LP,MS,MT  
Premia486

Compaq  
ProLinea 4/25,4/33,4/33s,  
4/50,4/66,MT,P575  
Presario All Models

Dan  
95s/,Premium, Windows,  
Dantium, Ultimate

Dell  
Performance L,M,T  
ME  
Dimension XPS  
XPS Pentium  
Omniplex  
Optiplex  
Precision Non Pentium  
Pentium

Memory Type / Size	1Mb	2Mb	4Mb	8Mb	16Mb	32Mb
<b>A</b> 30 Pin	£27	-	£94	-	-	-
<b>B</b> 72 Pin Parity	-	-	£105	£214	£359	£699
<b>C</b> 72 Pin Non Parity	-	-	£89	£187	£325	£625
<b>D</b> ED0	-	-	£call	£call	£call	£call

Elonex  
PC433M,450M,466M  
PC500 Series, PC560

Escom  
DX2/66,P60,P75,P100,P120

Evesham  
Vale Popular,Prestige,  
Premier,Platinum

Gateway  
PC4SX33,DX33V,66V,P/V  
P4D,  
P575,90,100,120,133 EDO

Highmead  
DX2/66,DX4/  
100,P75,P90,P100

Hewlett Packard  
Vectra Netserver  
LFLM  
N2,M2,XM2,VL2

**B**  
**C**  
**D**

IBM  
Aptiva 300 Series  
700 Series  
Valuepoint  
PS/2

Mitac  
DX2/66,DX4/100,P60

MJN  
DX2/66,DX4/100,P75,P100

Opus  
DX2/66,DX4/100, Tritron,  
Prelude,Premier,Prestige

## ORDER INFORMATION

- Simply find your computer in the list
- Use the A B C pricing
- Call our memory experts

14 days no quibble  
Money Back offer

5 year warranty

### Please Remember

Add £10 for next working day delivery.  
All prices are excluding VAT@ 17.5%

Tel 01705 666500  
Fax 01705 664244



a trading division of Novatech

Click Blueprint 1400 Dundas Spur Portsmouth PO3 5RW

**(01705) 666500**

3 5 7  
PERSONAL COMPUTER WORLD  
OCTOBER 1995

## Printers

### brother

HL630	£317
HL631	£349
HL660	£459
HL1260	£919

### Canon

BJ30	£149
BJ70 Colour	£220
BJ200ex	£170
BJ230	£236



<b>BJC4000 Colour</b>	<b>£227</b>
BJC600e	£332
BJ300	£352
BJ330	£388
BJC800 A3 Colour	£1065
BJC820 A3 Colour	£1225
LBP430W	£359
LBP1260	£893

### EPSON

<i>Dot Matrix</i>	
LX300	£92
LX1050	£179
FX870	£242
FX1170	£297
LQ300	£147
LQ570+	£209
LQ870	£371
LQ1070+	£291
LQ1170	£429
<i>Inkjet</i>	
Stylus 800+	£177
Stylus 1000	£328



<b>Stylus Colour 720dpi</b>	<b>£337</b>
Stylus Colour Pro A4 <i>New!</i>	£639
Stylus Colour Pro XL A3	£1389
<i>Laser</i>	
EPL5200+ <i>New!</i>	£462
EPL9000 12ppm A3	£1179

## Printers

### hp HEWLETT PACKARD

<i>Inkjet for PC</i>	
DeskJet 320	£163
DeskJet 320+SheetFeed	£176
DeskJet 320/540 Colour Kit	£28
DeskJet 320 Battery Pack	£27
<b>DeskJet 600 <i>New!</i></b>	<b>£209</b>



<b>DeskJet 660C</b>	<b>£289</b>
DeskJet 850C	£385
DeskJet 1600C	£822
DeskJet 1600PS	£1225
<i>Inkjet for Apple Mac</i>	
DeskWriter 320	£169
DeskWriter320+SheetFeed	£182
DeskWriter 540	£212
DeskWriter 660C	£297
<i>Lasers</i>	
LaserJet 4L	£349



<b>LaserJet 5P</b>	<b>£578</b>
<b>LaserJet 5MP</b>	<b>£722</b>
LaserJet 4+	£977
LaserJet 4M+ Pscript	£1294
LaserJet 4V A3	£1364
LaserJet 4MV Pscript A3	£1967
LaserJet 4Si	£2054
LaserJet 4Si MX	£2927
LaserJet Colour	£4197



<i>Plotters</i>	
DesignJet 230 A4-A1	£1387
DesignJet 230 A4-A0	£1909
DesignJet 250C A4-A1	£1738
DesignJet 250C A4-A0	£2387
DesignJet 230/250 legs only A1	£195
DesignJet 230/250 legs & bin A0	£219
DesignJet 600 A4-A1	£2765
DesignJet 600 A4-A0	£3295
DesignJet 650C A4-A1	£3765
DesignJet 650C A4-A0	£4429
3 Years HP On-site Support	£395

No of \* = No of years On-Site Maint.

## Printers

### Panasonic

<i>Dot Matrix</i>	
KX-P1150	£87
KX-P2023	£108
KX-P2135 Colour	£126
KX-P2124	£198
KX-P3626	£252
<i>Lasers</i>	



<b>KX-P6100</b>	<b>£268</b>
KX-P4430	£489
KX-P4440	£699

### stair

Wintype 4000	£288
--------------	------

### QMS

PS1060 A4 600x600 12Mb	£1576
PS1660 A3 1200x600 12Mb	£2891

### X-RANK XEROX

4505	600 dpi 5ppm 2Mb	£583
4505ps	PostScript 6Mb	£899
4510	600 dpi 10ppm 2Mb	£789
4510ps	PostScript 6Mb	£1127
4520	600 dpi 20ppm 4Mb	£1905
4520mp	PostScript 8Mb	£2820
3006	fax/print/copy/scan	£881
PC connectivity Kit		£89

### NEC

SuperScript 610 Plus	*	£287
SuperScript 660	*	£416
SuperScript 660i	*	£569
SuperScript Color 3000	*	£669

## Cables

<b>PARALLEL TO PRINTER</b>	
1.8 M Printer Cable	£4
3 M Printer Cable	£6
5 M Printer Cable	£10
10 M Printer Cable	£15

<b>M - M CENTRONICS</b>	
2 Metre M-M	£5
3 Metre M-M	£8
5 Metre M-M	£10
10 Metre M-M	£15
2 Way Manual switch Box	£17

No of \* = No of years On-Site Maint.

## Printer Ribbons

<b>AMSTRAD</b>		2+	12+
DMP2000/3000/3160	RN	1.80	1.70
PCW9512	MS	2.30	1.99

<b>EPSON</b>			
LQ100,LQ150 Original	DN	5.25	4.95
LQ300/570/850/870	DN	3.05	2.75
LQ1070/1170	DN	3.50	3.10
LX300/400/850	FN	2.85	2.55
LX1050,FX1170	FN	3.10	2.75

<b>PANASONIC</b>			
KXP1123/1124	RD	2.30	2.20
2123/2124 BLACK	RD	3.95	3.70
2123/2124 COL	RD	7.95	7.50

<b>STAR</b>			
LC10/100	FN	1.60	1.40
LC24-1/2/300,XB24	DN	2.30	2.10

## Ink Cartridges

<b>CANON</b>		1+	6+
BJ10E,BJ20		14.75	13.95
BJ200/BJ230		16.95	15.45
BJ300/BJ330		13.00	12.00
BJ30/BJ70 BC10BK 3 Pk		10.00	9.00
BJ70 BC11BK 3Pk			
BJ70 BC111C 3Pk			
BJC600 Black Long Life		9.00	8.00
BJC600 Colours		8.00	7.00
BJC4000 BC21Black		8.00	7.00
BJC4000 BC21Colour		14.00	13.00
BJC4000 BC20 Black		23.00	21.00

<b>EPSON</b>			
Stylus 400,800,1000		10.00	9.00
Stylus 800,1000 Long Life		19.00	17.00
Stylus Colour Black		12.00	11.00
Stylus Colour		29.00	27.00

<b>HEWLETT PACKARD</b>			
DeskJet 310,320		16.75	15.95
DeskJet 500,520,540,560		19.75	18.95
DeskJet 560 51625A Col		21.00	19.00
DeskJet 660 51629A Blk		22.00	20.00
DeskJet 660 51649A Col		23.00	21.00
DeskJet 850 51645A Blk		21.00	19.00
DeskJet 850 51641A Col		20.00	18.00
DeskJet 1200 Black		19.00	18.00

## Laser Toner

<b>BROTHER</b>		1+	3+
HL4,HL6		48.00	46.00
HL8		49.00	47.00
HL630,631,660		27.00	26.00
HL1260		71.00	69.00

<b>HEWLETT PACKARD</b>		1+	3+
LaserJet IIP,IIP		48.00	46.00
LaserJet II,III,IIID		49.00	47.00
LaserJet 4L,4ML,4P		46.00	44.00
LaserJet 4,4M,4+		71.00	69.00
LaserJet 4V,4MV		91.00	89.00

<b>NEC</b>			
SuperScript 610,660		78.00	76.00

<b>STAR</b>			
Laser 5 All Models		67.00	65.00
WinType 4000		68.00	62.00

**Free Carriage on all Consumables!**  
**Only Orders over £50+vat go Next Day**  
**We have Huge Range of Consumables**  
**Please Call if yours is not Listed**

# Next Day Delivery\* if you order before 4.30pm

## Scanners

**AGFA**  
 StudioScan Adobe PhotoShop LE £472  
 StudioScan II SI Full Adobe PhotoShop £609  
 Arcus II Full Adobe PhotoShop £2118  
 All AGFA Scanners include FotoLook, FotoSnap, FotoTune and OmniPage Direct OCR software  
 Please specify MAC or PC version when ordering

**EPSON Colour Scanners**  
 LapCAT for PC **New!** £292  
 Price includes interface cables & Xerox Desktop Document Management Suite



**GT Scanner Packages for PC and Mac**  
 Includes all interfaces, cables & software required +

**GTX includes:**  
 ●Adobe Photoshop LE  
 ●Omni Page Direct OCR  
 GTX8500 PC Parallel £495  
 GTX8500 PC SCSI £572  
 GTX8500 Apple Mac £502  
 GTX9000 PC Parallel £602  
 GTX9000 PC SCSI £672  
 GTX9000 Apple Mac £602  
**GTI package includes:**  
 ●Adobe Photoshop full version  
 GTI8500 PC SCSI £748  
 GTI8500 Apple Mac £685  
 GTI9000 PC SCSI £858  
 GTI9000 Apple Mac £789

**HEWLETT PACKARD**  
 ScanJet 3P £229  
 ScanJet 3C £609  
 Please specify interface - PC, MCA, or MAC

**LOGITECH**  
 ScanMan 32 for Dos + OCR £56  
 ScanMan 32 for Wind OCR £56  
 ScanMan 256 PC £78  
 ScanMan EasyTouch £106



**ScanMan COLOUR** £169  
 PowerPage £299

**PLUSTEK**  
 ScanPlus 6000 Colour £179  
 A4 Sheet fed Includes Pict Pub LE + WordScan OCR

## Modems

**MOTOROLA New!**  
 New 28.8 Modem on its own or complete with Internet pack  
 3400 Pro PC £156  
 3400 Pro Online Internet Pack £168

**PACE**

	Internal	External
Microlin FX32+	£136	£149
Microlin FX34	£229	£229
Microlin FX32+ PCMCIA		£189
Microlin FX34 PCMCIA		£259
Mobifax 32+ 14.4 + Fax		£92
Linnet Message Centre		£228

## US ROBOTICS



**Sportster 28.8+fax** £155  
 Sportster 14.4+fax £102  
 Sportster 14.4+fax Internal £104  
 Sportster 28.8+fax Internal £159  
 Worldport 14.4 + CellPhone £121  
 Worldport PCMCIA V34 £159  
 Courier v34 External £239  
 Courier v34 Internal £239

**ZOOM**  
 14.4 Internal £85  
 14.4 External £92  
 28.8 Internal £139  
 28.8 External £158

**Modem Cable 9 or 25 pin £9**

APPROVED connection to telecommunication services specified in the instructions is subject to the conditions of service in them.

## Faxes

**SAMSUNG**

SF40	*	£159
SF500	*	£182
SF800	*	£246
SF1505	*	£229
SF2800	*	£292

## HEWLETT PACKARD



**OFFICEJET LX** £POA  
 FAX 900 £449  
 FAX 950 £599  
 3Yrs On-Site Warranty £70

## How to Order...

Our friendly staff will take your order over the phone. We aim to make your purchase as effortless as possible. Call us now on (01705) 664144.

### Fax or Post

Please make sure you read the following.

### Delivery

£10 +VAT per order. (Not per box)  
 UK Mainland next working day.  
 If ordering on Saturday or for delivery off the mainland please call.

\*If you pay by credit card before 4.30pm for items in stock we will despatch that day for delivery the next day. (UK Mainland only. Excludes outlying areas and orders placed on Saturday.)

### VAT

Please add VAT at 17.5% to all prices.  
 (ie £100 item + £10 delivery + £19.25 VAT = £129.25)

### Payment

#### Credit Cards

We make no surcharge for credit card use. We will not debit your card before the day of despatch. We despatch same day when you order before 4.30pm.



#### Cheques

Please allow 7 working days for cheques to clear before despatch. Proforma invoices will be supplied on request.

#### Bank Transfers Welcome

Please ask for details.

#### Government & Education

We welcome official orders from all Government bodies. Our terms for these orders are strictly 30 days from invoice date.

### Terms & Conditions

Goods are not supplied on a trial basis. You must check specifications and compatibilities with manufacturers before buying. Prices and specifications may change without notice. Goods are offered subject to our standard conditions of sale - available on request. E & OE.

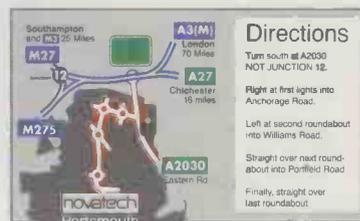


### Opening Hours

Monday to Friday 9am to 5.30pm. Saturday 9.30am to 4.30pm. Personal collections are welcome. We hold large stocks but are unable to demonstrate any of the products listed here.

Novatech  
 Blueprint 1400  
 Dundas Spur  
 Portsmouth  
 PO3 5RW

Sales (01705) 664144  
 Fax 664244  
 After Sales 662299



## Hard Drives

### CONNER IDE

CFS420A	420Mb	13ms	£92
CFS540A	540Mb	15ms	£109
CFA850A	850Mb	12ms	£165
CFA1275A	1.2Gb	12ms	£279

### QUANTUM IDE

MV540AT	540Mb	14ms	£132
LT730AT	730Mb	11ms	£172

### SEAGATE IDE



ST3491A	428Mb	15ms	£99
ST3660A	545Mb	14ms	£105
ST5850A	850Mb	11ms	£149
ST31220A	1Gb	12ms	£179

### WESTERN DIGITAL IDE



AC-2540	540Mb	10ms	£115
AC-2635	635Mb	10ms	£118
AC-2850	850Mb	10ms	£136
AC-3100	1.Gb	10ms	£189
AC-31200	1.2Gb	10ms	£208

## Other Drives

5.25" 1.2Mb	£33
3.5" 1.44Mb	£18

## Interface Cards

### CONTROLLER CARDS

IDE 2Hdd 2Fdd 1Parr 2 Ser 1Game	£14
IDE 4Hdd 2Fdd 1P/1G/2 16550 Serial Mode 3+4 VL Bus	£22

### ADAPTEC SCSI Controllers

1522Hdd/Fdd	£95
1542C kit ISA Hdd/Fdd	£159
1640kit PS/2 MCA Hdd/Fdd	£189
2742kit EISA Hdd/Fdd	£259
2842kit VL Bus Hdd/Fdd	£165
2940kit PCI Hdd	£189
T460kit PCMCIA fast SCSI2	£179

## Keyboards

Silitek 102 Key Tactile	£17
MS Natural Keyboard	£59

## Soundcards

### CREATIVE LABS



Sound Blaster 16 Value	£64
Sound Blaster 16 Value IDE	£64
Sound Blaster 16 Pro IDE	£85
Sound Blaster AWE32 Value	£122
Sound Blaster AWE32 MCD	£163
Sound Blaster AWE32 IDE	£175

### ORCHID

Soundrive 16	£59
GameWave 32 +	£93
SoundWave 32 Pro	£131
SoundWave 32 Pro SCSI 2	£143

### ZIFI SPEAKERS

Zi-Fi Speakers	£25
Zi-Fi Pro Speakers	£39

## Graphics Cards

### DIAMOND

Stealth 64 1 Mb Dram	£97
Stealth 64 2Mb Dram	£135
Stealth 64 2Mb Vram	£217
Stealth 64 4Mb Vram	£309

**Please specify VLB or PCI**

### NUMBER 9

9FX Vision 330 1Mb	£86
9FX Vision 330 2Mb	£126
9FX Motion 531 1Mb	£121
9FX Motion 531 2Mb	£163

**Please specify VLB or PCI**

9FX Motion 771 2Mb PCI Only	£229
9FX Motion 771 4Mb PCI Only	£327
Imagine 128 4Mb 1280 PCI	£667
Imagine 128 4Mb 1600 PCI	£835
Imagine 128 8Mb PCI	£1231

### ORCHID

Fahrenheit 64 1Mb VLB	£89
Fahrenheit 64 1Mb PCI	£95
Fahrenheit 64 2Mb VLB	£128
Fahrenheit 64 2Mb PCI	£133
Fahrenheit Pro 64 2Mb VLB	£208
Fahrenheit Pro 64 2Mb PCI	£214
Fahrenheit Pro 64 4Mb VLB	£284
Fahrenheit Pro 64 4Mb PCI	£291



Kelvin 64 1Mb	£80
Kelvin 64 2Mb	£113

**Please specify ISA, VLB, or PCI**

## CD Kits

### CREATIVE LABS

Sound Blaster16 Cracker Pack	£169
16 Bit Stereo Sound Card	
Panasonic CR563 Dual Speed CD Rom	
Aldus Photostyler SE	
Grolier Encyclopaedia	
Battery Powered Speakers	

### MultiMedia Home CD4x

16 Bit SoundBlaster Card with AdSP	£277
Nec Quad Speed IDE CD Rom	
StereoSpeakers	
Microsoft Publisher 2 with Design Pack	
Microsoft Works, Encarta 95,	
MS Cinemania 95, Bookshelf 94	
Ancient Lands, Golf, Dangerous Creats	
MS Musical Instruments, Undersea	
Pagan Ultima 8, Wing Commander 2	
Syndicate Plus, Strike Commander	

## CD Drives

### CREATIVE LABS

563 MultiMedia Upgrade	£92
Includes Grolier Ency + PhotoStyler	

### GOLDSTAR

GCDR520D Dual Speed IDE	£69
GCDR540D Quad Speed IDE	£109

### MITSUMI

FX400 Quad Speed IDE	£111
Interface for above	£12

### PANASONIC

CR562 Bare Drive	£68
Interface Kit inc Cables	£8
CR574 Bare Quad Speed IDE	£113
CR504 Bare Quad Speed SCSI	£149
LF1004B PD Quad CD + Optical	£492
LF1004BK PD CD + Optical Kit	£542
Optical Cartridges for PD System	£39

### PIONEER

DR-UA124X Quad IDE	£125
DR-U124X 4.4 speed SCSI	£194
DRM-624X 4.4sp SCSI Multi CD	£427

### PLEXTOR

Quad Speed SCSI	£215
Six Speed SCSI	£285

### TOSHIBA

XM3601B int 4.4 speed SCSI	£213
----------------------------	------

## Joysticks

CH	
Flight Stick	£27
Flight Stick Pro	£49
Virtual Pilot Yoke	£63
Multi I/O with Game Port	£14

## Network cards

### 3COM Etherlink III3C509B

Connection	Bus	1 Pack	5 Pack
BNC	ISA	£66	£293
RJ45	ISA	£65	£276
BNC & RJ45	ISA	£75	£325

## Memory

### 30 Pin

1Mb 70ns 3 Chip	£27
4Mb 70ns	£94

### 72 Pin Non Parity

1x32 4Mb 70ns	£89
2x32 8Mb 70ns	£187
4x32 16Mb 70ns	£325
8x32 32Mb 70ns	£625

### 72 Pin Parity

1x36 4Mb 70ns	£105
2x36 8Mb 70ns	£214
4x36 16Mb 70ns	£359
8x36 32Mb 70ns	£699

### 72 Pin EDO

1x32 4Mb	£call
2x32 8Mb	£call
4x32 16Mb	£call
8x32 32Mb	£call

## OverDrives

### DX4 OverDrive

25Mhz to 75Mhz	£86
33Mhz to 100Mhz	£112

Please state if you have an empty Overdrive socket or require a chip replacement when ordering

### Pentium OverDrive

to fit 486 25Mhz	£160
------------------	------

## Tape Streamers

### COLORADO

DJ-35 350Mb Internal	£109
DJ-25 700Mb Internal	£128
DJ-50 1.4Gb Internal	£209



### T1000 400/800 Mb TRAVAN

FC-20 Tape Controller	£119
Trakker 350Mb External	£48
Trakker 700Mb External	£159
Trakker 700Mb External	£238
350 Mb Tapes	£18
700 Mb Tapes	£22

Please Call for Quantity Tape Prices

## Mice

### LOGITECH

Pilot Serial Mouse	£17
Mouseman Combo	£33
Mouseman Cordless	£49
Trackman II	£43
Trackman Portable	£35

### MICROSOFT

Mouse 2 Serial & PS/2 Intellipoint	£35
Home Mouse	£29

# Next Day Delivery\* if you order before 4.30pm

## Monitors

**GOLDSTAR**

GS1455D 14" 800x600	£137
GS1466DM 14" 1024x768 NI LR	£168
GS1505DM 15" 1024x768 NI LR	£195
GS1520DM 15" 1024x768 NI LR	£229
GS1727DM 17" 1024x768 NI LR	£455

**NEC**

**Value Series**

XV15 15" 1024x768 NI LR	£279
XV17 17" 1024x768 NI LR	£559

**Efficiency Series**

XE15 15" 1024x768 NI LR	£389
XE17 17" 1024x768 NI LR	£697
XE21 21" 1152x870 NI LR	£1329

**Professional Series**

XP17 17" 1152x870 NI LR	£909
XP21 21" 1360x1024 NI LR	£1749

**PHILIPS**

14M 14" VGA Mono LR	£89
14C 14" 1024x768 I LR	£163
14B 14" 1024x768 NI LR	£189
15B 15" 1024x768 NI LR Stereo	£272
17C 17" 1024x768 NI LR Stereo	£423
17T 17" 1280x1024 Trinitron	£546
20C 20" 1280x1024 NI LR	£779

## SONY



CPD-15SF1 1024x768 NI LR	£305
CPD-17SF1 1024x768 NI LR	£636
GDM 17SE1 1280x1024 NI LR	£808
GDM 20SE1 1280x1024 NI LR	£1403

## TAXAN

400LR 14" 1024 x 768 Interlaced	£183
410LR 14" 1024 x 768 Non Int	£193
420LR 14" 1024 x 768 Non Int	£232
580+ LR 15" 1024 x 768 Non Int	£233
880LR 17" 1024 x 768 Non Int	£503
885LR 17" 1024 x 768 Non Int	£619
895LR 17" 1024 x 768 Non Int	£815
1080LR 20" 1280 x 1024	£899
2100LR 21" 1200 x 1600	£1505

## Keyboards

Silitek 102 Key Tactile	£17
-------------------------	-----



MS Natural Keyboard £59

## Software

**Adobe**

Adobe Illustrator v4	£345
Adobe Photoshop v3.0	£382
Aldus Page Maker Classic	£52
Aldus Page Maker 5	£389
Aldus Photostyler v1.1	£386

## BORLAND

dBase 5 Windows	£228
dBase 5 Windows Version Upg	£89
dBase 5 Dos	£327
dBase 5 Dos Ver Upg	£89
Delphi	£187
Turbo C++ v3 Dos	£55
Turbo C++ v3 Windows 4.5 CD	£81
Paradox v5 for Win Upgrade	£117
Pascal v7 Dos	£78
Pascal for Windows	£94



Corel Draw 3 CD Only	£45
Corel Draw 4 CD Only	£86
Corel Draw 5 CD Only	£287
Corel Draw 3 - 5 Upg CD Only	£208
Corel Draw 4 - 5 Upg CD Only	£116
Corel Draw 6 32-bit CD	£296
Corel Ventura 5 CD Only <i>New!</i>	£195
Corel Ventura 5 Upgrade CD Only	£66
Corel Gallery 2	£51
Corel Flow	£46



Quicken Deluxe Home Pack 4	£46
Quicken Deluxe Business Pack 4	£46
Quicken for Windows 4.0 <i>New!</i>	£29
Quicken for DOS	£33
Quick Books v 3.0 <i>New!</i>	£82
QuickTax 95 <i>New!</i>	£27

## Software



### Windows 3.1 Applications

Access v2.0	£228
Access v2.0 CCP Upgrade	£84
Access v2.0 Developer Tool Kit	£235
AutoExpress UK+Eire Win	£34
AutoExpress Europe Win	£Call
Fine Artist	£34
Creative Writer	£34
Excel 5	£228
Excel 5 CCP Upgrade	£86
Foxpro v2.6 Std. Dos or Win	£72
Foxpro v2.6 Prof. Dos or Win	£288
Money 3	£32
Project 4	£293
Publisher 2	£63
Office 4.2	£334
Office 4.2 CCP Upgrade	£162
Office v4.2 Trade In	£205
Office Professional v 4.3	£429
Office Prof v4.3 CCP Upgrade	£253
Office Prof v4.3 Tradeln	£277
Word for Windows 6	£228
Word for Windows 6 CCP Upg	£86
Works for Windows v3	£82

### Languages

Visual C++ Standard	£62
Visual Basic Standard	£84
MS Visual Basic Pro	£197



Windows 3.x to Windows 95 3.5"	£58
Windows 3.x to Windows 95 CD	£58
MS-DOS to Windows 95	£109
MS Plus! for Windows 95	£39

### Applications

Office 95 standard 3.5" or CD	£334
Office 95 std version upg	£139
Office 95 std comp upgrade	£164
Office 95 Pro 3.5" or CD	£432
Office 95 Pro version upg	£205
Office 95 Pro comp upgrade	£246
Word 95	£229
Word 95 version upgrade	£82
Word 95 comp upgrade	£106
Excel 95	£229
Excel 95 version upgrade	£82
Excel 95 comp upgrade	£106
Works 4.0 for Win 95	£83
Works 4.0 + Bookshelf	£Call!

## Software



123 for Windows 5 + Approach	£219
123 + Approach Upgrade	£119
Ami Pro v3.1	£82
Approach3	£82
Organiser v2	£79
SmartSuite 3.0	£315
SmartSuite 3.0 Upg	£162



Netware v3.12 5 User	£403
Netware v3.12 10 User	£909
Netware v3.12 25 User	£1351
Netware v4.1 5 User CD	£424
Netware v4.1 10 User CD	£973
Netware v4.1 25 User CD	£1436
Personal Netware	£44
Perfect Office 3.0 Comp Upg	£145
Perfect Office 3.0 Version Upg	£119
WordPerfect for Windows 6.1	£165
WP Windows 6.1 Version Upg	£62



### SAGE STERLING for DOS

Accountant	£160
Accountant Plus	£242
Financial Controller	£319
Financial Controller LAN	£506
Payroll II	£129

### STERLING + 3 for Windows



Accountant +3	£190
Accountant Plus +3	£272
Financial Controller + 3	£354
Financial Controller + 2 LAN	£549
Payroll for Windows	£129
Instant Accounting for Windows	£79
Instant Payroll for Windows	£69

## Utilities

Central Point PC Tools Win v2	£47
Dr Solomons Anti Virus Dos	£58
Dr Solomons Anti Virus Windows	£70
Laplink Pro v 5 Dos	£59
Laplink Pro v 5 Windows	£84
Norton Utilities v8	£87
PC Anywhere v5 DOS (host+Rem)	£92
PC Anywhere Windows	£92
QuarterDeck CleanSweep	£27
QuarterDeck Gemm v7.5	£45

Order turn back to our **How to Order...** section at the beginning of this ad. ...or simply dial the number below.

novatech

# ..AT JUST £949 THE NEW WINDOWS 95 SYSTEM LOOKS LIKE ANOTHER WINNER



## WINDOWS 95 SYSTEMS INCLUDE

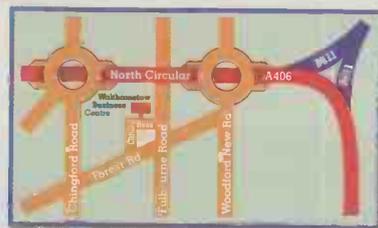
- **MOTHERBOARD**
  - Latest PCI Motherboard with ZIF Socket 7 for future upgradability
  - Intel Triton Chipset
  - 256K Asynchronous Cache with Optional Pipelined Burst Synchronous Module
  - Flash BIOS with Green Support
  - BIOS Support for ISA Plug & Play Extension
- **ON BOARD IDE**
  - Support for Mode 3/4 Enhanced IDE Devices and Bus Mastering
  - Support for up to 4 IDE Devices
- **ON BOARD MULTI I/O**
  - High Speed ESP Parallel Port
  - 2 High Speed 16550 Serial Ports
- **INTEL PENTIUM® PROCESSOR**
  - Pentium® Processor Heatsink & Fan
  - Built-in 16K Cache
- **8MB RAM (EXPANDABLE TO 128MB)**
  - Fast Page Mode RAM
- **1MB TSENG ET4000/W32i PCI GRAPHICS CARD**
  - Tseng Chipset for superb Windows performance
- **14" COLOUR MONITOR**
  - 14" Low Radiation SVGA NI Colour Monitor (MPRII) 12 Mths Swap Out Warranty
- **3.5" 1.44MB FLOPPY DRIVE**
- **DESKTOP OR MINI TOWER CASE**
  - 200 Watt PSU
- **FULL SIZE WINDOWS 95 KEYBOARD**
  - With the 3 Extra Windows 95 Keys
- **MS MOUSE V2**
  - Genuine Microsoft Mouse V2
- **WINDOWS 95**
  - Full Manuals and Media
- **5 YEAR WARRANTY**
  - 1st year on-site, remaining 4 years return to base, labour only.

## OPTIONAL EXTRAS

- **SOUND BLASTER 16**
  - 16 Bit Stereo Sound Card
  - CD Quality Audio
  - Enhanced OPL3 Stereo Music Synthesiser
  - 4W Per Channel Output
- **QUAD SPEED CD ROM DRIVE**
  - Access Time < 250 ms
  - Data Transfer Rate > 600kB/s
  - Cache 256K
  - Caddyless Frontloading Tray
- **SPEAKERS**
  - Mains Powered 10 Watt Speakers

Make it a  
multimedia  
PC for  
**£175**

- **V34 INTERNAL MODEM**
  - Internal Fax Modem, BAPT Approved.....£159



**Showroom Opening Times:**  
Mon-Fri 10.00am to 6.00pm.  
Sat 10.00am to 4.00pm.

# SIMPLY COMPUTERS

FROM THE PEOPLE WHO LOVE PC's  
**HOTLINE 0181 498 2130**

Simply Computers Limited,  
28 Walthamstow Business Centre, Clifford  
Road, Walthamstow, London E17 4SX.

## A SUPERB 8MB PENTIUM® PROCESSOR BASED PC WITH WINDOWS 95 PRE-LOADED **FROM £949**

A powerful PC carefully configured to make sure you get the very most out of Microsoft's new and revolutionary Windows 95 operating system.

### Pentium® Processor Based

HardDisk	75Mhz	90Mhz	100Mhz	120Mhz	133Mhz
540Mb	£949	£999	£1089	£1249	£1359
850Mb	£984	£1034	£1124	£1284	£1394
1Gb	£1039	£1089	£1179	£1339	£1449



Prices effective as of 1st Sept 1995. All prices exclude VAT & Delivery. Prices are correct at time of going to press. E&OE. All sales are subject to our standard Terms & Conditions. Pentium is a trademark of Intel corporation.



# A COMPLETE 8MB MULTIMEDIA SYSTEM INCLUDING MICROSOFT SOFTWARE

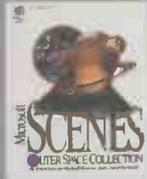
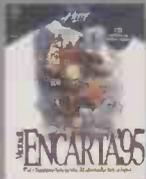
FROM  
**£1099**



Computer  
RECOMMENDED

PC Plus  
VALUE FOR  
MONEY

January 1995  
Pentium® 60



A Multimedia PC that combines the latest in high performance hardware with a selection of Microsoft's latest world beating titles.

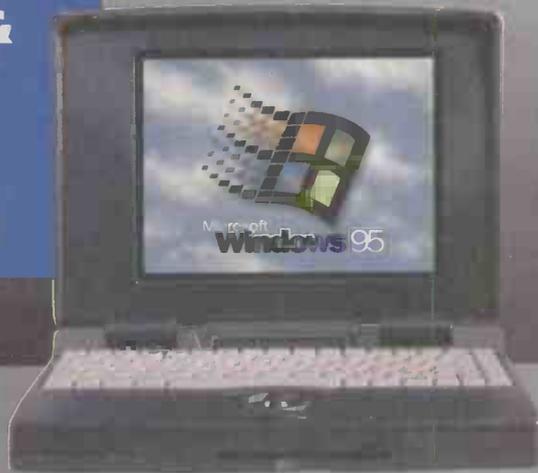
Hard Disk	Intel®		Pentium® Processor Based				
	DX2-66	DX4-100	75Mhz	90Mhz	100Mhz	120Mhz	133Mhz
40Mb	£1079	£1109	£1199	£1249	£1339	£1499	£1609
50Mb	£1114	£1114	£1234	£1284	£1374	£1534	£1644
1Gb	£1169	£1199	£1289	£1339	£1429	£1589	£1699

Software boxes shown for illustrative purposes only. Bundled software does not come with full retail packaging.

**POWERFUL,  
PORTABLE &  
PERFECTLY  
PRICED**  
FROM  
**£1465**



An 8Mb RAM,  
540Mb HDD low weight  
notebook with long battery  
life and integrated sound.



Intel®	DX2-66	DX4-100
DSTN	£1465	£1899
TFT	£1595	£2029

## MULTIMEDIA SYSTEMS INCLUDE

### MOTHERBOARD

- Latest PCI Motherboard with ZIF Socket for easy upgradability (Pentium Motherboards include Triton chipset)
- 256K External Cache to speed memory access
- 8Mb Ram (upgradable to 128Mb)
- Enhanced IDE Hard Drives as standard
- Built in PCI IDE Enhanced Controller
- 1Mb Tseng ET4000/w32 PCI Windows Accelerator
- 14" Low Radiation SVGA NI Col Monitor (MPRII)
- 2 Fast (16C550) Serial Ports, 1 Bi Directional Parallel Port
- 3.5" 1.44Mb Floppy Drive
- Full Size Keyboard
- Choice of Desktop or Mini Tower Case
- MS Compatible Mouse
- Windows 95 (Full Manuals & Diskettes)
- 5 Year Warranty (1st Year on Site, remaining 4 years return to base labour only)
- Lifetime Technical Support

### SOUND BLASTER 16

- 16 Bit Stereo Sound Card
- CD Quality Audio
- Enhanced OPL3 Stereo Music Synthesiser
- 4W Per Channel Output

### QUAD SPEED CD ROM DRIVE

- Access Time < 250 ms
- Data Transfer Rate > 600kB/s
- Cache 256K
- Caddyless Frontloading Tray

### SPEAKERS

- Mains Powered 10 Watt Speakers

### SOFTWARE

- MS Works ● MS Money
- MS Encarta 1995 on CD ROM
- MS Golf ● MS Scenes
- MS Dangerous Creatures

### SYSTEM UPGRADES

- 15" SVGA Low Radiation N.I. Monitor.....£60
- 17" SVGA Low Radiation N.I. Monitor.....£275
- Memory per Mb.....£30

### INTERNET UPGRADES

- US Robotics Sportster 14.4 Internal.....£105
- 1Month FREE Internet Access
- US Robotics Sportster 28.8 Internet.....£158
- 1Month FREE Internet Access

### 486 CTX NOTEBOOK

All Machines Include:

- 8Mb Ram Expandable to 32Mb
- Removeable 520Mb IDE Hard Drive
- Internal 1.44Mb Floppy Drive
- 1Mb VESA Local Bus Graphics
- 1 Enhanced Parallel Port, 1 Serial Port
- External Monitor Port
- External Keyboard Port
- Integrated 19mm Super Trackball
- 16 bit Sound Blaster Compatible Sound System with built in Speaker and Microphone
- 3 to 6 hour Battery life (NIMH)
- Windows 95 (Full Manuals & Diskettes)
- 2 PCMCIA Ports, 1 Type 2, 1 Type3
- Carry Case
- 36 Months on-site Warranty

### NOTEBOOK OPTIONS

- Additional 520Mb Drive.....£249
- Docking Station.....£385
- Additional 4Mb Memory.....£149

## GUARANTEED QUALITY

Our systems are built using only the best products from some of the world's leading suppliers. What's more, each system has to pass stringent quality controls, including a lengthy burn-in period. All Simply PCs are backed by a comprehensive 5 year warranty including on-site parts and labour for the first 12 months. Remaining 4 years are covered by an RTB (labour only) warranty. There's also lifetime telephone support and a 30 day unconditional money back guarantee.

After Sales Customer Services 0181 498 2160 - After Sales Technical Support 0181 498 2170 - Corporate Fax 0181 498 2159

SIMPLY COMPUTERS 0181 498 2130 FAX 0181 523 4002





## HARD DRIVES

### 3.5" IDE

#### Conner

Conner CFS540A 540Mb 12ms EIDE.....	£109
Conner CFS635A 635Mb 12ms EIDE.....	£129
Conner CFA850A 850Mb 12ms EIDE.....	£139
Conner CFS1275A 1.3Gb 11ms EIDE.....	£195

Conner Hard Drives covered by 1 year warranty

## FUJITSU

Fujitsu M1603T 545Mb EIDE 10ms.....	£115
Fujitsu M1606T 1091Mb EIDE 10ms.....	£179

Fujitsu Hard Drives covered by 3 year warranty

#### IBM

IBM Pegasus 1Gb EIDE 10ms.....	£215
--------------------------------	------

IBM Hard Drives covered by 3 year warranty

#### Maxtor

Maxtor 540Mb 7540AV 12ms EIDE.....	£109
Maxtor 850Mb 7850AV 12ms EIDE.....	£139
Maxtor 1.2Gb 71260AT 12ms EIDE.....	£195

Maxtor Hard Drives covered by 1 year warranty

#### Quantum

Quantum Trailblazer 420Mb 12ms.....	£99
Quantum Trailblazer 840Mb 12ms.....	£145
Quantum Fireball 540Mb 12ms.....	£115
Quantum Fireball 1Gb 12ms.....	£189

Quantum Hard Drives covered by 2 year warranty

#### Samsung

Samsung PLS-30854A 854Mb 10ms EIDE.....	£135
Samsung PLS-31084A 1.08Gb 11ms EIDE.....	£149
Samsung PLS-31274A 1.27Gb 11ms EIDE.....	£169

Samsung Hard Drives covered by 3 year warranty

#### Seagate



Seagate ST3660A 545Mb 14ms EIDE.....	£105
Seagate ST5850A 850Mb 11ms EIDE.....	£145
Seagate ST31220A 1Gb 12ms EIDE.....	£185

Seagate Hard Drives covered by 3 year warranty

#### Western Digital

Western Digital AC2540 540Mb 12ms EIDE.....	£119
Western Digital AC2635 635Mb 12ms EIDE.....	£125
Western Digital AC2850 850Mb 10ms EIDE.....	£145
Western Digital AC31200 1.28GB 10ms EIDE.....	£215
Western Digital AC31600 1.6GB 12ms EIDE.....	£369

Western Digital Hard Drives covered by 3 year warranty

### 2.5" IDE

#### Seagate

Seagate ST9420AG 420Mb 18ms.....	£185
----------------------------------	------

#### Toshiba

Toshiba MK1824FCV 340Mb 12ms.....	£199
Toshiba MK1924FC 540Mb 12ms.....	£209
Toshiba MK2628FC 810Mb 12ms.....	£425

#### IDE INTERFACE KITS

ISA Interface Kits.....	£24
VL Bus Interface Kits.....	£38

(Kits Contain Interface Card, Cables, Screws, Mounting Brackets, Comprehensive Instructions)

#### ACCESSORIES

Hard Drive Brackets.....	£5
Removable IDE Hard Drive Rack.....	£25
IDE Hard Drive Cable.....	£5

### SCSI

#### Conner

Conner CFP1080S 1Gb SCSI 9ms.....	£295
Conner CFP2105S 2Gb SCSI 9ms.....	£525
Conner CFP2107S 2Gb SCSI 8.5ms.....	£525
Conner CFP4207S 4Gb SCSI 9ms.....	£895

Conner Hard Drives covered by 5 year warranty

## FUJITSU

Fujitsu M1603S 545Mb SCSI-2 10ms.....	£135
Fujitsu M1606S 1091Mb SCSI-2 10ms.....	£265

Fujitsu Hard Drives up to 1Gb covered by 2 year Warranty

Fujitsu M2932S 2017Mb SCSI-2 10ms 7200rpm.....	£569
Fujitsu M2934S 4350Mb SCSI-2 10ms 7200rpm.....	£785

#### IBM

IBM 1Gb Pegasus 3.5" 11ms.....	£319
IBM 2Gb Starfire 3.5" 9ms.....	£719
IBM 4Gb Starfire 3.5" 9ms.....	£1,249

IBM Hard Drives covered by 5 year Warranty

#### Micropolis

Micropolis 2Gb 8.5ms Fast SCSI-2 4221.....	£649
--	------



## HARD DRIVES Cont.

Micropolis 4.2Gb 8.5ms Fast SCSI-2 3243.....	£845
Micropolis 9.1Gb 12ms Fast SCSI-2 1991.....	£1569
Micropolis 2Gb 8.5ms Audio Visual 4221AV.....	£715
Micropolis 4.2Gb 8.5ms Audio Visual 3243AV.....	£989
Micropolis 9.1Gb 12ms Audio Visual 1991AV.....	£1569

Micropolis Hard Drives covered by 5 year Warranty

#### Quantum

Quantum Trailblazer 420Mb 12ms.....	£125
Quantum Trailblazer 840Mb 12ms.....	£179
Quantum Fireball 540Mb 12ms.....	£155
Quantum Fireball 1Gb 12ms.....	£269
Quantum Atlas 2.1Gb 9ms.....	£595
Quantum Grand Prix 4.3Gb 8ms.....	£849

Quantum Hard Drives covered by 2 year Warranty

#### Seagate



ST31230NHawk Fast SCSI-2 1GB 9ms.....	£315
Seagate ST32430N Hawk Fast SCSI-2 2.1GB 9ms.....	£669

Seagate Hard Drives upto 1Gb covered by 2 year Warranty

Seagate ST32550N Barracuda Fast SCSI-2 2.1GB 8m.£725

Seagate ST15150N Barracuda Fast SCSI-2 4GB 8ms.£1,125

Seagate ST15230N Hawk Fast SCSI-2 429Mb 9ms.£799

Seagate ST410800N Elite Fast SCSI-2 9Gb 10ms.£2,185

Seagate Hard Drives over 1Gb covered by 5 year Warranty

### REMOVABLE DRIVES



#### Omega

100 Mb Zip Disk Pre-Formatted for PC (Single).....	£14
100 Mb Zip Disk Pre-Formatted for PC's (5 Pack).....	£47
100 Mb Zip Disk Pre-Formatted for PC's (10 Pack).....	£90

#### Syquest Internal Drives

SQ5200 5.25" Removable 200Mb HDD.....	£278
SQ3270A 3.5" Removable 270Mb HDD(IDE/AT).....	£265
SQ3270S 3.5" Removable 270Mb HDD(SCSI).....	£265

#### Syquest External Drives

SQ3270 P/P 270Mb Parallel Port Drive.....	£449
SQ3270 EXT 270Mb External SCSI Kit.....	£385

(Excludes Interface)

#### Syquest Media

SQ400 5.25" 44Mb Cartridge for SQ555.....	£30
SQ800 5.25" 88Mb Cartridge for SQ5110C & SQ5110.....	£34
SQ2000 5.25" 200Mb Cartridge for SQ5200.....	£52
SQ310 3.5" 105Mb Cartridge for SQ3105A & SQ3105S.....	£38
SQ327 3.5" 270Mb Cartridge for SQ3270.....	£42

### ACCESSORIES

## EXTERNAL SCSI CASES

Single 5.25" Drive Case 40W PSU.....	£55
Dual 5.25" Drive Case 60W PSU.....	£69
Quad 5.25" Drive Case 150W PSU.....	£99

Removable SCSI Hard Drive Rack.....	£29
-------------------------------------	-----

#### SCSI Cables

Single Drive Internal.....	£8
Dual Drive Internal.....	£9
Triple Drive Internal.....	£15
Centronic 50 to Centronic 50.....	£16
Centronic 50 to 25 Pin M.....	£18
Centronic 50 to Micro D.....	£29
Micro D to Micro D.....	£29



## FLOPPY DRIVES

3.5" 1.44Mb Drive.....	£21
5.25" 1.2Mb/360K Drive.....	£34
Teac 3.5" 1.44mb Floppy Drive.....	£28
Teac 5.25" 1.2Mb Floppy Drive.....	£38
Teac 3.5" & 5.25" Dual Floppy Drive.....	£86

#### CABLES AND ACCESSORIES

5.25" Floppy Drive Brackets.....	£5
Standard 5 Head Floppy Cable.....	£5
Extra Long 5 Head Floppy Cable.....	£7

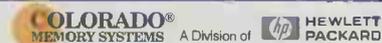


## TAPE STREAMERS

#### Backpack External

Backpack 1080 250Mb Parallel T/S.....	£269
Backpack 900 680Mb Parallel T/S.....	£325

#### Colorado Internal.



Jumbo DJ35 350Mb Tape Streamer.....	£79
HP Colorado DJ25 680Mb Tape Streamer.....	£135
HP Colorado T1000 800Mb Tape Streamer.....	£139
Jumbo DJ50 1.4Gb Tape Streamer.....	£239

#### Colorado External

Trakker JT35 350Mb Tape Streamer.....	£159
Trakker JT25 700Mb Tape Streamer.....	£215

#### Omega Internal

Omega 250Mb Tape Streamer.....	£76
Omega Tape 700 680Mb Tape Streamer.....	£139
Omega Ditto 800 800Mb Tape Streamer.....	£149

(680Mb with compression)

#### Omega External

Omega 250Mb Parallel Tape Streamer.....	£149
Omega Tape 700 680Mb Parallel Tape Streamer.....	£199
Omega Ditto 800 800Mb Parallel Tape Streamer.....	£219

(680Mb with compression)

## CONNER

#### Conner Internal

Conner Tape Store 420 AT.....	£98
Conner Tape Store 800 AT.....	£165
Conner Tape Store 4000 SCSI.....	£435
Conner Tape Store 4000 EIDE.....	£435
Conner 2GB DAT Internal Drive.....	£655
Conner 8GB DAT Internal.....	£695

#### Conner External

Conner Tape Store 420 AT.....	£245
Conner Tape Store 850 AT.....	£290
Conner Tape Store 4000 SCSI.....	£599

#### Wangtek Internal

Wangtek 250Mb Internal SCSI Tape Streamer.....	£295
Wangtek 500Mb Internal SCSI Tape Streamer.....	£395
Wangtek 1Gb Internal SCSI Tape Streamer.....	£499
WangDat 3100 Internal 2Gb SCSI DAT.....	£685
WangDat 3200 Internal 4-8Gb SCSI DAT.....	£630
WangDat 3400DX Internal 8-16Gb SCSI-2 DAT.....	£735

#### Wangtek External

Wangtek 500Mb External SCSI Tape Streamer.....	£539
Wangtek 1Gb External SCSI Tape Streamer.....	£639
WangDat 3100 External 2Gb SCSI DAT.....	£795
WangDat 3200 External 4-8Gb SCSI DAT.....	£940
WangDat 3400DX External 8-16Gb SCSI-2 DAT.....	£1025

#### Hewlett Packard Internal

HP Surestore 2000i 2Gb.....	£599
HP Surestore 5000i 5Gb.....	£675
HP Surestore 6000i 8Gb.....	£795

#### Hewlett Packard External

HP Surestore 2000e 2Gb Bare.....	£711
HP Surestore 5000e 5Gb Bare.....	£795
HP Surestore 6000e 8Gb Bare.....	£948

#### Sony

Sony Digital Data Storage DDS-2 4Gb SCSI-2.....	£649
---	------

#### Tape Streamer Media

MC3000XL Tapes for Omega 700.....	£15
DC2120 Tape Streamer Tape.....	£12
2GB DAT Tapes.....	£12
3M 400Mb Tapes for Omega Ditto.....	£25



## OPTICAL DRIVES

Fujitsu 230Mb Optical Drive 3.5 Internal Bare.....	£395
Fujitsu 230Mb Optical Drive 3.5 Internal Kit.....	£629
Fujitsu 230Mb Optical Drive 3.5 Parallel Kit.....	£729

## Panasonic PD DRIVE

Quad Speed CD ROM and 650 Mb Rewritable Optical Drive All in One

£495



Panasonic PD Drive Kit Internal.....	£589
Includes SCSI Interface, Host Adaptor & Software.....	£689
Includes SCSI Interface, Cables & Software.....	£39
Panasonic PD 650Mb Media.....	£39
Panasonic LF7304 1.5Gb Re-Writable Optical (Int).....	£1,535
Panasonic LF7300 1.5Gb Re-Writable Optical (Ext).....	£1,699

## CONTROLLERS

Amidisk IDE Extension Adaptor.....£49  
*(Removes large drive configuration problems and allows use of up to 4 drives)*

**IDE ISA**  
 IDE 2FDD/2HDD.....£9  
 IDE 2FDD/2HDD 2S,1P,1G.....£12  
 IDE 4FDD/2HDD 2S,1P.....£29  
 Enhanced IDE 2FDD/2HDF 2S, 1P, 1G.....£19  
 IDE 2FDD(2.88Mb)/2HDD 2S,1P,1G.....£34  
 4FDD 2.88Mb Floppy Controller.....£23

**IDE ISA Cache**  
 BusLogic KT510 ISA 16 Bit IDE Cache.....£75  
 Promise DC200 4HDD/2FDD (2.88) 0K.....£75

**VESA Local Bus Controllers**  
 BusLogic KT410 VLB 32 Bit IDE Cache.....£95  
 BusLogic KT910 IDE Caching Host Adaptor.....£145

## VESA LOCAL BUS CONTROLLERS

VESA Local Bus IDE 2HDD/2FDD 2S,1P,1G.....£16  
 VESA Local Bus EIDE 2HDD/2FDD 2S,1P,1G.....£25  
*(mode 3 only)*  
 VESA Local Bus EIDE 4HDD/2FDD, 2S, 1P.....£29  
*(mode 3, 4 & 5 upto 10Mb per Sec, CMD Chipset)*  
 VESA Local Bus EIDE 4HDD/2FDD, 2S, 1P,1G.....£39  
*(mode 3, 4 & 5 up to 10Mb per Sec, CMD Chipset)*  
 VL395 SCSI/IDE 2S, 1P, 1G 64K Cache.....£99  
*(mode 3 & 4 up to 10Mb per Sec, Promise Chipset)*  
 VL220 Mode 3 IDE Cache 2HDD, 2FDD.....£79  
 2S (6550),1P, 1G 0K.

VL355 SCSI/IDE-3 Cache SCSI, -  
 2HDD,2FDD 2S(6550)1P,1G 0K.....£89  
 Promise DC4030VL 4HDD/2FDD.....£89  
 DC-680VL 4HDD/2FDD 0K.....£99  
 Promise DC420VL 512K 2S, 1P 512K Maximum 1Mb.....£89  
 Promise DC440VL SCSI/IDE 2S, 1P, 1G (Corel SFW).....£159

**PCI Controllers**  
 PCI IDE Controller (mode 3, 4).....£35  
 DC-5030 IDE Cache Controller(0k)PCI.....£105

**SCSI Controllers**

## Adaptec

Adaptec Altra Total CD Kit.....£45  
 Adaptec Altra Total Connect Kit.....£69  
 Adaptec 1542 ISA SCSI Controller Bare.....£125  
 Adaptec 1542 ISA SCSI Complete Kit.....£165  
 Adaptec 2742 EISA SCSI Complete Kit.....£249  
 Adaptec 2740/2 EISA Multi Channel SCSI Complete Kit.....£259  
 Adaptec 2825 VL Bus IDE/SCSI Total Advantage.....£109  
 Adaptec 2842 VL Local Bus SCSI.....£165  
 Adaptec 2940 PCI SCSI Kit.....£195  
 Adaptec 2940 PCI SCSI Wide Kit.....£259  
 Adaptec 3940 PCI SCSI Multi Channel Complete Kit.....£289  
 Adaptec 358 MINISCSI Plus (Parallel SCSI Adaptor).....£89  
 Adaptec 358 MINISCSI Plus (Enh Parallel SCSI Adaptor).....£115  
 Adaptec 460 SCSI PCMCIA.....£165

**BusLogic**  
 BusLogic BT 545C ISA 16 Bit SCSI Adaptor.....£175  
 BusLogic KT 545C ISA 16 Bit SCSI Adaptor.....£185  
 BusLogic BT 445C VLB 32Bit SCSI Adaptor.....£155  
 BusLogic KT 445C VLB 32 Bit SCSI Adaptor.....£159  
 BusLogic BT 946C PCI SCSI Adaptor.....£189  
 BusLogic KT 946C PCI SCSI Adaptor.....£205  
 BusLogic BT 640A MCA 32 Bit SCSI Adaptor.....£235  
 BusLogic BT 747C EISA Fastit SCSI Adaptor.....£245  
 BusLogic KT 747C Fast SCSI EISA 32 Bit.....£265

**Future Domain**  
 Future Domain TMC 850 ISA 8 Bit CD Rom Kit.....£35  
 Future Domain TMC 1610 MCDI ISA  
 16 Bit CD ROM SCSI Kit.....£55  
 Future Domain TMC 1610 ISA with Floppy Support.....£85  
 Future Domain TMC 3260 PCI SCSI Kit.....£125  
 Future Domain MCS 700 MCA Kit.....£125  
 Future Domain SCSI 2 Go PCMCIA.....£165

**I/O Controllers**  
 Multi I/O Controller 2S, 1P, 1G.....£10  
 Parallel Port Card.....£9  
 Enhanced Parallel Port Card.....£15  
 Serial Card.....£9  
 Serial Card with Fast Uart 16550.....£29  
 4 Port RS232 Adaptor.....£89

## CD DRIVES

**AT Interface**  
 Panasonic CR562 Dual Speed AT.....£49  
*(inc. Sound & Data Cable)*  
 Creative 563CD Dual Speed CD with 2 CD's.....£65  
*(Contains Aldus Photoshoper & Encyclopedia on CD)*  
 Aztech Quad Speed CD Rom Drive CDA468-011 IDE.....£99  
*(Includes Cable, Disk, Manual)*  
 Panasonic/Sony/Mitsumi Interface Kit.....£15  
 Panasonic Interface Kit.....£12

**IDE Interface**  
 Aztech CDA468-011 Quad Speed CD Rom.....£99  
 Goldstar GCD-R540B Quad Speed CD ROM.....£105

## MITSUMI CRMC-FX400D QUAD SPEED IDE £99

NEC Quad Speed CD IDE.....£125  
 NEC Quad Speed CD IDE Special Offer.....£129  
*(Includes Encarta 95 CD & Photo Access CD, Cable & Screens)*

## PIONEER DR-UA124X QUAD SPEED CD ROM EIDE £129

Sony CDU-76E Quad Speed IDE 250ms.....£119  
 Teac CD-56E Six Speed IDE.....£209  
 Toshiba XM5302B Quad Speed ATAPI IDE CD.....£115  
 Wearnes CDD-220 Quad Speed IDE.....£125  
 Universal IDE ATAPI CD Interface Card.....£13  
*(All CD Drives are supplied with Manual, Driver Diskette & Cables)*

## SCSI Interface

## NEC "Take a giant leap into the incredible world of Multispin CD-ROM."

NEC 3XP+ Triple Speed Portable.....£242  
 NEC 6Xi Internal Six Speed.....£265  
 NEC 6Xe External Six Speed.....£359  
 NEC AT SCSI Interface Kit.....£55  
 NEC AT Parallel/SCSI Interface Kit.....£95

Pioneer DR-U124X 4.4x CD-ROM SCSI-2.....£185  
 Plextor 4PLeX Internal Quad Speed CD ROM Drive PX43CS  
*(256k Cache, includes rail, SCSI cable & caddy).....£245*  
 Plextor 4PLeX External Quad Speed CD ROM Drive PX45CS  
*(256k Cache, includes power cable, SCSI cable & caddy).....£325*  
 Plextor 4PLeX Internal Quad Speed CD ROM Drive PX43CH  
*(1Mb Cache, includes rail, SCSI cable & caddy).....£279*  
 Plextor 4PLeX External Quad Speed CD ROM Drive PC45CH  
*(1Mb Cache, includes power cable, SCSI cable & caddy).....£359*  
 Plextor 6PLeX 6 Speed CD ROM Drive Internal.....£349  
 Plextor 6PLeX 6 Speed CD ROM Drive External.....£429

*All the above 4PLeX drives are SCSI-2 devices and come with a 2 year RTB warranty.*

Sony CDU - 76S 4x SCSI 250ms.....£145  
 Toshiba XM-3601B SCSI Quad Speed Bare Internal 4.4x.....£219  
 Toshiba KT-3601SA SCSI Quad Speed External Kit.....£435

## PCMCIA CD ROM Drives

## CYBERMAN CD 2X PCMCIA CD ROM DRIVE £299

WINDOWS 95 COMPATIBLE  
 Cyberman CD 2X CM2 SB with 16 bit Soundboard.....£399  
 Cyberman Quad Speed CD ROM Drive.....£399

**Parallel CD ROM Drives**  
 Panasonic CD ROM PCMCIA.....£269  
 Backpack CD ROM/DS Dual Speed Parallel.....£299  
 Backpack CD ROM/4S Quad Speed Parallel.....£339

**JukeBox CD Drives**  
 Nakamichi MBR-7 Dual Speed 7 Disk Stacking.....£259  
 Pioneer DRM-624X Quad Speed 6 Disk Jukebox.....£489  
 Pioneer 1804X Quad Speed 18 Disk Jukebox.....£1,429

**Writeable CD ROM Drives**  
 JVC XR-W2001 Dual Speed Internal SCSI CD Rec.....£1,379  
 Kodak Photo CD Writer 225.....£2,249  
 Kodak Multi-Write Publishing Software.....£749  
 Kodak Writable CD Media.....£9  
 Philips CDD522 CD Recorder Ext.....£1,495

**CD Storage**  
 12 Disk Capacity CD Wallets.....£6  
 24 Disk Capacity CD Wallets.....£9  
 48 Disk Capacity CD Wallets.....£12  
 10 Disk Capacity CD Storage Cases.....£5  
 30 Disk Capacity CD Storage Cases.....£10

## CD3 Compact Portable 40 CD Storage System £24

## CD ROM KITS

### CREATIVE Sound Blaster Multimedia Home CD

**£279**



- Sound Blaster 16
- Quad Speed IDE Drive
- MS Works
- MS Publisher
- MS Encarta '95
- MS Bookshelf '94
- MS Ancient Lands
- MS Dangerous Creatures
- MS Scenes
- MS Musical Instruments
- MS Cinemania '95
- MS Golf
- Syndicate
- Ultima VIII
- Strike Commander
- Wing Commander II

### CREATIVE Sound Blaster 16 Discovery 4x Value Pack

- 18 CD Titles
- 16 Bit Sound
- Speakers
- Now with Quad Speed CD ROM

**£269**

### CREATIVE Gameblaster Quad Internal

- 10 CD Titles
- AWE 32 Sound Card
- Speakers
- Now with Quad Speed CD ROM

**£299**

### CREATIVE Sound Blaster 16

- 16 bit Stereo Sound
- Quad Speed CD
- Screen Beat Speakers
- Photo Access CD

**£175**

- 16 bit Stereo Sound
- Quad Speed CD
- Screen Beat Speakers
- Photo Access CD
- MS Encarta 1995 CD

**£195**

- 16 bit Stereo Sound
- Quad Speed CD
- Screen Beat Speakers
- Photo Access CD
- MS Works & Money
- MS Golf
- MS Scenes
- MS Dangerous Creatures
- MS Encarta 1995 CD

**£229**

- 16 bit Stereo Sound
- Quad Speed CD
- Screen Beat Speakers
- Windows 95 Upgrade

**£235**

We welcome Official Purchase Orders from customers in the Public Sector/Education establishments and quoted companies. All other orders are accepted on a cash with order basis. We accept cash, cheques (7 days clearance) and most major credit & debit cards. PLEASE NOTE: Prices are changing so rapidly they can go up or down at any time. We will always endeavour to offer you the best prices. We aim to offer all goods from stock. Orders received before 15:00 will be despatched the same day. Our carriage charges are as follows: 1st Class Recorded Post...£5 ; 1st Class Registered Post...£7; Next - Day Courier...£10 - £15 (dependant upon the number of parcels). If we haven't got the goods in stock, you will be informed by our salesperson before taking your order. You will be given the the expected shipping date. With the exception of Mice and joystick, all our goods are supplied with 12 months RTB warranty. And there's a 14 day "no-quibble" money back guarantee on all goods except printers. This guarantee only applies to un-opened software packages.

Prices effective as of 1st September 1995  
 All sales are subject to our standard terms and conditions.  
 All prices exclude VAT and Delivery. Prices are correct at time of going to press. E&OE.

**SIMPLY COMPUTERS**  
 THE PEOPLE WHO LOVE PCs  
 Telephone: 0181 523 4020



## MOTHERBOARDS

### MOTHERBOARDS WITH CPU

#### ISA

80386SX-40Mhz.....£37

#### VESA LOCAL BUS

IBM DX2-66Mhz 256K VESA Local Bus.....£118  
Intel DX2-66Mhz 256K VESA Local Bus.....£148  
Intel DX4-100Mhz 256K VESA Local Bus.....£174  
AMD 80486DX4-100Mhz 256K VESA Local Bus.....£144

All the Above motherboards have ZIF Socket & are Pentium® Upgradeable

#### PCI

IBM 80486DX2-66Mhz 256K PCI Motherboard.....£148  
Intel 80486DX2-66Mhz 256K PCI Motherboard.....£178  
Intel DX4-100Mhz 256K PCI Motherboard.....£204  
AMD 80486DX4-100Mhz 256K VESA Local Bus.....£174  
Pentium® 75Mhz PCI Motherboard 256K Cache.....£270  
Pentium® 90Mhz PCI Motherboard 256K Cache.....£350  
Pentium® 100Mhz PCI Motherboard 256K Cache.....£424  
Pentium® 120Mhz PCI Motherboard 256K Cache.....£614  
Pentium® 133Mhz PCI Motherboard 256K Cache.....£734

Pentium® Triton Chipset 75Mhz  
PCI Motherboard 256K Cache.....£294

Pentium® Triton Chipset 90Mhz  
PCI Motherboard 256K Cache.....£374

Pentium® Triton Chipset 100Mhz  
PCI Motherboard 256K Cache.....£448

Pentium® Triton Chipset 120Mhz  
PCI Motherboard 256K Cache.....£638

Pentium® Triton Chipset 133Mhz  
PCI Motherboard 256K Cache.....£758

All the Above motherboards have Built in EIDE & Multi I/O

Intel Zappa Pentium® 75Mhz 256K Cache.....£329

Intel Zappa Pentium® 90Mhz 256K Cache.....£399

Intel Endeavour Pentium® 90Mhz 256K Cache.....£449

Intel Endeavour Pentium® 100Mhz 256K Cache.....£549

Intel Endeavour Pentium® 120Mhz 256K Cache.....£699

Intel Endeavour Pentium® 133Mhz 256K Cache.....£869

All the Above motherboards have TRITON chipset, on board Enhanced IDE, I/O & are Intel Manufactured

### MOTHERBOARD WITH NO CPU

**TRITON MOTHERBOARD**  
**133 MHz**

- Pentium® 90/100/120/133MHz 256K Cache
- Intel TRITON Chipset
- Integrated EIDE & Floppy Controller
- Flash BIOS
- Plug & Play (PNP) Support
- Supports conventional SRAM & EDO RAM

**£159**



486 VESA Local Bus M/B 256K Cache ZIF NCPU.....£69  
(3 VESA, 4 ISA 4 x 30Pin & 2 x 72Pin Simms)

486 VESA Local Bus M/B 256K Cache ZIF NCPU.....£75  
(3 VESA, 4 ISA 4 x 72Pin Simms)

486 PCI Motherboard NCPU.....£89

486 PCI Multi I/O Motherboard NCPU.....£99

80486DX EISA M/B 256K Cache NCPU.....£219

Pentium® 75/90/100Mhz Motherboard with EIDE & Multi I/O 256K Cache.....£149

Pentium® TRITON 90/100/120/133MHz M/B EIDE PCI/ISA Super I/O 256K Cache.....£159

Dual Pentium® 90/100Mhz 256K Cache Motherboard EIDE & Multi I/O.....£489

Dual Pentium® 90/100/120Mhz EISA/PCI 256K Cache Motherboard SCSI Multi I/O.....£599

#### CPU's

SGS 80486DX2-66 (5V).....£47

IBM 80486DX2-66 (3.6v).....£49

Intel 80486DX2-66Mhz CPU.....£79

Intel 80486DX4-100Mhz CPU.....£105

AMD 80486DX4-100Mhz CPU.....£75

Pentium® 75Mhz CPU.....£135

Pentium® 90Mhz CPU.....£215

Pentium® 100Mhz CPU.....£289

Pentium® 120Mhz CPU.....£479

Pentium® 133Mhz CPU.....£599

### OVERDRIVE CHIPS

Overdrive Chip 486SX2-50.....£79

Overdrive Chip 486DX2-50.....£79

Overdrive Chip 486DX2-66.....£99

Overdrive Chip 486DX4-75.....£119



## MOTHERBOARDS

Overdrive Chip 486DX4-100.....£175  
Pentium® Overdrive 63Mhz.....£259  
(Overdrive Chip for 25Mhz Motherboards)  
Pentium® Overdrive 83Mhz.....£poa  
(Overdrive Chip for 33Mhz Motherboards)

**UPGRADE CHIPS TO 386 TO CYRIX 486**



Upgrade your 386 to a 486 for as little as £142

Upgrade 386SX 16/20 to 486SX 32/40.....£142  
Upgrade 386SX 25 to 486SX 50.....£159  
Upgrade 386DX 20 to 486DX 40.....£142  
Upgrade 386DX 25 to 486DX 50.....£159  
Upgrade 386DX 33 to 486DX 66.....£189

**486 HEAT SINK**  
486 Heat Sink with Fan.....£9  
Pentium® Heat Sink with Fan.....£12



## CO-PROCESSORS

80287-20Mhz Co-Processor.....£45  
387SX-25Mhz/SX-20Mhz/SX-16Mhz CO-P.....£38  
80387SX-33Mhz Co-Processor.....£39  
80387SX-40Mhz Co-Processor.....£39  
80387DX-33Mhz Co-Processor.....£39  
80387DX-40Mhz Co-Processor.....£40



## CASES

**Deluxe Cases**



£75 £35 £59 £59 £35

Deluxe Desktop Case with LED.....£35  
Deluxe Mini Tower Case with LED.....£35  
Deluxe Slim-Line Case.....£49  
Deluxe Large Mini Tower Case with LED.....£59  
Deluxe Midi Tower Case.....£59  
Deluxe Desktop Multi Media Case.....£75

All the Above cases come with Screws & Cables & 200 Watt PSU.  
Deluxe Full Tower Case with LED.....£75  
Full Tower case comes with Screws & Cables & 230 Watt PSU.

**REPLACEMENT PSU's**  
200W PSU for Desktop/Minitower.....£25  
230W PSU for any case.....£29  
300 Watt PSU for any case.....£39



## KEYBOARDS AND RODENTS

**KEYBOARDS**  
102 Key UK Keyboard.....£12  
Cherry G81-3000 Keyboard Soft.....£23  
Cherry G80-3000 Keyboard Click.....£36  
Cherry G84-4100 Notebook Keyboard.....£65  
Cherry G84-4400 Trackball Notebook Keyboard.....£199

**MOUSE & KEYBOARD OFFER**

Cherry G81-3000 Keyboard Soft & MS Mouse Version 2

**SAVE £23**

**£39**



## KEYBOARDS AND RODENTS

Fujitsu FKB 4720 UK Keyboard.....£27  
Keytronics Windows '95 Keyboard.....£29  
Microsoft Natural Keyboard for Windows 95.....£59  
Windows 95 Keyboard.....£19

**ACCESSORIES**  
PS/2 Keyboard Adaptor (AT to PS/2).....£5  
PS/2 Keyboard Adaptor (PS/2 to AT).....£5  
Keyboard Extension Cable.....£8  
Naltex Plastic Keyboard Cover.....£19

**RODENTS**  
3 Button Mouse MS Compatible.....£8  
Creative Aeroduct (complete with 3D software).....£95  
Genius Easy Mouse.....£9  
Genius Mouse 3.....£15  
Logitech Pilot Mouse Serial.....£17  
Logitech Pilot Mouse PS/2.....£18  
Logitech Trackman Pilot.....£25  
Logitech Mouseman Serial.....£30  
Logitech Mouseman Sensa Mouse.....£38  
(available in four flavours)  
Logitech Mouseman Bus.....£38  
Logitech Cyberman 3D Mouse.....£59  
Logitech Trackman Portable.....£32  
Logitech Trackman II PC.....£42  
Logitech Trackman Voyager.....£48  
Logitech Trackman Vista.....£43  
Logitech Mouseman Cordless.....£48  
Microsoft Home Mouse (now bundled with 18 games).....£21  
Microsoft Bus Mouse.....£48  
Microsoft Mouse V2.0 Combo with "Intellipoint".....£49  
Genius 'Easy Painter' Digitizer.....£65



## LEISURE

**JOYSTICKS**  
Warrior 5 Joystick.....£9  
Warrior 5 Plus Joystick.....£12  
Mach 1 Joystick.....£12  
Mach 1 Plus Joystick.....£16  
Mach 2 Joystick.....£21  
CH Flightstick.....£27  
CH Flightstick Pro.....£48  
CH Jetstick Joystick.....£23  
CH Virtual Pilot Flight Yoke.....£59  
CH Virtual Pilot Pro Flight Yoke.....£65  
CH Pro Pedal for Flight Sims.....£65  
Gravis Analog Joystick.....£24  
Gravis Professional Analog Joystick.....£32  
Gravis PC Game Pad & FIFA International Soccer (CD).....£35  
Gravis Firebird Flight & Weapon Control System.....£59  
Gravis Phoenix Flight & Weapon Control System.....£95  
Logitech Wingman.....£23

**LOGITECH WINGMAN EXTREME**



USE IT OR DIE!

**£29**



Dual Joystick Splitter Cable.....£9  
Quickshot Skymaster.....£19

**GAME CARDS**  
Gravis Game Card (50Mhz Max).....£25  
CH Gamecard III Auto up to 80Mhz.....£28  
CH Gamecard III MCA 50Mhz.....£32  
JCD Gamecard 11 PCMCIA Dual Joystick Interface.....£45  
IBM Game Card & Joystick 50Mhz.....£19



## SOFTWARE AND BOOKS

MS Windows to Win 95 Upgrade on CD.....£59  
MS Windows to Win 95 Upgrade on 3.5".....£59  
MS-DOS to Win 95 Upgrade on 3.5".....£119  
MS-DOS 6.22 Upgrade.....£38  
MS Win for Workgroups 3.11 Upgrade.....£44  
MS-Windows for Workgroups 3.11.....£89  
D.I.Y. Book.....£5

All the information you need to build or update a PC

**FREE Mousemat**

**WITH EVERY ORDER**

## GENERIC MEMORY

<b>Pin Memory</b>	
K Simms 70ns.....	£10
1b x 9 Simms 70ns 9 or 3 Chip.....	£39
1b x 9 Simms 70ns 3 Chip.....	£26
1b x 9 Simms 70ns 9 Chip.....	£32
1b x 9 Simms 70ns 3 Chip.....	£99
1b x 9 Simms 70ns 9 Chip.....	£109
<b>Pin Memory</b>	
1b x 32 Simms (4Mb) 70ns.....	£89
1b x 32 Simms (8Mb) 70ns.....	£185
1b x 32 Simms (16Mb) 70ns.....	£339
1b x 36 Simms (4Mb) 70ns.....	£115
1b x 36 Simms (8Mb) 70ns.....	£219
1b x 36 Simms (16Mb) 70ns.....	£379
<b>EDO RAM</b>	
1b EDO Simms 70ns.....	£129
1b EDO Simms 70ns.....	£249
1b EDO Simms 70ns.....	£425

## SIMM SAVERS

Instruction Manual  
Lifetime Warranty  
Hot Line Support  
Guaranteed Compatibility  
Suitable for most PCs

allows 8 x 30 Pin SIMMS to be utilised in 1 72 Pin Socket.....	£55
allows 4 x 30 Pin SIMMS to be utilised in 1 72 Pin Socket.....	£39

## MEMORY KITS

For most of the following manufacturers PC's:

AMSTRAD, COMMODORE, DAN TECHNOLOGY, DEC,  
CL, KAMCO, MITAC, MBC, M/JN, OLIVETTI, OLYMPIC,  
TANDON, TIKO, TIME, VALE, VIGLEN, WATFORD.

1Mb Kit.....	£62
2Mb Kit.....	£120
4Mb Kit.....	£239

Please telephone to see whether your machine is compatible.

## NOTEBOOK MEMORY

	2Mb	4Mb	8Mb
<b>AMSTRAD</b>			
386SX		£169	
<b>IBM</b>			
Power Exec EL, 4/33SL, SLC		£159	£319
<b>COMPAQ</b>			
Nitura 3/20, 3/25, 4/25, 4/25C, 4/25CX	£159	£295	
Elite 4/33C, 4/25C, 4/25E, 4/25E, 4/25E, 4/25E	£163	£326	
<b>MICRO</b>			
Ambra Trekka	£89		
OSX, N33SX	£82	£159	
Inkpad 300/350/355/500/700/ 720/750/755C	£159	£339	
<b>HP</b>			
Tralite 111	£155	£299	
Tralite Versa 20, 20C, 25, 25P, 25C	£189	£345	
<b>PHILIPS</b>			
000/SX/SXC/2200SX, 2200SX, 1800, 1850	£155	£289	
050, CS, CT, 4600, 4600C	£179	£319	
400C & SX, SXC 64, SXC, DXC	£165	£329	

## DESKTOP MEMORY

	2Mb	4Mb	8Mb	16Mb	32Mb
<b>AST</b>					
Premmia LXP/60, Bravo					
LC486, NewBravo 486			£244	£454	
Bravo 386SX/20, Bravo					
286/16 & Advantage Plus.			£249		
<b>COMPAQ</b>					
386/20e/25E/S					
Expansion Board		£205			
Module		£158			
Deskpro286/386N, S20/20N, M & I Series		£145	£285		
Proliant 1000 5/60, 2000 & 4000 Deskpro XE, Systempro XL				£556	£1,150
Prolinea 3/25S & Prolinea 4 Series		£143	£277		
<b>DELL</b>					
316SX, 320SA, 325SX	£63				
P&D		£137		£539	
L, M, T		£119		£529	
TE, DE, DE/2, SE, DSA			£165	£279	
Latitude		£135			
<b>ELONEX</b>					
PC386SXM, SXB, 386/16 . B/33.(KITS)	£64	£129	£249		
PC386 V/E, 486 V/E (KITS)		£139	£279	£464	
WS Range (KITS)		£139	£269	£489	
PC433M, 450m, 466M (KITS)		£122	£279	£469	
1T386SX/P (KITS)	£64	£135			
PC500 Series			£279	£469	
Elonex 560F EISA (KITS)			£329	£499	
<b>HEWLETT PACKARD</b>					
Vectra 386/25PC, 486PC, 486S/20 (KITS)		£159	£299		
HP ValueLine 486 Netserv Series Module			£289	£599	
<b>IBM</b>					
50,660,50Z, 55SX, 65, 56SX, SLC Expansion Board		£249			
Module		£149			
Model 70, 80 Expansion Board		£259			
Module		£149			
Ambra, Hurdla, Sprinter & Enterprise	£65	£145			
PSI Pro, Willow Series, Valuepoint		£138			
<b>GATEWAY</b>					
PC 45X-33 Module		£129		£475	
PC 4DX-33V, PC 4DX-66V Module		£129	£475	£950	
PC 4D-66, PC 4D-100 (KITS)			£299	£1199	
<b>GATEWAY PC P5-60, PC P5-66 64Mb (KITS) £2695</b>					
<b>PACKARD BELL</b>					
Legend 200/316SX (KITS)	£69	£144			
Legend 600, 900 (KITS)		£129	£279		
486 Local Bus Module	£85	£149			
Force Range XL410/416/ 48616Mb (KIT)				£459	

## PRINTER MEMORY

	2Mb	4Mb	8Mb
<b>CANON</b>			
LBP4 Expansion board	£78		
Module	£135		
LBP-811	£109	£179	
Notebook	£139	£179	
<b>HEWLETT PACKARD</b>			
Laserjet 4, M, S, SIMX, Deskjet 1200C, 1200C/PSDesignerjet 600		£149	£259
Laserjet 11P, Laserjet 111, Laserjet 111P			£175
Laserjet 111D, Laserjet11D, Laserjet 11			

If you do not see your computer, laptop, notebook or printer please call for details. All prices subject to market fluctuations.



FULL  
TECHNICAL  
SUPPORT  
AVAILABLE

EASY TO  
INSTALL

5 YEAR  
WARRANTY  
ON ALL  
MEMORY  
PRODUCTS

ALL PRODUCTS  
SUPPLIED WITH  
COMPREHENSIVE  
INSTRUCTIONS

INCREASE  
YOUR  
MEMORY  
AND GET MORE  
OUT OF  
WINDOWS 95

TELEPHONE  
0181 498 2110  
TO SPEAK TO  
OUR MEMORY  
EXPERTS

September 1995 Price List  
All sales are subject to our standard terms and conditions. All prices exclude VAT and Delivery. E&OE. Prices are correct at time of going to press.

**SIMPLY  
COMPUTERS**

THE PEOPLE WHO LOVE PCs

Telephone: 0181 498 2110

Simply Computers stocks a huge range of proprietary memory products - at very competitive prices. In fact we stock so much we can't list every machine in the limited space available here.

All our memory products are very easy to install and come complete with comprehensive instructions. And you can add to that, a 5 year warranty on all memory products plus an unrivalled range of technical support services.

IF YOU WANT TO GET MORE OUT OF WINDOWS 95,  
GET MORE MEMORY  
Windows 95 is the revolutionary new operating system from Microsoft. But if you want to make the most of this revolution, make sure your PC has got enough memory.

Order your memory products from Simply Computers.  
Call 0181 498 2110 today.

## WINDOWS 95 PERFORMANCE

HIGH  
↑  
↓  
LOW



MEMORY



## SOUND CARDS

### CREATIVE

<b>Sound Blaster</b>	
Sound Blaster V2.0 Value.....	£24
(Includes 2 free Games and Free Speakers)	
Sound Blaster Pro Value.....	£35
(Includes 2 Free games and Free Speakers)	
Sound Blaster 16 Value.....	£63
(With IDE and PAN CD Interface)	
Sound Blaster 16 Pro.....	£84
(Now with IDE and Panasonic CD Interface)	
Sound Blaster 16 Pro AdSP.....	£105
Sound Blaster AWE 32 Value Edition.....	£122
Sound Blaster AWE 32 Full Edition.....	£165
3DO Blaster.....	£285
Wave Blaster II.....	£94
Midi Blaster.....	£94
Creative BlasterKeys.....	£299
(Sound Blaster AWE 32, 49 Key (full size) keyboard, Software - Midi Orchestrator Plus, Melody Maestro Jr & E-mu Soundfont Libraries)	

<b>Orchid</b>	
Orchid SoundDrive 16 EZ.....	£58
Orchid SoundDrive 16 EZ + SCSI.....	£79
Orchid Gamewave 32 Plus.....	£95
Orchid Soundwave 32 Pro.....	£135
Orchid Soundwave 32 Pro SCSI.....	£149
(Free NASCAR Racing CD while stocks last)	
Orchid Wavebooster 2Mb + CueBase Lite.....	£89
Orchid Wavebooster 4Mb + CueBase Lite.....	£119
Orchid Wavebooster 4Mb + FX + Midisoft.....	£139
Orchid NuSound PnP.....	£poa

<b>Gravis</b>	
Gravis Ultrasound Max Card.....	£134
Gravis Ultrasound Midi Kit.....	£29
Gravis Ultrasound ACE Wavetable Add-in Card.....	£75

<b>Miro</b>	
MiroSOUND FM10.....	£62
MiroSOUND PCM10.....	£81
MiroSOUND PCM1.....	£128
MiroSOUND PCM12.....	£138
MiroSOUND PCM20 Radio.....	£190

<b>Microsoft</b>	
Microsoft Windows Software & Microphone.....	£39
Microsoft Windows Sound Card.....	£105

<b>Aztech</b>	
Sound Galaxy Nova 16 Extra.....	£75
Sound Galaxy Pro 16.....	£59
Sound Waverider 32+.....	£95
Sound Waverider 32+ Kit.....	£299

<b>Obers</b>	
Portable Sound Plus.....	£129
(Sound Blaster compatible connects to Parallel Port)	

<b>SPEAKERS</b>	
Small Speakers.....	£5
Screen Beat 4 Speakers.....	£9
Screen Beat 5 Speakers.....	£10
Screen Beat 3 Speakers.....	£12
Screen Beat Pro 50.....	£29

### CREATIVE

Creative 300 10W Speakers.....	£69
Creative 20W Speakers.....	£75

Labtec CS-600 Speakers.....	£19
Small Mains Powered Amp Speakers.....	£19
Large 80W Mains Powered Amp Speakers.....	£49
Pro Digital Speakers.....	£29
Soundisk SD-100 Speakers for 5.25".....	£15
Sony Multimedia PC Speakers SRS-PC30.....	£45
Sony Multimedia PC Speakers SRS-PC50.....	£65
Yamaha Sub Woofer.....	£75
Yamaha Multimedia Speakers YST-M5.....	£36
Yamaha Multimedia Speakers YST-M10.....	£43
ZIFI 2 Speakers.....	£25
ZIFI Pro 2 Speakers.....	£39

<b>ACCESSORIES</b>	
Headphones.....	£5
Microphone.....	£9
Creative Microphone.....	£17



## MULTI-MEDIA CARDS

### VIDEO VIDEO VIDEO VIDEO VIDEO VIDEO

Mirovideo 2Mb 20TD Live PCI or VLB.....	£319
Mirovideo Mouse.....	£285
Mirovideo D1 (With Video Studio).....	£239
Mirovideo D1 (With Adobe Premiere).....	£359
Mirovideo DC1 (With Video Studio).....	£425
Mirovideo DC1 (With Adobe Premiere).....	£565
1Mb MiroVIDEO 12PD.....	£89
2Mb MiroVIDEO 12PD.....	£129
MiroMPEG Maker.....	£185



## MULTI-MEDIA CARDS

Canon  
Canon Ion PC RC2601 Camera.....£395  
(Includes ION PC 11 Digitizer, ION PC Turbo Remoon Cable, Windows Software, TWAIN Driver Software plus all regular features of the Kit.)

### CREATIVE

Creative MP400 (MPEG Player).....	£174
Creative TV-Coder External.....	£119
Creative Video Blaster RT300.....	£255
Creative Video Spigot.....	£75

<b>Aztech</b>	
Video Galaxy Gamma.....	£155
Video Galaxy Gamma MPEG Upgrade.....	£119
Video Galaxy Teletext Upgrade Module.....	£38
Video Galaxy Oscar (MPEG Playback board).....	£189

<b>Fast Electronic</b>	
Fast Aviator MN502010.....	£185
Fast Movie Machine.....	£189
Fast Movie Machine Pro.....	£289
Fast Movie Machine 2.....	£489
Fast Movie Machine 2 MJPEG Upgrade.....	£289
Fast Movie Machine 2 MPEG Upgrade.....	£239
Screen Machine 11.....	£659

**Hauppauge!**



**WIN/TV CELEBRITY**

**£259**

- Frame Grabbing on the fly
- Teletext
- NTSC/PAL Compatible
- Scalable viewing window from icon to full screen

Hauppauge Win/TV Cinema.....	£189
Hauppauge Win/TV Prisma.....	£149

<b>Orchid</b>	
Orchid 1Mb Kelvin MPEG.....	£249
Orchid 2Mb Kelvin MPEG.....	£295
Orchid Vidliola.....	£249
Orchid Vidliola Premium.....	£569
Orchid Vidliola Pro.....	£439

<b>Sigma Design</b>	
Realmagic Full Version.....	£325
Realmagic Lite.....	£199

<b>Rombo</b>	
Rombo Media Pro HI-RES.....	£209
Rombo Media Pro Plus.....	£189
Rombo PC Tuner.....	£65
Rombo TV Buster External.....	£45
Rombo TV Buster Internal.....	£45
Rombo TV Tuner with Teletext.....	£99

<b>Videologic</b>	
Videologic 1Mb 928 Movie ISA.....	£139
Videologic 1Mb 928 Movie ISA Sound.....	£169
Videologic 1Mb 928 Movie VLB.....	£139
Videologic 1Mb 928 Movie VLB Sound.....	£169
Videologic 1Mb 928 Movie with MPEG Player ISA.....	£379
Videologic 1Mb 928 Movie with MPEG Player VLB.....	£379
Videologic 1Mb 928 VRAM Upgrade Kit.....	£69
Videologic 2Mb PCI Movie.....	£259
Videologic Captivator Pro.....	£169
Videologic Captivator Pro & TV.....	£219
Videologic MPEG Player for VMC.....	£219

<b>Mirovideo</b>	
Mirovideo 2Mb 20TD Live PCI or VLB.....	£319
Mirovideo Mouse.....	£285
Mirovideo D1 (With Video Studio).....	£239
Mirovideo D1 (With Adobe Premiere).....	£359
Mirovideo DC1 (With Video Studio).....	£425
Mirovideo DC1 (With Adobe Premiere).....	£565
1Mb MiroVIDEO 12PD.....	£89
2Mb MiroVIDEO 12PD.....	£129
MiroMPEG Maker.....	£185

<b>Flexcam</b>	
Flexcam Desk Top TV Camera.....	£499
Flexcam is a high resolution, integrated colour camera and microphone.	

<b>Videolabs</b>	
Compro LaserWave Movie Studio - MPEG Video Board.....	£239
Intel Smart Recorder Pro.....	£295
Spea Showtime (MPEG Player).....	£299

**CREATIVE LABS**

**SHAREVISION PC 3000** **£995**

<b>Intel</b>	
Intel ProShare Premiere Edition SFW.....	£199
Intel ProShare Video System 200.....	£1,849



## MODEMS

<b>US Robotics Sportster</b>	
US Robotics Sportster 14.4 Fax EXT.....	£105
US Robotics Sportster 14.4 INT.....	£105
US Robotics Sportster 28.8 V34 Fax EXT.....	£158
US Robotics Sportster 28.8 V34 Fax INT.....	£158
US Robotics Courier V34 Int.....	£238
US Robotics Courier V34 Ext.....	£238
US Robotics Worldport Dual Standard Cellular.....	£125
US Robotics Worldport - Dual Standard Cellular V34 PCMCIA.....	£165

<b>Creative</b>	
Phone Blaster V32, Soundcard & Software.....	£POA
Phone Blaster V34, Soundcard & Software.....	£POA
(Features: Fax/Modem, Music on hold, pager notification, remote access. Send data files during a conversation. 16 bit stereo recording & playback, IDE CD ROM interface.)	

<b>Hayes</b>	
Hayes Optima 28.8 V.FC & Fax.....	£449
Hayes Optima 28.8 V.FC & Fax Value Pack.....	£689
2 Hayes Optima 28.8 *2 Enhanced serial Ports (FREE UPGRADE TO V34)	
Hayes Optima 14.4 + Fax144.....	£275
Hayes Optima 14.4 + Fax144 PCMCIA.....	£215
Hayes Accura 28.8 + Fax VFC V32bis.....	£189
Hayes Accura 14.4 + Fax V32bis.....	£139

<b>Motorola</b>	
3400 Online Internet Solution with Data/Fax Modem.....	£189
(V34, 28,800 bps 1 month free access to compuserve)	
3400 Pro 28.8 Data/Fax Modem.....	£175

<b>Pace</b>	
<b>Pace Netlink V32.....</b>	<b>£129</b>
Complete internet Access Pack containing Pace MobiFax144, FREE 21 Days direct connection time Plus all Software needed.	
<b>Pace Netlink Gold V34.....</b>	<b>£215</b>
Complete internet Access Pack containing Pace MobiFax144, Free 21 Days direct connection time Plus all Software needed.	

<b>Pace Microlin fx34 PC Internal V34 Fax Modem.....</b>	<b>£179</b>
<b>Pace Linnet 34 Plus fx Desktop V34 Fax Modem.....</b>	<b>£179</b>
<b>Pace Microlin fx34 V34 Pocket Fax Modem.....</b>	<b>£179</b>
<b>Pace Microlin NB34 PCMCIA V34 Fax Modem.....</b>	<b>£329</b>
<b>Pace Microlin fx32 Plus V32 Internal Fax Mode.....</b>	<b>£134</b>
<b>Pace Microlin fx32 Plus V32 Pocket Fax Modem.....</b>	<b>£169</b>
<b>Pace Microlin fx NB 32 Plus PCMCIA Fax Modem.....</b>	<b>£189</b>
<b>Pace MobiFAX 14.400.....</b>	<b>£119</b>
<b>Pace Linnel Message Desk V32 Fax Modem.....</b>	<b>£225</b>
(Voice functionality integrated with Data and Fax. Fax Back & Fax forward with enhanced audio standard. Internal Microphone)	

<b>Pson Dacom</b>	
Gold Card V34 + Fax PCMCIA Modem.....	£315
Gold Card V32 bis + Fax PCMCIA Modem.....	£215

### SIMPLY Modems

Simply 14400 PCMCIA Fax Modem.....	£219
Simply V34 External Fax Modem.....	£179
Simply V34 Internal Fax Modem.....	£179
Simply 14400 External Fax Modem.....	£69
Simply 14400 External Fax Modem.....	£99
Simply Modems are B2BT approved and come with Windows software.	

<b>ANDEST</b>	
<b>RoadRunner Rocket Bundles</b>	
Silver Pack.....	£119
(Includes V32bis Modem, Serial Cable, BT Lead, PSU, no Software)	
Gold Pack.....	£135
(As above plus BT T Piece, 9-25 way adaptor and TRAns-Send WinDOS Lite Software)	
Gold RocketBoard Bundle.....	£149
(As Gold Pack plus Rocketboard dual 16C550 High Speed Serial Card)	
Platinum Pack.....	£169
(As Gold Pack but with 19,200bps V32Terbo RoadRunner Rocket)	
Andest VPA V22 BIS.....	£349
Andest VPA V32 BIS + RocketBoard.....	£449
Andest RocketBoard - High Speed 16C550 Serial Card.....	£59

<b>Cables</b>	
9 to 25 Pin Modem Cable.....	£9
25 to 25 Pin Modem Cable.....	£9

<b>Automatic Fax Switches</b>	
<b>Fax Friend(Automatic Fax &amp; Data Switch).....</b>	<b>£45</b>

Andest MSL Manager 1100 Fax/Phone.....	£89
Andest MSL Manager 3300.....	£105
Andest MSL Manager 3300M.....	£125
Andest MSL Manager 7700.....	£145

(The above Modems are APPROVED for connection to telecommunications systems specified in the instructions subject to the conditions set out in them.)

External V34 28.8 Fax Modem.....	£149
Internal V34 28.8 Fax Modem.....	£149
External V34 14400 Fax/Modem.....	£149
Internal V34 14400 Fax/Modem.....	£149
Internal 9624 Fax/Modem.....	£149

(The above modems are prohibited from direct or indirect connection to public telecommunications systems. Action may be taken against anyone so connecting this apparatus.)



### VGA CARDS

Generic	ISA	VLB	PCI
256K VGA 800 x 600 16C	£19		
512K VGA 1024 x 768 16C	£25		
1Mb Trident 8900D 1024 x 768 256C	£39		
1Mb Cirrus Logic 16.7 Win Accelerator	£44		
1Mb Tseng ET4000 16.7m Colours	£65		
1Mb Cirrus Logic 5429 Win ACC		£55	
1Mb Tseng ET4000/W32		£79	
1Mb Cardex 90C33		£79	
2Mb Tseng ET4000/W32		£109	£109
1Mb Cirrus Logic 5434		£69	
1Mb Advanced Logic AL2301		£79	
2Mb Cirrus Logic 5434		£109	



### MONITORS

14" Mono VGA Monitor	£69
14" Crystal Colour SVGA Interlaced	£159
15" Crystal Colour Monitor N-I MPRIL	£245
17" Crystal 17HQ 1280 x 1024 N-I	£509

CTX	
14" CTX 1451CD N-I MPRIL	£169
15" CTX CPS-1565GN N-I SVGA MPRIL	£235
17" CTX 1765GM SVGA MPRIL 28 1024 x 768	£449
17" CTX 1785GM SVGA MPRIL 26 1280 x 1024	£495
LMT 1000 16 Grey Scale LCD VGA Screen 9.4"	£499
LMT 5020 4096 Colour LCD VGA Screen 9.4"	£1,999

Hitachi	
Hitachi 15" 15MVX Value	£245
Hitachi 17" 17MVX Value	£475
Hitachi 17" 17MVX Plus	£769
Hitachi 20" CM2096M 1280 x 1024 NI 84Hz	£989
Hitachi 20" CM2098M 1280 x 1024 NI 86Hz	£1,139
Hitachi 21" CM2198M 1280 x 1024 NI	£1,429
Hitachi 21" CM2199M 1600 x 1280 NI 80Hz	£1,979

Iiyama (IDEK)	
15" Iiyama Vision Master FST MF-8115	£259

**EDITORS CHOICE**

MARCH, PC MAGAZINE  
APRIL, COMPUTER SHOPPER

**17" IYAMA**  
VISION MASTER FST MF-8617

**£536**

21" Iiyama Vision Master FST MF8221	£1,247
21" Iiyama Vision Master FST MF9121	£1,293
21" Iiyama Vision Master FST MF8621	£1,645

Mitsubishi	
(MITS) 15" SD5520 Diamond Scan 15FS	£339
(MITS) 17" FF7705 Diamond Scan 17FS	£595
(MITS) 17" TPG8705 Diamond Pro 17TX	£920
(MITS) 21" THN9105 Diamond Pro21TX	£1,299

**NEC**

New NEC Multisync X Series - FullScan Flat Square Technology, Plug & Play & AccuColor Colour Control System

NEC Multisync XV14 14" 1024 x 768 N-I	£219
NEC Multisync XV15 15" 1024 x 768 80Hz	£285
NEC Multisync XV17 17" 1024 x 768 80Hz	£569
NEC Multisync XE15 15" 1024 x 768 80Hz	£405
NEC Multisync XE17 17" 1024 x 768 80Hz	£719
NEC Multisync XE21 21" 1152 x 1070 75Hz	£1,335
NEC Multisync XP17 17" 1280 x 1024 76Hz	£935
NEC Multisync XP21 21" 1600 x 1200 70Hz	£1,759

Nokia	
Valuegraph 449E090P 15" SVGA FST	£299
Multigraph 449M092P 15" FST TCO Trinitron	£355
Valuegraph 447V090 17" SVGA FST	£469
Multigraph 447M090 17" FST Trinitron	£629
Multigraph 447X092P 17" FST Trinitron	£769
Multigraph 447M092PX 17" FST Trinitron	£685
Multigraph 447X090 17" FST Trinitron	£829
Multigraph 445M090 21" FST	£1,299
Multigraph 445M092P 21" FST TC	£1,449
Multigraph 445X092P 21" FST	£1,799

Panasonic	
15" Panasync (TX-T1562) 1024 x 768 NI	£279
17" Panasync (TX-D1732) 1024 x 768 NI 1280 x 1024 Max	£449
17" Panasync (TX-D1751) 1280 x 1024 NI	£775
20" Panasync (TX-D2051) 1280 x 1024 NI	£999
21" Panasync (TX-D2151) 1280 x 1024 NI 1600 x 1281	£1,359

Philips	
14" Philips Mono Monitor 14M	£89
14" Philips Enhanced VGA Color Monitor 14C	£179
15" Philips Brilliance Autocolor Monitor 15B	£254
15" Philips Brilliance Autocolor N-I Colour Monitor 15A	£275
(Built in Stereo for Multimedia Applications)	
17" Philips Brilliance Autocolor Colour Monitor 17A	£669
(Built in Stereo for Multimedia Applications plus plug N play compatibility)	
17" Philips Autocolor Colour Monitor 17C	£429
(Built in Stereo for Multimedia Applications)	
17" Philips Autocolor Colour Monitor 17B	£560
17" Philips Trinitron Monitor 17T	£599
20" Philips Autocolor Colour Monitor 20C	£775
20" Philips Autocolor Colour Monitor 20T	£1,299
21" Philips Autocolor Colour Monitor 21B	£1,439
21" Philips Brilliance Autocolor Colour Monitor with Cyberscreen Technology 21A	£1,749

Samsung	
14" Syncmaster 3NI 800x600 CVM	£165
14" Syncmaster 3NE 1024x768 CVP	£179
15" Syncmaster 15GLE 1024x768	£259
15" Syncmaster 15GLI 1280x1024 Plug & Play	£299
17" Syncmaster 17GLI NI 1280x1024	£499
17" Syncmaster 17GLSI NI 1280x1024 76Hz	£599

Sony	
Sony 15" CPDSF1 1024 x 768 NI 25	£309
Sony 17" GDM-17SEI SVGA N-I	£809
Sony 20" GDM20 SEV 1280 x 1024 N-I	£1,315
Sony 20" GDM20 SE1 1280 x 1024 N-I	£1,395
Sony CSS-B100 Computer Speaker System	£75



### MONITORS Cont.

Taxan	
14" Taxan Ergovision 400LR Interlaced	£185
14" Taxan Ergovision 410LR N-I	£195
14" Taxan Ergovision 420LR N-I	£235
15" Taxan Ergovision 580 + LR 1280x1024 N-I	£285
17" Taxan Ergovision 880 LR 1280x1024 N-I	£505
17" Taxan Ergovision 885 LR 1600x1200 N-I	£625
17" Taxan Ergovision 895 LR 1600x1200 N-I	£819
20" Taxan Ergovision 1080 LR 1600 x 1200 N-I	£910
21" Taxan Ergovision 2100 LR 1600 x 1200 N-I	£1,530

Viewsonic	
14" Viewsonic 6E 1024 x 768 N-I	£165
15" Viewsonic 15E5 1280 x 1024 NI	£239
17" Viewsonic 17-2 1280 x 1024 NI	£655
20" Viewsonic 20G 1600 x 1200 N-I	£985
21" Viewsonic 21 1600 x 1200 N-I	£1,329

Accessories	
Universal Monitor Drawstrung Dust Cover	£11
14" Anti Glare Screen Filter	£29



### SCANNERS

Andest	
Andest FaxScanner (Win)	£59
(Converts Fax Machine into A4 Scanner)	

Avro Pacific	
Scanafax (makes you fax machine into a scanner)	£29
Scanafax & Lite (makes you fax machine into a scanner)	£39

Epson	
Epson LapCAT GT300	£309
Epson GTX6500 SCSI	£465
(Photoshop LE, OmniPage Direct, Pagekeeper)	
Epson GTX8500 Parallel	£495
(Photoshop LE, OmniPage Direct, Pagekeeper)	
Epson GTX8500 SCSI	£575
(Photoshop LE, OmniPage Direct, Pagekeeper)	
Epson GTX9000 SCSI	£675
(Photoshop LE, OmniPage Direct, Pagekeeper)	
Epson GT18500 SCSI (Adobe Photoshop V3)	£769
Epson GT19000 SCSI (Adobe Photoshop V3)	£869
Epson Bi-Directional Parallel Port	£35

Genius	
Scanmate/256	£69
Scanmate Colour	£129

Hewlett Packard	
HP 3C Colour Scanner	£605

Logitech	
Logitech Scanman 32 WIN	£56
Logitech 256 Scanner	£78
Logitech Easy Touch Scanner	£98
Logitech Scanman Colour	£165
Logitech Scanman Power Page	£298
Logitech Scan Pad	£12

Nikon	
Nikon Scantouch LE	£915
Nikon Coolscan	£985

Sicos	
Sicos Colour Page Scanner	£229

Trust	
Trust 1200dpi Flatbed Scanner	£295
Trust 2400dpi Flatbed Scanner	£395

**UMAX**  
POWERLOOK

**£1960**

600 X 1200 dpi  
**COLOUR SCANNER**

Page Office	£285
Vista T630 300 x 600dpi Colour Scanner	£385
Vista S8 400 x 800dpi Colour Scanner	£539
UC 1260 Colour Scanner	£759

Other	
ScanFX - Scanner, Fax, Copier	£399
(Colour/BW 1200 x 1200dpi Scanner with Fax & Copying. Comes with Wordscan OCR & Picture Publisher LE)	

Prices effective as of 1st September 1995  
All sales are subject to our standard terms and conditions.  
All prices exclude VAT and Delivery. Prices are correct at time of going to press. E&OE.

**SIMPLY COMPUTERS**

THE PEOPLE WHO LOVE PCs

Telephone: 0181 498 4020

**DIAMOND**

	VLB	PCI
1Mb Diamond Stealth SE	£69	£69
2Mb Diamond Stealth SE	£119	£119
1Mb Diamond Stealth 64 Dram	£85	£85
2Mb Diamond Stealth 64 Dram	£129	£129
2Mb Diamond Stealth 64 Video Vram	£215	£215
4Mb Diamond Stealth 64 Video Vram	£329	£329

Hercules	
1Mb Hercules Dynamite Pro	£139
2Mb Hercules Dynamite Power	£195
2Mb Hercules Graphite Terminator 64	£265
4Mb Hercules Graphite Terminator 64	£379
1Mb Hercules Stingray	£100
1Mb Hercules Stingray Pro Video	£109
1Mb Hercules Stingray 64 Video	£129
2Mb Hercules Stingray 64 Video	£149

Matrox	
2Mb MGA Impression Plus	£259
2Mb MGA Impression Plus 200/220	£309
2Mb MGA Impression Lite	£195
4Mb MGA Impression Plus	£949
2Mb Matrox Millennium WRAM	£215
4Mb Matrox Millennium WRAM (Windows 95 compatible Plug & Play)	£320

Orchid	
1Mb Orchid Kelvin 64	£89
1Mb Orchid Kelvin EZ	£69
1Mb Orchid Kelvin 64	£89
1Mb Orchid Fahrenheit 64	£99
2Mb Orchid Kelvin 64	£119
2Mb Orchid Fahrheit 64	£139
2Mb Orchid Fahrenheit Pro 64	£225
4Mb Orchid Fahrenheit Pro 64	£295

Taxan	
1Mb Taxan GTS WinBoost	£114
2Mb Taxan GTS WinBoost	£145
2Mb Taxan WinTurbo 64	£245
4Mb Taxan WinTurbo 64	£395

Number 9	
1Mb 9FX Vision 330	£99
2Mb 9FX Vision 330	£145
1Mb 9FX Motion 531	£139
2Mb 9FX Motion 531	£189
2Mb 9FX Motion 771	£279
4Mb 9FX Motion 771	£399
4Mb Imagine 128 1280	£759
4Mb Imagine 128 1600	£949
8Mb Imagine 128	£1,399

Spea	
1Mb Spea Videoseven Mirage P64	£125
2Mb Spea V7 Mercury P64 VLB	£239

STB	
2Mb STB Powergraph 64	£149
2Mb STB Nitro 64	£145
1Mb Powergraph 24	£139
2Mb STB Velocity 64V MPEG	£219
4Mb STB Velocity 64V MPEG	£319

**Videologic**  
**GrafixStar**  
Range

	VLB	PCI
1Mb GrafixStar 300	£99	£99
2Mb GrafixStar 300	£139	£139
1Mb GrafixStar 500 inc AVI scaling	£135	£135
2Mb GrafixStar 500 inc AVI scaling	£189	£189
2Mb GrafixStar 700 inc AVI scaling	£269	£269
4Mb GrafixStar 700 inc AVI scaling	£389	£389

SIMPLY COMPUTERS TEL 0181 523 4020 FAX 0181 523 4002





## PRINTERS

### Hewlett Packard

#### Deskjets

HP Deskjet 600.....	£209
HP Deskjet 660C.....	£285
HP Deskjet 850C.....	£345
HP Officejet.....	£495
HP Deskjet 1600C.....	£822
HP Deskjet 1600CM.....	£1,219
HP Deskjet 320.....	£164
HP Deskjet 320 & Sheetfeeder.....	£179
HP Deskjet 320/540 Colour Kit.....	£28

#### Laser Printer

HP Laserjet 4L.....	£352
HP Laserjet 5P.....	£575
HP Laserjet 5MP.....	£725
HP Laserjet 4 Plus.....	£979
HP Laserjet 4M Plus.....	£1,298
HP Laserjet 4Si.....	£2,099
HP Laserjet 4Si MX.....	£2,965
HP Laserjet 4V A3 Laser Printer.....	£1,365
HP Laserjet 4MV A3 Postscript Laser Printer.....	£1,989
HP Colour Laserjet.....	£4,199

#### Paintjets

HP Paintjets XL300.....	£1,595
HP Paintjets XL300 Postscript.....	£2,575

**HP HEWLETT PACKARD SUPPORT PACK**  
3 years On-Site maintenance

Support Pack Deskjet/Deskwriter 540.....	£40
Support Pack Deskjet/Deskwriter Colour 660/850.....	£65
Support Pack Mono Scanjet.....	£85
Support Pack 1200C/PS, Pjets, 1600C/CM, 4L.....	£105
Support Pack 5P, 5MP, Colour Scanjets.....	£142
Support Pack HP4 + 4M.....	£180
Support Pack 4V 4MV.....	£235
Support Pack 4Si/MX.....	£530
Support Pack Colour Laserjet.....	£1280

### Epson

Epson LX300 9 Pin Dot Matrix.....	£95
Epson LX1050 9 Pin Dot Matrix.....	£183
Epson FX870 9 Pin Dot Matrix.....	£245
Epson FX1170 9 Pin Dot Matrix.....	£305
Epson LQ300 24 Pin Dot Matrix.....	£149
Epson LQ570+ 24 Pin Dot Matrix.....	£215
Epson LQ1070+ 24 Pin Dot Matrix.....	£299
Epson LQ870 24 Pin Dot Matrix.....	£376
Epson LQ1170 24 Pin Dot Matrix.....	£435
Epson Stylus Colour.....	£339
Epson Stylus 1000.....	£329
Epson Stylus Pro A4 Printer.....	£649
Epson Stylus Pro XL Colour A3 Oversize.....	£1,589
Epson SQ870 Ink Jet Printer.....	£449
Epson SQ1170 Ink Jet.....	£598
Epson EPL-3000 4PPM Laser Printer.....	£369
Epson EPL-5200+ 6PPM Laser Printer 600dpi.....	£479
Epson EPL-9000 8PPM A3 Laser Printer 600dpi.....	£1,195
Epson EPL-9000PS 8PPM A3 Postscript Laser 600dpi.....	£1,375

### Canon

Canon BJ30 Mono Portable Printer.....	£149
Canon BJ200e Bubblejet Printer.....	£170
Canon BJC70 Colour Portable Printer.....	£221
Canon BJ230 Printer.....	£239
Canon BJ300 80 Column Bubblejet.....	£355
Canon BJ330 136 Column Bubblejet.....	£389
Canon BJC4000 Colour.....	£228
Canon BJ600e Colour Inkjet.....	£333
Canon BJC800 Colour Bubblejet.....	£1,065

### Brother

Brother HL-630 6PPM Windows Printer.....	£317
Brother HL-631 6PPM (1Mb) Windows Printer.....	£345
Brother HL-660 600dpi Windows 6PPM Laser.....	£460
Brother HL1260 1200dpi 12PPM B&W Laser.....	£899

### Kyocera

Ecosys FS-400 4ppm.....	£395
Ecosys FS-1550 10ppm.....	£895
Ecosys FS-1600 10ppm.....	£1099
Ecosys FS-3400 18ppm.....	£1395
Ecosys FS-3600 18ppm.....	£1789

### Mitsubishi

**MITSUBISHI** Personal Colour Printer (PCP) **£459**

Thermal Wax Transfer Prints, 300dpi, Transparencies or plain paper. Full colour page in 60 seconds.

Mitsubishi CP-J10 Inkjet Printer.....	£225
Mitsubishi DiamondScript 210 Colour Printer.....	£1,890
Mitsubishi Colour Sublimation Printer S3410-30.....	£3,699
Mitsubishi Colour Thermal Transfer Printer G6710-10.....	£4,099
Mitsubishi Colour Sublimation Printer S3600-30.....	£4,699
Mitsubishi DiamondScript 230 Colour Printer.....	£5,350
Mitsubishi A3 Colour Sublimation Printer S6600-30.....	£9,299

### NEC

NEC Superscript 610 Plus 6PPM Laser.....	£294
Plus NEC Superscript 610plus 6PPM Laser Plus	
NEC Quad Speed IDE CD ROM & MS Encarta.....	£399
NEC Superscript 660 6PPM Laser.....	£405



## PRINTERS Cont.

NEC Superscript 660plus 6PPM Laser Plus	
NEC Quad Speed IDE CD ROM & MS Encarta.....	£499
NEC Superscript 660i 6PPM Laser.....	£555
NEC Superscript Colour 3000 1PPM Laser.....	£668

### OKI

OKI OL400ex 4PPM Laser Printer.....	£279
OKI OL410ex 4PPM 600dpi Laser Printer.....	£382
OKI OL810ex 600dpi Laser Printer.....	£669
OKI OKIJET300C 300dpi Inkjet Printer.....	£239

### Olivetti

Olivetti JP360C Inkjet (Upgradeable to Colour).....	£199
---	------

### Star

Star Wintype 4000 Laser Printer.....	£295
--------------------------------------	------

### Panasonic Dot Matrix

Panasonic KX-P-1150 9 Pin Dot Matrix.....	£89
Panasonic KX-P-2023 24 Pin Mono Dot Matrix.....	£108
Panasonic KX-P-2124 24 Pin Mono Dot Matrix.....	£198
Panasonic KX-P-2135 24 Pin Colour Printer.....	£129
Panasonic KX-P-3626 24 Pin Mono Dot Matrix.....	£269

### Panasonic Laser

Panasonic KX-P-6100 6ppm GDI Laser Printer.....	£265
Panasonic KX-P-6150 6PPM PCL Laser Printer.....	£325
Panasonic KX-P-4430 5PPM Laser Printer.....	£519
Panasonic KX-P-4440 10PPM Laser Printer.....	£719
Panasonic KX-P-5400 4PPM Laser Printer (2Mb).....	£475

### Pentax

**PENTAX PocketJet 300 DPI 4PPM Thermal Mono Printer.**

**£349 Ultra Compact - 10"x2"x1" - only 17.5 oz weight.**

### Accessories

Universal Printer Drawstring Dust Cover Large.....	£10
Universal Printer Drawstring Dust Cover Small.....	£9



## NETWORK ACCESSORIES

**Simply Network**

Simply NE2000 Compatible 16 Bit BNC.....	£19
Simply NE2000 Compatible 16 Bit RJ45.....	£19
Simply NE2000 Compatible 16 Bit Combo Card ISA.....	£25
Simply NE2000 Compatible 32 Bit Combo Card VLB.....	£79
Simply NE2000 Compatible 32 Bit Combo Card PCI.....	£89
Simply NE3210 Compatible EISA 32 Bit Combo Card.....	£159
Simply NE2000 Boot Rom.....	£5

*All the Above Cards are Novell Approved*

### Novell

Novell NE1000 8 bit ISA.....	£74
Novell NE2000 Plus 16 Bit BNC.....	£55
Novell NE2000 Plus 16 bit RJ45.....	£55
Novell NE2000 Plus 16 bit Combo Card.....	£59
Novell NE2000 Plus 5 Pack 16 bit either RJ45 or BNC.....	£325

### 3Com

3COM Etherlink III 3C509 ISA BNC.....	£65
3COM Etherlink III 3C509 ISA RJ45.....	£65
3COM Etherlink III 3C509 ISA RJ45 / BNC Combo.....	£75
3COM Etherlink III - 3C509 ISA BNC or RJ45 5 Pack.....	£305
3COM Etherlink III - 3C509 ISA Combo 5 Pack.....	£355
3COM Etherlink III 3C579 EISA BNC.....	£139
3COM Etherlink III 3C579 EISA RJ45.....	£139
3COM Etherlink III 3C589 PCMCIA RJ45.....	£139
3COM Etherlink III 3C589 PCMCIA RJ45 & BNC.....	£145

### SMC Ethercard

**SMC ETHERCARD**

SMC Elite Ultra ISA RJ45.....	£58
SMC Elite Ultra ISA BNC.....	£58
SMC Elite Ultra ISA Combo RJ45 & BNC.....	£63
SMC PCI Ethernet Adaptor.....	£125
SMC PCI Ethernet Adaptor 5 Pack.....	£575
SMC Elite Ultra ISA RJ45 6 Pack.....	£335
SMC Elite Ultra ISA BNC 6 Pack.....	£335
SMC Elite Ultra ISA Combo RJ45 & BNC 6 Pack.....	£375
SMC Elite Ultra EISA 32C BNC & RJ45.....	£155
SMC EtherEZ ISA RJ45.....	£63
SMC EtherEZ ISA BNC.....	£63
SMC EtherEZ ISA Combo RJ45 & BNC.....	£72
SMC EtherEZ ISA RJ45 or BNC 5 Pack.....	£305
SMC EtherEZ ISA Combo RJ45 & BNC 5 Pack.....	£335

### Intel

INTEL Etherexpress ISA 16 BNC.....	£64
INTEL Etherexpress ISA 16 RJ45.....	£73
INTEL Etherexpress ISA Flash Combo.....	£89
INTEL Etherexpress ISA 16 BNC 5 Pack.....	£385
INTEL Etherexpress ISA 16 RJ45 5 pack.....	£385
INTEL Etherexpress ISA Flash Combo 5 pack.....	£445



## NETWORK ACCESSORIES Cont.

### D Link

D Link DE620OCT Pocket Adapter BNC/TP.....	£125
D Link DE650CT PCMCIA Ethernet TP.....	£129
D Link DE220C Ethernet Card BNC.....	£45
D Link DE220T Ethernet Card TP.....	£45
D Link DE220CT Ethernet Card BNC/TP.....	£49
D Link DE320CT MCA Ethernet Card BNC/TP.....	£99
D Link DE400 EISA Ethernet Card BNC/TP/AUI.....	£149
D Link DE510CAT VESA Ethernet Card BNC/TP/AUI.....	£199
D Link DE530CT PCI Ethernet Card BNC/TP.....	£99
D Link DT220 Token Ring ISA.....	£229
D Link DT320CT Token Ring MCA.....	£229

### Ethernet Hubs

Simply 8 Port TP Hub BNC or AUI.....	£175
Simply 12 Port TP Hub BNC or AUI.....	£325
Simply 16 Port TP Hub BNC or AUI.....	£345
D Link DE-1200 SNMP 12 Port RJ45.....	£300
D Link DE-1600 SNMP 12 Port RJ45.....	£550
SMC Tiger Hub TP6 Port.....	£165
SMC 3812 14 Port Hub.....	£495

### Repeaters

D-Link Repeater 2 Port BNC/AUI.....	£295
D-Link Repeater 4 Port BNC/AUI.....	£395
D-Link Repeater 8 Port BNC/AUI.....	£445
Allied Telesis 2 Port Repeater.....	£495
Allied Telesis 4 Port Repeater.....	£659

### Transceivers

Allied Telesis Micro Transceiver BNC/AUI.....	£35
Allied Telesis Micro Transceiver UTP/AUI.....	£35

### Print Servers

Chase Research IOPRINT2 BNC 4 Ports 2S 2P.....	£495
Chase Research IOPRINT2 RG45 4 Ports 2S 2P.....	£495
Chase Research IOPRINT jr RG45 Parallel.....	£195
Chase Research IOPRINT jr BNC Parallel.....	£195
Chase Research IOPRINT jr Combo Parallel.....	£225

### Connectors

BNC Crimp Plugs.....	£1
BNC T-Connector.....	£5
BNC Terminator.....	£4
BNC In-Line Coupler.....	£2
RJ45 Crimp Plug.....	£1
Single BNC Outlet (FacePlate).....	£4
Dual BNC Outlet (FacePlate).....	£6
Dual RG45 Outlet (FacePlate).....	£12
EAD Thinwire Tap Outlet.....	£24
EAD Thinwire drop Lead 2M.....	£26
EAD Thinwire drop Lead 5M.....	£36

### Professional Tools

BNC Crimp Tool.....	£29
Ethernet Cable Stripper BNC.....	£15
RJ45 Crimp Tool.....	£75

### Cables

RJ45 & BNC Cables made to order.....	P.O.A.
--------------------------------------	--------

### UPS Systems

APC BK250i-250 VA Backup.....	£75
APC BK400i-400VA Backup.....	£115
APC BK600i-600 VA Backup.....	£145
APC BK900i-900 VA Backup.....	£269
APC BK1250i-1250 VA Backup.....	£339
APC AP250i-250i.....	£169
APC AP400i-400i.....	£195
APC AP600i-600i.....	£209
APC Smart UPS 700i.....	£239
APC AP900i-900i.....	£365
APC AP1250i-1250i.....	£495
APC Smart UPS 1400i.....	£539
APC AP2000i-UPS 2000i.....	£895
APC BackUPS Pro 280.....	£99
APC BackUPS Pro 420.....	£149
APC BackUPS Pro 650.....	£209
PowerChute Software 4.2 Novell.....	£49
PowerChute Software 4.2 LAN Manager.....	£49
PowerChute Software 4.2 Unix.....	£69

### Upsonic

Station 28 280 VA Off-line UPS.....	£95
Station 40 400 VA Off-line UPS.....	£155
Station 60 600 VA Off-line UPS.....	£209
LAN 40 400 VA Line Interactive UPS.....	£245
LAN 60 600 VA Line Interactive UPS.....	£279
System 60 600 VA On-line UPS.....	£449
System 100 100 VA On-line UPS.....	£599

*All of the above include communications Interface*

Prices effective as of 1st September 1995  
All sales are subject to our standard terms and conditions.  
All prices exclude VAT and Delivery. Prices are correct at time of going to press. E&OE.

**Simply COMPUTERS**

THE PEOPLE WHO LOVE PCs

Telephone: 0181 498 2120

# SIMPLY COMPUTERS OPEN DAY

Sunday Sept 24th 1995 11am-4pm

On Sunday September 24th 95, Simply Computers will hold it's biggest and best Open Day yet.

The doors will open at 11am and it's your chance to meet some of the world's top manufacturers, 'test-drive' some exciting new products, talk to the Simply Computers Technical Team, win a PC Golf simulation and unearth some unique special offers. And that's just a small selection of the Open Day attractions.

## MEET THE UK'S TOP MANUFACTURERS

brother EPSON



CTX

Panasonic

EUROPRESS  
SOFTWARE



INNOVA



CREATIVE

## TEST DRIVE NEW PRODUCTS

## WIN WIN A VIRTUAL REALITY GOLF CLUB



## DO A SPOT OF 'B.I.Y

LEARN HOW TO BUILD YOUR OWN PC

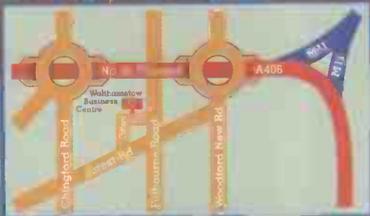
## VISIT THE TECHNICAL WORKSHOP

LEARN ABOUT WINDOWS 95,  
MULTIMEDIA, THE INTERNET & THE  
PENTIUM® PROCESSOR

## BRING YOUR PC AND GET AN M.O.T REPORT

## SPECIAL OFFERS AND CLEARANCE OFFERS

REFRESHMENTS,  
FREE PARKING  
FREE ADMISSION



## SIMPLY COMPUTERS OPEN DAY

Sunday Sept 24th 1995 11am-4pm

SIMPLY  
COMPUTERS

SIMPLY COMPUTERS OPEN DAY 11 am - 4pm SEPT 24th 1995





## ACCOUNTS

Quicken 4 Deluxe Business Pack	£45
Quicken 4 Deluxe Home Pack	£45
Quickbooks® UK for Windows™ - basic free accounting, the fastest way to manage your business. The UK's best selling accounting package for small business	
Pegasus Solo	£65
Pegasus Solo Payroll	£41
Sage Instant Accounting	£85
Sage Instant Business Pack	£119
Sage Instant Payroll	£65
Sage Sterling Accountant + 2 V2.1	£190
Sage Sterling Accountant V7	£161
Sage Sterling +2 Accountant Plus	£273
Sage Sterling Accountant Plus V7	£245
Sage Sterling +2 Bookkeeper	£84
Sage Sterling Bookkeeper V7	£55
Sage Sterling +2 Financial Controller	£354
Sage Sterling Financial Controller V7	£319
Sage Sterling Network Financial Controller V7	£499
Sage Sterling +2 Network Financial Controller	£549
Sage Sterling +2 Payroll	£127
Sage Sterling Payroll II V5	£129
TAS Books	£75
TAS Books Multi User	£169
TAS Books Payroll	£78

### PERSONAL FINANCE

MS Money	£25
TaxCalc for Windows	£38
Intuit QuickInvoice	£29
Intuit QuickTax Return 1995	£28

**QUICKEN V4 for Windows**  
£28

**QUICKBOOKS V3**  
£84



## ADULT ON CD

Adult Cover Girl Strip Poker (cert 18)	£19
Adult Digital Love (cert 18)	£19
Adult The Joys of Sex (cert 18)	£29
Adult The Essential Guide to Better Sex (cert 18)	£20
DK Anne Hooper's Ultimate Sex Disc (cert 18)	£29



## BUDGET SOFTWARE

Cosmi Just Lotus	£15
Cosmi Just Pools	£15
Cosmi Krashenber's Flying Circus	£15
Cosmi Garden Architect	£11
Cosmi StillDraw	£15
Cosmi Calendar Magic	£11
Cosmi Windows Arcade Solid Gold	£15
Cosmi Desktop Publisher for Windows	£11
Cosmi Fun Fonts & Dingbats	£11
Cosmi 3D Virtual Reality Room Planner	£11
Cosmi CHAOS! Screensaver	£11
Cosmi Forms Maker for Windows	£15
GST Wine Cellar	£16
GST Video Library	£16
GST Instant Recipes	£16



## CAD

Autocad LT	£369
Autosketch V2	£45
Drafts Cad V2.1	£45
Easy Cad V2	£85
Generic Cad V6.1	£359
Key Cad Complete Win on 3.5"	£29
Planix for Windows (Office Design)	£88
Planix for Windows (Architect)	£39
TurboCAD V2.0 Windows	£55
Visual Cad V1.2	£159

**FastCad FloorPlan Plus 3D**.....£62

**FastCad 3D Design Plus 2.0**.....£88

**FastCad Estimator Plus**.....£44



## COMMUNICATIONS

Carbon Copy V2 for Windows	£74
Carbon Copy Plus V6.1 for DOS	£74
Computer Value Pack	£17
Delrina Wincomm Pro	£53
Lotus Notes Starter Pack Windows V3.2	£599
Lotus Notes Client	£325
Lotus Notes Express	£125
Norron PC Anywhere for Win V2	£98
Norron PC Anywhere for DOS Host & Remote	£95
Reachout - Modem Host & View	£79
Procomm Plus V2.1 DOS	£54
Procomm Plus V2.1 Win	£55

### FAX

Delrina Winfax Pro V4.0	£55
Delrina Winfax Pro Upgrade	£32
Delrina Winfax LAN Starter Kit	£175
Wordperfect ExpressFax Plus	£34
Network Superfax 5.1 UK 5 Users	£149
Network Superfax 5.1 UK Unlimited Users	£325



## DATABASES

<b>Alpha 5</b> .....	<b>£39</b>
Borland Dbase V5 for Windows on CD	£225
Borland Dbase V5 Competitive Upgrade	£125
CA! Clipper V5.2	£289
Clarifile Filemaker Pro V2.1	£80
DataEase V5 WIN	£98
Lotus Approach 3.0 Win	£82
MS Access V2.0	£224
MS Access V2.0 CCP Upgrade	£80

### MS ACCESS for Windows 95 on 3.5" £229

### MS ACCESS for Windows 95 CCP Upgrade £107

MS FoxPro V2.6 Win	£70
MS FoxPro V2.6 Win Professional	£289
Paradox V5 DOS	£325
Paradox V5 Win	£233
Superbase 95	£135



## DESKTOP PUBLISHING

Aldus Pagemaker Classic	£49
Aldus Pagemaker V5.0 Win	£375
Corel Ventura V5	£245
MS Publisher for Windows V2.0	£62

### MS Publisher V3 for Windows 95 on 3.5" £62

MS Publisher Design Pack	£28
Quark Xpress V3.3	£565
PagePlus V3.0	£43
GST Pressworks 2	£29
GST Pressworks 2 Power Pack	£55
Designworks 2 (Available on 3.5" FD or CD)	£69
GST Designer Fonts	£15
GST Headline Font Collection	£15
GST Clipart Portfolio	£20



## EDUCATION

on 3.5"	
Bodyworks on 3.5"	£29
Chemistry Works on 3.5"	£39
Mavis Beacon V2 for Windows on 3.5"	£19

Attica ITN European Video Atlas	£29
Attica Interactive Periodic Table	£29
Attica World War II Archive	£68
Attica World War II Encyclopedia	£68
Complions Interactive Encyclopaedia 1995 MPC	£36
Corel All-Movie Guide	£36
Corel World's Greatest Classic Books	£36
Creative Labs A Brief History of Time	£25
Creative Labs American Visions	£25
Europress Alice's Adventure in Wonderland	£116
Grolier Encyclopaedia 1995 V7	£69
Guidsoft 3D Body Adventure	£27
Guidsoft 3D Dinosaur Adventure	£27
Guidsoft Science Adventure	£27
Guidsoft Undersea Adventure	£27
Guidsoft Berlitz Think and Talk German, French/Spanish or Italian (7 CD's)	each £89
Guidsoft 7000 Clipart Images	£12
Guidsoft 4000 Icons	£12
Guidsoft 500 Fonts for Windows	£12

### MS Encarta 95 (full retail version).....£55

MS Bookshelf 1995	£55
MS Composers Collection for Windows	£47
(Contains 3 CD-ROMS, Mozart, Beethoven & Schubert)	
MS How The Leopard Got its Spots	£31
MS The Ultimate Frank Lloyd Wright for Windows	£31
MS 500 Nations	£30
MS Cooking With Julia Childs on CD	£30
MS Dogs	£30
MS Wine Guide on CD	£30
MS Ancient Lands	£29
MS Art Gallery	£29
MS Beethoven 9th Symphony	£29
MS Cinemania 95	£29
MS Dangerous Creatures	£29
MS Dinosaurs	£29
MS Fine Arts	£29
MS Incredible Cross Section Snowaway	£29
MS Isaac Asimovs The Ultimate Robot for Windows	£29
MS Magic School Bus/Solar System	£29
MS Magic School Bus/Human Body	£29
MS Mozart The String Quartet	£29
MS Musical Instruments	£29
MS Golf	£25
MS Explorapedia The World of Nature	£24

Multimedia Dogs - CD	£30
Multimedia Cats - CD	£30
My First Amazing Dictionary	£27
My First Encyclopaedia	£35
World Atlas V5 MPC	£25
Guinness Book of Records 1994	£33
Kodak Photo CD Access	£14
Macmillans Childrens Dictionary	£19
Oxford English Dictionary V2	£375
Concise Oxford Dictionary	£32
Oxford Business Shelf	£26
Oxford Compendium on CD-ROM	£50
Oxford Dictionary of Quotations	£31
Oxford Language Shelf	£26
Oxford Reference Shelf on CD-ROM	£50
Oxford Science Shelf	£26
Oxford Study Shelf	£25

### Oxford Thesaurus.....£31

Oxford Writers Shelf	£26
Mindscape Oceans Below	£15
DK The Way Things Work	£38
DK Ultimate Human Body	£38
DK Encyclopedia of Nature	£37
DK Encyclopedia of Science	£37
DK History of the World	£37
DK World Reference Atlas	£37
DK PB Bears Birthday Party	£25



## FORMS AND CHARTS

Labels Unlimited for DOS	£29
Labels Unlimited for Windows	£29
Family Tree Maker	£35
Form Tool Gold V2	£43
Delrina Perform for Windows	£43



## FONTS AND CLIP ART

Adobe Type Manager V3	£49
Corel Gallery on CD	£25
Corel Gallery 2 on CD	£45
Corel Photo Libraries	£21
Lotus Smartpics	£89
Visual 3D Clipart - Business Library	£83
Visual 3D Clipart - Architects Library	£35
Visual 3D - Textures for Professionals	£75
MS True Type Fonts Pack 2	£42
MS True Type HP Fonts Pack	£42
Word Perfect Clip Art Home	£21
Word Perfect Clip Art Office	£21
Word Perfect Clip Art Premium Collection	£49



## GRAPHICS

### DESIGN

Adobe Type Manager WP	£46
Corel Draw 3.0 on CD	£42
Corel Draw 3.0 on 3.5" & CD	£62
Corel Draw 4.0 on 3.5" & CD	£105
Corel Draw 4.0 on CD	£84
Corel Draw 5.0 on 3.5"	£355
Corel Draw 5.0 CD ROM Only	£279
Corel Draw 6.0 on CD Only	£298
Corel Draw 3.0or 4.0 to 6.0 Upgrade on CD	£250
Corel Draw 5.0 to 6.0 Upgrade on CD	£249
Corel Draw 3.0 to 5.0 Upgrade on 3.5 & CD	£270
Corel Draw 3.0 to 5.0 Upgrade on CD	£199
Corel Draw 4.0 to 5.0 Upgrade on CD	£115
Corel Draw 4.0 to 5.0 Upgrade on 3.5" & CD	£145

**COREL FLOW**

Create Quick & Powerful Diagrams **£45**

Corel Photopaint V5	£55
Micrograf Designer V5	£275
PC Paintbrush	£25
PhotoFinish V3	£35
Visio V4.0	£97
Visio Upgrade	£58
Visio Express for Office	£39
Visio Express for SmartSuite	£49
Visio Stencil - Advanced Flowcharts	£39
Visio Stencil - Advanced Network Diagrams	£39
Visio Stencil - Software Diagrams	£39
Visio Stencil - Marketing	£39
Visio Stencil - Advanced Electrical Engineering	£39
Visio Stencil - Advanced Space Planning	£39
Visio Stencil - Chemistry	£39
Visio Stencil - Chemical Engineering	£39
Visio Stencil - Biotechnology / Medicine	£39
Visio Stencil - Mechanical Engineering	£39
Visio Stencil - Petroleum Engineering	£39
Visio Stencil - Home Planning	£39
Visio Stencil - Landscape Planning	£39
Visual Software - Simply 3D (Converts Corel Draw drawing to 3D)	£39
Simply 3D/Corel Draw 3 Bundle	£69
Visual Software - Visual Reality	£219

### PRESENTATIONS

Gold Disk Astound V2	£145
Gold Disk Astound V2 Trade Up Version	£85
Autodesk Animator Pro	£439
Autodesk Animator Studio	£395
Asymedia Mediabiz	£49
Asymedia Toolkit	£110
Asymedia Toolkit Database Connection	£159
Asymedia Multimedia Toolkit 3 CBT Edition	£499
Gold Disk Multimedia Magic	£35
Gold Disk Animation Works	£65
Gold Disk Video Director V2	£79
Harvard Graphics V3	£195
Harvard Graphics Upgrade for Windows	£89
Lotus Freelance V2.01	£258
MS Powerpoint V4.0	£224
MS Powerpoint V4.0 Upgrade	£82

**Microsoft**

MS Powerpoint for Windows 95 on 3.5".....£229

MS Powerpoint for Windows 95 Competitive Upgrade on 3.5".....£107

MS Powerpoint for Windows 95 on 3.5"CCP Upgrade.....£82



## IMAGES & IMAGE EDITING

Adobe Photoshop V3	£385
Adobe Premier Software V4	£339
Corel Artshow V4.0	£19
Corel Photo CDs (Over 100 Titles Available)	£19

## INTEGRATED PACKAGES



### COREL® £65 CD OFFICE COMPANION

CA Simply Business	£59
Claris Works V3.0	£60
Lotus SmartSuite V3.1	£325
Lotus SmartSuite V3.1 Competitive Upgrade	£175
Lotus SmartSuite V3.1 Upgrade on 3.5"	£158
Lotus SmartSuite V3.1 Upgrade on CD	£158
MS Office V4.2 on 3.5" or CD	£331
MS Office V4.2 CCP Upgrade	£164
MS Office V4.2 Competitive Upgrade	£218
MS Office Pro V4.3 on 3.5" or CD	£423
MS Office Pro V4.3 CCP Upgrade	£245
MS Office Pro V4.3 Competitive Upgrade	£265

### Microsoft

MS Office for Windows 95 on 3.5" or CD	£333
MS Office for Windows 95 Competitive Upgrade on 3.5"	£164
MS Office for Windows 95 CCP Upgrade on 3.5" or CD	£139
MS OfficePro for Windows 95 on 3.5" or CD	£429
MS OfficePro for Windows 95 Competitive Upgrade on 3.5"	£246
MS OfficePro for Windows 95 CCP Upgrade on 3.5" or CD	£205
MS Works for Windows 95 on 3.5" Only	£54

## KIDS

Fun School 3 for under 5's	£15
Fun School 3 for 5-7's	£15
Fun School 3 for 7-11's	£15
Fun School 4 for 5's	£15
Fun School 4 for 5-7's	£15
Fun School 4 for 7-11's	£15
Fun School in Time 8-11 on 3.5" or CD	£17
Fun School Dreamland 4-7 on 3.5" or CD	£17
Fun School in Space on 3.5" or CD	£17
Fun School Paint and Create on CD	£17
Fun School Maths on CD	£17
Fun School Spelling on CD	£17
Guidsoft Chadwick & the Sneaky Egg Thief	£19
Guidsoft Gus & the Cyberbuds	£19
Guidsoft Gus goes to Cyberopolis	£19
Mavis Beacon for Kids on 3.5" or CD	£25
MS Creative Writer	£26
MS Fine Artist	£14
Corel N'N Toy-makers	£14
Corel Red Rhino	£14
Corel Wild Cards	£25
Corel Adventures with Edison	£25
Corel Blue Tortoise	£25
Corel Nikola's Trains	£25
Corel Wild Board Games	£25
GST Kids Fonts Collection	£12

## LANGUAGES

Borland C++ V4.5 on CD	£229
Borland C++ V4.5 Competitive Upgrade	£138
Borland C++ Visual Solutions	£62
Borland Turbo C++	£57
Borland Turbo Pascal for Windows	£78
Borland Turbo Pascal for DOS	£75
Borland Delphi for Windows on CD Only while stocks last	£155
MS Macro Assembler	£90
MS Visual Basic for Windows Standard	£79
MS Visual Basic for Windows Professional	£191
MS Visual Basic for DOS Standard	£72
MS Visual Basic for DOS Professional	£190
MS Visual C++ V2 Windows and NT on CD	£249

## LEISURE

Attica The Story of the World Cup on CD	£29
Bernard of Hollywood's Marilyn Monroe	£35
Mavis Beacon on 3.5"	£18
Doom on 3.5"	£29
JigSoft on 3.5"	£19
3D Garden Designer 2	£19
MS Arcade	£13
MS Entertainment Pack BEST	£15
MS Flight Simulator V5.1 for DOS on CD	£26
MS Flight Simulator V5.1 for DOS on 3.5"	£24
MS Flight Simulator New York	£14
MS Flight Simulator Paris	£14
MS Space Simulator	£24
MS Golf on 3.5"	£24
MS Golf Course Pinehurst	£13
MS Golf Course Banff	£13
MS Sound Bits MGM	£14
MS Sound Bits Hanna Barbara	£14
MS Sound Bits Music Clips	£14
US Gold Scrabble on 3.5"	£19

## NETWORK

Lanastatic Single User	£59
Lanastatic 2 User Starter Kit	£245
Lanastatic Extra User S/W	£115
Novell Personal Network	£144
Novell Personal Network 5 User	£184
Novell Personal Expansion Kit	£118
Novell Network 3.12 5 User	£419
Novell Network 3.12 5 User on CD	£400
Novell Network 3.12 10 User	£965
Novell Network 3.12 25 User	£1,445
Novell Network 3.12 50 User	£1,945
Novell Network 3.12 100 User	£2,873
Novell Network 3.12 250 User	£4,575
Novell Network 4.1 5 User	£415
Novell Network 4.1 10 User	£495
Novell Network 4.1 25 User	£1,465
Novell Network 4.1 50 User	£2,039
Novell Network 4.1 100 User	£2,859
Novell Network 4.1 250 User	£5,925
Novell Network ManageWise 1.0 5 User	£749
MS Win for Workgroups 3.11	£89
MS Win for Workgroups Upgrade	£40
Little Big Lan Software Only	£70
Little Big Lan ARCNet Starter Kit	£108
Little Big Lan Ethernet Starter Kit	£182

## OPERATING SYSTEMS

IBM OS/2 Warp V3 3.5 Kit	£50
IBM OS/2 Warp V3 CD Kit	£44
IBM OS/2 Warp V3 3.5 Upgrade Kit	£40
IBM OS/2 Warp V3 CD Upgrade Kit	£27
IBM OS/2 Warp Connect Upgrade Any Operating System	£59
IBM OS/2 Warp Connect Upgrade From OS/2 Warp	£49
MS DOS 6.22 Upgrade	£38
MS Windows to Win 95 Upgrade on CD	£59
MS Windows to Win 95 Upgrade on 3.5"	£59
MS Windows to Win 95 Upgrade 1 User Lic	£57
MS-DOS to Windows 95 on 3.5"	£119
MS-DOS to Windows 95 1 User Lic	£109
MS Plus for Windows 95 on CD	£29
MS Plus for Windows 95 on 3.5"	£29
<i>MS Plus add-on for Windows 95 - Exploits the power of your PC to maintain and enhance the look of your system. Tools include Systems Agent, Compression, Desktop Items, Multimedia Pinball, Internet Explorer, Font Smoothing and more</i>	
CRT Easy Tutor on CD Rom	£25
MS Windows NT 3.5 Workstation CD/Disc	£235
MS Windows NT Server V3.5 CD	£485
Novell DR DOS V7	£49

## PERSONAL MANAGEMENT

Berkeley Systems Express	£29
Lotus Organizer V2	£83
Sidkick for Windows V2	£29
Sidkick for Windows V5	£29
Word Perfect Infocentral	£55
MS Scheduler for Windows 95 on 3.5"	£68
<i>Contact Management</i>	
Symantec ACT! V2	£149
Symantec ACT! V2.1	£199
Sage Telemagic	£175

## PROJECT MANAGEMENT

BusinessPlan Builder	£88
CA Superproject V3.0 Windows	£455
MS Project V4.0 for Windows	£279
MS Project Upgrade to 4.0	£85
Symantec Time Line	£315

## ROUTE PLANNERS

MS AutoRoute Express UK & Ireland V4 for WIN on CD	£45
MS AutoRoute Express UK & Ireland V4 for WIN on 3.5"	£35
MS AutoRoute Express Europe V4 for WIN on CD	£45
MS AutoRoute Express Europe V4 for WIN on 3.5"	£35

## SPREADSHEETS

CA Supercalc for Windows	£59
CA Supercalc for Dos	£64
Lotus 1-2-3 V5.0 Win	£219
Lotus 1-2-3 V4.0 DOS	£288
MS Excel V5.0	£224
MS Excel V5.0 CCP Upgrade	£88
MS Excel V5.0 Competitive Upgrade	£128

### Microsoft

MS Excel for Windows 95 on 3.5"	£229
MS Excel for Windows 95 Competitive Upgrade on 3.5"	£107
MS Excel for Windows 95 CCP Upgrade on 3.5" or CD	£82
MS Excel Cross Platform CCP Upgrade	£70

Quattro Pro V6 for Windows	£149
----------------------------	------

## UTILITIES

386 Max V7.5	£45
Central Points Anti-Virus for Windows	£69
Central Points Anti-Virus for DOS	£69
Central Points Backup for Windows	£64
Central Points Backup for DOS	£63
Checkit Pro	£59
Dashboard 3.0 for Windows	£29
Dashboard 95 for Windows 95	£29
Corel CD Creator	£124
Dataseq	£50
Dr Solomons - Anti-Virus Toolkit 7 for DOS (Qtrly Updates)	£55
Dr Solomons - Anti-Virus Toolkit 7 for Windows (Qtrly Updates)	£69
Dr Solomons - Anti Virus Toolkit 7 for DOS (Monthly Updates)	£119
Dr Solomons - Anti Virus Toolkit 7 for Win. (Monthly Updates)	£145
Future - Bubble Help	£15
Magnaram	£39
Norton First Aid for Windows	£28
Norton Antivirus V3 Win	£97
Norton Antivirus 95	£59
Norton Backup V3 Win/DOS	£85
Norton Desktop V3 Win	£89
Norton Utilities V8	£85
Norton Utilities 95 on CD	£99
Norton Navigator 95 (5 user)	£335
Norton Speed Drive	£48
Laplank for Windows	£88
On File	£29
PC Tools V2 Win	£75
PC Tools Pro for DOS	£73

**Quarterdeck CORPORATION**

**CLEANSWEEP**

£27

**QEMM V7.5**

£45

**GAMERUNNER**

£35

Ram Exam	£17
Stakler V4	£55
Stakler V4 Upgrade	£36
WinDelete	£35
Winprobe	£59
Xtree V4	£59

UNINSTALLER™ 3 isn't just for deleting anymore! Move, Archive and Transport entire Windows® applications and their supporting files - restoring lost disk space and improving operating speed.

£38

## WINDOWS SCREEN SAVERS

Berkeley After Dark	£24
Berkeley Star Trek	£21
The Flintstones Screen Saver	£14
Berkeley The Simpsons	£21
Opus and Bill on the Road Again	£23
MS Scenes Impressions	£16
MS Scenes Sports Extremes Collection	£16
MS Scenes Hollywood Collection	£16
MS Undersea Collection	£16
MS Scenes Brain Twister Collection	£16
Beavis & Butthead Screensaver	£17

## WORD PROCESSING

**Multi Language Word Processing for Windows**

Accent Express	£35
Accent Express (Special Edition)	£89
Accent Professional	£189

Lotus Ami Pro V3.1	£84
Lotus Ami Pro V3.1 Competitive Upgrade	£135
Lotus Ami Pro V3.1 Upgrade	£84
MS Word V6.0	£224
MS Word V6.0 CCP Upgrade	£85

## Microsoft

MS Word for Windows 95 on 3.5"	£229
MS Word for Windows 95 Competitive Upgrade	£107
MS Word for Windows 95 CCP Upgrade on 3.5"	£82

Word Perfect V6.1 for Windows	£159
Word Perfect V6.0 for Win Competitive Upgrade	£85
Word Perfect V6.0 for Windows Upgrade	£69
Word Perfect V6.0B for DOS	£212
Word Perfect V6.0 for DOS Competitive Upgrade	£115
Word Perfect V6.0 for DOS Upgrade	£74
Word Perfect Grammark	£25
Wordstar for Windows	£27

Prices effective as of 1st September 1995  
 All sales are subject to our standard terms and conditions. All prices exclude VAT and Delivery.  
 Prices are correct at time of going to press.E&OE.



**SIMPLY COMPUTERS**

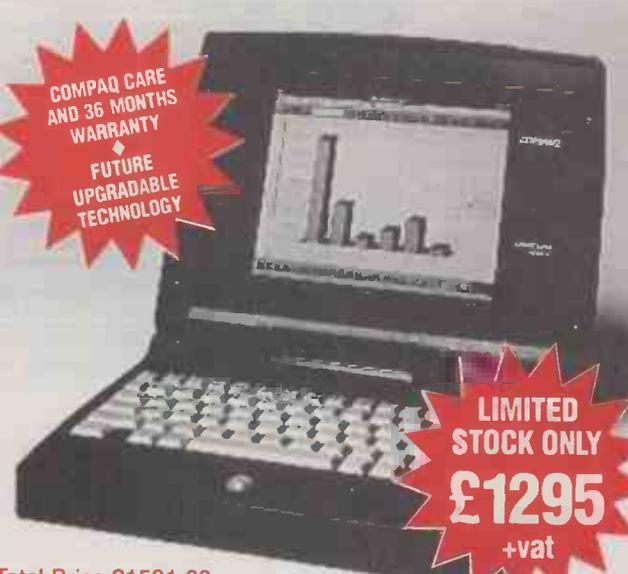
THE PEOPLE WHO LOVE PCs

Telephone: 0181 498 2120

# GULTRONICS

PROBABLY THE WORLD'S LARGEST PORTABLE COMPUTER SPECIALIST

## A GENUINE PRICE MASSACRE ON TFT COLOUR NOTEBOOK COMPUTERS BY COMPAQ & TOSHIBA FROM GULTRONICS!



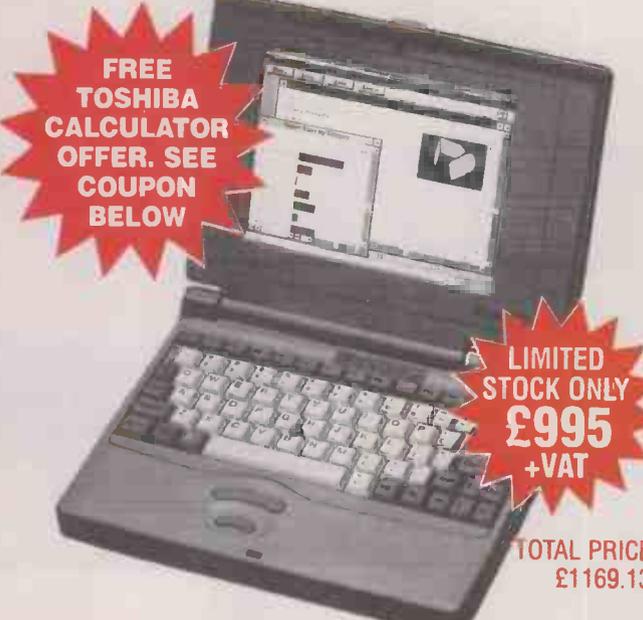
**COMPAQ CARE AND 36 MONTHS WARRANTY**  
**FUTURE UPGRADABLE TECHNOLOGY**

**LIMITED STOCK ONLY**  
**£1295**  
+vat

Total Price £1521.63

### COMPAQ CONTURA 400CX – TFT COLOUR

- ★ 486DX2/40-Mhz with 250MB Hard disk drive and
- ★ 4MB Ram ★ 8.4" TFT Colour screen ★ Weight 2.7kg
- ★ Size 22.8 x 6.1 x 30.4cm! ★ 2 Type II PCMCIA slots or 1 x Type III for fax/modem etc!
- ★ Up to 5.5 hours battery life! ★ MS-Dos, Win, Lotus Organiser, Compaq TabWorks, Welcome Centre, Learning Centre, drivers and utilities all pre-installed! ★ Options: Memory, network card, car adaptor, enhanced battery, external mouse, etc!



**FREE TOSHIBA CALCULATOR OFFER. SEE COUPON BELOW**

**LIMITED STOCK ONLY**  
**£995**  
+VAT

TOTAL PRICE £1169.13

### TOSHIBA T3400CT/250 – TFT COLOUR

- ★ 486SX/33Mhz Processor with 250MB Hard disk and 4MB Ram! ★ 7.8" High res. TFT col. screen!
- ★ Weight 2kg ★ Size 25.1 x 20.1 x 4.6cm! ★ PCMCIA Slot, Type II, Rel 2.0! ★ DOS, Win & CardWare software pre-installed! ★ 4.5 hour battery included! ★ Ports: Parallel, serial, mouse, RGB Port! ★ 36 months Toshiba/Gultronics warranty! ★ Options: External disk drive, memory, network card, port replicator, carry case & modem!

GOVERNMENT, EDUCATIONAL  
CORPORATE, MAIL ORDER ENQUIRIES  
217-218 Tottenham Court Road  
London W1P 9AF.  
Tel: 0171-436 3131. Fax: 0171-636 1075.



#### PHONE NOW!

**0171-436 3131**  
**0171-323 4612**  
or Fax  
**0171-636 1075**

SHOWROOMS & BRANCHES  
223 Tottenham Court Road, London W1.  
15 Tottenham Court Road, London W1.

E. & OE.

FREE WHILE STOCKS LAST



#### TOSHIBA TEST DRIVE

Cut out this coupon and bring it with you to try out any Toshiba Notebook & receive a free Toshiba Calculator.

Please send me more info on: \_\_\_\_\_  
 or call me with details on: \_\_\_\_\_

NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
POSITION \_\_\_\_\_ COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
POSTCODE \_\_\_\_\_ TEL \_\_\_\_\_

RETURN TO: GULTRONICS 217/218 TOTTENHAM COURT ROAD, LONDON W1P 9AF.

**CALL NOW FOR DETAILS AND PRICES ON THE FULL COMPAQ AND TOSHIBA RANGE**

# THE LOWEST UK PRICES - CALL NOW!

SCANNERS \* SCANNERS \* SCANNERS \* SCANNERS \* SCANNERS

## UMAX

- Umax are the second largest manufacturer in the world
- Tech Direct are the largest UK reseller for Umax scanners
- Our scanner experts will gladly discuss your requirements
- Demos available for the UC1260 and Powerlook Pro models
- We will match or beat any delivered price in this magazine



### UMAX T630

- Personal Computer World Editors Choice!
- Complete flatbed solution
- Inc SCSI card and software
- 600 x 300 dpi optical
- 4800 dpi with interpolation
- Adobe Photoshop LE
- Umax Vistascan software
- One year on-site warranty
- Three pass
- Lower price!!

**£349**



### UMAX VISTA S8

- New low cost bundle
- Ultra High Resolution
- 600 x 1200 dpi optical
- Excellent for lineart
- 2400 x 2400 interpolated
- Adobe Photoshop LE
- Umax Vistascan software
- One year on-site warranty
- Three pass scanner
- Optional OCR
- Lower price

**£539**

Demo available - please call

### UMAX UC1260

- Ultra High Resolution
- 600 x 1200 dpi optical
- Excellent for lineart
- 2400 x 2400 interpolated
- Adobe Photoshop V3.0 LE
- Umax Vistascan software
- One year on-site warranty
- Three models available
- Three pass scanner
- Optional OCR
- Great value

**£625**

Demo available - please call

### POWERLOOK PRO

- Personal Computer World Highly Commended
- Ultimate flatbed solution
- Inc. SCSI card & software
- 600 x 1200 dpi optical
- 2400 X 2400 interpolated
- Adobe Photoshop V3.0
- Umax Magicscan software
- The professional solution
- Lowest price

**£1995**

Umax T630 PRO - as T630 but including transparency adaptor and full Adobe Photoshop V3.0 **£749**  
 Umax S8 PRO - as S8 but including transparency adaptor and full Adobe Photoshop V3.0 **£944**  
 Umax UC1260 FE - as UC1260LE but including full Adobe Photoshop V3.0 **£765**  
 Umax UC1260 PRO - as UC1260LE but including transparency adaptor and full Adobe Photoshop V3.0 **£1035**  
 Umax Pageoffice - The compact desktop greyscale scanning solution. Call for specifications. **£299**



- Market leader in handhelds
- New models now available
- Scanner experts on hand
- Genius Mouse III just £15
- 256 greyscale handheld £68



## HEWLETT PACKARD

### SCANMATE COLOR PRO

- Now improved with higher resolution!
- Stunning 1600 dpi, 16Million colours
- The ultimate 24 bit hand scanner
- Photo Finish 3.0 image software
- Smart Page Direct OCR software
- Fully TWAIN compliant
- MorphEditor software

**£143**

### GENIUS COLORPAGE-1

- Flatbed scanning at handheld pricing!
- 24 bit colour and 1200 dpi resolution
- 2400 dpi Color Page II now available
- Image Pals GO! image software
- Optional ADF and transparency units
- Easy Reader OCR software
- Fully TWAIN compliant

**£299**

### HP SCANJET 3C

- Upgraded version of popular HP11cx
- Largest manufacturer in the world
- 600 dpi optical scan resolution
- 2400 dpi enhanced resolution
- Corel Photopaint software
- Calera Wordscan OCR
- Photocopy software

**£608**

### HP SCANJET 3P

- Affordable greyscale scanning
- Now reduced in price
- Includes OCR software
- Optional automatic document feeder
- Ideal solution for office use
- Top brand name
- Twain compliant

**£228**

## EPSON

The Epson GTX9000 model won the Personal Computer World Editor's choice in July 95 within the middle range scanners !!

## PRIMAX

- Leading scanner technology
- Two year warranty
- Finishing Touch software
- ReadIRIS OCR software

• GTX6500 SCSI	£463	• GTX8500 PARALLEL	£493
• GTX8500 SCSI	£570	• GTX9000 PARALLEL	£599
• GTX9000 SCSI	£670	• GTI8500 SCSI	£746
• GTI9000 SCSI	£853		

All the above models include the necessary interface and cables. GTX models also include Omnipage Direct, Adobe Photoshop LE and PK Portfolio software. GTI models include a full version of Adobe Photoshop V3 software (Omnipage Direct not included). GT300 LAPCAT - NEW inc interface, cables, and software **£289**

### COLOUR MOBILE OFFICE

- Portable colour scanner
- Connects to the parallel port
- Motorised rollers for accuracy
- Direct version available (£119)
- Ideal solution for portable computers
- Twain compliant
- Software included

**£149**

tech direct offers you...

### THE LOWEST PRICES

Our purchasing power means low low prices for you! our commitment to providing our customers with the best deals is there for you to see.

### THE LATEST PRODUCTS

NO GREY IMPORTS. All our products are UK sourced and supplied with the manufacturers full warranty (minimum 12 months)

### CONFIDENCE

No credit card surcharges (except Amex @ 1.5% - sorry!) Your credit card will only be debited on despatch of your order

### NEXT DAY DELIVERY

Order from us and if we have the goods in stock we will deliver tomorrow

### COLLECTIONS

If you wish to collect please call to ensure availability and to reserve stock! A £5 handling charge will apply for collections

### OPENING HOURS

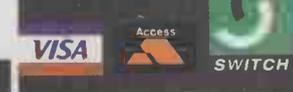
MONDAY to FRIDAY:  
9.00am to 5.30pm  
SATURDAY:  
9.00am to 1.00pm

### PAYMENT TERMS

To offer you the lowest prices we operate on a payment to accompany order basis. Add £9.95 delivery and VAT at 17.5% to all prices. Please allow five working days for cheque clearance. We are delighted to fax or send Pro-forma invoices.

### CONDITIONS OF SALE

Prices and specifications are unfortunately subject to change. Please check suitability with manufacturers before purchase. Goods are not supplied on a trial basis and are subject to our standard conditions of sale. A re-stocking fee of 15% will apply to non-defective returns. Errors and omissions excepted.



# tech direct

unit 1, princess mews, horace road, kingston, surrey KT1 2SZ

0 1 8 1 2 8 6 2 2 2 2  
 F A X L I N E S 0 1 8 1 2 8 6 0 2 0 0

# THE LOWEST UK PRICES - CALL NOW!



- Kyocera lead the way in economic printing
- Drums are guaranteed for the printer life
- The latest cost saving technology
- Three year on-site support options
- Tech Direct are authorised resellers!

## Ecosys



### KYOCERA FS400

- 4 pages per minute printing
- Enhanced 300 x 1200 dpi
- Energy Star compliance
- 100,000 page drum guarantee
- 79 bitmap, 13 scalable fonts
- Optional Postscript emulation
- Low cost per page output
- Cartridge free design
- 12 month warranty **£397**

The above Kyocera FS400 desktop personal printer offers outstanding longterm value for money. The cartridge free design means the only consumable to buy is a replacement toner for £15.50 whilst the FS400 is still equipped with a wealth of features and network/paper options.

Be kind to the planet and your wallet with a Kyocera FS400 printer.

#### KYOCERA LASERS

FS-400 Twin Bin	£459
FS-1600	£1067
FS-3400	£1388
FS-3500	£2325
FS-3600	£1749
FS-5500	£3821
FS-6500	£1616

#### KYOCERA TONER KITS

FS-400	£15.50
FS-1550/1600	£44
FS-3500/1500	£31
FS-5500	£38

#### KYOCERA MEMORY

1 MEG	£60
2 MEG	£99
4 MEG	£159

We can also supply the above units network ready. Please call.



### KYOCERA FS1550

- 10 pages per minute
- Enhanced 300 x 1200 dpi
- 250 page sheet feeder
- 79 bitmap, 13 scalable fonts
- HP Laserjet III emulation
- Optional network interface
- Optional Postscript
- Optional paper bins
- Low running costs **£873**

For speed and economy the FS-1550 leads the pack. Resolution enhancement ensures all your work is clear and precise, whilst the low cost of consumables ensures you are making the best long-term investment. There are also an excellent selection of options for an expanding office. The FS-1550 can actually grow with your business!

#### KYOCERA ON-SITE WARRANTIES

	1 YEAR	2 YEAR	3 YEAR
FS-400	£75	£125	£150
FS-1550/1600	£99	£166	£199
FS-3500	£199	£333	£399
FS-5500	£260	£416	£499

#### KYOCERA PAPER HANDLING OPTIONS

	DUPLIX UNIT	500 SHEETFEED
FS-1550/1600	£607	£291
FS-3500	£676	£291

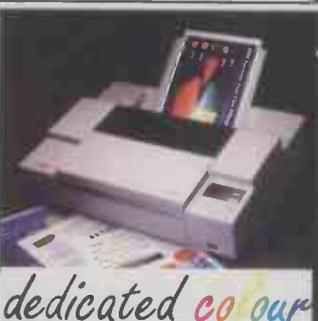


- Fantastic choice of colour and mono printers at affordable prices
- Canon are one of the worlds largest printer manufacturers
- From portable compact A4 models up to desktop A3 sizes
- Pioneers in low cost inkjet printing - refillable cartridge designs
- Call Tech Direct for the best Canon prices available!



### CANON BJC-70

- Colour portable printing!
- 360 x 360 dpi colour
- True black printing
- Built in 30 sheet feeder
- Can handle envelopes
- Portable kit available
- Universal adaptor available
- Fast drying inks
- Very light to carry **£218**



### CANON BJC-800

- A3 colour printing!
- The professional choice!
- CAD drivers available
- Also handles envelopes
- Cost effective proofing
- Seperate colour tanks
- Prints on transparencies
- Prints on most paper
- PC or Mac **£995**



### CANON BJC-4000

- Colour desktop printing!
- True black with colour
- 360 x 360 dot per inch colour
- 720 x 360 dpi black printing
- Built in 100 sheet feeder
- Can handle envelopes
- Optional high capacity tank
- Compact design
- Refillable ink tanks **£228**

CANON BJ30 portable A4 mono printer	£148
CANON BJ200ex desktop A4 mono printer	£169
CANON BJ230 compact wide carriage printer	£235
CANON BJ600e dedicated A4 colour printer	£328
CANON BJ300 A4 mono tractor fed printer	£355
CANON BJ330 A3 mono tractor fed printer	£388
CANON BJC820 colour Macintosh printer	£Call
CANON 430W Windows laser printer	£358
CANON LBP1260 laser printer	£891

We can also supply extras and consumables for your Canon printer.

**CANON BN100C PRINTBOOK** - 486sx25 processor, 120Mb HD, 4Mb Ram, with built-in printer **£1570**

**CANON BN120C PRINTBOOK** - 486sx33 processor, 340Mb HD, 4Mb Ram, with built-in printer **£2319**

**CANON BN120C PRINTBOOK** - 486dx4/100 processor, 500Mb, HD 8Mb Ram, with built-in printer **£2498**

**CANON BN120C PRINTBOOK** - 486dx4/100 processor, 800Mb, HD 8Mb Ram, with built-in printer **£2769**

# tech direct

unit 1, princess mews, horace road, kingston, surrey KT1 2SZ

0 1 8 1 2 8 6 2 2 2 2  
F A X L I N E S 0 1 8 1 2 8 6 0 2 0 0

# THE LOWEST UK PRICES - CALL NOW!



## HEWLETT PACKARD

- The market leader in inkjet printers
- The market leader in laser printers
- The latest printing technology
- Low cost three year support options
- Tech Direct are authorised resellers!



### HP INKJET PRINTERS



#### NEW MODEL HP DESKJET 600C

- 600 x 300 dpi Ret enhanced
- 3 ppm print speed in black
- Brand new model
- £273 including supportpack
- Built in sheetfeeder
- 3 year warranty

**£208**



#### HP DESKJET 660C

- 4 ppm print speed in black
- Improved 600 x 300 dpi colour
- New 2 Button control panel
- £353 including supportpack
- Built in sheetfeeder
- Improved Model!

**£288**

HP DESKJET 320	£165
HP DESKJET 320 + SHEETFEED	£175
HP DESKJET 320 SHEETFEED	£49
HP DESKJET 540	£199
HP DESKJET 600C	£208
HP DESKJET 540/320 COLOUR KIT	£29
HP DEKJET 660C	£288
HP DESKJET 850C	£384
HP DESKJET 1600C	£818
HP DESKJET 1600CM	£1218

### HP LASER PRINTERS



#### HP LASERJET 5P

- Rapid 6 ppm print speed
- 600 dpi with enhancement
- Infrared Port for Windows 95
- £724 including supportpack
- 2 Mb standard memory
- £698 5MP model

**£589**



#### HP LASERJET 4PLUS

- 12 pages per minute
- 600 dpi with enhancement
- Network options available
- £1139 including supportpack
- 2Mb standard memory
- £1289 4MPlus model

**£969**

HP LASERJET 4L	£348
HP LASERJET 5P	£589
HP LASERJET 5MP	£719
HP LASERJET 4PLUS	£969
HP LASERJET 4MPLUS	£1288
HP LASERJET 4V	£1363
HP LASERJET 4MV	£1966
HP LASERJET 4SI	£2053
HP LASERJET 4SIMX	£2924
HP LASERJET COLOUR	£4195

HP SUPPORT PACKS	HP INK CARTRIDGES		
HP MONO DESKJET	£40	HP 310/320 BLACK	£16
HP COLOR DESKJET	£65	HP 500,510,520 BLACK	£19
HP DESKJET 1600C	£100	HP 500 COLOUR	£21
HP LASERJET 4L	£100	HP 540,560 BLACK	£19
HP LASERJET 5P	£135	HP 540,560 COLOUR	£21
HP LASERJET 5MP	£135	HP 600C,660C BLACK	£22
HP LASERJET 4PLUS	£170	HP 600C,660C COLOR	£24
HP LASERJET 4V,4MV	£220	HP 850C BLACK	£24
HP FAX 900/950	£75	HP 850C COLOUR	£22
HP 3C SCANNER	£135	HP 1600C BLACK	£24
HP 3P SCANNER	£85	HP 1600C COLOURS	£25

HP LASER TONERS	LASER MEMORY		
HP IIP,IIIP	£59	1 MB HP 4L UPGRADE	£49
HP II,III,IIID	£49	2 MB UPGRADE	£99
HP 4L, 4ML, 4P, 4MP	£45	4 MB UPGRADE	£148
HP 5P, 5MP	£59		
HP 4PLUS, 4MPLUS	£68		
HP III,SI,4SI,4SIMX	£89		
HP 4V,4MV	£109		

HP FAX MACHINES	
HP FAX 900	£425
HP FAX 950	£589
3 YEAR SUPPORT	£75

## LEXMARK



#### WINWRITER 150C

- Personal Computer World Editors Choice!
- Colour and true black printing
- Free Coreldraw 4.0 software
- Three year warranty included

LEXMARK WINWRITER 150C	£269
LEXMARK EXECJET IIC	£199
LEXMARK OPTRA R	£959
LEXMARK OPTRA L	£1368
LEXMARK OPTRA RX	£1468
LEXMARK OPTRA LX	£1899
LEXMARK OPTRA LXi	£2295
MEMORY FOR THE ABOVE LASERS	£Call



#### OPTRA R LASER

- 12 ppm @ 600 dpi
- 8 ppm @ 1200 dpi (with 10meg)
- 25 MHz 32 bit RISC processor
- Network options available
- Includes 7000 page fine toner
- Postscript and PCL5 emulation

## EPSON Panasonic



#### STYLUS COLOUR

INKJETS	LASERS		
STYLUS COLOUR	£334	EPL 3000 LASER	£379
STYLUS 800+	£177	EPL 5200+	£457
STYLUS 1000	£328	EPL 9000 A3 LASER	£1175
STYLUS PRO A4	£639	EPL 9000 PS	£1368
STYLUS PRO XL A3	£1376		

DOT MATRIX	LASERS		
LX100	£95	LX300	£90
LX1050	£178	LQ300	£140
LQ570+	£208	LQ870	£369
LQ1070	£289	LQ1170	£425
FX870	£239	FX1170	£295

LASERS	DOT MATRIX		
KX-P6100	£265	KX-P1150	£86
KX-P6150	£298	KX-P2023	£107
KX-P4440	£698	KX-P2124	£197
KX-P5400PS	£409	KX-P2135C	£125
		KX-P3696	£259
		KX-P3626	£259

OKI	
OKI300C	£237
OKILASER 400EX	£268
OKILASER 410EX	£365
OKILASER 810EX	£629
OKILASER 1200EX	£975

brother	
HL630	£316
HL631	£348
HL660	£455
HL1260	£898

tech direct offers you...

### THE LOWEST PRICES

Our purchasing power means low low prices for you! our commitment to providing our customers with the best deals is there for you to see.

### THE LATEST PRODUCTS

NO GREY IMPORTS. All our products are UK sourced and supplied with the manufacturers full warranty (minimum 12 months)

### CONFIDENCE

No credit card surcharges (except Amex @ 1.5% - sorry!) Your credit card will only be debited on despatch of your order

### NEXT DAY DELIVERY

Order from us and if we have the goods in stock we will deliver tomorrow (£9.95 + vat)

### COLLECTIONS

If you wish to collect please call to ensure availability and to reserve stock! A £5 handling charge will apply for collections

### OPENING HOURS

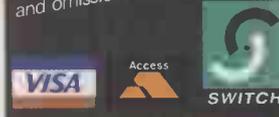
MONDAY to FRIDAY:  
9.00am to 5.30pm  
SATURDAY:  
9.00am to 1.00pm

### PAYMENT TERMS

To offer you the lowest prices we operate on a payment to accompany order basis. Add £9.95 delivery and VAT at 17.5% to all prices. Please allow five working days for cheque clearance. We are delighted to fax or send Pro-forma invoices on request.

### CONDITIONS OF SALE

Prices and specifications are unfortunately subject to change. Please check suitability with manufacturers before purchase. Goods are not supplied on a trial basis and are subject to our standard conditions of sale. A re-stocking fee of 15% will apply to non-defective returns. Errors and omissions excepted.



unit 1, princess mews, horace road, kingston, surrey KT1 2SZ

# tech direct

0 1 8 1 2 8 6 2 2 2 2  
F A X L I N E S 0 1 8 1 2 8 6 0 2 0 0

# Get tomorrow's PC today:

The outstanding new multimedia notebook PC, the Notino P75M, from Hi-Grade Computers, has just about every up-to-date feature you can think of plus a few more. And, with a Pentium processor and PCI bus, it also gives wonderfully good performance.

Smartest feature is perhaps the easily upgradable CPU card, with 2 DIMM memory sockets. This ensures the PC can cope with future enhancements, such as a super-fast 133MHz chip.

The P75M comes equipped with full multimedia facilities including CD-ROM drive, stereo sound system, 2 built-in speakers and microphone. The removable floppy drive can be replaced with an MPEG/video module with TV tuner connector, enabling the machine to display full motion video and TV images.

The 10.3" dual scan colour LCD display is, by notebook standards, big and easy on the eye. A 10.4" TFT display is available for an extra £470.

The infra-red port lets the Notino drive a printer or transfer data to another

PC without plugs and wires, provided those devices are similarly equipped.

Other features include built-in joystick controls for games, a MIDI port for music, a removable battery with a capacity gauge and an AC adaptor that can recharge the battery while the machine is in use.

Instead of a mouse the Notino has a trackpad. This, located at the front, is a miniature screen which responds to the touch of a finger to perform pointer functions. Because it has no moving parts it is less delicate than a mouse, which can easily be affected by dirt.

Optional extras include a mini docking station, a CCD camera module, a back-up battery pack and a special AC adaptor that fits snugly into the battery slot..

Our Notino LBC2-100 was received with acclaim. It was editor's choice in a *Personal Computer World* review of 27 notebook PCs. Notinos were also picked by the Joint Services Expedition to the Andes to record its findings. We think the P75M will do equally well.

**HI-GRADE**  
COMPUTERS PLC

*Technology with a human face*

Unit 1, Cromwell Centre, 32 Thames Road,  
Barking, Essex IG11 0HZ  
Fax: 0181 591 1586

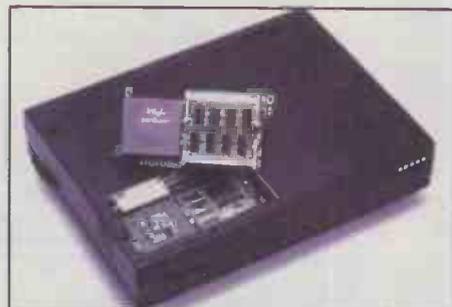
**Tel: 0181 591 9040**

2F Northern House, 6 Broughton Place, Edin-  
burgh EH1 3RX  
Fax: 0131 557 9997

**Tel: 0131 557 5999**

Britannia Suite, Royal Mail House, Terminus Tce,  
Southampton SO15 1FD  
Fax: 01703 231621

**Tel: 01703 315151**



CPU card with chip and memory



Mini docking station



Back-up battery pack, alone...



...and plugged into the Notino



Special AC adaptor, can replace removable battery.

To Hi-Grade Computers PLC,  
FREEPOST,  
Barking, Essex IG11 0BR  
Please send me an information pack

Name.....

Position.....

Company.....

Address.....

.....

.....

.....

Tel.....

Fax.....PCW.10/95

# the Hi-Grade Notino P75M

## Intel Pentium processor

75MHz clock speed, upgradable to 133MHz

8Mb RAM, expandable to 32Mb

256K write-back cache memory

500Mb 2.5" removable hard disk

10.3" dual scan (or 10.4" TFT) colour LCD display

PCI SVGA graphics card (1Mb VRAM, expandable to 2MB)

Removable 1.44Mb 3.5" floppy disk drive (Can be replaced with MPEG + video module with TV tuner connector)

CD-ROM drive (tray-loading)

MIDI Port

Infra Red Port

Joystick controls



FM synthesiser  
16-bit stereo sound card (compatible with Microsoft sound system and Sound Blaster)

Built-in twin speakers and microphone

Infra-red communication port (IrDA-compliant SIR file transfer)

Built-in trackpad and joystick

Enhanced IDE/EPP/ECP controller

Removable, rechargeable NiMH 23W battery

Auto-switching 50W AC/DC adaptor (Charges battery while system is on)

PCMCIA type 3 slot

Dimensions: 300mm wide x 227mm deep x 54mm high, 3.5kg (7.7lb)

Removable hard disk

Removable floppy drive

Removable battery

PCMCIA slot

### Interest-free credit

(incl. VAT): £249.68 down  
12 months x £187.27

### Lease rental

(excl. VAT): £210.63 down  
33 months x £70.21

Finance available subject to status.  
Written quotations on request.  
Hi-Grade is a licensed credit broker.



**£2,125 (plus VAT)**

# Hi-Grade puts the key to the future within reach of all.

With technology advancing at its current dizzy rate, it is easy to fear that the PC bought today may tomorrow be obsolete. Fear no more. Hi-Grade Computers can supply any customer with the latest technology plus full upgradability to help you take advantage of innovations such as ever faster processors or Windows 95. Our Winputer P75, for example, with its new Intel Triton chipset and fast hard disk and graphics card, can run the most power-hungry software. It can be upgraded now to 133MHz, fast EDO RAM or pipeline synchronous burst cache. It will take a 200MHz processor when that arrives.

Hi-Grade is equally helpful financially. Personal customers can buy a P75 on interest-free credit, i.e. £175.66 deposit, then 12 monthly instalments of £131.75 (including VAT).

Firms can obtain the same PC on lease rental, with great tax advantages, at the very low APR of 14.9%. You pay £148.66, then £49.39 per month for 33 months (excluding VAT).

**HI-GRADE**  
COMPUTERS PLC

*Technology with a human face*

Unit 1, Cromwell Centre, 32 Thames Road  
Barking, Essex IG11 0HZ  
Tel: 0181 591 1586

**Tel: 0181 591 9040**

**Northern Sales Tel: 0131 557 5999**

**Southern Sales Tel: 01703 315151**

PCW 10/95



Interest-free  
credit or lease  
at 14.9% APR



## Hi-Grade Winputer P75

- Intel Pentium processor
- 75MHz clock speed (upgradable to 133MHz)
- Intel Triton PCI/ISA chipset
- 16Mb RAM, expandable to 128Mb
- 256K cache (upgradable to 512K synchronous pipeline burst mode)
- 3.5" 1.44Mb floppy disk drive
- 540Mb hard disk with PCI enhanced IDE interface mode 4
- Toshiba quad-speed IDE CD-ROM drive
- S3 868 PCI local bus graphics card (1Mb RAM upgradable to 2Mb)
- 14" colour SVGA monitor
- 4 PCI (3 free) and 4 ISA (4 free) expansion slots
- 2 serial ports, 1 parallel port
- MS-DOS 6.22 & Windows 3.11 for Wkgs or Windows 95
- Desktop or mini-tower case
- 102-key soft tactile keyboard
- Serial 2/3-button mouse

**£1,495 (plus VAT)**

Finance available subject to status. Written quotations on request. Hi-Grade is a licensed credit broker. A member of the Direct Marketing Association, it adheres to the DMA's strict Code of Practice on customer protection.

# Storage Made Easy!

## WHY BUY HARD DRIVES FROM UK FLEX?

### Why buy hard drives from UK Flex?

At UK Flex we have three years experience in selling and specifying hard drives. Our friendly, in-house experts can offer free help and advice on choosing the right hard drive for you as well as unlimited technical support when you need it. We can also offer you a complete range of interface cards and software. All, of course, with fast delivery.

Call us for today's low prices and regular offers as all our prices at UK Flex are updated daily.

Optical Man says: Let UK Flex save you ££££'s on Top Name Brand Hard Drives!



## HARD DRIVES

### IDE Hard Drives

Western Digital IDE	WESTERN DIGITAL	
AC2500 540Mb	12ms	£108
AC6390 630Mb	12ms	£118
AC2850 850Mb	10ms	£139
AC31200 1.0Gb	9ms	£159
AC31000 1.2Gb	9ms	£199
AC31600 1.6Gb	10ms	£199

### Seagate IDE

Seagate		
ST3491A 428Mb	14ms	£89
ST3660A 528Mb	14ms	£102
ST3780A 725Mb	12ms	£129
ST5850A 850Mb	12ms	£145
ST31220A 1Gb	12ms	£185

### Quantum IDE

Quantum		
Traillblazer 420Mb	14ms	£103
Fireball 540Mb	12ms	£119
Maverick 540Mb	12ms	£103
Lightning 540Mb	11ms	£145
Lightning 730Mb	11ms	£139
Traillblazer 850Mb	14ms	£140
Fireball 1.0Gb	12ms	£199

### Conner IDE

CONNER		
CFS420A 420Mb	13ms	£99
CFS450A 540Mb	15ms	£104
CFS630A 630Mb	13ms	£127
CFAR50A 850Mb	12ms	£159
CFA1275S 1.2Gb	14ms	£210
CFA1275A 1.2Gb	12ms	£269

### Maxtor IDE

Maxtor		
7345A 320Mb	15ms	£85
7540A 540Mb	12ms	£109
7850A 850Mb	11ms	£149
71050A 1.0Gb	12ms	£199
71260A 1.2Gb	12ms	£243

## SCSI & Fast SCSI 2 Hard Drives

Seagate Fast SCSI 2	Seagate	
ST5660N 540Mb Decathlon	12ms	£149
ST31230N 1.0Gb Hawk	9ms	£309
ST31250N 1.0Gb Barracuda	8ms	£489

### UK Flex Special Offer

Seagate 2.1Gb Barracuda... **£709**

ST32430N 2.0Gb Hawk	9ms	256k	£619
ST32550N 2.1Gb Barracuda	8ms	1Mb	£709
ST15230N 4.0Gb Hawk	8ms	1Mb	£829
ST15150N 4.0Gb Barracuda	8ms	1Mb	£1,099
ST41080N 9.0Gb Elite	9ms	1Mb	£1,749

### Seagate Fast & Wide SCSI 2

ST31230W 1.0Gb Hawk	10ms	512k	£489
ST32430W 2.0Gb Hawk	9ms	512k	£709
ST32550W 2.1Gb Barracuda	9ms	512k	£749
ST15320W 4.0Gb Hawk	9ms	512k	£949
ST15150W 4.0Gb Barracuda	8ms	512k	£1,199
ST41080W 9.0Gb Elite	11ms	1024k	£2,099

### What is Fast Wide SCSI ?

Fast Wide SCSI enables you to connect up to 15 devices to your SCSI chain as opposed to 7. It also offers data throughput rates of up to 20Mb / sec.



Quantum SCSI	Quantum	
Traillblazer 420Mb	14ms	£119
Fireball 540Mb	12ms	£145
Maverick 540Mb	14ms	£129
Lightning 540Mb	12ms	£141
Lightning 730Mb	12ms	£159
Traillblazer 850Mb	13ms	£172
Fireball 1.0Gb Mb	12ms	£339
Atlas 2.1Gb	8ms	£629
Atlas 4.3Gb	8ms	£929
Grand Prix 4.3Gb	8ms	£899

### Micropolis Fast SCSI 2

M3221 2.0Gb Fast SCSI 2	9ms	512k	£599
M3221 2.0Gb AVFast SCSI 2	8.5ms	512k	£669
M3243 4.2Gb Fast SCSI 2	9ms	512k	£829
M3243 4.2Gb AVFast SCSI 2	8.5ms	512k	£969
M1991 9.0Gb Fast SCSI 2	9ms	512k	£1,529
M1991 9.0Gb AVFast SCSI 2	8.5ms	512k	£1,549

### Fujitsu SCSI

M1606S 1.0Gb	9ms	256k	£309
M2903S 2.0Gb	9ms	512k	£599
M2909S 3.0Gb	9ms	512k	£865
M2915S 3.0Gb AV	9ms	512k	£865

### Conner Fast SCSI 2

CONNER			
CFA540S 540Mb	12ms	256k	£149
CFP1060S 1.0Gb	11ms	256k	£319
CFP2105S 2.0Gb	8ms	512k	£569
CFP4207S 4.0Gb	9ms	512k	£965

## EXTERNAL STORAGE

All storage options devices come with cables, manuals and, where appropriate, with shuttlemanager software disk.

### Hard Drive Storage

500A Seagate 540Mb IDE in ext. enclosure with SCSI Port & SCSI Daisy Chain Port	£259
1000P Seagate 1.0Gb Fast SCSI 2 drive in ext. enclosure with Parallel Port device	£519
1000S Seagate 1.0Gb Fast SCSI 2 drive in ext. enclosure with SCSI Port & SCSI Daisy Chain Port	£469
2000S Seagate 2.0Gb Fast SCSI 2 drive in ext. enclosure with SCSI Port & SCSI Daisy Chain Port	£749
4000S Seagate Barracuda 4.0Gb Fast SCSI 2 drive in enclosure with SCSI Port & SCSI Daisy Chain Port	£849

### Compact External Storage

- Instant upgrade via the Parallel or SCSI port
- Hard disk, CD-ROM, Optical & Tape back-up models
- Totally portable
- Complete with cables, terminators & instructions



### Back Up Device Storage

840Q 840Mb Tanberg in ext. enclosure with Parallel Port Device & SCSI Centronics Port	£569
4000D 4Gb SCSI DAT Drive in ext. enclosure with Parallel Port device & SCSI Centronics Port	£799

### CD-ROM & Optice Storage

CD 200A Dual speed CD-ROM in ext. enclosure with Parallel Port device	£209
CD 400A 230M Optical drive in ext. enclosure with Parallel Port device	£589

## CONTROLLERS

ISA	
IDE 2FDD/2HDD	£9
IDE 2FDD/2HDD 2S, 1P, 1G	£12

### Enhanced ISA

IDE 2HDD/4FDD 2S, 1P, 1G	£35
--------------------------	-----

### Vesa Local Bus

IDE 2HDD/2FDD 2S, 1P, 1G	£17
Enhanced 2HDD, 2S, 1P, 1G	£26
Enhanced 2FDD/4HDD, 2S (High Speed), 1P	£45

### PCI Controllers

PCI IDE Controller (Mode 3 & 4)	£34
Future Domain SCSI PCI Controller	£123

### Buslogic SCSI Controllers

KT510 ISA 16Bit	£83
KT445N/C VLB 32Bit	£164
BT542B ISA 16Bit	£184
BT946C PCI SCSI 2 Bare Card	£195
KT786A PCI SCSI 2 Full Kit	£230
BT640A MCA 32Bit SCSI	£239
BT747C ISA SCSI 2	£245

### Adaptec SCSI

1505 Total CD Kit	£45
1522 ISA 16Bit Full Kit	£95
1542 ISA 16Bit Bare	£129
1640 MCA Kit	£229
1542 ISA Full Kit	£169
2842 VLB Full Kit	£189
2742 EISA Full Kit	£249
2825 IDE/SCSI Total Advantage VLB	£125
2940 PCI Full Kit	£208
2940 PCI Wide PC Full Kit	£259
3940 PCI Multichannel Kit	£293
3958 PCI PC Raid Kit	£499
9310 AIRport Kit	£69
9320 AIRport Kit	£89
9310/20 AIRport Kit	£119
460 PCMCIA	£188
348 Parallel to SCSI Adapter	£98
358 Enhanced Parallel to SCSI Adapter	£123

All our cards are full kit!

### Future Domain Controllers

Enhanced ISA	£39
TM 850 ISA 8Bit CD-ROM Kit	£35
TM 3260 PCI SCSI Kit	£129

### DPT SCSI Caching Controllers

PM 202190 ISA without floppy	£139
PM 202195 ISA with floppy	£169
PM 202295 EISA with floppy	£259
PM 212295 EISA Wide SCSI without floppy	£389
PM 202490 PCI without floppy	£219
PM 212490 PCI High performance without floppy	£329
CM 212490 PCI Wide without floppy	£383
CM 4000 Caching module with 0 RAM	£309
CM 4004 Caching module with 4Mb RAM	£549
SM 46004 4Mb Simm for CM4000	£299
SM 400016 16Mb Simm for CM4000	£1,359
DM 4000 Disk Array Module	£319

### DPT SmartRaid SCSI Controllers

PM 322290 EISA SCSI Controller	£989
PM 322490W EISA Wide SCSI Controller	£1,099
PM 322490 PCI SCSI Controller	£989
PM 322490W EISA SCSI Controller	£1,099

### Hard Disk Accessories

5.25" Fixing Kit	£10
Single Drive Internal Cable	£8
Dual Drive Internal Cable	£10
Triple Drive Internal Cable	£15
Active Terminator	£26
Passive Terminator	£8

## WINDOWS '95

### Windows '95

The revolutionary upgrade to Microsoft Windows! Windows '95 replaces Windows 3.1, Windows for Workgroups 3.11 and will completely replace MS-DOS.

**£59.45**

### UK Flex Tip

When fully installed, Windows '95 uses anything up to 100Mb of disk space. (Microsoft Office may need up to 300Mb of disk space to install!) You will need more RAM to prepare for Windows '95. Upgrade your hard drive now!

## SCSI D.A.T. DRIVES

Hewlett Packard Surestore	hp
HP Surestore JS2000 2Gb Internal	£599
HP Surestore JS5000 4Gb Internal	£675
HP Surestore JS6000 8-16Gb Internal	£795
HP Surestore External Kit	£95

### EXABYTE 4mm

4mm - EXB-4200C 2-4Gb Internal	£549
4mm - EXB-4200E 2-4Gb External	£649
8mm - EXB-8205 2.5Gb Internal	£879
8mm - EXB-8205 5Gb Internal	£1,499
8mm - External Kit	£95

## KINGSTON STORAGE

### Kingston Storage

Kingston's new DataExpress removable hard disk & DAT tape subsystem allows you to add a removable 3.5" hard drive or SCSI 4mm DAT device to your PC. Suitable for use with all PCs.



Receiving Frame Internal SCSI 1, 2	£148
Single Bay External Unit SCSI 1	£298
Single Bay External Unit SCSI 2	£348
Dual Bay External Unit SCSI 1, 2	£448
Dual Bay External Hot-Swap Unit SCSI 2	£548
Quad Bay External Unit SCSI 1	£848
Quad Bay External Unit SCSI 2	£1,098
Quad Bay External Hot-Swap Unit SCSI 2	£998

## EXTERNAL PARALLEL PORT DRIVES

### MicroSolutions Backpack

250Mb/340Mb T/Streamer	£225
900Mb Tape Streamer	£349
1.2Mb Floppy Drive	£123
1.44Mb Floppy Drive	£123
210Mb Hard Drive	£272
420Mb Hard Drive	£325
850Mb Hard Drive	£399
1.2Gb Hard Drive	£519
Dual Speed CD-ROM	£249
Quad Speed CD-ROM	£259

### Flexstore Z850 850Mb IDE Parallel Port Drive

**£269**



### Flexstore The Parallel Port Solution

Z540 540Mb IDE	£219
Z850 850Mb IDE	£269
Z1000 1.2Gb IDE	£349
Z1600 1.6Gb IDE	£479
Z100 1.0Gb Fast SCSI 2	£589
Z200 2.0Gb Fast SCSI 2	£779
Z400 4.0Gb Fast SCSI 2	£929
P400 Quad Speed IDE	£289
P600 Six Speed CD-ROM SCSI	£399

## PCMCIA HARD DRIVES

Maxtor Mobile Max	
PCMCIA 105Mb	14ms 31k £189
PCMCIA 130Mb	14ms 31k £225
PCMCIA 170Mb	14ms 31k £289

### Minstor

PCMCIA 130/260Mb	13ms 64k £249
------------------	---------------

## DISK ARRAY SYSTEMS

Hewlett Packard	hp
3 x 1.0 Gb Disk Array	LOW
5 x 1.0 Gb Disk Array	LOW
3 x 2.0 Gb Disk Array	LOW
5 x 2.0 Gb Disk Array	LOW

## SCSI CABLES

Centronix 50 to Centronix 50	£19
Centronix 50 to Centronix 25-pin	£24
Centronix 50 to Micro-D 50	£38
Micro-D 50 to Micro-D 50	£39

Prices change daily! Call UK Flex for the best deals!

## HARD DRIVES

DEC	
RZ	

# Storage Made Easy!

## CD-ROM DRIVES

<b>AT Interface</b>	
Panasonic CR562 Dual Speed	£69
Panasonic CR571B Dual Speed	£74
<b>IDE Interface</b>	
Mitsumi CRMC-FX400 Quad Speed	£104
Mitsumi Interface Card	£13
NEC Quad Speed	£117
NEC Quad Speed with Encarta '95	£139
Goldstar GCD 420B Quad Speed	£89
Blue Point ICD300	£79
Orchid CPS110 Dual Speed + 2 CDs	£96
Panasonic CR571B Dual Speed	£89
Sony CDU 76E Quad Speed	£117
Toshiba XM502B Quad Speed	£115
Wearnes Quad Speed	£129
Pioneer DR-UA124X 4 x 4 Speed	£144
<b>SCSI Interface</b>	
Toshiba XM501 Bare Triple Speed	£129
Toshiba XM3601B 4.5 Speed Bare	£219
Toshiba XM3601B 4.5 Speed Kit	£330
Toshiba XM3601B 4.5 Speed Ext	£435
Pioneer DRU-12X 4.4 Speed	£189
NEC 3XI Triple Speed Internal	£215
NEC 3XP + Triple Speed Portable	£255
NEC 4XI Quad Speed	£241
NEC AT SCSI Card	£59
NEC AT Parallel/SCSI Kit	£95
NEC 6XI Six Speed Internal	£289
NEC 6XI Six Speed External	£369

**Toshiba 3601 Bare Internal Quad Speed SCSI CD-ROM Drive... £219**

<b>Writeable CD-ROM Drives</b>	
Pinnacle Micro RCD1000	£1,249
Micronet CD Writer	£1,429
Kodak 225 CD Writer	£2,499

<b>JukeBox CD Drives</b>	
Pioneer DRM-602X Dual Speed 6 Disk	£275
Pioneer DRM-604X Quad Speed 6 Disk	£863
Pioneer 1804X Quad Speed 18 Disk	£1,329
Nakamichi MBR-7 Dual Speed 7 Disk	£279

<b>PCMCA CD-ROM</b>	
Panasonic Double CD-ROM	£299

## SPEAKERS

Pro Digital Speakers	£29
Creative 20Watt Speakers	£79
Creative 9Watt Speakers	£19
ScreenBeat Speakers	£15
Labtec CS 150 Speakers	£13
ZY-FY 12Watts	£24
ZY-FY Pro 36Watts	£39

**Colorado 700Mb External Jumbo Trakker £275**



## MATROX MGA MILLENNIUM

The fastest card in the West  
MGA Millennium is the powerful, one-board answer for Windows, multimedia and 3D graphics acceleration. It offers resolutions up to 1600 x 1200, the industry's highest refresh rates, full 24-bit colour support (at 1280 x 1024), and the most advanced set of productivity features for Windows and CAD.

With 2Mb as standard... **£239**  
With 4Mb as standard... **£339**

- 2Mb and 4Mb upgrades available
- Upgradeable to 8Mb
- Supports open standards in video expansion and 3D, to take advantage of improvements in hardware and software

## MONITORS

14" ViewSonic 6E	£172
14" NEC XV14 1024 x 768	£219
14" Ergovision 400LR	£185
15" VisionMaster FST MF-8115	£249
15" ViewSonic ES	£245
15" Multisync XV15	£289
15" Sony CPDSF1	£310
15" Taxan Ergovision 580LR	£284
15" Panasonic 15 TX-T1537	£315
17" Liyama MF-8617	£519
17" ViewSonic 17G	£540
17" ViewSonic V2	£639
17" Sony 20 GDM20	£815
17" Taxan Ergovision 885LR	£625
17" Taxan Ergovision 895LR	£835
17" NEC KE17 17"	£579
17" NEC XP17 17"	£699
17" Panasonic TX D1751	£775
20" ViewSonic 20G	£975
20" Taxan Ergovision 1080	£899
20" Sony 20 GDM20	£1,469
20" Hitachi 20 20CM2096	£1,015
20" Panasync TX-D2032	£1,125
21" ViewSonic 21	£1,345
21" Taxan Ergovision 2100	£1,525
21" NEC XP21	£1,759
21" VisionMaster FST MF-8221	£1,249
21" VisionMaster FST MF-9121	£1,295
21" VisionMaster FST MF-8621	£1,645

## TAPE BACKUP

<b>Colorado</b>	
Jumbo 350 Internal	£82
Jumbo 700 Internal	£139
Jumbo 1.3Gb Internal (+ controller card)	£229
800Mb Travan Tape Drive	£139
350Mb Jumbo Tracker	£171
700Mb Jumbo Tracker	£233
<b>Iomega</b>	
Ditto 420Mb Internal	£98
800Mb Internal	£169
Ditto 1.6Gb Internal	£219
680Mb External	£209
800Mb External	£229
<b>Conner</b>	
Tape Store 420	£138
Tape Store 850	£223
2Gb DAT Internal	£645
4Gb DAT Internal	£679
<b>Wangtek</b>	
Wangtek 250Mb SCSI Tape Streamer Internal	£289
Wangtek 500Mb SCSI Tape Streamer Internal	£389
Wangtek 1Gb SCSI Tape Streamer	£489
WangDat 3100 2Gb SCSI Tape Streamer Internal	£679
WangDat 3200 2-8Gb SCSI DAT Internal	£625
WangDat 3400DX 8-16Gb SCSI DAT Internal	£729
Wangtek 500Mb External SCSI Tape Streamer	£529
Wangtek 1Gb External SCSI Tape Streamer	£635
WangDat 3200 External 4-8Gb SCSI DAT	£935
WangDat 3400DX External 8-16Gb SCSI DAT	£1,015
<b>HP External Kits</b>	
Kits come complete with Surestor drive, adapter, SCSI controller, back-up software, cables & manuals	
HP2000-1 2.0Gb 1 User	£989
HP2000-2S 2.0Gb 2S User	£1,179
HP5000-2S 4.0Gb 2S User	£1,319
HP5000-UL 4.0Gb Unlimited User	£1,689
HP6000-2S 8.0Gb 2S User	£1,589
<b>SureStor External Kits</b>	
JS2000 with ARCSolo software	£899
JS5000 with ARCServe 5 user	£1,529
JS6000 with ARCServe 5 user	£2,099
<b>Tanberg Data</b>	
TD-366 250Mb Internal	£299
TD-382 525Mb Internal	£399
TD-412 1.2Gb Internal	£589
TD-422 2.0Gb Internal	£689
External Kit	£105
<b>Sony DAT Back-Up</b>	
SDT 4000 2-4Gb SCSI Internal	£545
SDT 4000 2-4Gb SCSI External	£675
SDT 5000 4-16Gb SCSI Internal	£735
SDT 5000 4-16Gb SCSI External	£849
<b>Tape Media</b>	
DC2120 250Mb	£9
DC2120XL 350Mb	£13
MC3000XL 700Mb	£20
DC6150	£12
DC6250	£16
DC6525	£18
2Gb DAT Tapes	£9
4Gb DAT Tapes	£11
<b>Optical Media</b>	
128Mb Optical Disk	£16
230Mb Optical Disk	£25
1.3Gb Optical Disk	£89
Pack of 5 230Mb Optical Pack	£110
CD Disks	£6
<b>Pinnacle Micro Juke Boxes</b>	
Oray 5.2Gb Optical Juke Box	£4,449
Atlas 20Gb Optical Juke Box	£8,499
Aspen 40Gb Optical Juke Box	£13,499
Alpine 120Gb Optical Juke Box	£29,499
Mammoth 186Gb Optical Juke Box	£POA
<b>Hewlett Packard Juke Box</b>	
HP 20XT 20Gb Juke Box	£3,799

## HP External Kits

Kits come complete with Surestor drive, adapter, SCSI controller, back-up software, cables & manuals

HP2000-1 2.0Gb 1 User	£989
HP2000-2S 2.0Gb 2S User	£1,179
HP5000-2S 4.0Gb 2S User	£1,319
HP5000-UL 4.0Gb Unlimited User	£1,689
HP6000-2S 8.0Gb 2S User	£1,589

## SureStor External Kits

JS2000 with ARCSolo software	£899
JS5000 with ARCServe 5 user	£1,529
JS6000 with ARCServe 5 user	£2,099

## Tanberg Data

TD-366 250Mb Internal	£299
TD-382 525Mb Internal	£399
TD-412 1.2Gb Internal	£589
TD-422 2.0Gb Internal	£689
External Kit	£105

## Sony DAT Back-Up

SDT 4000 2-4Gb SCSI Internal	£545
SDT 4000 2-4Gb SCSI External	£675
SDT 5000 4-16Gb SCSI Internal	£735
SDT 5000 4-16Gb SCSI External	£849

## Tape Media

DC2120 250Mb	£9
DC2120XL 350Mb	£13
MC3000XL 700Mb	£20
DC6150	£12
DC6250	£16
DC6525	£18
2Gb DAT Tapes	£9
4Gb DAT Tapes	£11

## Optical Media

128Mb Optical Disk	£16
230Mb Optical Disk	£25
1.3Gb Optical Disk	£89
Pack of 5 230Mb Optical Pack	£110
CD Disks	£6

## Pinnacle Micro Juke Boxes

Oray 5.2Gb Optical Juke Box	£4,449
Atlas 20Gb Optical Juke Box	£8,499
Aspen 40Gb Optical Juke Box	£13,499
Alpine 120Gb Optical Juke Box	£29,499
Mammoth 186Gb Optical Juke Box	£POA

## Hewlett Packard Juke Box

HP 20XT 20Gb Juke Box	£3,799
-----------------------	--------

## OPTICAL DRIVES

Fujitsu 230Mb Internal	£399
Fujitsu 230Mb External	£560
Maxoptix 1.3Gb Internal	£1,199
Maxoptix 1.3Gb External	£1,299
Pinnacle Micro Sierra 1.3Gb	£1,499
IBM Xyratex 3000 230Mb Ext	£699
IBM Xyratex 5000 1.3Gb Ext	£1,699
Panasonic Quad Speed & 650Mb Rewritable Optic	£499
Panasonic 1.5Gb Internal Drive	£1,549
Sony 1.3Gb Optical Drive Internal	£1,399
Sony 1.3Gb Optical Drive External	£1,499
<b>Removeable Drives</b>	
Iomega Zip Drive	£144
100Mb Zip Disk	£16
100Mb Zip Disk Box of 5	£49
100Mb Zip Disk Box of 10	£90

"Always fast & friendly service."

**UK Flex**  
0121 624 7777  
UK Flex Ltd., Studio 1A, The Ice House, 180-182 Fazeley St., Birmingham, B5 5SX.  
Tel: 0121 624 7777. Fax: 0121 624 7707

## NETWORKING

3 COM Etherlink III 3C509 ISA BNC	£74
3 COM Etherlink III 3C509 ISA RJ45	£74
3 COM Etherlink III 3C509 ISA RJ45/BNC	£84
3 COM Etherlink III 3C509 ISA	£337
either BNC or RJ45 5-pack	
3 COM Etherlink III 3C509 ISA	£397
RJ45/BNC Combo 5-pack	£139
3 COM Etherlink III 3C579 EISA BNC	£139
3 COM Etherlink III 3C579 EISA RJ45	£139
3 COM Etherlink III 3C589 PCMCIA RJ45	£139
3 COM E'link III 3C589 PCMCIA RJ45/BNC	£139
DLink DE6200CT Pocket Adaptor BNC/TP	£145
DLink DE650CT Ethernet Card BNC/TP	£89
DLink DE220C Ethernet Card BNC	£69
DLink DE220T Ethernet Card TP	£69
DLink DE220CT Ethernet Card BNC/TP	£89
DLink DE320CT MCA Ethernet Card BNC/TP	£99
DLink DE400 EISA Ethernet Card BNC/TP/AUI	£148
DLink DE510CAT VESA E'net Card BNC/TP/AUI	£198
DLink DE530CAT PCI Ethernet Card BNC/TP	£99
DLink DE650C PCMCIA Ethernet BNC	£138
DLink DE320MCA Ethernet Card TP/AUI	£98
DLink DE6201 Pocket Adaptor Token Ring	£343
DLink DT220 Token Ring ISA	£229
DLink DT320CT Token Ring MCA	£229

SMC Elite Ultra ISA RJ45	£62
SMC Elite Ultra ISA BNC	£62
SMC Elite Ultra ISA Combo	£70
SMC PCI Ethernet Adaptor	£129
SMC PCI Ethernet Adaptor 5-pack	£595
SMC Elite ISA Combo RJ45 & BNC	£74
SMC Elite Ultra ISA RJ45 6-pack	£349
SMC Elite Ultra ISA BNC 6-pack	£315
SMC Elite Ultra ISA BNC & RJ45 6-pack	£444
SMC Elite Ultra ISA Combo 6-pack	£389
SMC Elite Ultra EISA 32C BNC & RJ45	£159
SMC EtherEZ ISA RJ45	£63
SMC EtherEZ ISA BNC	£63
SMC EtherEZ Combo	£74
SMC EtherEZ Combo 5-pack	£353

Novell NE1000 8Bit ISA	£75
Novell NE2000 Plus 16Bit BNC	£75
Novell NE2000 Plus 16Bit RJ45	£85
Novell NE2000 Plus 16Bit Combo	£85
Novell NE2000 Plus 5-pk 16Bit RJ45 & BNC	£340
Intel Etherexpress ISA 16 BNC	£73
Intel Etherexpress ISA 16 RJ45	£73
Intel Etherexpress ISA Flash Combo	£89
Intel Etherexpress ISA 16 BNC 5-pack	£384
Intel Etherexpress ISA 16 RJ45 5-pack	£384
Intel Etherexpress ISA Flash Combo 5-pk	£445

**Horror! Tape Back-Up Man was caught without enough storage!**



**UK Flex**

## BACK-UP SOFTWARE

ArcSolo	£85
ArcServer 5-User	£185
ArcServer 10-User	£371
ArcServer 25-User	£659
ArcServer 50-User	£749
ArcServer 100-User	£888
ArcServer 250-User	£1099
ArcServer 500-User	£2185
ArcServer 1000-User	£4345

## VIDEO CARDS

<b>ATI PCI</b>	
Graphics Expression 1Mb	£140
Graphics Expression 2Mb	£185
Graphics Win Turbo 2Mb	£299
Graphics Pro Turbo 2Mb	£309
Graphics Pro Turbo 4Mb	£399
<b>ATI ISA</b>	
Graphics Ultra Plus 2Mb	£185
Graphics Ultra Pro 2Mb	£229
<b>ATI VLB</b>	
Graphics Expression 1Mb	£140
Graphics Expression 2Mb	£185
Graphics Win Turbo 2Mb	£299
Graphics Pro Turbo 2Mb	£309
Graphics Pro Turbo 4Mb	£399

## VIDEO CARDS

<b>STB VLB</b>	
Powergraph 1Mb	£14
Lightspeed 2Mb	£14
2Mb Velocity 64V MPEG	£24
4Mb Velocity 64V MPEG	£39
<b>STB PCI</b>	
Lightspeed 2Mb	£14
Powergraph 1Mb	£14
Nitro 64 2Mb	£14
Velocity 64V 2Mb	£24
Velocity 64V 4Mb	£39

<b>Techworks VLB</b>	
9FX Vision 330 1Mb	£9
9FX Vision 330 2Mb	£13

<b>Techworks ISA</b>	
1Mb Thunderbolt	£5
1Mb Warp 20 VRAM	£13
1Mb Warp 20-2 VRAM	£198

<b>Taxan ATI</b>	
2Mb GTS WinBoost VLB	£14
4Mb GTS WinTurbo 64 VLB	£24
4Mb GTS WinTurbo 64 VLB	£39
2Mb GTS WinBoost 64 PCI	£14
2Mb GTS WinTurbo 64 PCI	£24
4Mb GTS WinTurbo 64 PCI	£39

||
||
||

# Memory Made Easy!

## DELL MEMORY

200/300 Series 2Mb Kit	£69
200/300 Series 4Mb Kit	£129
325/425/533/617 2Mb to 6Mb	£129
325/425/533/617 2Mb to 10Mb	£289
Powerline Series 4Mb Module	£189
Powerline Series 8Mb Module	£339
Powerline Series 16Mb Module	£499
Power Desktop Series 4Mb	£149
Power Desktop Series 8Mb	£299
Low Profile Power Desktop 4Mb	£139
Low Profile Power Desktop 8Mb	£499
Power Edge SP/XE Series 8Mb Kit	£279
NL20, NL25 16Mb Module	£119
Dimension 1 4Mb	£149
Dimension 1 8Mb	£299
Dimension XP5 16Mb Kit	£569
Omniplex Series 16Mb Module	£509
OptiPlex Series 16Mb Module	£569
Latitude Series M 4Mb	£199
Latitude Series M 8Mb	£399

## TOSHIBA MEMORY

T1000/E/XE/LE, T1800	
T1850C, T2000S/SXE 2Mb Card	£95
T1000/E/XE/LE, T1800	
T1850C, T2000S/SXE 4Mb Card	£170
T1000/E/XE/LE, T1800	
T1850C, T2000S/SXE 8Mb Card	£299
T3300SL 2Mb	£69
T1200XE 2Mb Card	£95
T1600/TS100 2Mb Card	£75
T2400CS/T3600 16Mb	£649
T3100SX 2Mb Card	£95
T3100SX 4Mb Card	£179
T3200 3Mb Card	£169
T1950CT, T3400CT, T4500	
T4600, T4700CT, T4800CT 8Mb Module	£329
T1950CT, T3400CT, T4500	
T4600, T4700CT, T4800CT 16Mb Module	£629
T5200/C & T8500/6400/6600 2Mb Card	£89
T5200/C & T8500/6400/6600 8Mb Card	£345
Dynapad T100X 6Mb Card	£269

## GATEWAY MEMORY

PC 45X-33 4Mb Module	£139
PC 45X-33 16Mb Module	£470
PC 4DX-33V, PC 4DX-66V 4Mb Module	£135
PC 4DX-33V, PC 4DX-66V 16Mb Module	£470
PC 4DX-33V, PC 4DX-66V 32Mb Module	£950
PC 4DX2-66P/V 16Mb Module	£470
PC 4DX2-66P/V 32Mb Module	£950
PC P5-60, P5-66 64Mb Kit	£2,499
PC 4D-66, PC 4D-100 8Mb Kit	£289
PC 4D-66, PC 4D-100 32Mb Kit	£1,150

## SUN WORKSTATION MEMORY

Spare 1, 3/60, 3/80, 4/40, 4/60, 4/65, 4/75 4Mb Kit	£162
Spare 1, 3/60, 3/80, 4/40, 4/60, 4/65, 4/75 16Mb Kit	£499
Spare ELC 16Mb Kit	£489
Spare LX 32Mb Kit	£1,189
Spare 330, 370, 390 16Mb Kit	£1,299
Spare 330, 370, 390 32Mb Kit	£1,799
Spareserver 630, 670, 690 64Mb Kit	£2,789
Spare 630MP, 670, 690 64Mb	£2,799
Spare 630MP, 670, 690 128Mb	£5,369

Please call UK Flex if the RAM you require is not here!

## SCANNERS

<b>Logitech</b>	
Logitech Scanman 32 DOS	£60
Logitech Scanman 32 Windows	£60
Logitech Scanman 32 Windows + PagePlus V3	£69
Logitech EasyTouch	£105
Logitech Scanman Colour	£165
Logitech Power Page	£309
Logitech 256 Scanner	£78
<b>Hewlett Packard</b>	
HP Scanjet IIP AT Interface NEW!	£348
HP Scanjet IICX Document feeder	£349
<b>Epson</b>	
Epson GT6500 Parallel + PhotoShop LE, (ImageJag Direct, PageKeeper)	£399
Epson GT6500 SCSI + PhotoShop LE, (ImageJag Direct, PageKeeper)	£479
Epson GT8500 Parallel + PhotoShop LE, (ImageJag Direct, PageKeeper)	£509
Epson GT8500 SCSI + PhotoShop LE, (ImageJag Direct, PageKeeper)	£585
Epson GT8500 SCSI + Adobe Photoshop V3 Full Version	£798
Epson GT9000 SCSI + PhotoShop LE, (ImageJag Direct)	£695
Epson GT9000 SCSI + Adobe Photoshop V3 Full Version	£889
<b>Trust</b>	
1200 DPI Flatbed Scanner	£305
2400 DPI Flatbed Scanner	£395
<b>Genius</b>	
Scanmate 256	£69
Scanmate / Colour	£139
ScanFX-Scanner, Fax & Copier	£399

## COMPAQ MEMORY

Deskpro 386/20/25/cds 4Mb Add on Module	£159
Deskpro 386/20/25/cds 4Mb Expansion	£209
Systempro Desktop	
486/33L, 50L & 486/25 8Mb Module	£298
Systempro Desktop	
486/33L, 50L & 486/25/32Mb Module	£1,444
Systempro XL 486/50,	
Pentium 256Mb Board with 16Mb	£799
Deskpro 386/33, 386S/20 & Prosignia 25Mb Module	£85
Deskpro 386/33, 386S/20 & Prosignia 4Mb Module	£144
Deskpro 386/4/486, 486/25M, 86S/33M	
64Mb Board with 4Mb	£292
Deskpro 386A/486, 486/25M, 86S/33M	
64Mb Board with 8Mb	£444
Deskpro XE & XL Family 4Mb	£166
Deskpro XE & XL Family 8Mb	£325
Deskpro 590 8Mb Module	£268
Prolinea 4/25s, 4/33, 4/50, 4/66, NET 1, MT	
4Mb Module	£168
Prolinea 4/25s, 4/33, 4/50, 4/66, NET 1, MT	
8Mb Module	£289
Proliant 1000, 2000, 4000 4Mb Module	£167
Proliant 1000, 2000, 4000 8Mb Module	£326
Proliant 1000, 2000, 4000 16Mb Module	£625
SLT 386 2Mb Board	£128
SLT 386 4Mb Board	£188
LTE Lite 386, 386S/20 2Mb Board	£129
LTE Lite 386, 386S/20 4Mb Board	£189
LTE Lite 386, 386S/20 8Mb Board	£349
LTE Lite 486C 4Mb Board	£189
LTE Lite 486C 8Mb Board	£349
LTE Lite 486C 16Mb Board	£769
LTE Elite Series 4Mb Board	£185
LTE Elite Series 8Mb Board	£348
Contura 400C/CX 8Mb Module	£278
Contura 3/25/20/26c, 4/25 2Mb Module	£85
Contura 3/25/20/26c, 4/25 4Mb Module	£158
Contura 3/25/20/26c, 4/25 8Mb Module	£298
Compaq Aero 4/25/33 4Mb Module	£155
Compaq Presario 425, 633, 833, 850, 866/800 Series	
4Mb Module	£149
Compaq Presario 425, 633, 833, 850, 866/800 Series	
8Mb Module	£279
Compaq Presario 700/900 16Mb Module	£499

## ELONEX MEMORY

PC386SX/M, SX/B, 386/16, B/33 4Mb Kit	£137
PC386SX/M, SX/B, 386/16, B/33 8Mb Kit	£245
PC386V/E, 486 V/E 8Mb Kit	£270
PC386V/E, 486 V/E 16Mb Kit	£459
WS Range 4Mb Kit	£139
WS Range 8Mb Kit	£275
WS Range 16Mb Kit	£489
PC433M, 450M, 466M 4Mb Kit	£139
PC433M, 450M, 466M 8Mb Kit	£275
PC433M, 450M, 466M 16Mb Kit	£459
LT386SX/P 4Mb Kit	£138
PC500 Series 8Mb Module	£275
PC500 Series 16Mb Module	£475
Elonex 560F EISA 8Mb Module	£275
Elonex 560F EISA 16Mb Module	£469

## HP PRINTER MEMORY

Laserjet II, IID 2Mb	£88
Laserjet II, IID 4Mb	£159
Laserprinter IIP, III, IID, IIP 2Mb	£89
Laserprinter IIP, III, IID, IIP 4Mb	£149
Laserjet IIISI, 4, 4M, 4SI, 4MV, 4MP, 4P, 4V 4Mb	£149
Laserjet 4L 1Mb	£79
Deskjet 1200 CPS 8Mb	£275
Netserver Series 32Mb Module	£1,379
Colour Laserjet 4Mb Module	£149

## HP MEMORY

Vectra 386/25PC, 486 PC, 486S/20 4Mb Kit	£169
Vectra 386/25PC, 486 PC, 486S/20 8Mb Kit	£339
ValueLine 486, Netserver Series 8Mb Module	£299

## IBM MEMORY

PS/2 351A, 355X, 40SX 4Mb	£158
PS/2 351A, 355X, 40SX 8Mb	£298
PS/2 567 2Mb	£85
PS/2 802 4Mb	£238
PS/2 140SX, N335SX, NSL 4Mb Card	£148
PS/2 140SX, N335SX, NSL 8Mb Card	£348
PS/2 90, 95, 95A 4Mb Module	£168
PS/2 195 & 295 32Mb Module	£1,299
PS/2 95 Array Pentium® 16Mb Kit	£675
Valuepoint 6381, 6382, 6384 4Mb	£138
Valuepoint 6381, 6382, 6384 8Mb	£259
Pentium® Valuepoint Series 8Mb Kit	£285
Pentium® Valuepoint Series 16Mb Kit	£528
Thinkpad 300, 350, 355, 500,	
700, 710, 720, 750, 755C 2Mb	£178
Thinkpad 300, 350, 355, 500,	
700, 710, 720, 750, 755C 8Mb	£344
PC466DX2, 100DX4 8Mb Module	£298
CL575SX 4Mb	£188
CL575SX 8Mb	£382
Hurdia Sprinta 4Mb Kit	£148
Hurdia Sprinta 16Mb Kit	£475
Consultant, Essential, Expert 4Mb Kit	£270
Consultant, Essential, Expert 8Mb Kit	£270
Apiva 4Mb Kit	£148
PC300 Series 4Mb Module	£148
PC700 Series 8Mb Module	£278

RAM prices change daily!  
Call UK Flex for the best deals!

## RAM

### 30 Pin Simms

Type	Capacity	Speed	
1mb x 8	1Mb	80ns	£27
1mb x 9	1Mb	70ns	£28
1mb x 9	1Mb	60ns	£33
4mb x 9	4Mb	70ns	£108
4mb x 9	4Mb	60ns	£125
16mb x 9	16Mb	70ns	£529
16mb x 9	16Mb	60ns	£599

### 72 Pin Simms

1Mb x 32	4Mb	70ns	£99
1Mb x 36	4Mb	70ns	£112
1Mb x 36	4Mb	60ns	£135
2Mb x 32	8Mb	70ns	£210
2Mb x 36	8Mb	70ns	£219
2Mb x 36	8Mb	60ns	£239
4Mb x 32	16Mb	70ns	£335
4Mb x 36	16Mb	70ns	£385
8Mb x 32	32Mb	70ns	£699
8Mb x 36	32Mb	70ns	£799
16Mb x 36	64Mb	70ns	£1,599

### 72 Pin EDO Simms

1Mb x 32	4Mb	£159
2Mb x 36	8Mb	£279

### 72 Pin Dimms

1Mb x 32	4Mb	70ns	£197
2Mb x 32	8Mb	70ns	£398
4Mb x 32	16Mb	70ns	£596

## Windows '95

The revolutionary upgrade to Microsoft Windows! Windows '95 replaces Windows 3.1, Windows for Workgroups 3.11 and will completely replace MS-DOS.



Be one of the first to upgrade.  
Call UK Flex now.

**£59.45**

## WINDOWS '95

### Are you ready for Windows '95?

To take advantage of all the fantastic and exciting new features that Windows '95 applications have to offer (sound, graphics, integrated multimedia video, etc) you will need more than the recommended 8Mb of RAM. UK Flex recommend you may need at least 16Mb to run Windows '95 so prepare now by upgrading your memory.



## MOTHERBOARDS / CPUs

### Cyrix 386DX to 486DX

DX 20MHz - 486 40MHz	£139
DX 25MHz - 486 50MHz	£159
DX 33MHz - 486 66MHz	£175

### Cyrix 386SX to 486SX

SX 20MHz - 486 40MHz	£139
SX 25MHz - 486 50MHz	£159

### Intel Overdrive Chips

Overdrive 486SX2-50MHz	£75
Overdrive 486DX2-50MHz	£69
Overdrive 486DX2-66MHz	£117
Overdrive 486DX4-75MHz	£149
Overdrive 486DX4-100MHz	£209
Pentium® Overdrive 63MHz	£249
Pentium® Overdrive 83MHz	£149

### VLB 72 Pin or 30 Pin

Intel DX4-75MHz 256K VLB	£189
Intel DX4-100MHz 256K VLB	£242
AMD DX2-80MHz 256K VLB	£159
AMD DX4-100MHz 256K VLB	£199

### Motherboards without CPU

486VLB 3 VESA & 4 ISA 30-pin, 256K	£65
486VLB 3 VESA & 4 ISA 72-pin, 256K	£65
486PCI 3 PCI & 4 ISA 72-pin, 256K	£89

### Intel CPUs

Intel 80486DX4-75MHz	£75
Intel 80486DX4-100MHz	£125
Intel P75	£148
Intel P90	£228
Intel P100	£315
Intel P120	£469
Intel P133	£589

### AMD

AMD DX4-80MHz	£83
AMD DX4-100MHz	£139

### SGS Thompson

SGS Thompson DX2-50MHz	£48
SGS Thompson DX2-66MHz	£59

### Intel Motherboards with CPUs

Intel Zappa Pentium® 75MHz, 256K, 8Mb EDO RAM	£499
Intel Zappa Pentium® 90MHz, 256K, 8Mb EDO RAM	£599
Intel Endeavour Pentium® 90MHz, 256K	£499
Intel Endeavour Pentium® 90MHz	£799
256K, 8Mb EDO RAM	£549
Intel Endeavour Pentium® 100MHz, 256K	£839
256K, 8Mb EDO RAM	£699
Intel Endeavour Pentium® 120MHz, 256K	£999
256K, 8Mb EDO RAM	£899
Intel Endeavour Pentium® 133MHz with 8Mb, 256K	£1,199
Intel Endeavour Pentium® 133MHz with 8Mb, 256K, 8Mb EDO RAM	£1,199

### GIGA-BYTE Technology

GA-486VS 486 VLB Board 72 or 30 Pin	
3VLB & 4ISA Slots, Intel approved Zif upgrade,	
256K Cache as standard,	
Full green function support	£79
GA-486AM 486 VLB Board 72 Pin	
3PCI & 4ISA Slots, Intel approved Zif upgrade,	
Award Flash Bios,	
On-board enhancement multi I/O	£109
GA-586AP Pentium® 75-100MHz PCI Board 72 Pin	
3PCI & 4ISA Slots, Up to 192Mb on-board,	
Pentium® Overdrive,	
On-board enhancement multi I/O	£179
GA-586AT Pentium® 75-150MHz PCI Board 72 Pin	
3PCI & 4ISA Slots, Intel Trident Chip Set,	
Pentium® Overdrive,	
On-board enhancement multi I/O	£229

## MICE

Logitech Pilot Mouse	£17
Logitech Pilot Mouse PS/2	£18
Logitech Pilot Trackball	£27
Logitech Mouseman Combo	£34
Logitech Chroma Mouse Blue, Red, Green	£25
Logitech Mouseman Sensa	£38
Logitech Mouseman Blue	£39
Logitech Cyberman 3D Mouse	£59
Logitech Trackman Mouse	£44
Logitech Trackman Voyager	£56
Logitech Mouseman Cordless	£62
Microsoft Ball Point Mouse	£69
Microsoft Home Mouse	£29
Microsoft Business Mouse	£48
Microsoft V2 Mouse	£37

## THE FLEX ADVANTAGES

### Friendly Service & Support

Since Flex began we have been committed to superior quality, competitive prices and outstanding service.

### Thousands of Satisfied Customers

Our past growth has been a result of our dedication to our customers, and keeping our promises.

### Expert Technical Support - Free

With the purchase of most Flex peripherals you are entitled to unlimited free technical support



# & ROCK SOLID SUPPORT



**HARD DRIVES • MOTHERBOARDS • ALL AT ROCK BOTTOM PRICES**

## SEAGATE - LEADERS IN HARD DRIVE TECHNOLOGY!

### SEAGATE TECHNOLOGY FAST ATA & FAST ATA-2: THE NEXT STEP IN HARD DRIVE PERFORMANCE

The Medalist Family, including the 545e and 1080 are 3.5" low profile, high capacity, Fast ATA hard disc drives.

Fast ATA is an enhancement to the disc drive electronics that allows the host system to take advantage of the peripheral transfer rates available under Local Bus.

Maximum data transfer rates are increased from 4Mb/sec to 13.3Mb/sec (VLB DMA Mode 1) or 11.1Mb/sec (PCI bus PIO Mode 3). Effectively the drive mechanism stays the same. The benefit is that higher data transfer rates allow access to larger amounts of data making the drive ideal for intensive applications (eg. multimedia).

**COMPUTER SHOPPER** "DRIVE TIME" JULY 1994



#### IDE HARD DRIVES

	Size (Mb)	Access Time (ms)	Physical Size	PRICE
ST3491N	428	14	3.5"	£125
ST5660A	545.5	12	3.5"	£128
ST3660A	545.3	12	3.5"	£143
ST31220A*	1083	12	3.5"	£248

Optional ATA software driver available to access drive capacities greater than 528MB.  
\* AST ATA-2 for transfer rates up to 16.6Mb/sec



#### SCSI HARD DRIVES

	Size (Mb)	Access Time (ms)	Physical Size	PRICE
ST31200N	1,052	9/10.5	3.5"	£342
ST12400N	2,148	9/10.5	3.5"	£620
ST12550N	2,139	8/9	3.5"	£645
ST15150N	4,294	8/9	3.5"	£1,285

## PRINTER MEMORY

Canon LBP4	Canon
1-2MB Exp board	£69
2MB module	£129
LBP-8II	
2MB	£109
4MB	£179
Notejet	
4MB Module	£145
8MB Module	£256

Hewlett Packard	HP
Laserjet 4/M/SI/SIMx, Deskjet 1200C, 1200C/PS, Designjet 600	
4MB	£149
8MB	£279

Hewlett Packard	HP
Laserjet IIP/III/IIIP/IIID/IIID/II	
4MB	£178

OKI	OKI
Laser 400	
1MB	£65
2MB	£119

Laser 400e, 400ex, 410ex	
1MB	£119

Laser 830/840	
2MB	£119

Panasonic	Panasonic
Panasonic 4430	
1MB	£79

Panasonic 5410, 4440	
2MB	£110

Panasonic 4450i	
2MB	£110
4MB	£176

**PLEASE CALL FOR A QUOTE IF YOU DON'T SEE THE MEMORY YOU REQUIRE!**

## WORKSTATION MEMORY

Hewlett Packard	HP
Apollo 9000, 700, 730 & 735	
32MB	£1,249
64MB	£2,300
128MB	£4,800

715/33, 715/50, 725/50	
16MB	£569
32MB	£1,249
64MB	£2,400

IBM RISC System 6000	IBM
32MB Kit	£1,383
64MB Kit	£2,787
Powerstation/Powerserver 200	
8MB Kit	£298

Silicon Graphics	SG
Iris Indigo R40	
32MB Kit	£1,200
64MB Kit	£2,259
128MB Kit	£4,900

Indigo 2	
32MB	£1,200
64MB Kit	£2,259
128MB Kit	£4,900

SUN	SUN
SPARC II	
16MB	£483
SPARC Station ELC & IPX	
16MB	£499

### KINGSTON NOVELL NE2000 COMPATIBLE NETWORK CARD



Fully Novell tested and authorized. 10BaseT and 10Base2 I/O ports. NETROS compatible. 10Mbps.

**£38** Kingston TECHNOLOGY CORPORATION

SPARC 1, 3/60, 3/80, 4/40, 4/65, 4/75	
4MB Kit	£172
16MB Kit	£564

SPARC LX	
32MB Kit	£1,200

SPARC Station 10	
16MB Kit	£599
64MB Kit	£2,400

SPARC Station 20	
16MB Kit	£599
64MB Kit	£2,550

## SIMMs

256K x 9 - 80ns	£15
1MB x 8 - 70ns	£27
1MB x 9 - 70ns (3 chip)	£27.50
1MB x 9 (9cs) - 70ns	£31
1MB x 9 (9cs) - 60ns	£32
4MB x 9 - 70ns	£105
1MB x 32 - 70ns	£99
1MB x 36 - 70ns	£125
2MB x 32 - 70ns	£203
4MB x 32 - 70ns	£374
8MB x 32 - 70ns	£699

### PACE Netlink Gold Internet Modem

All you need to get on the Internet including Linnet 1A4 fax/modem, Internet software and guide and 21 days FREE Internet access.



## MOTHERBOARDS/CPU's

GigaByte Motherboards	GB
GigaByte GA486 VF	£82
GigaByte Pentium	£189

CPUs	
Pentium 75MHz	£190
Pentium 90MHz	£255
Pentium 100MHz	£328
Pentium 120MHz	£584
Pentium 133MHz	£746
Intel 486 DX2/66	£95
Intel 486 DX4/75	£99
Intel 486 DX4/100	£143

Turbo Chip	
Triples the speed of any 486 CPU!	£215
Kingston TECHNOLOGY CORPORATION	

## THE 4FRONT COMMANDMENTS

**GUARANTEED NEXT DAY DELIVERY**

**LIFETIME WARRANTY\***

**100% COMPATIBILITY OR YOUR MONEY BACK**

**FREE TECHNICAL SUPPORT**

**"HOT SWAP" 48-HOUR REPLACEMENT ON ALL FAULTY ITEMS**

**4FRONT'S ROCK SOLID GUARANTEE**

\*APPLIES TO KINGSTON MEMORY ONLY

## ROCK SOLID BARGAINS FROM 4FRONT!

**GUARANTEED LOW PRICES THIS MONTH!**

**MICROSOFT MOUSE**



**ONLY £16**

**SGS DX2-66 CPU ONLY £60**

**4MB 30-PIN SIMMs**

**ONLY £98**

**DYNALINK 14.4 BABT-APPROVED FAX/MODEM, COMPUSERVE & WINFAX ONLY £119**

**CONNER 540MB HARD DRIVE**



**£119**

**ALL OFFERS STRICTLY WHILE STOCKS LAST! CALL US NOW!**

**CALL 01252 812 292 • 4 FRONT • 01252 812 292**

## CPUs • ALL AT ROCK BOTTOM PRICES!!

## 4FRONT OF GREAT SERVICE!

within 3 days is £6.  
• **Free Technical Support** At any time should you have installation or technical problems, we are pleased to offer technical help.  
• **Quality** 4 Front Technology Ltd. is actively seeking ISO9002 (BS5750) with a target date of September 1995  
• **Service** We believe that you should receive a quality service. If at any time you are not

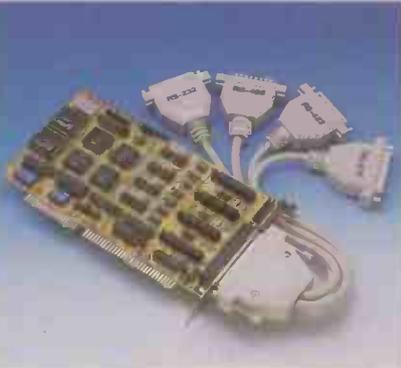
satisfied with the service or product received please write to our quality manager, Mr. Warren Hoy at the address below.

4 Front Technology Ltd.,  
27-31 Reading Road South, Fleet,  
Hampshire, GU13 8QP.  
Tel. 01252 812 292.  
Fax. 01252 812 662.

# NOW ON 01252 812 292

# Industrial Workstations, Industrial PCs, Embedded Board Computers, Data Acquisition and Control, Serial Communications.

## COMMUNICATIONS INTERFACES



### 4-Port Multi-User Serial Card

High Quality AT Bus 4-Port Serial Communications Card. Shown above. Supplied with 16550 UARTs for baud rates to 115kbps

- ▼ Port address 100H - 3F8H
- ▼ Interrupts IRQ2-7, 10-12, 15
- ▼ Transmit & Receive LEDs
- ▼ Compatible with Arnet 4-Port Card
- ▼ Can be used for adding 4 ports to Windows and SCO Unix
- ▼ Also supports RS422/RS485
- ▼ Supplied with 4-way cable set

£149

### 16550 Serial Card

Ideal for hardware requiring high speed communications. Highly recommended for Windows.

- ▼ Two 16550 serial ports COM1-COM4, IRQ2-5
- ▼ Bi-directional Parallel Port LPT1-LPT3, IRQ5,7
- ▼ Optional games port
- ▼ Enable/disable any port

£45

### AT bus Serial Card

The most flexible 2-Port Serial Card on the market. Supports any port address and high interrupts. Perfect for COM1-COM4 under windows.

- ▼ 2 RS232 serial ports
- ▼ Interrupts IRQ2-7, 10-12, 14-15
- ▼ Port address 100H-3F8H
- ▼ 16 bit AT bus

£75

Add £20 for 16550 option

### Dual RS422/RS485 Card

Offering 2 high speed serial ports for transmissions up to 4000 feet

- ▼ 2 RS422/RS485 serial ports
- ▼ Supplied with 16550 UARTs
- ▼ Up to 115K baud
- ▼ Port address 200H-3F8H
- ▼ IRQ2-7, 10-12, 15
- ▼ 16 bit AT bus

£89

Also Isolated RS422/RS485 Card £109

### DigiBoard Serial Cards

The Best Engineered Multi-Channel Boards on the market today. The DigiCHANNEL PC/X is ideal for use in multi-user environments, most operating systems are supported with drivers available for DOS, XENIX, UNIX, OS/2, and many more.

PC/4	4-Port RS232 Card	£295
PC/8	8-Port RS232 Card	£395
PC/16	16-port RS232 Card	£750
PC/4s	4-Port with 16550	£325
PC/8s	8-Port with 16550	£450
PC/16s	16-Port with 16550	£850

### DigiBoard PC/Xe Cards

The DigiCHANNEL PC/Xe range are intelligent multi-port RS232 high speed communication boards with on-board 80186 processor and 64K memory for increased throughput. Drivers available for DOS, Windows NT, Windows, OS/2, Xenix and UNIX.

PC/2e	2-Port Intelligent Card	£189
PC/4e	4-port Intelligent Card	£395
PC/8e	8-Port Intelligent Card	£495

### DigiBoard PC/Xem System

An Intelligent Modular System offering 16 to 64 high speed serial channels. The system comprises one host adapter with on-board 20MHz RISC processor and 1 to 4 external concentrators each providing 16 serial ports. Data rates of 115kbps can be achieved on 32 ports. Drivers for DOS, SCO UNIX, OS/2, Network Connect and Windows NT.

PC/Xem	Host Adapter	£395
Ports/16em	Connector Box	£600

### Isolated RS232 and Current-Loop Card

Providing 2 Isolated RS-232 or current loop serial ports with baud rates up to 56Kbps.

- ▼ Supplied with 16550 UARTs
- ▼ Provides 500VDC isolation
- ▼ Port address 200H - 3F8H
- ▼ Interrupts IRQ2-7, 10-12, 15
- ▼ 16-Bit AT bus

£119

### Synchronous Serial Card

Single channel, multi-protocol communications adapter which uses an AMD 85C30-10 serial communications controller (SCC) as standard.

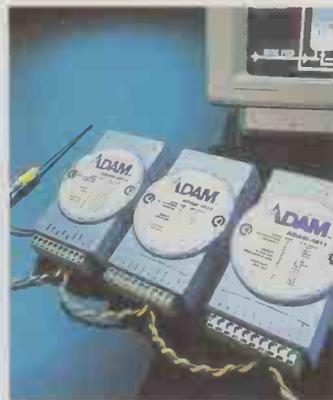
- ▼ RS232 interface
- ▼ Synchronous mode to 1.23M baud
- ▼ IRQ2-7, 10-12, 14-15
- ▼ DMA Channels 1 - 3

£220

Also Synchronous RS422/RS485 £220

### Remote Data Acquisition Modules for RS485 Network

ADAM Modules (shown below) are compact intelligent sensor-to-computer interface units designed specifically for reliable operation in harsh environments. Their built-in microprocessors, encased in rugged industrial grade plastic packages provide analog I/O, digital I/O, thermocouple measurement and data display. Each module has a built-in RS485 serial interface for data transfer with the host computer.



### Isolated RS232/RS485 Converter

ADAM modules need only 2 wires to communicate with their controlling host computer over a multidrop RS-485 network. ADAM modules also accept any power source between 10V and 30V and are protected against power reversal.

- ▼ Automatic control of data flow
- ▼ Input RS232 (4-wire)
- ▼ Output RS485 (2-wire)
- ▼ Baudrate 1.2K to 38.4K

£99

### Analog Input module

ADAM modules can accommodate multiple types and ranges of analog input. You select type and range remotely by issuing ASCII commands from your host computer.

- ▼ Input for thermocouple, mV, V, or mA
- ▼ Input range 15mV to 2.5V, 20mA
- ▼ 10 samples per second
- ▼ 1 digital input / event counter
- ▼ 2 digital outputs
- ▼ Baudrate 1.2K to 19.2K

£165

### ADAM Modules

ADAM 8ch Analog Input Module	£210
ADAM 8ch Thermocouple Module	£225
ADAM Analog Output Module	£165
ADAM Digital I/O Module	£119
ADAM Relay Output Module	£119
ADAM Counter/Frequency Module	£210
ADAM IP66 Industrial Enclosure	£85
ADAM Power Supply Unit 24V	£149

### PCMCIA Analog and Digital I/O Card

PCMCIA Type II Data Acquisition Card for laptop computers. Ideal for field data logging and portable measurement systems.

- ▼ Low power consumption
- ▼ 12-bit A/D 30KHz
- ▼ 8 differential A/D inputs
- ▼ Input range ± 10V, 0-10V
- ▼ Amplifier x2, x4, x8
- ▼ CJC Reference
- ▼ 4 digital inputs
- ▼ 4 digital outputs
- ▼ Wiring Terminal Board

£295

### IEEE-488 Interface Card

Provides complete IEEE-488 functionality on a half size card.

- ▼ Powerful, easy to use software command set
- ▼ DMA & Interrupt
- ▼ On-board firmware driver
- ▼ 16 digital outputs
- ▼ Basic, Pascal & C drivers
- ▼ IEEE-488 cable 2m

£199

### Digital I/O Card

The simple solution for providing digital I/O and timer functions.

- ▼ 32 digital inputs
- ▼ 32 digital outputs
- ▼ 3 channel programmable counter/timer
- ▼ Breadboard area

£89

### 144 bit Digital I/O Card

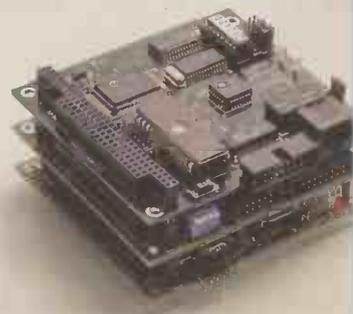
High Density mixed digital I/O Card for industrial monitoring & control.

- ▼ 144 Digital I/O lines
- ▼ Buffered circuits for higher driving capacity than the 8255
- ▼ Interrupt handling
- ▼ Output status readback

£155

### Wiring Kit & Relay Boards

Wiring Terminal Board	£35
Industrial Wiring Kit	£30
Isolated Digital input board 16ch	£99
Isolated Digital input board 24ch	£109
Relay Board 16ch, 120V 1A	£115
Relay Board 24ch, 120V 1A	£135
Relay Board 16ch, 250V 5A	£130
Relay Board 24ch, 250V 5A	£165
SSR Module Carrier Board 8ch	£70
SSR Module Carrier Board 16ch	£80
SSR Module 280V AC 3A	£9
SSR Module 60V DC 3A	£9



# LAB AND INDUSTRIAL PRODUCTS

**CONTACT US ON  
0171 625 7744**

## Analog & Digital I/O Card

Versatile fully integrated multifunction A/D, D/A and Digital I/O card.

- ▼ 12 bit 40KHz
- ▼ 16 single-ended or 8 differential A/D inputs
- ▼ 1 D/A output
- ▼ 16 digital inputs
- ▼ 16 digital outputs
- ▼ Pacer Clock
- ▼ Timer/Counter
- ▼ DMA and Interrupt
- ▼ Wiring Terminal Board

**£199**

## High Performance A/D Card

The complete and cost-effective solution for your PC based automation needs.

- ▼ 12 bit 100KHz
- ▼ 16 single-ended or 8 differential A/D inputs
- ▼ Built in 1K word FIFO
- ▼ Amplifier x0.5 to x1000
- ▼ 1 D/A Output
- ▼ 16 digital inputs
- ▼ 16 digital outputs
- ▼ Timer/counter
- ▼ Pacer Clock
- ▼ DMA and Interrupt
- ▼ Wiring Terminal Board

**£375**

## Relay Output and Isolated Digital Input Card

Offering 8 programmable electro-mechanical relays for ON/OFF control or small power switching, and 8 opto-isolated inputs which can be used as digital input under noisy environment or floating potential.

- ▼ 8 on-board SPDT relays
- ▼ LED indicators to show activated relays
- ▼ 8 opto-isolated digital input channels
- ▼ Easy to use and program

**£109**

## Industrial I/O Cards

D/A Output Card 2ch.	£155
D/A Output Card 6ch.	£285
D/A Output Card 12ch.	£399
24 bit Digital I/O Card	£60
48 bit Digital I/O Card	£80
32 ch Isolated Digital I/O Card	£105
4 1/2 Digit Voltmeter Card	£295
Stepping Motor Control Card	£255

## Industrial Workstation with 14" Colour CRT

Rugged heavy duty workstation for 19" rack or panel mounting.

- ▼ Highly integrated PC Workstation
- ▼ 1024 x 768 Colour CRT Monitor
- ▼ 27-key membrane keypad
- ▼ IP56/IP52 sealed hardened front panel
- ▼ Heavy duty aluminium and steel chassis
- ▼ 250-watt power supply
- ▼ 8 ISA slots

**£1600**

## Industrial Workstation with 9.4" LCD Display

Rugged heavy duty workstation with flat-panel LCD display and 80-key membrane keypad.

- ▼ Highly integrated PC Workstation
- ▼ 640 x 480 colour TFT display
- ▼ 19" rack/panel mount
- ▼ IP56/IP52 front panel
- ▼ 200-watt power supply
- ▼ 8 ISA slots

**£3200**

Also with B/W LCD display £1400  
Also with EL display £2550

## Industrial Chassis + Intel Pentium 90MHz Motherboard

Robust 19" Industrial Chassis fitted with Intel Pentium 90MHz Motherboard. Ideally suited for heavy duty use in television, multimedia and communications and other professions requiring Pentium power in a rugged industrial grade format.

- ▼ 19" Industrial Chassis 250W
- ▼ Pentium 90MHz processor
- ▼ 4 ISA slots, 3 PCI slots
- ▼ 2 serial ports, 1 parallel
- ▼ 8Mb Fast EDO Memory
- ▼ 540Mb IDE Drive
- ▼ 1.44Mb Floppy Drive
- ▼ PCI S3 Display Card

**£1650**

For other configurations, custom build, SCSI peripherals, please call.

## Disk Drives & Controllers

Only supplied as part of a system.

Adaptec ISA SCSI Master Kit	£220
Adaptec ISA SCSI Board only	£170
Adaptec PCI SCSI Master Kit	£240
IDE Hard Drive 420Mb	£140
IDE Hard Drive 540Mb	£155
IDE Hard Drive 1Gb	£280
SCSI Hard Drive 1Gb	£380
SCSI Hard Drive 2Gb	£770

## Industrial 19" Chassis

The rugged all steel chassis conforms to the 19" rack mounting standard. The unit includes a 14 slot passive backplane and a high efficiency switching power supply (250W) in a dual-fan cooled chassis.

- ▼ Supports 286/386/486 CPU Cards
- ▼ Mounting for up to 4 drives
- ▼ Hold down clamp to protect plug in cards from vibration
- ▼ Positive air pressure inside generated by dual (push-pull) cooling fans
- ▼ Removable air filters
- ▼ Dust-proof lockable door

**£495**

## Flash/RAM/ROM Disk Card

Half-size disk card which can use up to 3Mb of SRAM, EPROM or Flash memory chips to replace a floppy disk drive. It offers faster access times and better protection from vibration, vapors and contaminants than physical drives.

- ▼ Emulates drive A,B,C or D
- ▼ Boots when emulating drive A
- ▼ Accepts 128Kx8 or 512Kx8 EPROMs, Flash Memory or SRAM.
- ▼ Simple installation
- ▼ No software required

**£110**



## Industrial CPU Cards

Industrial Grade CPU Cards designed to be highly reliable in harsh industrial environments. Built to ensure high end stability under extremes of temperature, shock and vibration. Special features include watchdog timers, RAM/ROM disk, PC-104 interface, floppy/IDE interface, parallel and RS232/RS485 serial ports.

Half-size Cards	
CPU Card 286SX/16	£190
CPU Card 386SX/25	£240
CPU Card 386SX/33	£290
CPU Card 486SX2/50	£370
CPU Card 486DX2/66	£420
CPU Card 486DX4/100	£520
Full-size Cards	
CPU Card 486SX2/50 256K cache	£400
CPU Card 486DX2/66 256K cache	£450
CPU Card 486DX4/100 256K cache	£550

## Display and Keyboards

14" SVGA Colour Monitor	£250
Rack Mount Kit for 14" Monitor	£250
ISA SVGA Display Card 1Mb	£80
PCI S3 Display Card 1Mb	£90
Rack Mounted Compact Keyboard	£199
Compact keyboard	£60
Standard Keyboard	£40

## Memory Components

Only supplied as part of a system

SIMM 1Mb 72pin	£50
SIMM 4Mb 72pin	£140
SIMM 8Mb 72pin	£280
SIMM 16Mb 72pin	£420
EPROM Memory 512Kb	£20
FLASH Memory 512Kb	£50
SRAM Memory 128Kb	£20

## Passive Backplanes

Passive Backplane 3 slot	£30
Passive Backplane 6 slot	£45
Passive Backplane 8 slot	£50
Passive Backplane 12 slot	£60
Passive Backplane 14 slot	£70
Passive Backplane 20 slot	£130

Industrial Automation with PCs  
**ADVANTECH.**

We offer a full 12 months warranty and if you have any problems or questions you can call us for Technical Support.

**CALL US FOR LAB SERIES CATALOGUE**

DELIVERY MAINLAND UK £10 (10Kg)

All prices exclude VAT. Access and Visa accepted.

**SEMAPHORE  
SYSTEMS LIMITED**

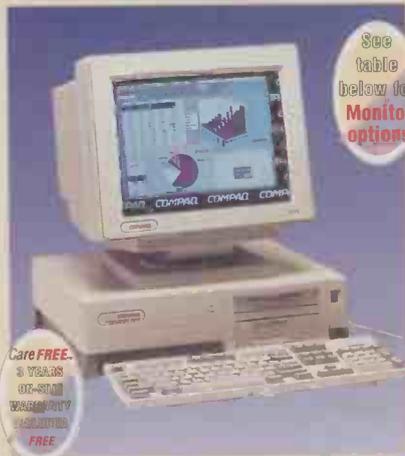
Unit 3, Hampstead West,  
Iverson Road,  
London NW6 2HX

Tel: 0171-625 7744

# SEMAPHORE



## The **NEW COMPAQ** ProLinea



See table below for Monitor options

- Processors from 486 DX2 to 120MHz Pentium®
- 8MB or 16MB RAM Upgradable to 192MB
- 270MB to 1GB Hard Disk Drive
- 3.5" 1.44 Mb Floppy Disk Drive
- Integrated PCI Local Bus Graphics
- 102 key Keyboard and Mouse
- MS DOS 6.2, Windows 3.1
- Compaq Welcome Centre, Control Centre & Learning Centre

Care FREE. 3 YEARS ON-SITE WARRANTY INCLUDED FREE

### SLIMLINE (3-Slot/3 Bay Family)

4/66 M270W	£875	5/75 M270W	£1210
4/66 M420W	£925	5/75 M420W	£1260
4/100 M270W	£995	5/90 M720W	£1545
4/100 M420W	£1045		

### STANDARD (4-Slot/4 Bay family)

4/66 M270W	£885	5/75 M720W 16MB	£1575
4/66 M420W	£935	5/90 M420W	£1375
4/100 M420W	£1095	5/90 M720W	£1675
5/75 M420W	£1295	5/120 M1080W 16MB	£2195

### MINITOWER (5-Slot/5 Bay Family)

5/75 M420W	£1365	5/90 M720W 16MB	£1695
5/75 M420/CDS	£1545	5/100 M720W 16MB	£1975
5/90 M420W	£1445	5/100QV M720W 16M	£2175
5/90 M420/CDS	£1645		

## **COMPAQ** Enhanced ProLinea 486DX2

- 486DX2 Processors
- 8Mb RAM Upgrades to 100Mb
- 200Mb Hard Disk Drive
- 3.5" 1.44Mb Floppy Disk Drive
- Enhanced Local Bus Graphics
- 3 Free ISA Expansion Slots
- Plug & Play Capability
- High Level Security Features
- 102 key Keyboard & Mouse
- High Speed Parallel Port



See table below for Monitor options.

Care FREE. 3 YEARS ON-SITE WARRANTY INCLUDED FREE

### SOFTWARE

- MS DOS 6.2
- MS Windows 3.1
- Compaq TabWorks
- Welcome Centre, Control Centre, Learning Centre

### ENHANCED PROLINEA RANGE

Prolinea 4/50 Model 200	£599
Prolinea 4/66 Model 200	£699

## **COMPAQ** ProSignia Range

- Intel 75MHz, 90MHz Pentium® Processor
- 16MB RAM Upgradable to 208MB
- SCSI 2 Hard Disk Drives
- Double Speed CD ROM Drive
- 3.5" 1.44MB Floppy Disk Drive
- Local Bus Graphics
- Compaq Triflex/PCI Architecture
- Ethernet Ready including NetFlex-L ENET Controller
- Security Features
- Compaq SmartStart Compact Insight Manager



See table below for Monitor options

Care FREE. 3 YEARS ON-SITE WARRANTY INCLUDED FREE

### PROSIGNIA 300

5/75 M1050	£2395
5/75 M2100	£2895
5/90 M1050	£2695
5/90 M2100	£3195

## **COMPAQ** Presario PC's

AS SEEN ON TV



See table below for Monitor options

### STANDARD SPECIFICATIONS

- 486DX2/DX4 or Pentium® Processor
- 8MB RAM
- 420MB or 535MB Hard Disk Drive
- Quad Speed CD ROM Drive
- Stereo Speakers and Microphone
- 16 BIT Sound Card
- Enhanced Local Bus Graphics
- SuperVGA Colour Monitor
- 3 Case Options
- 2/4/5 ISA Slots
- Software Suite, Educational Entertainment Pack
- Home Communications

### COMPAQ PRESARIO SOFTWARE SUITE

- MS DOS 6
- MS Windows 3.1
- MS Works for Windows 3.0
- MS Money 3.0
- Compaq TabWorks
- Compaq Welcome, Control & Learning Centre
- MS Encarta CD
- The Ultimate Human Body
- MS Entertainment

### HOME COMMUNICATIONS FEATURES

- Fax/Modem offering: Telephone Answering Machine and Message Centre, Fax Machine
- Access to On-line Services
- 1 Months Free Subscription to Compuserve

### PRESARIO 500 SERIES

Presario CDS523	£899
Presario CDS524	£1145
Presario CDS528	£1345

### PRESARIO 700 SERIES

Presario CDS742	£1275
Presario CDS772	£1445

### PRESARIO 900 SERIES

Presario CDS942	£1295
Presario CDS972	£1545

## **COMPAQ**

PC's ARE AVAILABLE WITH ANY OF THESE MONITOR OPTIONS



### MONITOR OPTIONS FOR ALL COMPAQ MODELS

14" S/VGA COLOUR	£205
14" LOW RAD 1024 COLOUR	£245
150 ASSET MAN COLOUR	£265
15" - 151FS COLOUR MONITOR	£345
17" - 171FS COLOUR MONITOR	£665

call the "A" team NOW  
OPENING TIMES 8.30am - 6.00pm Monday - Friday

CA 0192 70000

Most methods of payment accept Government/Education orders valid. All prices exclusive of V.A.T. & delivery are subject to change without notice. All trademarks acknowledged. E. & Alternatives, Stamford House, Science Park South, Birchwood, Warrington, Cheshire WA3 7BJ. Tel: 01925 700007. Fax: 01925 700008. These cards will not be debited until our chassis despatched.



# on all PC's from Alternatives



I N T R O D U C I N G

## CareFREE™ - 3 Years FREE on-site warranty

It has never been easier or safer to buy a top brand PC than right now from Alternatives.

As one of the largest distributors of all the leading brand products available in the UK today including; Compaq, Toshiba, Hewlett-Packard, and ICL. Alternatives have always been competitively priced and unrivalled in quality pre and post sales support.

Now Alternatives can announce yet another first and unrivalled commitment to service and support. Every Personal Computer

System that you buy from Alternatives will now include a CareFREE™ 3 year On Site Warranty.

That's 3 years full parts and labour on site warranty with a guaranteed

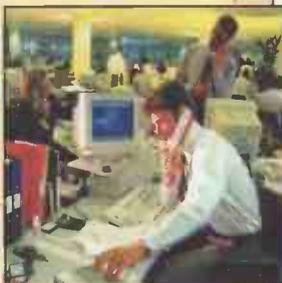
response time on every leading brand personal Computer you find in our advertising or source through our sales order hotlines.

Why pay more for an extended warranty when CareFREE™ from Alternatives is included FREE when you buy direct.

Compare our base prices for leading brand computer systems. We guarantee to be amongst the most keenly priced supplier of your chosen

brand. Then check out the price of your extended 3 year warranty.

With Alternatives it's FREE. In fact it's CareFREE™ and that means, guaranteed response, Hotline telephone support and over 1500 qualified engineers based from 42 locations nationwide available to deal with your call.



CareFREE™ is a unique service and maintenance offering from Alternatives and our service partner, ICL. ICL is the largest service provider in the UK handling over 1.4 million calls a year and our engineers are fully trained in every aspect of PC technology, including specific branded product training from the worlds largest system manufacturers.

No one is better qualified to look after your PC investment for the next three years and no one is better placed to include this priceless cover for your purchase absolutely free.

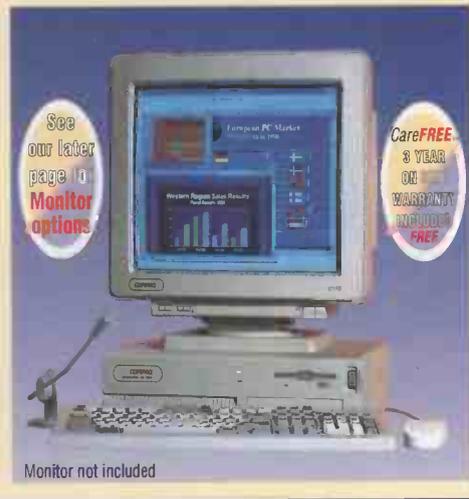
With a CareFREE™ extended three year warranty from Alternatives you really can relax.

Find out more about CareFREE™ and sales and information on a wide range of products from ICL, Compaq, Toshiba, and Hewlett Packard on:

**01925 700007**



## COMPAQ Deskpro XE Pentium® P60



See our later page 10 Monitor options

CareFREE 3 YEAR ON WARRANTY INCLUDED FREE

- Intel Pentium P60 Processor
- 8MB RAM Upgradable to 32MB
- 270 Hard Disk Drive
- 3.5" 1.44MB Floppy Disk Drive
- Local Bus Graphics, 1Mb VRAM
- 4 ISA Expansion Slots
- 102 key Keyboard and Mouse
- Business Audio and Windows Sound System 2
- MS DOS 6.2, MS Windows 3.11
- Compaq TabWorks
- Compaq Welcome, Learning & Control Centre

LIMITED AMOUNT AVAILABLE!!!  
for only...



**£799**

# Alternatives

WHERE THE WORLD'S BEST PC PRODUCTS COME TOGETHER

TOSHIBA  
COMPAQ

HEWLETT  
PACKARD



3 Years FREE on-site warranty on all branded PC's.

CareFREE™ - 3

call the "A" team NOW  
OPENING TIMES 8.30 - 6.00pm  
Monday-Friday

CALL  
**01925 700007**

Most methods of payment accepted. Government/education orders welcomed. All prices exclusive of V.A.T. & delivery and are subject to change without notice. All trademarks acknowledged. E. & O. E. Alternatives, Stanford House, Science Park South, Birchwood, Warrington, Cheshire WA3 7BH. Tel: 01925 700007. Fax: 01925 700009. These cards will not be debited until purchase is despatched.



A unique service offer that stands out from the rest! Alternatives

OPENING TIMES: 8.30am - 6.00pm Monday - Friday

**FREE 3 YEARS ON-SITE WARRANTY**

**Exclusive to Alternatives**



**COMPAQ PRESARIO 523**

- 486DX2/66MHz Processor
- 8MB RAM
- 420MB Hard Disk Drive
- 16 BIT Sound Card
- Stereo Speakers and Microphone
- Quad Speed CD ROM Drive
- Enhanced Local Bus Graphics
- SuperVGA Colour Integrated Monitor
- 2 ISA Slots
- Software Suite, Educational Entertainment Pack

**Software Suite**

- MS DOS 6
- MS Windows 3.1
- MS Works for Windows 3.0
- MS Money 3.0
- Compaq TabWorks
- Compaq Welcome, Control & Learning Centre
- MS Encarta CD
- The Ultimate Human Body CD
- MS Entertainment



**£899**

**The Big name Notebook that's the Best Buy for Business!**

- 50MHz 486DX2 Processor
- 4MB RAM Upgradable to 20MB
- 3.5" 1.44MB Floppy Disk Drive
- Local Bus Graphics, 1MB VRAM
- PCMCIA Type II/III Slots
- 82 key Keyboard, 12 function keys with trackball mouse
- Parallel, Serial & Docking Base Ports

**COMPAQ CONTURA 410**

- 250MB HARD DISK DRIVE
- MONO DISPLAY

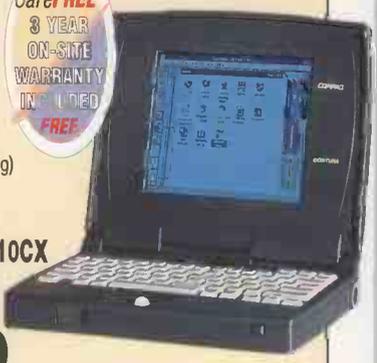
**£799**

- MS DOS 6.2, MS Windows 3.1
- Lotus Organizer
- Compaq Welcome, Learning & Control Centre
- Compaq TabWorks
- Up to 6.0 Hours Battery Life
- Weighs 2.5Kg (Colour Models 2.7Kg)

**COMPAQ CONTURA 410CX**

- 350MB HARD DISK DRIVE
- TFT COLOUR DISPLAY

**£1499**



**COMPAQ Contura 420**

- Intel 75MHz 486DX4 Processor
- 4MB or 8MB RAM Upgradable to 24MB
- Hard Disk Drives from 350MB to 420MB
- 3.5" 1.44MB Floppy Disk Drive
- Local Bus Graphics, 1MB VRAM
- 10.4" STN Colour Display
- PCMCIA Type II/III Slots
- Parallel, Serial & Docking Base Ports
- MS DOS 6.2, MS Windows 3.1 Compaq Welcome Centre, Control Centre & Learning Centre, Tabworks, Lotus Organiser, MS Works & Windows game pack
- Up to 5.5 Hours Battery Life
- Weighs 2.84Kg

Contura 420C/M350	£1529
Contura 420C/M420	£1699
Contura 420CX/M420	£2249



**Contura 400 Series Upgrades**

4MB 32 Bit Memory Card	£165
8MB 32 Bit Memory Card	£325
16MB 32 Bit Memory Card	£775
24MB 32 Bit Memory Card	£1045

**Contura 400/410 Docking Bases**

Standard	£100
With Ethernet	£170

**COMPAQ Contura 430**

- Intel 100MHz 486DX4 Processor
- 8MB RAM Upgradable to 24MB
- 720MB Hard Disk Drive
- 3.5" 1.44MB Floppy Disk Drive
- Local Bus Graphics, 1MB VRAM
- 10.4" VGA STN or TFT Colour Display
- PCMCIA Type II/III Slots
- Parallel, Serial & Docking Base Ports
- MS DOS 6.2, MS Windows 3.1 Compaq Welcome Centre & Learning Centre
- Up to 5.5 Hours Battery Life
- Weighs 2.84Kg

Contura 430C/M720	£2199
Contura 430CX/M720	£2649



**The LTE ELITE RANGE OF NOTEBOOKS FROM COMPAQ**

Models	ELITE Upgrades	ELITE Docking Bases
LTE Elite 4/75C M340W	4MB 32 Bit Memory Card	SmartStation
LTE Elite 4/75C M510W	8MB 32 Bit Memory Card	MiniStation
LTE Elite 4/75CX M340W	16MB 32 Bit Memory Card	(Ethernet & SCSI)
LTE Elite 4/75CX M510W	24MB 32 Bit Memory Card	MiniStation
LTE Elite 4/75CXL M510W		(Token Ring & SCSI)
LTE Elite 4/75CXL M810W		

**A unique service offer that stands out from the rest! Alternatives**

**CareFREE™ - 3 Years FREE on-site warranty on all branded PC's.**

**HEWLETT PACKARD**

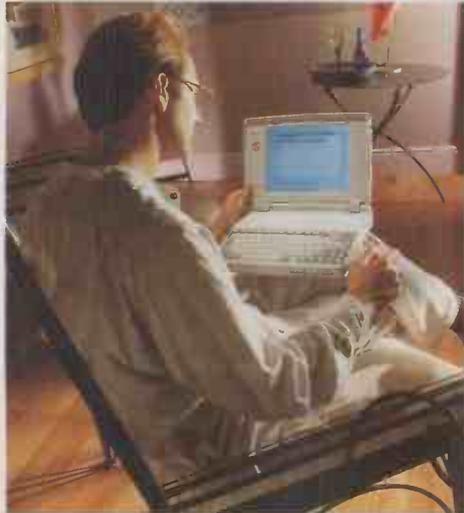
**ICL TOSHIBA COMPAQ**

An iCL company

**FREEPHONE ORDERLINE 0500 314314**

# FREE 3 YEARS ON-SITE WARRANTY

## Number 1 for TOSHIBA



**400CS**

CareFREE.  
3 YEARS  
ON-SITE  
WARRANTY  
INCLUDED  
FREE

**400CS 10.4" VGA STN Colour Display £2415**

---

**400CDT**

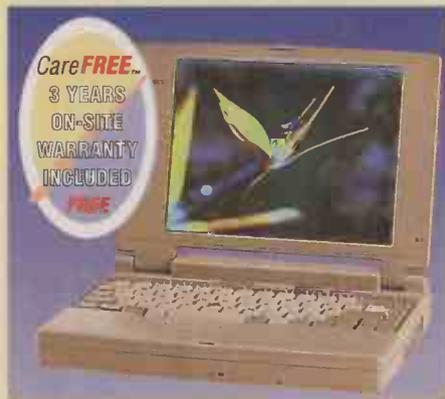
CareFREE.  
3 YEARS  
ON-SITE  
WARRANTY  
INCLUDED  
FREE

**400CDT 10.4" VGA TFT Colour Display £3115**

## The **NEW** *Satellite Pro*

- Intel 75MHz Pentium Processor
- 8MB EDO RAM Upgradable to 40MB
- 810Mi.b Hard Disk Drive
- Swappable Quad Speed CD ROM Drive
- Swappable 3.5" 1.44Mb Floppy Disk Drive
- Local Bus Graphics
- PCMCIA Rel. 2.0 Type II/III Slots
- Port Replicator Interface
- 84 key Keyboard, 12 function keys with MousePoint
- Built in Microphone and Speaker
- MS DOS 6.22, MS Windows for Workgroups 3.11
- 4.0 Hours Battery Life
- Weighs 3.1Kg
- Dimensions: 299mm x 230mm x 55mm

## TOSHIBA The **NEW** T2100 Series.



- Intel 50MHz 486 DX2 or 75MHz 486DX4 Processor
- 4Mb or 8Mb RAM Upgradable to 32Mb
- 260Mi.b, 350Mi.b or 520Mi.b Hard Disk Drive
- 3.5" 1.44 Floppy Disk Drive
- Mono, VGA STN Colour or VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 Key Keyboard, 12 Function Keys with Mousepoint
- MS DOS 6.22, MS Windows 3.11
- Up to 4 Hours per Charge
- Dual Speed CD ROM on T2150's
- Optional Port Replicators

T2100 DX2	
T2100/260	<b>£835</b>
T2100CS/350	<b>£1345</b>
T2100CT/350	<b>£1935</b>
T2110 DX4/4MB	
T2110CS/350	<b>£1525</b>
T2130 DX4/8MB	
T2130CS/350	<b>£1775</b>
T2130CT/350	<b>£2095</b>
T2150 DX4/CD	
T2150CDS/260	<b>£1995</b>
T2150CDS/520	<b>£2145</b>
T2150CDT/520	<b>£2695</b>

**T4850CT**

CareFREE.  
3 YEARS  
ON-SITE  
WARRANTY  
INCLUDED  
FREE

**T4850CT/500 £2945**

- Intel 75MHz 486 DX4
- 8Mb RAM Upgradable to 40Mb
- 500Mb HDD
- 3.5" 1.44Mb FDD
- 10.4" VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 Key Keyboard, 12 Function Keys
- MS DOS 6.2, MS Windows for Workgroups 3.11
- MS Windows Sound System
- Up to 3.5 Hours per Charge
- Weight 3.2kg

**T4900CT**

CareFREE.  
3 YEARS  
ON-SITE  
WARRANTY  
INCLUDED  
FREE

**T4900CT/880 £3375**

- Intel 75MHz Pentium Processor
- 8Mb RAM Upgradable to 40Mb
- 810Mi.b HDD
- 3.5" 1.44Mb FDD
- 10.4" VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 Key Keyboard, 12 Function keys and Ballpoint Mouse
- MS DOS 6.2, MS Windows for Workgroups 3.11
- MS Windows Sound System
- Up to 3 Hours per Charge
- Weight 3.1kg

**Deskstation IV**

CareFREE.  
3 YEARS  
ON-SITE  
WARRANTY  
INCLUDED  
FREE

**DESK STATION IV £395**

A powerful expansion unit that allows your Toshiba PC to give you the benefits of portable and desktop computing.

- Centronics parallel printer port
- External Floppy Disk Drive Port
- RS-232C serial port
- External PS/2 keyboard port
- VGA monitor port
- PS/2 mouse port
- Two full size 16-bit ISA slots
- Industry standard 5 1/4 drive bay
- Monitor stand
- 346w x 385d x 111h (mm)
- Weighs 7.3Kg
- Kensington cable lock provision
- Power LED, lock/unlock indicator
- 3 year warranty
- Compatible with T4600C, T4700CT, T4800CT, T4850CT, T4900CT

**Options & Accessories**

ACCESSORIES	T19's, T47's, T48's, T49's	T2100's	
PCMCIA 14.4 Fax/Modem	<b>£210</b>	4MB RAM Upgrade	<b>£175</b>
PCMCIA 28.8 Fax/Modem	<b>£335</b>	8MB RAM Upgrade	<b>£310</b>
Toshiba Nylon Carry Case	<b>£35</b>	16MB RAM Upgrade	<b>£795</b>
		4MB RAM Upgrade	<b>£195</b>
		8MB RAM Upgrade	<b>£355</b>
		16MB RAM Upgrade	<b>£795</b>

# FREE 3 YEARS ON-SITE WARRANTY

## The World's Leading Printers from Hewlett-Packard

### HP DESKJET 540



- 3ppm Print Speed
- 600 x 300dpi with Resolution Enhancement technology
- Colour Printing with optional colour kit
- HP PCL3 emulation
- Range of Built in Typefaces
- Parallel Interface
- Built in Sheet Feeder
- Suitable for printing on Paper, Envelopes or Postcards
- Dimensions: 436mm x 405mm x 199mm
- 3 Year Warranty

**£209**

### HP LASERJET 4L



- 300dpi with Resolution Enhancement technology
- 4ppm Print Speed
- 1MB Memory as standard
- Network flexibility
- Enhanced HP PCL 5
- 26 scalable fonts
- 1-100 sheet input trays as standard

**HP LaserJet 4L  
£355**

**HP LaserJet 4ML  
£749**

#### HP DESKJET SUPPORTPACK

PRODUCT	CURRENT WARRANTY	3YR HP SUPPORT ON-SITE NEXT DAY
DeskJet Mono Printers	3 Year Return-to-HP	<b>£35</b>
DeskJet Colour Printers	3 Year Return-to-HP	<b>£60</b>



#### HP LASERJET SUPPORTPACK

PRODUCT	CURRENT WARRANTY	3YR HP SUPPORT ON-SITE NEXT DAY
4L/4ML	1 Year Return-to-HP	<b>£90</b>
4P/4MP	1 Year Return-to-HP	<b>£125</b>
4/M	1 Year Return-to-HP	<b>£155</b>
4V/4VM	1 Year Return-to-HP	<b>£205</b>



### HP DESKJET 660C

- 600dpi (600 x 300dpi Colour) Printing
- 4ppm Print Speed
- 2 Button Control Panel
- Parallel Interface
- Built in Sheet Feeder
- Suitable for Printing on Paper, Postcards or Envelopes
- Windows Software

**£299**



### HP LASERJET 5P

- 600dpi with Resolution Enhancement technology
- 6ppm Print Speed
- 20MHz Engine
- 2Mb Memory Standard
- 110 Typefaces
- 2 Paper Trays
- Infrared Port for use with Windows 95
- 2 Parallel Ports, Hot-Switched
- Custom SIMM's

**HP LaserJet 5P  
£595**  
**HP LaserJet 5MP  
£719**



### HP DESKJET 850C

- 600dpi (600 x 300dpi Colour) Printing
- 6ppm Print Speed
- 2 Button Control Panel
- Supports PC and Macintosh
- Parallel Port
- Built in Sheet Feeder
- Suitable for Printing on Paper, Postcards or Envelopes

**£399**



### HP LASERJET 4PLUS

- 600dpi with Resolution Enhancement technology
- 12ppm Print Speed
- 25MHz RISC processor
- Network flexibility
- 2MB Exp. to 66MB
- 100 & 250 sheet input trays
- Automatic I/O switching
- 45 scalable fonts
- 1 year HP Warranty

**HP LaserJet 4 PLUS  
£975**  
**HP LaserJet 4M PLUS  
£1229**



- Intel 75MHz Pentium Processor
- 8MB RAM Upgradable to 192MB
- 340MB Hard Disk Drive
- 3.5" 1.44MB Floppy Disk Drive
- PCI Local Bus Graphics
- 14" SuperVGA Colour Monitor
- 4 Free Expansion Slots
- 102 Key Keyboard & Mouse
- MS DOS 6.2, MS Windows for Workgroups 3.11
- 3 Year Warranty

## HEWLETT PACKARD PENTIUM® PROCESSOR BASED PC



**£1199**

### MEDIA MAG C



- Quad Speed IDE CD ROM Drive
- ISP 16 Bit Sound Card
- Earphone & Microphone Set

**PLUS 5 MICROSOFT® CD TITLES INCLUDED:**  
• MS ENCARTA '95 • MS BEETHOVEN  
• MS WORKS • MS DANGEROUS CREATURES  
• MS GOLF

**ALL FOR ONLY £249**



CONTACT

## FUJITSU iCL ErgoPro e-series



The ErgoPro e-series brings you a professional computer that has all the characteristics of the Fujitsu iCL brand but at a price that puts them street ahead of the competition. You can choose from either the Intel DX2/66 or Pentium 75, both delivering brilliant performance. Included in all the packages large capacity 540MB Local Bus hard disks, a superb Local Bus Graphics card which can put you in touch with the most

demanding applications. Upgrading your ErgoPro has never been easier, if you want to add capacity later, ErgoPro PC's offer expansion potential with Plug & Play and Overdrive support, room for a second hard disk, and four free slots for network cards, modems, etc. We have backed these features by including a full 3 year warranty\*.

**What better way to protect your investment?**

**FUJITSU iCL**

**ErgoPro e440/66**

- Intel 66MHz Processor
- Compact 4-Slot Housing
- Integrated Fast Local Bus Graphics
- IDE Interface
- 540MB Hard Disk Drive
- 8MB or 16MB RAM
- Intel Overdrive Socket
- Extremely Quiet
- MS DOS 6.22, Windows for Workgroups 3.11

**CareFREE 3 YEARS ON-SITE WARRANTY INCLUDED FREE**

ErgoPro e440/66 8MB 540MB **£825**  
ErgoPro e440/66 16MB 540MB **£1040**

**FUJITSU iCL**

**ErgoPro e450/75**

- Intel 75MHz Pentium Processor
- Compact 4-Slot Housing
- Integrated PCI Graphics
- Enhanced PCI & IDE Interfaces
- 540MB Hard Disk Drive
- 8MB or 16MB RAM
- ISA/PCI Plug and Play
- Extremely Quiet
- MS DOS 6.22, Windows for Workgroups 3.11
- Quad Speed CD-ROM (optional)

**CareFREE 3 YEARS ON-SITE WARRANTY INCLUDED FREE**

ErgoPro e450/75 8MB 540MB **£1050**  
ErgoPro e450/75 16MB 540MB **£1300**  
ErgoPro e450/75 16MB 540MB Q/S CD **£1500**

**FUJITSU iCL**

**ErgoPro e650/75**

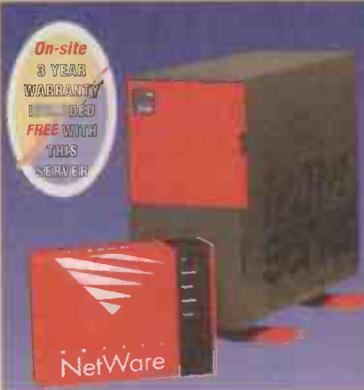
- Intel 75MHz Pentium Processor
- Mini tower 6-Slot Housing
- Integrated PCI Graphics
- Enhanced PCI & IDE
- 540MB Hard Disk Drive
- 16MB RAM
- Quad Speed CD-ROM
- ISA/PCI Plug and Play
- Extremely Quiet
- MS DOS 6.22, Windows for Workgroups 3.11

**CareFREE 3 YEARS ON-SITE WARRANTY INCLUDED FREE**

ErgoPro e650/75 16MB 540MB Q/S CD **£1500**

## FUJITSU iCL teamserver C450i

The "out-of-the-box" Network™ server. Using the Intel Pentium Processor, PCI-SCSI and PCI-Ethernet technology and pre-loaded with Novell Netware 4.1, the C450i is a fully configured, high performance LAN server for the price of a desktop PC.



- Intel 75MHz Pentium Processor
- 16Mb RAM Upgradable to 128Mb
- 1Gb SCSI-2 Hard Disk Drive
- Double Speed CD ROM Drive
- 3.5" 1.44Mb Floppy Disk Drive
- SuperVGA EISA Local Bus Graphics
- 1 PCI and 3 EISA Free Expansion Slots
- PCI Ethernet Card
- Novell Netware 4.1

**£2299**

### ICL ValuePLUS The Professionals Choice



**CareFREE 3 YEARS ON-SITE WARRANTY INCLUDED FREE**

**Specification**

- Intel 486SX or DX2 Processor
- 4Mb Upgradable to 64Mb
- 210Mb Hard Disk Drive
- 3.5" 1.44 Floppy Disk Drive
- Local Bus Graphics
- 5 ISA Expansion Slots
- 102 Key Keyboard and Mouse
- MS DOS 6, MS Windows 3.1

**486SX £299**      **486DX2 £399**

### ErgoPro V-Series Monitor Options

for all systems

ErgoPro V-series displays are ideal for users who give priority to price/performance. All meet the strict MPRII standard for emissions

ErgoPro 141V	£195
ErgoPro 151V	£295
ErgoPro 171V	£515

# Alternatives

WHERE THE WORLD'S BEST PC PRODUCTS COME TOGETHER

call the "A" team NOW  
OPENING TIMES 8.30am - 6.00pm Monday - Friday

CALL 01925 700007

Most methods of payment accepted. Government/Educational orders welcomed. All prices include VAT & delivery and reliable packaging of all orders. All payments accepted by cheque & O/E. Alternatives, South House, Service Park, South Farm Road, Wotton Bassett, Wokingham, RG25 0BB. Tel: 01925 700007 Fax: 01925 00009. These cards will not be debited from your PC if it is dispatched.



OPENING TIMES: 8.30am - 6.00pm Monday - Friday



# Drives Plus...



Note: Windows 95 is NOT available from SMC Computers

Microsoft Windows 95

## Are you ready?

Microsoft claim that it will run in 4 Megabytes of RAM, but the majority of users will need at least 12Mb or even 20Mb to achieve peak performance, especially when multi-tasking.

The minimum CPU requirement will be for a 486 DX-33, although serious users will need a minimum 486 DX2-66 to start gaining advantages of the 32-bit operating system.

NOW is the time to upgrade your system.

We have SIMMs and memory modules for all popular PCs and the full range of CPUs and Overdrive chips, so call our Component Sales line TODAY.

## SIMM MEMORY

		60ns	70ns
<b>1Mb</b>			
1Mb x 3	30 pin	£30	£28
1Mb x 9	30 pin	£35	£32
<b>2Mb</b>			
512k x 36	72 pin	(na)	£74
<b>4Mb</b>			
4Mb x 3	30 pin	£112	£108
4Mb x 9	30 pin	£116	£112
1Mb x 36	72 pin	£119	£115
1Mb x 32*	72 pin	(na)	£105
<b>8Mb</b>			
2Mb x 36	72 pin	£245	£235
2Mb x 32*	72 pin	(na)	£198
<b>16Mb</b>			
16Mb x 9	30 pin	(na)	£475
4Mb x 36	72 pin	£410	£390
4Mb x 32	72 pin	(na)	£345
<b>32Mb</b>			
8Mb x 36	72 pin	(na)	£775

\* IMPORTANT: 32 bit SIMMs are non-parity and must be fitted *only* where specified by the manufacturer.

## PROCESSORS

### CPUS

486DX2-66	Cyrix	5v	£49	Pentium 75	Intel	3.3v	£139
486DX2-66	Intel	5v	£75	Pentium 90	Intel	3.3v	£219
486DX2-80	AMD	3.3v	£72	Pentium 120	Intel	3.3v	£459
486DX4-100	AMD	3.3v	£82				
486DX4-100	Intel	3.3v	£112				

\* Note: All require heat sink with fan

### Intel Overdrive Chips

SX-25 to DX2-50	£79
DX-25 to DX2-50 *	£79
DX-33 to DX2-66 *	£102
DX-33 to DX4-100 *	£159
P24T	£265

\* Note: Available for single socket and dual socket motherboards.

Intel OverDrive chips include correct upgrade warranty and do not require heat sinks or fans

### CPU Fan Heat sinks

486	£10
Pentium 60/66	£15
Pentium 90	£20

## SPECIAL OFFER

Buy 5 or more SIMMs and **save £1 per Mb**

EG: 5 off 1Mb x 3 = £135  
Full price: £140

Buy 13 or more SIMMs and **save £1.75 per Mb**

EG: 13 off 1Mb x 3 = £341.25  
Full price £364

## MOTHERBOARDS

### Pentium®

#### Processor fitted

**Intel 'Plato' £435**

- 90Mhz CPU fitted
- 256K cache
- 2 fast serial ports, 1 enhanced parallel port
- 2 PCI slots, 4 ISA slots, 1 PCI/ISA slot
- EIDE controller

**Intel Zappa P90 £459**

**NEW**

- Pentium P90 fitted
- 256k cache
- PCI data streaming
- Supports Plug and Play for Windows 95
- 3 ISA slots, 2 PCI slots, 1 shared slot
- 1 Enhanced parallel, 2 fast serial ports

#### Processor ready

- 256k cache
- Maximum 128Mb RAM
- Built-in EPP and high-speed serial ports
- Built-in EIDE & floppy controller

Intel chipset 3 PCI, 4 ISA **£177**

ALI chipset 4 PCI, 3 ISA **£135**

Opti chipset 3 PCI, 4 ISA **£162**

Note: All 486 and Pentium processor ready motherboard prices exclude CPU. See above for processors.

### 486

#### Processor ready

- 256k cache
- 30 and 72 pin SIMM sockets
- Maximum 128Mb RAM
- 3.3V
- DX4 compatible
- Supports CPUs from most major manufacturers

VESA 3 VESA, 4 ISA **£73**

PCI 3 PCI, 4 ISA **£95**

EISA 6 EISA, 2 VESA **£192**

## Fax order line

01753 524443

Switch / Access / Visa / AmEx Cards Welcome



No surcharge on Access • Visa Switch • AmEx

The SMC Computers 30-day Quality Assurance Guarantee: If a product purchased from our component division should fail within 30 days, you have the option of an immediate exchange or a full refund (excluding carriage). Please note that this does not apply to software or PC Systems. If a non-faulty product is returned and a refund requested there will be a minimum 20% restocking fee.

E&OE: Prices and specifications subject to change without notice. Please ask our advice before ordering to avoid any foreseeable incompatibility problems. All trademarks acknowledged.

SMC Computers plc Terms & Conditions of Warranty available on request.

# Your 1st choice for memory



## Warning.

Memory modules and processor chips are sensitive to static electricity and can easily be damaged. When fitting memory ensure you have discharged any static by wearing an anti-static wrist strap (preferred) or by touching your PC case (providing it is connected to mains electricity but not switched on).

## Anti-Static Wrist Strap

To prevent damaging your memory modules during installation, these straps will ground your body by attaching to a metal object such as your PC case.

Available free, upon request, when purchasing any memory upgrade.

## Memory upgrades for all popular PCs

We can supply memory modules for PCs from all the major manufacturers. If you cannot find your system listed here, please call our Component Sales line.



## IBM

<b>Ambra series, Hurdla 486, Sprint 486, Enterprise 486</b>	<b>PS/2 35LS, 35SX, 40SX</b>	<b>Xstation 120/130</b>
4Mb £163	1Mb £53	1Mb £53
16Mb £544	4Mb £138	2Mb £84
	8Mb £288	
	16Mb £477	<b>Xstation 130</b>
<b>Hurdla 386SX, Sprinta 386, Enterprise 386 slim</b>	<b>PS/2 50Z</b>	4Mb £167
2Mb £89	2-16Mb board £234	
8Mb £163	4-16Mb board £294	<b>PS2 CL57SX, Thinkpad 700,720</b>
16Mb £544	1Mb £53	4Mb £138
	2Mb £84	8Mb £268
<b>Trekka 386SL</b>	<b>PS/2 55SX, 55LS, 65SX</b>	
2Mb £116	2-16Mb board £234	
	4-16Mb board £294	<b>Thinkpad 750, 755</b>
<b>Sprinta II</b>	1Mb £53	4Mb £178
4Mb £167	2Mb £84	8Mb £348
8Mb £259	4Mb £138	
16Mb £548		
<b>Aptiva 486, Valuepoint 300</b>	<b>Model 70-</b>	
4Mb £136	061,121,081,161.E61,F61	
8Mb £258	4-64Mb board £234	
16Mb £545	8-64Mb board £428	
32Mb £950	1Mb £53	
	2Mb £84	
<b>PS/1 286</b>	<b>Model 80-041, A series</b>	
2Mb £94	2-16Mb board £188	
<b>PS1 386SX</b>	4-16Mb board £234	
2Mb £94	4Mb £138	<b>Thinkpad 350</b>
4Mb £136		4Mb £144
<b>PS1 Consultant 2133-G11/13/2155-G14,Essential,Expert M series</b>	<b>Model 80-321</b>	8Mb £392
1Mb £53	2-16Mb board £188	
2Mb £94	4-16Mb board £234	<b>Model L40SX, PS Note 182</b>
4Mb £136	2Mb £84	2Mb £129
8Mb £258		4Mb £144
<b>PS1 Advisor, Consultant,Investor, Willow, Expert S series, Valuepoint series (check models)</b>	<b>Server Model 95XP (pairs)</b>	8Mb £288
2Mb £94	4Mb £128	<b>PS Note 2141</b>
4Mb £136	8Mb £258	2Mb £129
8Mb £258		4Mb £144
<b>PS1 Pro386SX, Model 50/57 series, Model 56/57,multimedia, Model 76/77,multimedia, Model E9533 range, Server Model 85, 90XP</b>	<b>Server Model 95, 95 Array</b>	<b>Portable PS2 P75</b>
2Mb £94	4Mb £136	2Mb £94
4Mb £136	8Mb £258	4Mb £136
8Mb £258		<b>Portable PS2 P70</b>
16Mb £548	<b>Pentium Valuepoint</b>	2-16Mb board £188
	8Mb £288	4-16Mb board £234
	16Mb £548	2Mb £84
	<b>RS6000 Powerserver, 220 series, Model 53</b>	
	2Mb £167	
	8Mb £258	
	<b>RS600 Powerserver, 250 series, PS1 Valuepoint P60/D</b>	
	4Mb £167	
	8Mb £258	
	16Mb £54	
	32Mb £1080	

Quality matched for performance

## DELL

<b>PC316SX,PC325SX</b>	<b>NL20,25</b>
2Mb £65	2Mb £112
4Mb £128	<b>Performance 425S/ ME,444S/ME,450/ME,466/ME</b>
<b>P320SX</b>	4Mb £118
2Mb £82	8Mb £230
4Mb £148	16Mb £525
8Mb £311	32Mb £1095
<b>PC325D/P series, PC333D/P series</b>	<b>4000/XE series,486/ 66,486/50,486/33</b>
1Mb £54	8Mb £230
4Mb £148	16Mb £525
8Mb £329	32Mb £1095
16Mb £548	
<b>PC486D/P series, 486P range low profile desktop</b>	<b>Powerline Workstation range, System 425TE,433TE</b>
1Mb £54	2Mb £92
4Mb £148	4Mb £155
16Mb £548	8Mb £255
<b>PC486P series</b>	16Mb £488
32Mb £1112	
<b>Performance 425S/L/ M.433S/ME,450L/M/ T,466M/IT</b>	<b>Dimension series, Omniplex series</b>
4Mb £109	4Mb £148
16Mb £559	8Mb £288
<b>System 325N,325NC</b>	16Mb £555
2Mb £98	32Mb £895
	<b>System 212N,320N, 320N+ 2Mb</b>
	£94

100% system compatible

We have processor upgrades available for all systems marked ●

SMC Computers plc  
253-257 Farnham Road  
Slough Berkshire SL2 1HA

Prices exclude VAT and delivery

Call SMC Component Sales  
Mon-Fri 9.00-6.00 • Sat 9.00-1.00

01753 550333

**SMC**  
COMPUTERS  
Quality-driven service



# Drives Plus...

## ZENITH

<b>Mastersport 386SL range</b>	• <b>Zserver range</b>
2Mb £92	including LT
<b>Mastersport 386SX</b>	Zstation 500
2Mb £128	4Mb £208
<b>ZDS-600NL series</b>	8Mb £311
2Mb £92	16Mb £659
<b>Slimsport 286</b>	32Mb £744
1Mb £75	<b>Zstation 325SH, 325SN</b>
2Mb £126	1Mb £53
<b>Supersport 286</b>	4Mb £164
1Mb £75	• <b>Z station 420S-EH/</b>
<b>Supersport 286E</b>	<b>N,420S-SH/N,</b>
1Mb £75	<b>425SH,433DEH,</b>
2Mb £126	<b>450XEN,400+</b>
4Mb £219	1Mb £53
<b>Z386-SX,SX20, Z300/400</b>	4Mb £164
<b>series, Z325SX</b>	16Mb £548
2Mb £82	• <b>Zselect 100 series</b>
8Mb £254	4Mb £139
	8Mb £275
	16Mb £485
	32Mb £999

## TOSHIBA

<b>T1000LE</b>	<b>T1910, T1950, T1960</b>	<b>T3200SX</b>
2Mb £88	4Mb £168	2Mb £84
4Mb £168	8Mb £299	4Mb £161
8Mb £298	16Mb £628	<b>T4400, T6400, T6600</b>
<b>T1200XE</b>	<b>T2100, T2150/CD</b>	4Mb £164
2Mb £74	4Mb £182	8Mb £328
<b>T1600</b>	8Mb £325	16Mb £619
2Mb £74	16Mb £757	<b>T5100</b>
<b>T1800, T1850, T2000,</b>	24Mb £1128	2Mb £74
<b>T2200</b>	<b>T2400, T3400, T3600</b>	<b>T5200, T8500</b>
2Mb £88	4Mb £168	2Mb £114
4Mb £168	8Mb £298	8Mb £344
8Mb £298	16Mb £648	
<b>T1900, T4500,</b>	<b>T3100SX</b>	
<b>Dynapad T200,</b>	2Mb £88	
<b>T4600, T4700, T4800</b>	4Mb £168	
4Mb £168	<b>T3100E</b>	
8Mb £328	2Mb £94	
16Mb £792	<b>T3200</b>	
32Mb £1295	3Mb £165	

Factory original memory

Not sure which module to use?

Our sales staff can quickly identify the right memory upgrade for your system. Call us now for the best in memory upgrades.

100% system compatible



Needs up to 20Mb of RAM. Have you got enough?

## PRINTER MEMORY

### Hewlett Packard

<b>LaserJet II, IID</b>	
2Mb £88	
4Mb £158	
<b>LaserJet III, IIIP, IIID, IIIP</b>	
2Mb £81	
4Mb £148	
<b>LaserJet IIISi</b>	
4Mb £129	
<b>LaserJet 4L</b>	
1Mb £69	
<b>DeskJet 500, 500C</b>	
256Kb £45	
<b>DesignJet 600, 650,</b>	
<b>LaserJet 4M, Si, SIMX</b>	
2Mb £85	
4Mb £135	

### Canon

<b>LBP-4, LBP-4 lite,</b>	
<b>LBP-4 plus</b>	
1-2Mb £99	
2Mb £129	
<b>LBP-4SX</b>	
2Mb £125	
<b>LBP-8 III</b>	
1-4Mb exp board £91	
2-4Mb exp board £108	
4Mb exp board £176	
<b>LBP-8III</b>	
<b>LBP-8III Plus</b>	
1-3Mb board £99	
2-3Mb board £139	
3Mb board £179	

### IBM/Lexmark

<b>PS4019, 4019E</b>	
1-3.5Mb board £88	
2-3.5Mb board £146	
<b>4029, 4037</b>	
1Mb £58	
2Mb £109	
4Mb £192	
<b>Lexmark 5E 6, 6A, 10,</b>	
<b>10A, 10L, Winwriter 600</b>	
1Mb £58	
2Mb £109	
4Mb £192	

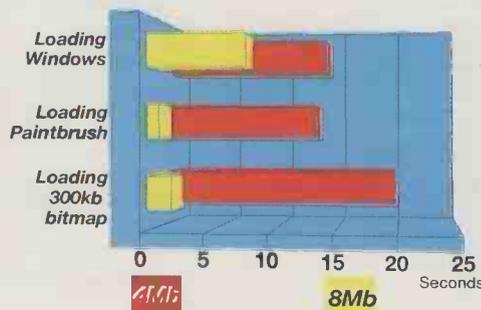
### Panasonic

<b>KX-P4110</b>	
<b>KX-P4430</b>	
1Mb £92	
2Mb £142	
8Mb £206	
<b>KX-P4450</b>	
1Mb board £101	
<b>KX-P4420, KX-P4450i,</b>	
<b>KX-P4451</b>	
1Mb £90	
3-4Mb board £119	
4Mb board £219	
<b>KX-P4440</b>	
<b>KX-P5410</b>	
1Mb £58	
2Mb £112	
4Mb £207	

## Memory upgrades for all popular PCs

We can supply memory modules for PCs from all the major manufacturers. If you cannot find your system listed here, please call our Component Sales line.

## The difference 4Mb makes



In tests, conducted on one of our own 486DX2-66-based systems, the difference between 4Mb and 8Mb of RAM was startling. The graph above indicates the amazing speed increase that just another 4Mb can make to your system. With today's top software packages demanding more and more processing power a small increase in your systems RAM can make a real difference.

Call our Technical Sales line and give your PC a real turbo boost with one of our top-quality memory upgrades.

**Fax order line**  
01753 524443



No surcharge on  
Access • Visa  
Switch • AmEx

The SMC Computers 30-day Quality Assurance Guarantee: If a product purchased from our component division should fail within 30 days, you have the option of an immediate exchange or a full refund (excluding carriage). Please note that this does not apply to software or PC Systems. If a non-faulty product is returned and a refund requested there will be a minimum 20% restocking fee.

E&OE: Prices and specifications subject to change without notice. Please ask our advice before ordering to avoid any foreseeable incompatibility problems. All trademarks acknowledged.

SMC Computers plc Terms & Conditions of Warranty available on request.

# Your 1st choice for memory



## COMPAQ

### Concerto 425,433

4Mb	£208
8Mb	£385
16Mb	£690

### Deskpro 286N, 386N

0-12Mb board	£76
1Mb	£51
2Mb	£95
4Mb	£167

### Deskpro 386-25/33,468-33/66

1Mb	£51
2Mb	£94
4Mb	£167
8Mb	£324

### Deskpro 386/20,25,20E,25E

1Mb board	£98
4Mb board	£205
1Mb	£65
4Mb	£164

**Quality matched for performance**

### Deskpro 386-25M,33M, Deskpro DX2-50M,66M Systempro LT 386-25, 33, Systempro LT 486-DX250, SX25

0-64Mb board	£110
Board + 1Mb	£163
2Mb	£95
4Mb	£167
8Mb	£294

### Deskpro 386-33L,486-33L, Systempro 386-33,486-33-1020E/2040E

Board + 2Mb	£275
8Mb	£298
32Mb	£1385

### Deskpro 386S, 386S 20

1Mb	£51
2Mb	£95
4Mb	£167

### Deskpro 486/25

2Mb	£109
8Mb	£298
32Mb	£1385

### Deskpro 5/60M, 5/66M,EX560

8Mb	£576
16Mb	£620
32Mb	£1305

### Deskpro XE 433S Presario 800S/F

2Mb	£95
4Mb	£167
8Mb	£294

### Deskpro M (non-Pentium)

Expansion board	£110
4Mb	£167
8Mb	£294

### Deskpro XL 466

4Mb	£162
8Mb	£322
16Mb	£653
32Mb	£1095

### Deskpro 5/90

8Mb	£298
-----	------

### Presario 924

4Mb	£155
8Mb	£326
16Mb	£548
32Mb	£1080

### Systempro XL

16Mb	£621
32Mb	£1306

### Proline 4/25S,4/33,4/50,4/66, CDSS Net 1/25S, Presario 425,433

2Mb	£85
4Mb	£165
8Mb	£325

### Proline AT4/33S,MT4/50,MT4/66

Presario 633,650,660, 2Mb	£85
4Mb	£165
8Mb	£325
16Mb	£525

### Prosignia PC server 486-33,DX2-66

1Mb	£51
2Mb	£95
4Mb	£167
8Mb	£295
16Mb	£548
32Mb	£1080

### Proliant 1000 486DX2-66

8Mb	£295
16Mb	£548
32Mb	£1080

### Proliant 1000 5/60,Server,2000,4000

16Mb	£620
32Mb	£1305
64Mb	£2189
128Mb	£4320

### LTE Lite 20,25,25C,25E

2Mb	£128
4Mb	£188
8Mb	£348

### LTE Lite 4-25

8Mb	£188
8Mb	£348
16Mb	£772

### LTE Elite

4Mb	£178
8Mb	£325
16Mb	£875

### LTE 386S/20

4Mb	£175
-----	------

### Contura 320,325

2Mb	£84
4Mb	£155
8Mb	£289

### Contura 425

4Mb	£155
8Mb	£275
16Mb	£545

### Contura Aero 433,425

4Mb	£145
8Mb	£275

### Contura 400

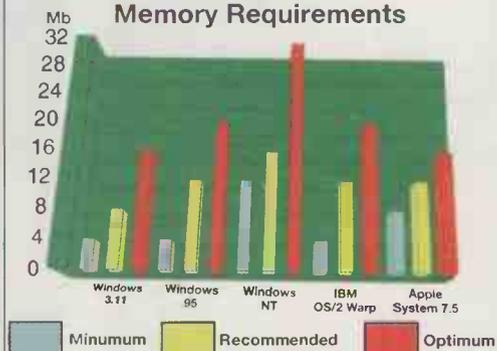
4Mb	£154
8Mb	£278

### SLT 386S/20

2Mb	£128
4Mb	£185

## What will it take?

### Operating System Memory Requirements



## AST

### Bravo LC, LCII, LP, MT, 4/25s, 4/33, 4/33s, 4/50d,4/66d

Advantage Pro 486DX/33, 486SX/25	£106
2Mb	£106
4Mb	£143
8Mb	£238
16Mb	£489
32Mb	£969

### Advantage Plus

4Mb	£164
8Mb	£310

### Advantage 386SX/20,25

2Mb	£82
8Mb	£310

### Ascentia 800Nseries

4Mb	£186
8Mb	£664

### Ascentia 900N series

4Mb	£190
16Mb	£675

### Bravo NB Explora

4Mb	£195
16Mb	£672

### Power Exec 3/25 range

4Mb	£206
8Mb	£328
16Mb	£752

### Power Exec 4/33SL colour 4/25SL (special edition)

4Mb	£206
16Mb	£752

### Power Premium

3/33,4/33,4/33S, 4/50D,4/66D	£150
0-32Mb board	£208
1-32Mb board	£352
4-32Mb board	£554

### Premium 486/33,486/33E

Premmia 4/33,433/s MTE 4/33,4/50D,4/66D	£208
4Mb	£208
8Mb	£310
16Mb	£659
32Mb	£1095
64Mb	£2160

### Premmia GX/P90,GX/P100,MX/P100,MX4/66D,MX4/100T

8Mb	£285
16Mb	£589
32Mb	£969

### Premmia LX/P60

8Mb	£154
16Mb	£557
32Mb	£1443

### Premmia MX/P100, MX4/66d, MX4/100t

8Mb	£304
16Mb	£557
32Mb	£1443
64Mb	£2637

### Premium 386C

1Mb	£55
4Mb	£164

### Premium II range

8Mb	£404
-----	------

**Original manufacturers specification**

We have processor upgrades available for all systems marked ●

## Warning.

Memory modules and processor chips are sensitive to static electricity and can easily be damaged. When fitting memory ensure you have discharged any static by wearing an anti-static wrist strap (preferred) or by touching your PC case (providing it is connected to mains electricity but not switched on).

## Anti-Static Wrist Strap

To prevent damaging your memory modules during installation, these straps will ground your body by attaching to earth via your PC case.

Available free, upon request, when purchasing any memory upgrade.



SMC Computers plc  
253-257 Farnham Road  
Slough Berkshire SL2 1HA

Call SMC Component Sales  
Mon-Fri 9.00-6.00 • Sat 9.00-1.00

**01753 550333**

**SMC**  
COMPUTERS  
Quality-driven service

Prices exclude VAT and delivery



# Drives Plus...

\*See below

## SCSI

### Floppy Disk Drives

3.5"	1.44Mb	£29
5.25"	1.2Mb	£39
3.5" / 5.25"	Dual	£89
Single drive cable	5.25"	£8
Dual drive cable	3.5"/5.25"	£10
Bracket and fascia - fits 3.5" drive into 5.25" bay		£8



### SMC INFO GUIDE



The SCSI interface is necessary for very large drives or certain multi-user operating systems. SCSI is ideal for controlling multiple devices such as hard drives, CD-ROMS, tape drives and optical drives from one controller card as you can mix up to seven different drives from various manufacturers.

Please note: Active terminators are recommended for SCSI-2 and Wide SCSI devices and essential for external Fast SCSI devices.

### Controller cards

TMC1610MCD	16bit	£49	Size
Adaptec 1515	Kit	16bit	£62
Adaptec 1542	Kit	16bit	£157
Adaptec 2842VL	Kit	VESA	£162
Adaptec 1640	Kit	MCA	£195
Adaptec 2742	Kit	EISA	£242
Adaptec 2940	Kit	PCI	£178

### Cables

Single drive internal	£8
Dual drive internal	£10
Triple drive internal	£15
Centronic 50 - Centronic 50	£18
Centronic 50 - 25 pin	£18
Centronic 50 - Micro D 50	£35
Micro D 50 - Micro D 50	£38

### SCSI hard disk drives

Manufacturer	Model	Access time	Cache /buffer	Warranty	Price
Quantum	MV270S	14ms	128k	2yr	£119
Quantum	TBZ420S	14ms	128k	2yr	£119
Seagate	ST5660N	12ms	256k	3yr	£209
Fujitsu	M2684S	14ms	256k	2yr	£131
IBM	66G9743	10.5ms	512k	3yr	£139
Quantum	MV540S	14ms	128k	2yr	£133
Quantum	FBL540S	12ms	128k	3yr	£139
Quantum	LT730S	11ms	128k	2yr	£168
Quantum	TBZ850S	14ms	128k	3yr	£183
Fujitsu	M1606SA	10ms	512k	2yr	£273
HP	C3323S	11ms	512k	5yr	£349
IBM	Pegasus	10ms	512k	5yr	£298
Seagate	ST31230N	10ms	512k	5yr	£309
Quantum	FBL1080S	12ms	128k	5yr	£295
Quantum	XP31070S	8.5ms	1Mb	5yr	£519
Fujitsu	M2903S	11ms	512k	5yr	£589
Micropolis	MIC4221	9ms	512k	5yr	£622
IBM	74G7044	9ms	512k	5yr	£773
HP	C2490S	9ms	256k	5yr	£659
Quantum	XP32150S	9ms	1Mb	5yr	£616
Quantum	XP32151S	8.5ms	512k	5yr	£695
Seagate	ST32430N	9ms	512k	5yr	£625
Seagate	ST32550N	8ms	512k	5yr	£722
Quantum	VP32210S	8.5ms	1Mb	5yr	£629
IBM	74G7045	9ms	512k	5yr	£1121
Quantum	XP34301S	8.6ms	512k	5yr	£829
Micropolis	MIC3243	9ms	512k	5yr	£821
IBM	74G7037	8ms	512k	3yr	£1277
Micropolis	MIC1991	12ms	12ms	3yr	£1515

### Terminators

External	
Active	£25
Passive	£10

### Corel software

Version 2	£67
Network manager	£285

Needs up to 85Mb of hard disk space. Have you got enough?



### External Drive Boxes

- For 1 to 4 SCSI devices
- Choice of open or closed front panels
- Suitable for:
  - Hard drives
  - Tape drives
  - Optical drives
  - CD ROM
  - DAT drives
  - Floptical drives
  - Syquest drives
- Available with Centronics 50 way, Wide SCSI and Micro D interfaces
- 3 year warranty
- UL / TUV / CSA approved
- Free fitting of any SCSI device when purchased at the same time

EB310	1 x 3.5"	LP/HH	£99
EB320	2 x 3.5"	LP/HH	£112
EB451	1 x 5.25"	FH	£155

### Audio / Visual drives

1.0Gb	Conner	CFP1060S	9ms	512k	3yr	£269
1.0Gb	Conner	CFP1080S	9ms	256k	3yr	£285
2.1Gb	Conner	CFP2105S	11ms	256k	3yr	£527
2.1Gb	Micropolis	MIC4221AV	8.5ms	512k	5yr	£666
2.1Gb	Conner	CFP2107S	9ms	512k	5yr	£567
4.0Gb	Seagate	ST15230N	10ms	512k	5yr	£759
4.0Gb	Seagate	ST15150N	8ms	1Mb	5yr	£1115
4.2Gb	Conner	CFP4207S	9ms	512k	5yr	£818
4.3Gb	Micropolis	MIC3243AV	8.5ms	512k	5yr	£869
9.0Gb	Seagate	ST410800N	11ms	1Mb	5yr	£1585
9.1Gb	Micropolis	MIC1991AV	12ms	512k	5yr	£1559

### SMC INFO GUIDE



#### Audio / Video drives

These high-performance drives are designed to give faster and smoother data transfer rates for multimedia applications. Ideal for animations, audio and MIDI recordings, digital video editing etc.

### Fax order line

01753 524443



No surcharge on Access • Visa Switch • AmEx

The SMC Computers 30-day Quality Assurance Guarantee: If a product purchased from our component division should fail within 30 days, you have the option of an immediate exchange or a full refund (excluding carriage). Please note that this does not apply to software or PC Systems. If a non-faulty product is returned and a refund requested there will be a minimum 20% restocking fee.

E&OE: Prices and specifications subject to change without notice. Please ask our advice before ordering to avoid any foreseeable incompatibility problems. All trademarks acknowledged.

SMC Computers plc Terms & Conditions of Warranty available on request.

# Your **1st** choice for hard drives



## IDE



### 3.5" IDE hard disk drives

Size	Manufacturer	Model	Access time	Cache /buffer	Warranty	Price
420Mb	Quantum	TBZ420AT	14ms	128k	2yr	£109
425Mb	Conner	CFS425A	13ms	64k	2yr	£99
425Mb	Western Digital	AC2420A	12ms	64k	3yr	£113
428Mb	Seagate	ST3491A	14ms	120k	3yr	£99
532Mb	Fujitsu	M2684T	12ms	256k	2yr	£112
540Mb	Conner	CFS540A	14ms	32k	• 2yr	£112
540Mb	Western Digital	AC2540A	12ms	64k	• 3yr	£118
540Mb	Quantum	FBL540AT	12ms	128k	• 2yr	£112
540Mb	Maxtor	7540AV	12ms	32k	• 1yr	£115
540Mb	IBM	84G6173	12ms	128k	• 3yr	£117
545Mb	Seagate	ST3660A	14ms	120k	• 3yr	£109
730Mb	Quantum	LT730AT	11ms	128k	• 2yr	£149
730Mb	Western Digital	AC2700A	10ms	64k	• 3yr	£140
850Mb	Western Digital	AC2850A	10ms	64k	• 3yr	£146
850Mb	Seagate	ST5850A	11ms	256k	• 3yr	£142
850Mb	Maxtor	7850AV	12ms	64k	• 2yr	£149
850Mb	Quantum	TBZ850AT	14ms	128k	• 2yr	£155
850Mb	Conner	CFS850A	12ms	256k	• 1yr	£144
1.0Gb	IBM	84G8998	11ms	512k	• 3yr	£217
1.0Gb	Seagate	ST31220A	12ms	256k	• 3yr	£179
1.0Gb	Western Digital	AC31000A	10ms	64k	• 3yr	£215
1.0Gb	Quantum	FBL1080AT	12ms	128k	• 2yr	£193
1.2Gb	Western Digital	AC31200A	10ms	64k	• 3yr	£222
1.2Gb	Conner	CFS1275A	15ms	64k	• 3yr	£223
1.2Gb	Conner	CFA1275A	12ms	256k	• 3yr	£245
1.2Gb	Maxtor	71260AV	12ms	256k	• 2yr	£194
1.6Gb	Western Digital	AC31600A	10ms	128k	• 3yr	£388

### 2.5" IDE hard disk drives

520Mb	Seagate	ST9655AG	10ms	120k	3yr	£312
543Mb	Toshiba	MK1924FC	13ms	128k	2yr	£309

Drives marked • are supplied with their own disk configuration software to overcome PC BIOS limitations

### Break your BIOS limitations

#### ADP60

The remarkable ADP60 card contains its own intelligent BIOS which allows IDE drives up to 2Gb to run on almost any PC - no more configuration worries!

If your PC does not have a 'user definable' option for hard disk drives then you need the ADP60. Available with or without floppy control, the card will fit into any AT ISA bus on 286, 386 or 486-based systems.

ADP60 HDD £35  
ADP60F HDD/FDD £39

### Disk Manager



Ideal for 'branded' PC systems - such as those by Compaq, IBM, Amstrad etc - and other manufacturers

whose BIOS does not allow for large hard disk drives.

This easy to Install software will initialise, partition and prepare virtually any hard disk drive. Disk Manager eliminates restrictions set by DOS and CMOS, giving you extended partitions complete storage access without the need for additional drivers. Supports DOS, all versions of MS Windows and OS/2.

#### PC version

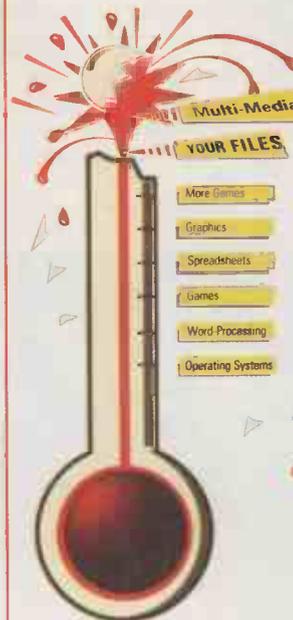
£15

When purchased with a hard drive

Also available individually:

PC version £35

# MORE MORE MORE



You're probably running out of space already!

Every new software release takes more and more hard drive space and Windows 95 may take up to 85 megabytes to install.

Data files grow, multimedia gets more complex and games demand more system resources. Don't wait for an 'Out of disk space' error - call our Technical Sales line today.

### Controller Cards

#### IDE

C&C ISA	ISA	2 devices	2 fdd	multi i/o	£15
DC-200 cache	ISA	2 devices	2 fdd	lba support	£89
DC-4030 cache	VESA	4 devices	2 fdd	lba support	£83

#### EIDE

DC2300+	VESA	4 devices	2 fdd	enhanced i/o	£45
QD6580	VESA	4 devices	2 fdd	multi i/o	£29
T9003C	VESA	4 devices	2 fdd	enhanced i/o	£39
FD16002 CD	ISA	2 devices	CD optimised		£19
FD16030 CD+	ISA	4 devices	CD optimised		£35

### Cables

Single drive £8  
Dual drive £10  
Note: Dual drive cables are 14" long with a space of 3.5" between connectors. Please check for compatibility with your system before ordering. We can custom make cables to order - please call with measurements.

Speed up data transfer rates by up to 80%

£12

When purchased with a hard drive Available separately £17



D10R

SMC Computers plc  
253-257 Farnham Road  
Slough Berkshire SL2 1HA

Prices exclude VAT and delivery

Call SMC Component Sales  
Mon-Fri 9.00-6.00 • Sat 9.00-1.00

**01753 550333**

**SMC**  
COMPUTERS  
Quality-driven service



# Drives Plus...

## REMOVABLE DRIVES

### SMC INFO GUIDE



Unlimited hard disc drive space!

With one of our Syquest or Iomega ZIP systems installed, you have an ever-expanding hard disc drive. Fast-access, low-cost cartridges mean you can build a library of applications that can be used and changed in seconds without turning your system off.

Suitable for PC and Macintosh systems.



- 14.5ms access time
- 32k intelligent look-ahead buffer
- Up to 4Mb/s transfer rate
- Air filtration system provides Winchester Class environment
- 88Mb drive unit can read and write to 44Mb cartridges
- 20ms access time
- Less than 1 non-recoverable error in 10<sup>12</sup> bits read
- Over 4 million cartridges sold worldwide
- 32k intelligent look-ahead buffer

### Syquest 3.5"

105Mb Media	£40
270Mb IDE drive	£259
SCSI drive	£259
Parallel port	£435
Media	£42

### Syquest 5.25"

88Mb SCSI drive	£175
200Mb SCSI drive	£260
Media 44Mb	£30
88Mb	£35
200Mb	£52

For SCSI external drives - any size - add: £100

## SPECIAL OFFER

Buy 5 or more media cartridges and get **£2 off** each



- Ideal for separating data files to save on hard drive space
- Great for Work, Home, School & Play
- Quick and simple to install
- Lifetime warranty on disks - estimated shelf life of 10 years
- 29ms access time
- Up to 50Mb/min sustained transfer rate with SCSI interface - 20Mb/min with parallel
- Lightweight design - 450g including disk
- Includes ZipTools software to organise, track and find data quickly - works for CD ROMs too!
- Available with SCSI or parallel interface

### Zip Drives

SCSI interface	£149
Parallel interface	£149

### ZIP Disks

100Mb	£15
100Mb 5 pack	£55
100Mb 10 pack	£95

## PARALLEL PORT DRIVES

### SMC INFO GUIDE



These compact, portable units connect to any standard parallel port making them ideal for notebooks and laptops with no or little expansion capabilities. The easy to install software can be loaded on to several systems allowing units to be transferred between systems. All these devices have a pass-through port to connect parallel printers.



### Colorado Trakker

350Mb tape drive	£159
700Mb tape drive	£199
Trakker carry case	£39

- Conforms to QIC standards
- Supplied with DOS and Windows backup software
- Up to 8Mb/min backup speed



### Backpack CD ROM drive

Quad speed £255

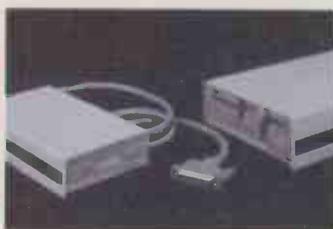
- Up to 700kb/s transfer rate
- 250ms access time
- Dust proof mechanism
- Built-in audio circuit with headphone and line out sockets
- Motorised tray loading
- Photo CD compatible
- Weighs only 4lb
- Supports enhanced parallel port
- Drivers for DOS, Windows, OS/2



### Backpack tape drive

340Mb	£197
900Mb	£325

- Conforms to QIC standards
- Weighs only 5lb
- Macro recording for unattended backup
- Novell Netware compatible



### Backpack floppy drives

3.5" 1.44Mb	£119
3.5" 2.88Mb	£175
5.25" 1.2Mb	£125

- 1.44Mb model also accepts 720k disks
- 2.88Mb model also accepts 720k and 1.44Mb disks
- 1.2Mb model can accept 360kb disks
- Background formatting software included
- 32k data buffer

Notes:

- 360Kb disks that have been written by a 1.2Mb drive may not be readable on a 360Kb drive.
- 2.88Mb format requires special extra density diskettes.



### Backpack hard disk drives

420Mb	£315
850Mb	£395
1.2Gb	£509

- 14ms access time
- Security password option
- Automatic support for enhanced parallel ports (EPP)
- Up to 600kb/s transfer rate
- Switching power supply reduces heat and power consumption
- Weighs less than 3lbs
- Chains to any other Backpack product

## Fax order line

01753 524443

Switch / Access / Visa / AmEx Cards Welcome



No surcharge on Access • Visa Switch • AmEx

The SMC Computers 30-day Quality Assurance Guarantee: If a product purchased from our component division should fail within 30 days, you have the option of an immediate exchange or a full refund (excluding carriage). Please note that this does not apply to software or PC Systems. If a non-faulty product is returned and a refund requested there will be a minimum 20% restocking fee.

E&OE: Prices and specifications subject to change without notice. Please ask our advice before ordering to avoid any foreseeable incompatibility problems. All trademarks acknowledged.

SMC Computers plc Terms & Conditions of Warranty available on request.

# Your 1st choice for components



## DAT DRIVES



### Hewlett Packard

#### SMC INFO GUIDE

Digital Audio Tape (DAT) offers fast, high quality, secure backups to those with large data archiving needs. DAT drives are very compact making them ideal for sharing between several computers and their capacity will suit almost any network.

#### C1553A Autoloader £1545

- Holds up to 6 tapes
- Up to 48Gb data storage
- Cartridge swap in under 15 seconds
- File access in average 90 seconds including tape swaps
- 10 character status display on front panel

Note: Termination not supplied with internal version. See SCSI hard disk drive page.

**For external versions of any HP DAT drive add £100**

#### HP external kits

These kits are direct JetStor equivalents and are supplied complete with Adaptec controller, backup software and all necessary cables and manuals.

HP2000-1	2.0Gb	1 user	£799
HP2000-25	2.0Gb	25 user	£1079
HP5000-25	4.0Gb	25 user	£1169
HP5000-UL	4.0Gb	Unlimited	£1515
HP6000-25	8.0Gb	25 user	£1285
HP6000-UL	8.0Gb	Unlimited	£1635

#### WangDAT 3100

- 2Gb capacity
- Built-in self-activated head cleaner
- 30 second file search time

**£559**

- 4Gb capacity with DDS compression
- Up to 732Kb/s data transfer rate
- Built-in self-activated head cleaner

**£599**

- 8Gb capacity with DDS2 compression
- Up to 732Kb/s data transfer rate
- 1Mb buffer

**£715**



External versions add £100

## TAPE DRIVES

### Colorado Jumbo



SMC Computers plc

**35470A £495**

- 2Gb data storage capacity
- 183 Kb/s (max) transfer rate (11Mb per minute)
- Fastsearch feature finds any file in an average 30 seconds
- Supports 60m and 90m cartridges

**35480A £585**

- 4Gb data storage capacity
- Up to 732Kb/s (max) transfer rate (44Mb per minute)
- Can store 1Gb in under 30 mins
- Fastsearch feature finds any file in an average 30 seconds
- Supports 60m and 90m cartridges

**C1533A £695**

- Up to 8Gb data storage capacity
- 1.5Mb/s (max) sustained transfer rate (90Mb per minute)
- 200,000 MTBF rating
- Files accessed in an average 40 seconds
- Fully compatible with all DDS, DDS-2 and DDS-DC format drives
- Can use 120m, 90m and 60m cartridges

Note: Termination not supplied with internal version. See page 4.

**DJ20 120/240Mb £75**

**DJ35 170/340Mb £81**

**DJ25 350/700Mb £123**

**DJ50 680/1.36Gb £225**

**External versions add £67**

- All drives offer up to 6:1 compression with an average of 2:1
- Uses QIC format compatible tapes
- Internal versions can be attached to floppy controller - even with two floppy drives installed
- Dedicated controllers are available for top performance

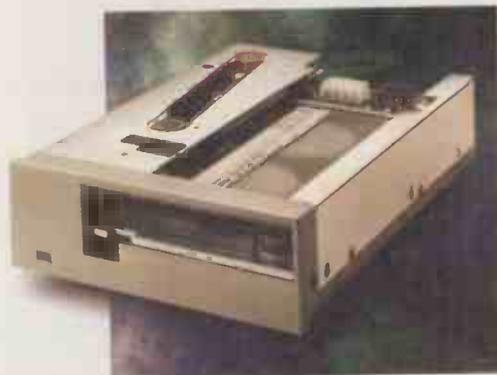
AB 11  
FC-20  
SK7  
SU53J  
SK1

#### Jumbo accessories

External port	£22
8bit controller	£45
Windows software	£40
Unix / Xenix software	£75
Sytos Plus for OS/2	£80

New DJ50 includes FC-20 controller card plus one free tape

### Wangtek



**5150PK kit\* £307**

**5525ES £335**

**51000ES £465**

**External versions add £100**

- Wangtek's 5000 Series tape drives offer you leading price/performance in advanced quarter-inch tape drives. With capacities from 150 megabytes to 1 gigabyte, 5000 Series drives are an ideal match to a wide range of system data backup requirements.
- Uses QIC format compatible tapes
- Quick-File-Access (QFA) feature for fast data retrieval
- Compatible with most popular data backup software packages
- PK kits are supplied with proprietary controller card, software, data cartridge and cable

\* Note: 5150PK uses proprietary interface

Call SMC Component Sales

Mon-Fri 9.00-6.00 • Sat 9.00-1.00

**01753 550333**

**SMC**  
COMPUTERS  
Quality-driven service

Prices exclude VAT and delivery

SMC Computers plc  
253-257 Farnham Road  
Slough Berkshire SL2 1HA



# Drives Plus...

\*See below

## SOUND CARDS



### SoundBlaster AWE-32

Full pack MCD £163  
Full Pack IDE £163

- Built-In AdSP and EMU 8000 sound processors
- 1Mb ROM for MIDI samples and 512kb RAM for downloadable samples - upgradeable to 28Mb
- 32-voice wave table built-in
- MCD has interfaces for Panasonic, Mitsumi and Sony drives

Value pack MCD £121  
Value pack IDE £121

- Upgrade port for AdSP chip
- 1Mb ROM for MIDI samples and 512kb RAM for downloadable samples
- 32-voice wave table built-in



### Gravis

Ultrasound £93

- Stereo recording and playback
- 256k RAM upgradeable to 1Mb
- Real recorded sounds for wave table synthesis
- CD ROM interfaces for Sony, Mitsumi and LMSI drives

Ultrasound Max £133

- True wavetable synthesis
- 32 voice sound
- CD ROM interface for Panasonic, Sony and Mitsumi drives
- SoundBlaster compatible

## SPEAKERS

### Creative Labs

Pro Digital £29

- 4 watt
- Mains powered
- Magnetically shielded to protect monitors
- Suitable for all popular audio cards

### Yamaha

M10 £49

- 10 watt per channel
- Magnetically shielded
- Active Servotechnology for bass response

SS510 Sub-woofer £105

- 25 watts power
- 35Hz-250KHz frequency response  $\pm 3$ dB
- Auto On/Off



### SoundBlaster 16

Value pack £55  
Value IDE £59  
Multi CD £84  
Multi CD AdSP £105  
SCSI-2 AdSP £127  
Pro IDE £82  
Pro IDE AdSP £105

- 16-bit stereo recording and playback on all cards
- AdSP upgrade sockets on all cards except Value versions
- WaveBlaster connector for enhanced wave table synthesis on all cards except Value versions



### Orchid

GameWave 32 Plus £95

SoundWave 32 Pro £129

SoundWave 32 SCSI £143

- Compatible with: SoundBlaster, Adlib, Windows SoundSystem, General MIDI, Roland MT 32
- Built-in Digital Signal Processor
- SoundWave cards are supplied with software for DOS and Windows
- SoundWave cards utilise analogue wave table synthesis for improved playback

## MIDI

MIDI Blaster £92

- MTC32 MIDI compatible
- Can be used as a stand-alone device on PC or MIDI
- Plays up to 20 notes simultaneously
- Includes 9v adaptor, cable and software

### Cables

Connect your sound card to any MIDI keyboard or device. Our kit contains cables and software for recording and playback.

SoundBlaster MIDI cable set £16  
SoundBlaster MIDI kit £49  
MIDI Box for multiple devices £37

## MULTIMEDIA KITS



### SoundBlaster Multimedia Home CD £286

This new kit has been specifically designed for your home and office to let you work, learn and play.

- 16 bit sound card with Advanced Signal Processor
- Quad speed CD ROM drive
- 'Work' software: MS Works, MS Publisher, MS Design Pack
- 'Learn' software: MS Encarta, MS Bookshelf, Ancient Lands, Dangerous Creatures, Musical Instruments, MS Cinemania, MS Scenes
- 'Play' software: MS Golf, Syndicate, Wing Commander II, Pagan, Strike Commander

### SoundBlaster Discovery 4x £265

Superb low-cost upgrade which will turn your home PC into a fully feature multimedia system. The software included is ideal for all the family.

- Quad-speed CD ROM drive
- Sound Blaster 16 sound card
- CD ROM titles include: Grolier encyclopaedia, Wing Commander academy, Ultima Underworld, How To Computers

### SoundBlaster GameBlaster 4x £285

If you're looking for the ultimate game playing kit, this is it! With the hottest games driving an AWE-32 sound card and a quad-speed drive this is an essential addition for the serious game player.

- Quad-speed drive
- AWE 32 sound card
- CD ROM titles include: Theme Park, Rebel Assault, Wing Commander 2, Alone in the dark 2, Strike Commander, Sim City 2000

## GRAPHIC CARDS



### Orchid Fahrenheit Pro64

2Mb £225  
4Mb £335

- VESA & PCI versions
- 16.7 million colours at 1024x768 resolution (4Mb required)
- Refresh rates up to 120Hz
- Virtual Desktop and Switch-on-the-fly software



### Orchid Kelvin 64

1Mb £97  
2Mb £129

- VESA & PCI versions
- Up to 1280x1024 resolution
- Upgradeable from 1Mb to 2Mb DRAM
- 16.7 million colours at 800x600 (2Mb DRAM required)
- Green PC (energy saving) compliant

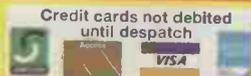


### Diamond Stealth 64

DRAM 1Mb £85  
2Mb £115  
VRAM 2Mb £195  
2Mb MM £229  
4Mb MM £315

- VESA & PCI versions
- 65k colours at 1280x1024 (4Mb only)
- Refresh rates up to 120Hz
- Windows Virtual Desktop

**Fax order line**  
01753 524443



No surcharge on  
Access • Visa  
Switch • AmEx

The SMC Computers 30-day Quality Assurance Guarantee: If a product purchased from our component division should fail within 30 days, you have the option of an immediate exchange or a full refund (excluding carriage). Please note that this does not apply to software or PC Systems. If a non-faulty product is returned and a refund requested there will be a minimum 20% restocking fee.

E&OE. Prices and specifications subject to change without notice.  
Please ask our advice before ordering to avoid any foreseeable incompatibility problems.  
All trademarks acknowledged.

SMC Computers plc Terms & Conditions of Warranty available on request.

# Your 1st choice for multimedia



## CD ROM DRIVES



**Toshiba (4.4x)**  
**XM3601B Internal** £212  
**XM3601S External** £277

- SCSI-2 interface
- Up to 660Kb/s sustained data transfer rate
- 140ms access time
- 256Kb data buffer
- Sealed enclosure
- Front panel headphone socket and audio volume control
- Fully compatible with MPC2, Photo CD, CD ROM XA, CD-I etc
- Tray loading mechanism



**Mitsumi (4x)**  
**FX400** £105

- IDE / EIDE standard interface
- Sub 250ms access time
- 600Kb/s transfer rate
- 256Kb cache
- Drivers for most popular operating systems
- Compatible with most CD ROM standards including CDI-Movie
- Headphone socket with volume control
- Tray loading mechanism



**Plexor (6x)**  
**6Plex Internal kit** £325  
**6Plex External** £395

- SCSI-2 interface

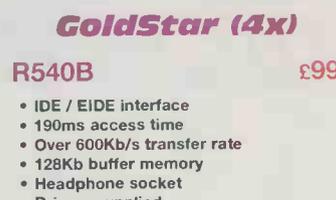
- 900Kb/s sustained data transfer rate
- Up to 5Mb/s burst transfer rate
- 115ms seek time
- 256kb data buffer
- Front panel includes headphone socket, volume control, auto and manual emergency eject
- Caddy loading

NEW!  
 THE FASTEST  
 CD ROM  
 DRIVE  
 available



**Pioneer (4.4x)**  
**DR-U124X SCSI** £189  
**DR-UA127X EIDE** £122

- 676Kb/s sustained transfer rate
- 4.63Mb/s burst transfer rate
- 150ms access time
- 128k cache
- Fully MPC2 compatible
- Caddy loading



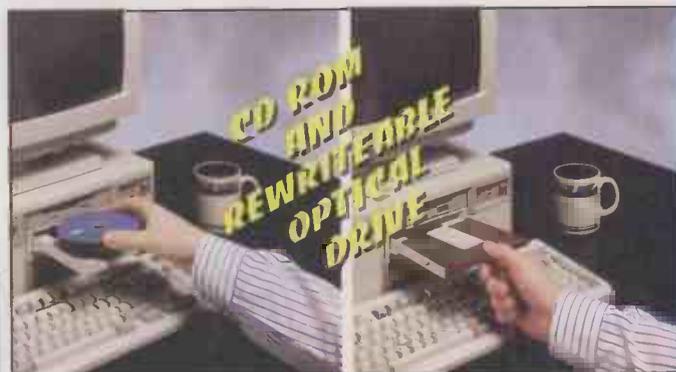
**GoldStar (4x)**  
**R540B** £99

- IDE / EIDE interface
- 190ms access time
- Over 600Kb/s transfer rate
- 128Kb buffer memory
- Headphone socket
- Drivers supplied
- Tray loading mechanism



**NEC (4x)**  
**CDR-272** £115

- IDE / EIDE interface
- 250ms access time
- 600Kb/s transfer rate
- 256Kb cache
- Fully MPC-2 compatible
- Tray loading mechanism



**Panasonic (4x)**  
**PD Dual Media**  
**LF1004 Internal drive** £499  
**LF1004 Internal kit** £525  
**LF1004 External kit** £625

- SCSI-2 interface
- Reads CD ROM and 650Mb rewriteable optical discs from single tray
- 4x CD ROM spin speed
- Data transfer rates up to 600Kb/s for CD and 5Mb/s for optical disc
- Access time 195ms for CD and 165ms for optical disc
- Kit includes Adaptec SCSI card and cables



## CD ROM SOFTWARE

### Special CD ROM bundle prices.

Because of the very low prices of these top-class CD titles, only SMC Customers who choose one of our large range of CD ROM drives may take advantage of this offer at the time of their purchase.

Don't pay more for your new CD software, call our sales team today and join the multimedia revolution tomorrow!

Here is a selection of the titles available. Please call for our full list.

- |                          |     |
|--------------------------|-----|
| Kodak Access Photo CD    | £15 |
| Grolier Encyclopaedia    | £32 |
| Microsoft Encarta '95    | £52 |
| World Atlas              | £15 |
| Solar System             | £15 |
| Battlechess MPC          | £17 |
| Clipart Heaven 2         | £19 |
| Animals at San Diego Zoo | £20 |
| 7th Guest                | £29 |



**Backpack (4x)**  
**CD ROM**  
**Parallel port drive** £255

- 250ms access time
- Connects to any standard parallel port
- Up to 700kb/s transfer rate
- Photo CD compatible
- Weighs only 4lbs
- Tray loading mechanism



**Panasonic (2x)**  
**CR 562** £57  
**AT interface card** £10

- Panasonic interface
- 320ms access time
- 300Kb/s transfer rate
- Supports Photo CD, CD ROM XA, MPC2
- Embedded lens cleaning mechanism
- 64k buffer memory
- Tray loading mechanism
- Interface card includes all necessary cables

Call SMC Component Sales  
 Mon-Fri 9.00-6.00 • Sat 9.00-1.00

**01753 550333**

**SMC**  
 COMPUTERS  
 Quality-driven service

SMC Computers plc  
 253-257 Farnham Road  
 Slough Berkshire SL2 1HA

Prices exclude  
 VAT and delivery

# COMPAQ PRESARIO MULTIMEDIA BARGAINS

**BEST PRICES IN UK**



**0% APR\***

**FREE WINDOWS '95**

PRESARIO CDS 522 SX2/66, 4Mb, 270HD INT	<b>£ 829</b>
PRESARIO CDS 524 DX2/66, 8Mb, 420HD INT	<b>£1039</b>
PRESARIO CDS 742 DX4/90, 8Mb, 420HD DT	<b>£1099</b>
PRESARIO CDS 772 PEN/75, 8Mb, 535HD TW	<b>£1329</b>
PRESARIO CDS 942 DX4/90, 8Mb, 420HD TW	<b>£1149</b>
PRESARIO CDS 962 586/60, 8Mb, 535HD TW	<b>£1249</b>
PRESARIO CDS 972 586/75, 8Mb, 725HD TW	<b>£1399</b>

**IF YOU FIND A BETTER PRICE CALL US AND WE WILL IN MOST CASES BEAT IT**

QUAD SPEED CD, ANSWERPHONE, FAX, MODEM (EXCL 522, 772, 962, 972), ENCARTA 95, ULT HUMAN BODY, DOS, WIN, MS WORKS, MS MONEY, 16 BIT SOUND CARD, STEREO SPEAKERS, 3 YR WARRANTY. \*ON SELECTED MODELS ONLY

## COMPAQ NEW PCI ENHANCED PROLINEA

V3 (3 Slot/3 Bays) Desktop		V4 (4 Slot/4 Bays) Desktop		V5 (5 Slot/5 Bays) Mini Tower		Compaq Monitors	
4/50 270HD, 4MB	<b>£685</b>	4/66 270HD, 8MB	<b>£875</b>	4/66 270HD, 8MB	<b>£ 925</b>	SVGA 800 14"	<b>£207</b>
4/66 270HD, 8MB	<b>£865</b>	4/66 420HD, 8MB	<b>£915</b>	4/66 420HD, 8MB	<b>£ 969</b>	SVGA 14" 1024	<b>£239</b>
4/66 420HD, 8MB	<b>£895</b>	4/100 420HD, 8MB	<b>£1069</b>	5/75 420HD, 8MB	<b>£1339</b>	15" 150	<b>£269</b>
4/100 270HD, 8MB	<b>£995</b>	5/75 420HD, 8MB	<b>£1275</b>	5/75CD 420HD, 8MB	<b>£1545</b>	15" 151	<b>£339</b>
4/100 420HD, 8MB	<b>£1025</b>	5/75 720HD, 16MB	<b>£1565</b>	5/90 420HD, 8MB	<b>£1399</b>	17"	<b>£659</b>
5/75 270HD, 8MB	<b>£1199</b>	5/90 420HD, 8MB	<b>£1359</b>	5/90CD 420HD, 8MB	<b>£1619</b>	Q VISION 172	<b>£CALL</b>
5/75 420HD, 8MB	<b>£1249</b>	5/90 720HD, 16MB	<b>£1639</b>	5/90 720HD, 16MB	<b>£1669</b>	Q VISION 200	<b>£CALL</b>
5/90 720HD, 8MB	<b>£1499</b>	5/120 1080HD, 16MB	<b>£2159</b>	5/100 720HD, 16MB	<b>£1939</b>		

**DESKPRO - FULL RANGE - BEST PRICES - PLEASE CALL**



## NEW APTIVA - BRAND LEADER LOW PRICES

**Help ware**

DX2-66 DT, 4MB, 540HD	<b>£ 799</b>	DX2-66 MM, DT 8MB, 540MB, Q	<b>£1029</b>
DX4-100 MM, DT, 8MB, 850MB, Q	<b>£1099</b>	P-75 DT, 8MB, 540MB	<b>£1069</b>
P-100 MM, DT, 8MB, 850MB, Q	<b>£1699</b>	P-75, MM, TOWER, 8MB, 540MB, Q	<b>£1249</b>

DOS, WINDOWS, MS WORKS, RAPID RESUME: MM=MULTIMEDIA Q=QUADSPEED DT=DESKTOP 4MB UPGRADE - £129

<b>hp</b> HEWLETT PACKARD <b>HP VL</b>	<b>HP Vectra VLE BEST PRICES</b>	<b>£LOW</b>	<b>HP 14" SVGA Monitor</b>	<b>£319</b>
	<b>HP Vectra VL3 BEST PRICES</b>	<b>£LOW</b>	<b>HP 15" SVGA Monitor</b>	<b>£185</b>

# No. 1 for NOTEBOOKS!

### COMPAQ CONTURA 400/410/420/430 FAMILY

	CPU	Ram	H Disk	Display	Price
400CX	486DX2/40	4MB	250HD	8.4" TFT Col	£1349
410	486DX2/50	4MB	250HD	9.5" Mono	£ 795
410MS	486DX2/50	4MB	250HD	9.5" Mono	£ 889
410C	486DX2/50	4MB	350HD	9.5" Dual Scan Col	£1095
410CX	486DX2/50	4MB	350HD	8.4" TFT Col	£1495
420C-350MS	486DX4/75	4MB	350HD	10.4" Dual Scan Col	£1529
420C-420	486DX4/75	8MB	420HD	10.4" Dual Scan Col	£1689
420CX	486DX4/75	8MB	420HD	10.4" TFT Colour	£2219
430C	486DX4/100	8MB	720HD	10.4" Dual Scan Col	£2119
430CX	486DX4/100	8MB	720HD	10.4" TFT Colour	£2559

	CPU	Ram	H Disk	Display	Price
701 TF1	486DX2/50	4MB	360HD	10.4" TFT Col	£2159
701 TF2	486DX2/50	4MB	540HD	10.4" TFT Col	£2299
701 TF3	486DX4/75	8MB	360HD	10.4" TFT Col	£2829
701 TF4	486DX4/75	8MB	540HD	10.4" TFT Col	£2965
701 TF5	486DX4/75	8MB	720HD	10.4" TFT Col	£3099
755 CE2	486DX4/100	8MB	340HD	10.4" TFT Col	£3575
755 CD3	486DX4/100	8MB	540HD	10.4" TFT Col	£4119
755 CX1	5/75	8MB	540HD	10.4" TFT Col	£3869
755 CV1	486DX4/100	8MB	540HD	10.4" TFT Col	£4775

### TOSHIBA

	Processor	Ram	H Disk	Display	Price
T2100	486DX2/50	4MB	260MB	9.5" Mono	£844
T2110CS	486DX4/75	4MB	350MB	10.4" Dual Scan Col	£1349
T2100CT	486DX2/50	8MB	350MB	8.4" TFT Col	£1944
T2130CT	486DX4/75	8MB	520MB	10.4" TFT Col	£1949
SAT 400CS	5/75	8MB	810MB	10.4" Dual Scan Col	£2419
T2150CDT	486DX4 75	8MB	320MB	10.4" TFT Col	£2689
PORTEGE 610C	5/90	8MB	720MB	9.5" TFT Col	£3014
SAT 400CDT	5/75	8MB	810MB	10.4" TFT Col	£3138
T4900CT	Pentium 75	8MB	810MB	Col TFT	£3394

### TEXAS INSTRUMENTS - TRAVEL MATE

	CPU	Ram	H Disk	Display	Price
4000M	486DX4/75	4MB	455MB	10.4" Dualscan Col	£1539
4000M	486DX4/75	4MB	455MB	10.4" TFT Col	£1999
4000M	486DX4/100	4MB	525MB	10.4" TFT Col	£2395
5000M	5/75	8MB	500MB	10.4" TFT Col	£2895
5000M	5/75	8MB	722MB	10.4" TFT Col	£3275

### HP OMNIBOOK

	CPU	Ram	H Disk	Display	Price
Omnibook 600	486DX4/75	4MB	260MB	8.5" Dualscan Col	£LOW
Omnibook 4000C	486DX4/50	4MB	260MB	10.3" Dualscan Col	£LOW
Omnibook 4000CT	486DX4/50	4MB	340MB	10.4" TFT Col	£LOW
Omnibook 4000CT	486DX4/100	4MB	340MB	10.4" TFT Col	£LOW
Omnibook 4000CT	486DX4/100	4MB	520MB	10.4" TFT Col	£LOW
Omnibook 5000CT	5/90 Pentium	8MB	1.2GB	10.4" TFT Col	£LOW

### IBM THINK PADS NEW LOW PRICES

	CPU	Ram	H Disk	Display	Price
340 DS1	486SL50	4MB	200HD	9.5" Dual Scan Col	£1099
340 DS3	486SL50	4MB	360HD	10.4" Dual Scan Col	£1375
370 TC1	4386DX4/75	4MB	340HD	10.4" TFT Col	£2239
370 TC2	486DX4/75	4MB	540HD	10.4" TFT Col	£2439
701 DS1	486DX2/50	4MB	360HD	10.4" Dual Scan Col	£1846
701 DS2	486DX2/50	4MB	540HD	10.4" Dual Scan Col	£1995
701 DS3	486DX4/75	8MB	360HD	10.4" Dual Scan Col	£2475
701 DS4	486DX4/75	8MB	540HD	10.4" Dual Scan Col	£2619

**AST NOTEBOOKS NOW AVAILABLE - PLEASE CALL FOR BEST PRICES**

# TECHNOWORLD PLC

**NEXT DAY DELIVERY**

SUBJ. TO AVAIL

US Robotics PCMCIA 28.8 V34 **£169**

HP 660 Deskjet **£279**

HP 4L Laser **£348**

Compaq Presario CDS 742 **£1099**

Epson Stylus Colour 720dpi **£329**

Compaq Contura 410CX **£1495**

US Robotics Sportster 28.8 **£159**

Canon BJC 4000C Colour **£229**

Toshiba 2150CDT CD, 520HD **£2689**

Compaq Presario 524 **£1039**

**LASER PRINTERS**

<b>BROTHER</b>		
HL 630	£319	HL 660 £458
HL 631	£358	HL 1260 £915
<b>CANON</b>		
LBP 4i	£405	LBP 4U £405
LBP 8 IIIR	£1559	LBP 1260 £945
<b>HP</b>		
HP4L	£348	HP4V £1365
HP4 PLUS	£975	HP5 MP £699
HP4V	£1365	HP 4M PLUS £1294
HP5P	£529	HP4Si MX £2989
HP4Si	£2089	HP COLOUR £4279
<b>KYOCERA</b>		
FS 400	£433	FS 1550 £873
FS 1600	£1079	FS 3400 £1385
<b>PANASONIC</b>		
KXP6100	£267	KXP6150 £298
KXP4430	£499	KXP4440 £698

**INKJET PRINTERS**

<b>Canon</b>		
BJ30	£151	BJC 70 £225
BJ200EX	£174	BJC4000 £229
BJC600E	£327	BJC800 £1075
<b>EPSON</b>		
STYLUS Colour	£329	STYLUS 1000 £325
<b>HEWLETT PACKARD</b>		
320+CSF	£179	850C £335
540	£199	1200C £638
600C	£209	1600C £839
660C	£279	XL300 £1599
<b>HP 3YR Onsite Warranty</b>		
320, 540	£39	560, 660 £65
x1300	£99	
<b>LEXMARK</b>		
IIC	£225	4070 Inkjet £245
4072 ExecJet	£435	150C Winwriter £269
<b>STAR</b>		
SJ48	£140	SJ144 £189

**MEMORY PRICE CRASH!!**

**Get ready for WINDOWS '95 10 Year Warranty**

	4Mb	8Mb	16Mb
<b>AST ASCENTIA,</b>			
POWEREXEC fr	£155	£279	£559
<b>COMPAQ CONTURA</b>			
400/410/420/430	£145	£285	£529
LTE 4/40, 4/50, 4/75	£155	£269	£519
<b>IBM THINKPAD</b>			
340/360/370/701	£149	£269	£539
700, 755	£149	£289	£529
<b>TEXAS INSTR 4000M</b>			
	£155	£295	£545
<b>TOSHIBA Whole range from</b> £149 £289 £525			

**CALL FOR ALL OTHER PC'S/NOTEBOOKS**

**MEMORY**



**Upgrade 386 to 486**

386SX 25MHz to 486 50MHz	£135
386DX 25MHz to 486 50MHz	£135
386DX 20MHz to 486DX 40MHz	£120
386DX 33MHz to 486DX 66MHz	£144

**AST COMPAQ**



**IBM TOSHIBA**

**Call for best prices SAVE £££££**



**MULTIMEDIA BUNDLES**

CREATIVE MS OFFICE PRO 4.3	£379
CREATIVE CD DISCOVERY	£159
CREATIVE QUAD MS HOME	£289



**WINDOWS '95 UPGRADE FROM WINDOWS 3.1 AT ONLY £58.99**



**SAGE**

**DOS WINDOWS + 2**

Bookkeeper V7	£54	Bookkeeper V3	£78
Accountant V7	£159	Accountant V3	£189
Accountant + V7	£238	Accountant + V3	£271
FIN Cont V.7 SU	£315	FIN Cont V3 SU	£349
FIN Cont V.7 MU	£495	FIN Cont V.2.11 MU	£545
Payroll V.5.1 SU	£127	Payroll V.2.2 SU	£127
Job Costing SU	£115	Instant Accountant	£85
Telemagic SU	£89	Instant Payroll	£68

**PACE LINNET MESSAGE DESK ANSWERPHONE/FAX/MODEM**



**NEW £179**

**HARD DRIVES**

<b>CONNOR/SEAGATE/QUANTUM</b>			
420 IDE 3.5"	£95	720 SCSI 3.5"	£105
545 IDE 3.5"	£109	1G SCSI 3.5"	£319

**SCANNERS**

<b>EPSON</b>			
GTX 6500 Parallel	£384	GTx8500 SCSI	£571
GTi 9000 SCSI	£854	GTi8500 SCSI	£747
GTi Includes FULL PHOTOSHOP SOFTWARE			
<b>HP</b>			
Scanjet 3P	£235	Scanjet IIC NEW!	£608
<b>LOGITECH (Free Mobile Phone Offer)</b>			
Scanman 32 DOS + OCR	£57	Scan 32 Win + OCR	£57
Scanman 256	£82	Scanman Colour	£167
Easy Couch	£115	Powerpage	£305

**FAX MODEMS**

<b>Robotics</b>	INT	EXT
Sportster 28.8 + Fax	£164	£159
Sportster 14.4 + Fax	£99	£99
Courier V34 28.8	£239	£239
Worldport PCMCIA 28.8 V34	£169	

**IBM** PCMCIA Fax/Modem only £45

**KINGSTON** PCMCIA 14.4 V32Bis £139

**PSION DACOM** Gold 14.4 PCMCIA V32Bis £179

**PACE** Message Desk AnswerPhone/Fax/Modem £179

**Hayes** Accura 28.8 + Fax V34 Ext £179

Accura 14.4 + Fax Ext £145

**MOTOROLA 28.8** Pro PC Desktop £164

Pro PC Online/Internet £178

**FAX MACHINES**

<b>HEWLETT PACKARD</b>	
HP900 NEW LOW PRICE	£438
HP950 NEW LOW PRICE	£598

**Best Prices**

**Part of Multi Million Pound company**

**UK Sourced Products Only**

**All goods supplied with full manufacturers Warranty**

**Personal finance or leasing available subject to status**

**+ Technical Support**

Subject to our terms & conditions available on request, 15% surcharge on returns so please make sure all orders are correct to your specification.



**FINANCE AVAILABLE (SUBJECT TO STATUS)**

**0181 830 5555 • FAX 24 hours 0181-452 6815**  
**22-26 Cricklewood Broadway, London NW2 3HD**

**CALL FOR LATEST PRODUCTS & PRICES**

*Above prices exclude VAT & Carriage, E&OE. A £5 Handling Charge will apply for any collections. Prices and specifications are subject to change without notice. Government, hospital & educational establishments along with major PLCs can usually obtain credit facilities.*

# C & T

The Storage Solutions Company

TEL: 0171 637 1767  
FAX: 0171 637 0419

Prices exclude VAT & P&P and are subject to change E&OE  
29 Harley Street London W1N 1DA

**STORAGE UPGRADES: PC'S, COMPAQ SERVERS, PS2'S RS6000, SUN SPARC, SILICON GRAPHICS, HP 9000, APPLE MAC'S + + -**

## SUSTAINED DATA TRANSFER RATE

SCSI-1	IDE	SCSI-2	FAST SCSI	WIDE SCSI	DRIVE ARRAY
1.5MB/SEC	2MB/SEC	5MB/SEC	10MB/SEC	20MB/SEC	45MB/SEC

## TAPE BACKUP SYSTEMS

Prices are for internal drives + £75 external

800MB HP QIC	£145				
2GB HP DAT	£495				
16GB HP DAT	£675				
Model	Native Size	Comp Size	Transfer Rate/Min	Comp Rate	Price
HP T-1000	400MB	800MB	4MB	9MB	£145
TDC 3800	250MB	525MB	11MB	16MB	£450
HP 35470	2GB	-	11MB	-	£495
HP 35480	2GB	8GB	11MB	16MB	£575
SONY SDT5000	4GB	16GB	21MB	30MB	£675
WANGDAT 3400DX	4GB	16GB	21MB	30MB	£675
CONNER 4326	4GB	16GB	24MB	36MB	£675
HP C1533A	4GB	16GB	30MB	45MB	£675
HP C1553A	24GB	96GB	30MB	45MB	£1550
HP C1533AR-7	28GB	112GB	140MB	210MB	£8500
CONNER 4586	48GB	192GB	24MB	36MB	£2500
EXABYTE 8205X1	2.5GB	5GB	16MB	30MB	£950
EXABYTE 8505XL	7GB	14GB	30MB	45MB	£1450
QUANTUM DLT	10GB	20GB	75MB	150MB	£3000
DLT JUKEBOX	70GB	140GB	75MB	150MB	£9500

## HARD DRIVES

Prices are for internal drives + £75 external

1.0GB IDE DRIVE	£175				
1.0GB SCSI DRIVE	£265				
2.0GB SCSI DRIVE	£529				
4.0GB SCSI DRIVE	£775				
Model	Size	TYPE	SDTR	Seek	Price
IBM PEGASUS	1.0GB	IDE	2MB	10MS	£225
QUANTUM FIREBALL	1.0GB	IDE	2MB	12MS	£175
CONNER CFA1275A	1.2GB	IDE	2MB	12MS	£250
SEAGATE 31220A	1.0GB	IDE	2MB	12MS	£175
FUJITSU	1.0GB	IDE	2MB	12MS	£185
WEST DIG 31200	1.2GB	IDE	2MB	10MS	£225
WEST DIG 31600	1.6GB	IDE	2MB	10MS	£285
CONNER CFP1080S	1.0GB	F-SCSI	3MB	9MS	£275
FUJITSU M1606SA	1.0GB	F-SCSI	3MB	9MS	£295
IBM PEGASUS	1.0GB	F-SCSI	3MB	9ms	£325
HP 3724S	1.2MB	F-SCSI	3MB	9MS	£335
QUANTUM FIREBALL	1.0GB	F-SCSI	3MB	9ms	£265
SEAGATE 31230N	1.0GB	F-SCSI	3MB	9ms	£325
QUANTUM CAPELLA	2.1GB	F-SCSI	4MB	9ms	£550
CONNER 2105	2.1GB	F-SCSI	4MB	9MS	£529
CONNER 2107	2.1GB	F-SCSI	4MB	9MS	£575
HP C2490S	2.0GB	F-SCSI	3MB	9MS	£650
QUANTUM ATLAS	2.1GB	F-SCSI	5MB	8ms	£675
MICROPOLIS 4221	2.1GB	F-SCSI	4MB	9MS	£625
MICROP 4221AV	2.1GB	F-SCSI	4MB	9MS	£675
MICROPOLIS 4221W	2.1GB	WIDE	5MB	9MS	£725
FUJITSU M2903	2.1GB	F-SCSI	4MB	9MS	£575
SEAGATE 32430N	2.1GB	F-SCSI	4MB	8ms	£675
IBM ULTRASTAR	2.0GB	F-SCSI	4MB	8ms	£750
CONNER 2107W	2.0GB	WIDE	6MB	9ms	£750
SEAGATE 32550N	2.1GB	F-SCSI	4MB	8ms	£750
SEAGATE 12250W	2.1GB	WIDE	5MB	8ms	£1150
SEAGATE 12450W	2.1GB	WIDE	8MB	8ms	£1250
QUANTUM G-PRIX	4.0GB	F-SCSI	4MB	9ms	£775
CONNER 4207	4.0GB	F-SCSI	4MB	9MS	£775
MICROP 3243	4.0GB	F-SCSI	4MB	9ms	£775
MICROP 3243AV	4.0GB	F-SCSI	4MB	9ms	£850
MICROP 3243W	4.0GB	WIDE	5MB	9ms	£900
QUANTUM ATLAS	4.0GB	F-SCSI	5MB	8ms	£1150
SEAGATE 15150N	4.1GB	F-SCSI	4MB	8ms	£1150
SEAGATE 15150W	4.1GB	WIDE	5MB	8ms	£1350
CONNER 4207W	4.1GB	WIDE	6MB	9ms	£1250
IBM ULTRASTAR	4.1GB	F-SCSI	4MB	8ms	£1350
MICROP 1991	9.0GB	F-SCSI	3MB	12MS	£1475
MICROP 1991AV	9.0GB	F-SCSI	3MB	12MS	£1550
MICROPOLIS 1991W	9.0GB	WIDE	4MB	12MS	£1600
SEAGATE ELITE 9	9.0GB	F-SCSI	3MB	12ms	£1900

## CD ROM PLAYERS

PIONEER 127X	4X IDE	£145	<b>PANASONIC 4X PD SYSTEM DUAL MEDIA LF1004</b> <b>£475</b> <b>MEDIA: £39</b>
PANASONIC	4X SCSI	£165	
PIONEER 124X	4X SCSI	£175	
TOSHIBA 3601	4X SCSI	£215	
PIONEER JUKEBOX	4X SCSI	£495	
NEC 6Xi	6X SCSI	£265	
PLEXTOR 6PLEX	6X SCSI	£365	

## MODULAR DRIVE EXPANSION



The modular expansion chassis is designed so that capacity can be increased by stacking additional interlocking disk modules. Each disk module is removable for hot swap and portability. The system can operate with a single module and expand to keep pace with growing system demands. As many as seven modules can be stacked in a SCSI chain. The system provides for up to 45GB of fault tolerant storage. Support is provided for: Netware NT WINDOWS SUN SG APPLE IBM...

# ELECTRONIC DOCUMENT STORAGE

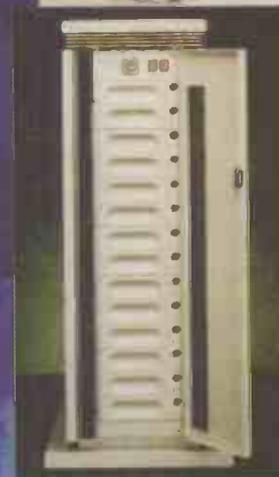


Custom document management solutions are available for a wide range of industries and professions including Legal, CAD, Medical, Insurance and many more. Solutions based on CD ROM or Re-Writable technology are available for individual or corporate implementation.

A complete installation service including large scale batch scanning and conversion of existing files is available. Solutions are based on non proprietary open ended technology with easy integration with both Microsoft Office and Lotus Notes.

## ARCHIVAL TECHNOLOGY

A4 10PPM DOCUMENT SCANNER	£1400
A4 27PPM DOCUMENT SCANNER	£3500
A3 20PPM DOCUMENT SCANNER	£4900
7 ROM QUAD SPEED TOWER	£2300
14 ROM QUAD SPEED TOWER	£4500
18 ROM JUKEBOX	£1850
500 ROM JUKEBOX	£12900
20GB RE-WRITABLE JUKEBOX	£4500
40GB RE-WRITABLE JUKEBOX	POA
120GB RE-WRITABLE JUKEBOX	POA
CD MANAGEMENT SOFTWARE	POA
DOCUMENT MANAGEMENT SOFTWARE	POA



## RE-WRITABLE OPTICAL DRIVES

Optical drives use removable media which have a typical life span of 25 years. The media is encased in a protective plastic layer which makes it virtually indestructible. Data can be written and erased just like a conventional hard drive. The Optical drives are available in both SCSI & Parallel port versions and can be connected to a wide range of machines including PC's MAC's & Unix Workstations SUN SG IBM E.TC..

### 230MB + 5 DISKS

230MB INTERNAL	£425
230MB EXTERNAL	£525
230MB PARALLEL	£625

### 650MB + 1 DISK

650MB INTERNAL	£750
650MB EXTERNAL	£850
650MB PARALLEL	£950

### 1.3GB + 1 DISK

1.3GB INTERNAL	£1350
1.3GB EXTERNAL	£1450
1.3GB PARALLEL	£1550



## OPTICAL MEDIA

TYPE	1	5	10
128MB	£18	£15	£14
230MB	£20	£18	£17
600MB	£45	£43	£40
650MB	£45	£43	£40
1.2GB	£55	£48	£45
1.3GB	£55	£48	£45

## CD ROM WRITERS

### MASTER YOUR OWN CD ROMS

Backup 640MB  
on CD ROM  
for £5

Complete External Units including  
Mastering software & 10 CD's

**CD-R 74Min Media**  
10+ : £6 50+ : £5.50 100+ : £5

**\*\*\* Special Offer \*\*\***

Buy a CD Writer from us and you can buy media from us any quantity at our 100+ price for life!

- BACKUP UP DATA ON PERMANENT ARCHIVAL MEDIA.
- DISTRIBUTE DATA TO ANY ONE EQUIPPED WITH A CD PLAYER.
- BUILD A LIBRARY OF PICTURES DOCUMENTS E.T.C.
- BUILD MULTI MEDIA PROGRAMS FOR DISTRIBUTION.

PINNACLE	DUAL SPEED	£1195
PHILLIPS	DUAL SPEED	£1495
YAMAHA	QUAD SPEED	£1895

# STORAGE Solutions! SCSI Experts!

HEWLETT  
PACKARD



HEWLETT  
PACKARD



HEWLETT  
PACKARD



HEWLETT  
PACKARD



## MONITORS

<b>SAMSUNG</b> 14" COLOUR	£149
<b>SAMTRON</b> 15" COLOR MONITOR	£215
<b>IDEK</b> MF-8115 15"	£POA
ME-8617A 17" 1280x1024ni	£POA
MF-8221A 21" 1280x1280 FST	£1239
MF-9121 21" 1600x1280	£1285
<b>NOKIA</b> 447L090 17" Trinitron	£469
447B090 17" Trinitron 1280x1024 60Hz	£509
447M090 17" Trinitron 1280x1024 76Hz	£645
47M092 17" Trinitron 1280x1024 60Hz	£695
445M092 21" TCO 1600x1200 60Hz	£1345
445X092 21" TCO 1600x1200 80Hz	£1575
<b>SONY</b> 15SF 15" 0.25mm dp 1280x1024	£294
17-SF1 17" 0.25mm dp 1024x768	£585
GDM 17SE1 17" 1600x1200 77Hz	£810
20SE1VT 20" 1280x1024	£1295
20SE1 20" 1600x1200	£1402
<b>HITACHI</b> 17mvt Value	£490
20 CM2096 1280 x1024 20"	£1020
CM2198M 21" FST 1600x1200	£1440
CM2199MET 21" FST 1600x1200	£1965
<b>PHILIPS</b> 17A 17" 1280x1024	£636
17B 17" AUTOSCAN	£568
17C 17" 1024x768	£420
20T 20" 1280x1024 Trinitron	£1412
20C 20" 1280x1024	£771
<b>NEC</b> XV15" 0.28mm 1024x768	£278
XV17" 0.28mm 1024x768	£555
XP17" 0.28mm 1360x1024	£908
XE21" 0.28mm 1280x1024	£1322
XP21" 0.28mm 1280x1024	£1748

## IDEK 17" Monitor

21"1600 X 1280 £1195

## £BEST

0.26 dot pitch FST  
1280x1024 at 80 Hz  
135 MHz band width  
MPR II, TuV and  
ISO 9241/3

3 years warranty

## GRAPHICS CARDS

ARTIST HURCULES  
ORCHID DIAMOND  
TAXAN MATROX

## VIDEO CARDS

VIDEOLGIC CARDINAL

## NOKIA

447L090  
17" TRINITRON

£469

445X 21" £1420

## SONY

15" Trinitron  
15SF

£299

CDP 1730 £599

## MITSUBISHI

33" PRESENTATION  
DISPLAY

£2995

SHARP, 3 COM, SONY, PROXIMA  
PROFESSIONAL DISPLAY SYSTEMS

## LASER PRINTERS

UPTO  
**1200dpi**

<b>QMS</b> PS1060 A4 600X600 12MB	£1575
PS1660 A3 1200X600 12MB	£2890
<b>TEKTRONIX</b> PHASER 140	£POA
PHASER 220e	£POA
PHASER 220i	£POA
PHASER 340 plus	£POA
PHASER 440 dye sublimation	£POA



<b>KYOCERA</b> FS-400 LED 300X1200 4PPM	£434
FS-1550 300X1200 10PPM	£874
FS-1600	£1084
<b>TEXAS INSTRUMENTS</b> MicroWrite PS	£525
MicroLaserPro 600 (23 fonts)	£799
<b>LEXMARK</b> OPTRA R	£965
OPTRA L	£1379
OPTRA LX	£1894
OPTRA LXI	£2294

## TEKTRONIX COLOUR PRINTERS



- PHOTO-QUALITY PRESENTATIONS
- PRE-FILM PROOFING
- PHOTOGRAPHIC PRINTING
- COLOUR SCREEN PREVIEWER
- PANTONE APPROVED

## SCANNERS

<b>EPSON</b> GT 6500+PicPub LE SCSI	£464
GT 8500+PicPub LE /Omni OCR	£497
GT 9000+PhotoShop LE	£678
GT 8500+PicPub 3.1 full version	£757
GT 9000+PhotoShop full version	£860
<b>LOGITECH</b> SCANMAN 32+Catchword win	£56
SCANMAN 256 PC	£78
SCANMAN COLOUR	£169
EASYSOFT SCANNER	£106
POWERPAGE	£299
<b>EPSON</b> GT9000	£678
<b>AGFA</b> STUDIO SCAN II si	£599
ARCUS II	£2225
<b>MICROTEC</b> ScanMaker II	£499
ScanMaker IIx	£755
ScanMaker SMIIG	£325
ScanMaker SMIISP	£595
ScanMaker SMIISPx	£775
ScanMaker 35T	£869
ScanMaker 45T	£3879
ScanMaker 2HR 1200x1200dpi	£925
ScanMaker 3 2400x2400dpi	£1945
<b>HEWLETT PACKARD</b> HP IICX 24bit A4 Flatbed	£673
HP IIP A4 Flatbed Scanner	£313



## ARCHIVE AND DISTRIBUTE 650MB ON CD FOR £4.50

PINNACLE DUAL SPEED EXT £1160  
PINNACLE DUAL SPEED EXT £1160  
JVC DUAL SPEED EXT £1099



## CD-R MEDIA 74 MIN (4X)

10+ : £ 4.50  
50+ : £ 4.00

## SCSI HDD

1 GB £295  
4.3GB £845

## AGFA Arcus +

WITH FULL PHOTOSHOP & PHOTOTUNE

£2225

STUSCAN £599

## CD-ROM DRIVES

<b>TOSHIBA</b> XM 5201 SCSI 2 Triple speed bare drive	£149
XM 3601B SCSI Quad speed Internal 4.4x	£225
XM 3601B SCSI Quad speed external 4.4x	£325
<b>NEC</b> 3XI Internal triple speed SCSI Drive	£215
3XP+ Triple speed portable	£245
4XI Internal quad speed Drive	£249
4X External quad speed Drive	£365
<b>MITSUMI</b> FX400D Quad speed ide	£109
Mitsumi interface card	£ 13

Tel: 0181-795 0971

MOST MAJOR CARDS ACCEPTED

Fax : 0181-795 0975

# STORAGE Solutions! SCSI Experts!

## HARD DISKS

### IDE

CONNER	420 MB	£109
MAXTOR	545 MB	£129
QUANTUM	540MB	£149
MICROPOLIS	1.0GB	£235

### SCSI Seagate

HAWK 1	1.05GB	£399
BARRACUDA	2.1GB	£909
HAWK 4	4.3GB	£1399
BARRACUDA	4.29GB	£1609

### SCSI

QUANTUM	730MB	£169
HP	1.0GB	£365
MICROPOLIS	1.75GB	£425
QUANTUM	1GB/AV	£455
MICROPOLIS	2.0GB	£595
MICROPOLIS	4.3GB	£850
MICROPOLIS	9.0GB	£1585
MICROPOLIS	AV DRIVES	£BEST

## IOMEGA

### ZipDrive

# £129

REMOVABLE DISKS 100Mb  
DISKS £9.95

## BACK-UP

### DAT DRIVES

WANGDAT 3100 2.0GB	£579	£635
WANGDAT 3200 2-8GB	£649	£705
SONY SDT5200 4GB	£600	£650
SONY SDT5000 4-16GB	£609	£669
EXABYTE 4402 8GB	£CALL	£CALL

\* KIT INCLUDES - EXT.DRIVE, SCSI CABLE, 1 PC OF MEDIA & HEAD CLEANING TAPE.

### BACK-UP SOFTWARE

ARKSolo	DOS	£85
ARKSolo	Windows	£105
ASD-5	5 User	DOS £180
ASW-5	5 User	Win £189
ASW-10	10 User	Win £389



### SCSI CONTROLLERS

Adaptec 1522	£125
Adaptec 1542 Full kit	£165
Adaptec 358 MINI SCSI (Enh parallel port)	£135
Adaptec 460 PCMCIA Full kit	£165
DPT Cashing Controller ISA 0K	£155
DPT Cashing Controller PCI 0K	£255

## UPGRADES

Have your PC upgraded by professional technicians.

- \* We can upgrade your PC at our workshop while you wait from as little as £15
  - \* We can upgrade your PC at your site (within London Area) from as little as £35
  - \* We can collect and deliver your PC anywhere in UK mainland.
- Call for booking details.

## INSTALLATION

## SONY DAT SDT 5000

### 4-16 GB DAT SOLUTION

# £549

1.3 Gb OPTICAL £1095

## FUJITSU 230 MB OPTICAL DRIVE

# £490

with Future Domain sesi card and 1 disk

## OPTICAL STORAGE

PANASONIC LF3002 128MB	£625	£745
LMD 300 128MB MEDIA	£13	
PANASONIC LF7304 1.5GB	£1449	£1499
LMD702W 1.5GB MEDIA	£124	
FUJITSU M2512A 230MB	£365	£415
FUJITSU M2512A 230MB KIT *	£460	£510
FUJITSU 230MB MEDIA	£19	
SONY S521 1.3GB	£1095	£1095

\* KIT INCLUDES - DRIVE, SCSI CABLE & 3 PCS OF MEDIA

## HEWLETT PACKARD

Deskjet 320	£163	Laserjet 4L	£347
Deskjet 540	£203	Laserjet 5P	£583
Deskjet 600c	£293	Laserjet 5MP	£702
Deskjet 850c	£385	Laserjet 4+	£933
Deskjet 1200c	£595	Laserjet 4M+	£1259
Deskjet 1200c ps	£984	Laserjet 4Si	£2052
Deskjet 1600c	£823	Laserjet 4SiMX	£2925
Deskjet 1600c ps	£1226		

### STORAGE

Designjet 220	£1460	35470 2GB DAT	£559
Designjet 600	£2760	35480 2-8GB	£659
Designjet 650c	£3775	C1533A 4-16GB	£725
		C1300T Optical	£1850
		C1716T Optical	£1750

## CD RECORDERS

JVC DOUBLE SPEED INT	£1330
PHILIPS DOUBLE SPEED EXT	£1485
KODAK DOUBLE SPEED EXT	£1475
YAMAHA QUAD SPEED INT	£1789
YAMAHA QUAD SPEED EXT	£1865
CD ROM MEDIA	£7

## HARMONY PC

486 DX4/100  
4Mb MEMORY  
540 Mb HARD DISK  
14" SVGA MONITOR

# £585

## CD RECORDER YAMAHA

# £1770

Quad Speed Multi-Session Records CD-ROM, CD-I and CD AUDIO. Including software sesi card and 2 blank CD ROM.

## HEWLETT PACKARD STORAGE!

DAT STORAGE		OPTICAL STORAGE	
HP 35470 2.0GB	Internal £509	HP C171C 650MB	£1820
HP 35470 2.0GB EXT. KIT*	External £679	HP C1716T 1.3GB	£1345
HP 35480 2-8GB	£619		£1979
HP 35480 2-8GB EXT. KIT*	£659		£1495
HP C1533A 4-16GB	£669		
HP C1533A 4-16GB EXT. KIT*	£725		
	£849		

\* DAT KITS INCLUDE - DRIVE, EXTERNAL CASE, ALL CABLES, SCSI TERMINATOR, 3 X 9MM 2-GB TAPES & ARKSOLO

## 20 Gb JUKEBOX 20XT

# £3750

HEWLETT PACKARD

## MEDIA

100 3.5" Disks	£25
88 Mb SyQuest	£39
90 Meter DAT	£7.50
128 MB OPTICAL	£14
230 MB OPTICAL	£19
1.3 GB OPTICAL	£51

CALL FOR QUANTITY PRICING!

## HARMONY PC

PENTUM 90  
8Mb MEMORY  
540 Mb HARD DISK  
PCI GRAPHICS CARD  
14" SVGA MONITOR

# £925

## MOTHER BOARDS

VESA Local Bus	PCI	
486DX2/66 256k	486DX4-100	£175
486DX4/100 a 256k	Pentium-75	£245
486DX4/100 i 256k	Pentium-90	£325
	Pentium-100	£389

## SIMM

30 Pin 1 x 9 - 70	3 chip	£26
30 Pin 4 x 9 - 70		£99
72 Pin 1 x 36	4 MB	£115
72 Pin 2 X 36	8 MB	£225
72 Pin 4 x 36	16 MB	£335

# 4MB £99

## B.D.C.S.

PRODUCTS ARE NOT SOLD ON A TRIAL BASIS. PLEASE CHECK SPECIFICATIONS & COMPATIBILITY BEFORE PURCHASING. PRICES AND SPECIFICATIONS MAY CHANGE WITHOUT NOTICE. E. & O.E.

Business Data & Communication Systems Ltd  
Trinity House, Heather Park Drive, Wembley, HA0 1SU.  
Prices & Specifications May Change Without Notice E.&O.E.  
All Prices Exclude VAT & Delivery Charges. Products Are Not Sold On Trial Basis

AUTHORISED APPLE RESELLER

SCSI DAT! Drives! Raid! SCSI Optical! Experts!



## Desktop PC's

### FOX Ascendant PCI

Mini Tower Case  
Intel CPU, 256Kb Cache  
8Mb 70ns Memory  
E-IDE 32bit PCI Controller  
730Mb 12Ms Hard Drive Mode 3  
3.5" Floppy Drive  
16550 UART, 2 Serial, 1xParallel  
Diamond Stealth 64D PCI 1Mb Graphics Card  
15" FST Colour Monitor 1024x768 @ 76Hz NI  
Microsoft Series II Mouse  
Cherry or Fujitsu Keyboard  
Quad Speed CD ROM  
Windows 95 option  
24 Months Warranty, (1st Year on site)

P75MHz	£1124
P90MHz	£1219
P100MHz	£1299
P120MHz	£1409
P133MHz	£1499

**Fox Premier VESA VLB**  
Choice of Desk Top or Mini Tower Case  
128Kb External Cache  
4Mb 70ns Memory  
E-IDE Hard Drive Controller  
630Mb 12Ms Hard Drive Mode 3  
3.5" Floppy Drive  
2 x Serial 16550 UART, 1x Parallel Port  
Diamond Stealth SE 1Mb  
14" Colour Monitor 1024x768  
Logitech Mouse  
UK 102 Keyboard  
DOS 6.22  
24 Months Warranty

486DX2/66MHz	£629
486DX4/75MHz	£639
486DX4/100MHz	£659
Pentium 75MHz	£769
Pentium 90MHz	£849
Pentium 100MHz	£919
Pentium 120MHz	£1039
Pentium 133MHz	£1129

**Options**  
Dualspeed CDROM, Creative Lab Sound  
Blaster 16, Speakers, MS Works, Money,  
Musical Instruments, Dangerous Creatures,  
MS Entertainment Pack, Encarter 95.

**Internet:**  
14.4 Internal/External Fax Modem, 6  
Months internet access.

### FOX Award PCI

Intel CPU, 256Kb Secondary Cache  
8Mb 70ns Memory  
E-IDE 32bit PCI IDE Controller  
730Mb 12Ms Hard Drive Mode 3  
3.5" Floppy Drive  
16550 UART, 2 Serial, 1x Parallel  
Diamond Stealth 64 PCI 1Mb Graphics Card  
15" FST Colour Monitor 1024x768@76Hz NI  
Microsoft Series II Mouse  
Cherry or Fujitsu Keyboard  
Windows 95 option  
24 Months Warranty, (1st Year on Site)

486DX2/66MHz	£899
486DX4/75MHz	£819
486DX4/100MHz	£899
Pentium 75MHz	£1024
Pentium 90MHz	£1190
Pentium 100MHz	£1189
Pentium 120MHz	£1299
Pentium 133MHz	£1399

### Fox Acclaim PCI

Mini Tower Case  
Intel CPU, 256Kb Secondary Cache  
4Mb 70ns Memory  
E-IDE 32bit PCI IDE Controller  
630Mb 12Ms Hard Drive Mode 3  
3.5" Floppy Drive  
2 Serial, 1x Parallel  
Diamond Stealth SE 1Mb PCI Graphics Card  
14" Colour Monitor NI 1024x768@72Hz  
Microsoft Series II Mouse  
Fujitsu or Cherry high quality keyboard  
Windows 95 option  
24 Months Warranty (1st year on site)

486DX2/66MHz	£719
486DX4/75MHz	£739
486DX4/100MHz	£759
Pentium 75MHz	£869
Pentium 90MHz	£969
Pentium 100MHz	£1019
Pentium 120MHz	£1139
Pentium 133MHz	£1219

**Digital Hi Note:**  
Travel light with the DEC HiNote, because it's one of the lightest & slimmest notebooks in its class. Measuring 279x216x38. It will fit comfortably in a briefcase, it weighs just 2.3kg. Hot Swap, 9.5" Display, PCMCIA, Integrated Trackball & Keys.  
Hi Note 486DX2/50 DS Colour 4/240Mb ..... £1299  
Hi Note 486DX2/50 TFT Colour 4/240Mb ..... £1999  
Hi Note Ultra 486DX4/75 DS Colour 8/340Mb ..... £2969

**Fox Note Book:**  
Range: upgradeable screen, Intel Inside, 1Mb Video Accelerator, 32 bit VL bus, 9.5" TFT Screen, 10.5" Mono. Sound Blaster compatible Speakers Built in, CPU, HDD, 2xPCMCIA slots, Built in trackball, docking station option, supplied with leather case.

	Mono	DS	TFT
FOX486DX33 4/340Mb	£895	£1239	£1699
FOX486DX2/66 4/340Mb	£939	£1289	£1746
FOX486DX4/100 4/340Mb	£999	£1379	£1839

★ INTEREST FREE CREDIT AVAILABLE ★

### FOX Computer Systems

Opening Times:  
Mon - Fri 9am - 6pm  
Sat 10am - 5pm  
BBS 24 Hours

### Upgrade Service!

If you're unsure about upgrading your PC, let our qualified engineering team do it for you.

Save pounds by getting it right first time

### HP NET Servers

#### Hewlett-Packard NET SERVERS

HP NET SERVER 4/66LC-540Mb, 8Mb	£1675
HP NET SERVER 4/1000LC-1Gb, 8Mb	£1909
HP NET SERVER 4/100LF 1Gb, 8Mb, CD	£2009
HP NET SERVER 5/66LF-1Gb, 16Mb, CD	£3089
HP NET SERVER 5/66LM 1Gb, 16Mb, CD	£3999
HP NET SERVER 5/100LM 16Mb	£2979
HP NET SERVER 4/100LF-1 ARRAY 8/CHASSIS/CD	£3289
HP NET SERVER 4/66LM-200 16/2X1G/CD	£6159
HP NET SERVER 5/66LM-1 16/2X1G/CD	£6059
HP NET SERVER 5/66LM-1 ARRAY 16/CHASSIS/CD	£4879
HP NET SERVER 5/66M2-1 16/NO/NE	£5679

Prices exclude VAT @ 17.5% and delivery. All trademarks acknowledged. Fox Computer Systems terms and conditions available on request. E&OE. Prices and specification subject to change without prior notice.

# FOX... Your 1st choice for PC's, Storage

Tel: 01621 744500

### Floppy & Optical

1.44Mb 3.5" Auto Detect	£18
1.22Mb 5.25" Auto Detect	£32
10 Pack 1.44Mb Preformatted FDD	£4
21Mb Insite Floppical Disk Drive	£179
21Mb Floppical Diskettes	£12
1.44/1.22Mb Combo Drive	£89

### Backup Devices

#### TAPE Drives

<b>Colorado</b>	
DJ-20 250Mb Internal IDE	£78
DJ-35 350Mb Internal IDE	£88
DJ-25 680Mb Internal IDE	£144
DJ-50 1.4Gb Internal IDE	£235
JT-30x Traker 250Mb External	£185
JT-35 Traker 350Mb External	£175
JT-25 Traker 700Mb External	£239
Traker carrying case	£35

<b>Connor</b>	
250Mb Internal IDE	£89
450Mb Internal IDE	£119
850Mb Internal IDE	£209

<b>Imega</b>	
420Mb 3.5" Internal	£75
700Mb 3.5" Internal	£119
700Mb 3.5" External	£199

<b>Syquest IDE</b>	<b>SCSI</b>	<b>Media</b>
105Mb 3.5".....£149	£185	£39
270Mb 3.5".....£255	£259	£44
88Mb 5.25".....£-	£175	£49
200Mb 5.25".....£-	£259	£59

<b>Wantek</b>	
700MC 680Mb	£189
5525K 525Mb Internal SCSI	£335
51000K 1Gb Internal SCSI	£469

### DAT Drives

<b>Hewlett Packard Superstore</b>	
HP35470A 2Gb 3.5" Internal	£549
HP35380A 2.8Gb 3.5" Internal	£649
HPC1533AA 4-16Gb 3.5" Internal	£699
Internal Fixing Kit	£19
JS2000 2Gb External	£619
JS5000 4Gb External	£689
JS6000 8-16Gb External	£789
JS12000e 48Gb AutoLoader	£1979
HP DAT Drive Support Pack (3 Years OSF)	£199

### WangDat

3100 2Gb 4mm 5.25" Internal	£519
3200 2-4Gb 4mm Internal	£599
3400 4-8Gb 4mm Internal	£719

### Connor

4320 2Gb 4mm 5.25" Internal	£629
4324 Python Turbo 4mm 5.25" Internal	£539

### OPTICAL Drives

<b>Fujitsu</b>	
M2512A 230Mb Magneto Optical Internal	£399
M2512A 230Mb Magneto Optical External	£588

<b>Panasonic</b>	
LF7304 1.5Gb Phase Change Internal	£1489
LF7304 1.5Gb Phase Change External	£1589

<b>Hewlett-Packard</b>	
C1716 1.3Gb External 3Yr Warranty	£1749
C1716 1.3Gb External 3Yr Warranty	£1869

Note external case available.

### Tape & DAT Cartridges

<b>Tape</b>	<b>IOF</b>	<b>5PK</b>
DC2120 120Mb	£8	£45
DC6150 150Mb	£12	£55
DC6250 250Mb	£15	£69
DC6525 525Mb	£17	£79
<b>DAT</b>	<b>IOF</b>	<b>5PK</b>
4mm 2Gb 90 metres	£10	£48
4mm 4Gb 120 metres	£15	£69
<b>Optical</b>		
PTT25 1.2Gb	£28	
PT50 2.0Gb	£38	
LMR1500A 1.5Gb	£109	
OM230 230Mb	£25	

### Printers

<b>Hewlett Packard</b>	
Deskjet 320 Ink Jet	£179
Deskjet 540 Ink Jet	£209
Deskjet 560C Ink Jet	£292
Deskjet 850C Ink Jet	£390
Laserjet 4L	£389
Laserjet 5P	£659
Laserjet 4PL	£739
Laserjet 4 Plus	£839
Laserjet SMP	£855
Laserjet 4M Plus	£1269
Laserjet 4Si	£205
Laserjet 4VA3	£1389
Laserjet 4MVA3	£2279
Laserjet 4Si MX	£2929
Laserjet Colour	£4195

<b>Epson</b>	
Epson LQ100	£99
Epson LQ570	£215
Epson LQ1070	£279
Epson Stylus 800	£169
Epson Stylus Colour	£369

Call for a free Windows based brochure

### FOX Servers



When so much depends on one unit choose the best integrated system from the system specialist. Best for price, best for reliability, best for maintainability.

### PCI Pentium 75/90/100Mhz

Full Tower Case 250Watt Approved PSU  
Pentium Motherboard with 256Kb Cache  
512Kb Graphics Adapter  
14" SVGA Mono Monitor  
Adapter 2940 SCSI-2 Hdd Controller  
102 Keyboard  
16Mb 70ns Memory  
2.1Gb Fast SCSI 9ms 2700rpm Hard Drive  
Dlink PCI BNC/RJ45 Ethernet Adapter  
1 Parallel, 2 serial  
5 Years Limited Warranty

P75	P90	P100	P120
£1899	£1999	£2099	£2199

### RAID 3 Pentium 75/90/100Mhz

Full Tower Case 250Watt Approved PSU  
Pentium Motherboard with 256Kb Cache  
512Kb Graphics Adapter  
14" SVGA Mono Monitor  
Mylex DC-960 PCI Wide Raid + 4Mb Cache  
102 Keyboard  
16Mb 70ns Memory  
3 x 1Gb Fast SCSI 9ms Hard Drive(Raid level 3)  
Dlink PCI BNC/RJ45 Ethernet Adapter  
1 Parallel, 2 serial  
5 Years Limited Warranty

P75	P90	P100	P120
£2699	£2789	£2879	£2999

### Network Accessories

#### Ethernet Adaptors

<b>SMC</b>	<b>ISA</b>	<b>EISA</b>	<b>PCI</b>
SMC Elite BNC/RJ45 Combo	£49	£95	£95

#### Trust

NE2000 16 Bit SW Programmable ..... £19

#### 3 Com Etherlink III

3C509 BNC/RJ45 Combo ISA	£59
3C579 BNC/RJ45 Combo EISA	£129
3C590 BNC/RJ45 Combo PCI	£149
PCMCIA Combo	£109

#### Ethernet Hubs & Repeaters

8 port Smart Hub BNC	£129
16 port Smart Hub BNC	£229
2 port Repeater BNC/AUI	£149
6 port Repeater BNC/AUI	£299
3 port Ethernet print server	£119

<b>Network users</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>
312	£389	£889	£1319	£POA
4.0	£545	£1245	£1825	£POA

### UPS

American Power 400VA	BK	£109
American Power 600VA	SU	£205
American Power 900VA	SU	£359
American Power 1250VA	SU	£499
American Power 2000VA	SU	£899

### Scanners

<b>Trust</b>	
Mini Hand Scanner 400dpi	£39
Colour Hand Scanner 400dpi	£79
A4 Flat Bed 24bit Colour 1200dpi	£289
A4 Flat Bed 24bit Colour 2400dpi	£379
Transparency Kit	£175

<b>Hewlett Packard</b>	
HP Scanjet 3P	£349
HP Scanjet IICX PCAT/MAC/PS2 400-1600dpi	£689

<b>Nikon</b>	
Nikon CoolScan LS-10E 35mm External	£1045
Nikon CoolScan LS-10i 35mm Internal	£1205

<b>Epson</b>	
GTX Series Inc. Adobe Photoshop LE, Omnipage OCR	
GTX 8500 Parallel	£495
GTX 8500 SCSI	£495
GTX 9000 Parallel	£602
GTX 9000 SCSI	£672
GTI Series Inc. Adobe Photoshop Full Ver. Omnipage OCR	
GTI 8500 Parallel	£745
GTI 9000 SCSI	£855

### Digitising Tablets

12"x12" DIGITISING TABLET	£109
12"x18" DIGITISING TABLET	£179

### Modems BABT Approved

<b>Trust</b>	<b>Int</b>	<b>Ext</b>
14,400 Fax/Modem	£69	£79
28.8 Internal	£159	£169

### US Robotics

SPORTSTER 14,400 Fax/Modem	£109	£119
SPORTSTER 28.8 Fax/Modem	£209	£189
Courier V34 Fax/Modem	£265	£289
World Port DS CELL PICT	£165	

<b>Hayes</b>	
Accura 14,400 Fax/Modem	£149
Accura 28.8 Fax/Modem	£189
Optima 14.4 Fax/Modem	£259
Optima 28.8 Fax/Modem	£349
Optima PCMCIA 14,400	£199



# MULTIMEDIA WITH A BONUS

INTERNET • FAX MODEM • ANSWERPHONE • VOICE MAIL • RADIO • MUSICSTAR

WELL OVER £1000!! WORTH OF SOFTWARE



## POWERFUL MULTIMEDIA PLATFORM

- ◆ MPC 3 Standard
- ◆ Intel Pentium 75MHz processor
- ◆ 8Mb RAM
- ◆ Quad Speed CD ROM
- ◆ Wavetable 16bit soundcard
- ◆ 80 watts powerful active speakers
- ◆ 14" Monitor SVGA .28 NI MPR11
- ◆ 1Mb PCI graphics accelerator
- ◆ Windows™ 95 ready



## COMMUNICATIONS

- ◆ Answerphone / Voice mail and music on hold
- ◆ Fax modem 14,000 bps fax
- ◆ Internet free connection - 3 hours and up to 90 e-mail free per month
- ◆ 1 month free connection to CompuServe® Services include Hutchinson Encyclopedia, News, Stock Quotes, Airline Schedules, AA travel information, The UK's What's on guide, The new UK shopping Centre and more and more and more

## SOFTWARE

Comes complete with a staggering 51 CD software titles PLUS Microsoft DOS® 6.2 and Microsoft Windows™ installed and Lotus Ami Pro™ & Lotus Organizer™.



### 11 ENTERTAINMENT CD TITLES

- ◆ Cyberia™ • Sim City 2000™ • Dragon Lore™ • Privateer™ • Chessmaster Turbo™ • Mega Race™ • Space Adventure • Space Shuttle™ • Speed™ • SSN-21 Seawolf™ • World Cup Golf: Hyatt Dorado Beach™ •

### 18 EDUCATIONAL CD TITLES

- ◆ Grolier™ Multimedia Encyclopedia • Math Blaster™: The Search for Spot • World Attack 3D • Kid Cad™ • Student Writing Center™ • Capitol Hill™ • Mav's Beacon Teaches Typing™ • World Atlas® • US Atlas® • 20th Century Video Almanac™ • The Four Seasons Gourmet French Cuisine™ • Oceans Below™ • Macromedia™ Action! • Sports Illustrated™ 1995 Multimedia Sports Almanac • Tax-Cut Headstart Edition™ • Undersea Adventure • Clipmedia® 2SE •

### 8 CHILDREN'S CD TITLES

- ◆ Yearn to Learn™ - Peanuts Coloring Book • Dr. T's Sing-A-Long Kids' Classics™ SE • Milly Fitzwilly Mouse Catcher™ • The Friends of Emily Culpepper™ • The Little Engine™ • The Yukadoos™ • The Pirate That Wouldn't Wash™ • The Wrong Way Around the World™ •

### 4 MUSICAL TITLES With FREE Midi Keyboard

- ◆ Jam Session • Recording Studio • Music School • Private Lessons • plus Free Midi Keyboard •

### 10 AUDIO TITLES

## CONFIGURATION OPTIONS | add prices to the base price for Pentium or DX2|

Specifications as above on a DX2-66 platform

Ram Upgrades	Hard Disk Upgrades	Monitor Upgrades	Processor upgrades
From 8Mb to 16Mb +£240	From 540Mb to 850Mb +£45	From 14" to 15" monitor +£95	Pentium 75MHz to Pentium 90MHz +£70
From 8Mb to 32Mb +£720	From 540Mb to 1Gb +£90	From 14" to 17" monitor +£390	Pentium 75MHz to Pentium 100MHz +£145

**NEW**

## ANSWERPHONE FOR PC

Add an answerphone and phone book organiser to your computer system

### Features include:

- Answerphone with 9 voice mail boxes
- Music on hold from multiple sources
- Phonebook organiser with auto dialler
- Microphone for speakerphone use



## FAX MODEMS

**FREE** COMPU SERVE & INTERNET CONNECTION



## Join CompuServe and the Internet Free with this special offer

There's no easier way to get online. Monthly membership gives you unlimited access to Basic Services including "PA" News, The Hutchinson Encyclopedia, stock quotes, airline schedules, AA travel information, UK what's on guide, UK shopping centre, 3 hours free Internet access every month and up to 90 e-mail messages

### Every fax modem includes

- ▼ CompuServe start-up kit supplied with one month free membership
- ▼ BAPT approved modems
- ▼ Fax Works Easy to use full version modem and fax software not just any 'lite' version
- ▼ Four bonus points

<b>14.4K INTERNAL FAX MODEM</b> £299	<b>28.8K INTERNAL FAX MODEM</b> £139
14,400 bps V. 42 bis MNP5	28,800 bps V.fast class
Complete with CompuServe & FaxWorks	Complete with CompuServe & FaxWorks
<b>14.4K EXTERNAL FAX MODEM</b> £299	<b>28.8K EXTERNAL FAX MODEM</b> £139
14,400 bps V. 42 bis MNP5	28,800 bps V.fast class
Complete with CompuServe & FaxWorks	Complete with CompuServe & FaxWorks

## MULTIMEDIA

## SPECIAL OFFER

**4X QUAD**  
UPGRADE KIT

Quad speed CD ROM drive,  
16 bit stereo soundcard  
& 8 watt speakers, headset  
with microphone

**£179**

15 software titles  
including CD's

Return to Zork

Wing Commander II,

Grolier Encyclopedia,



### QUAD & DUAL SPEED CD ROMS

- Quad speed NEC/MITSUMI CD ROM drive **£99**
- High Speed IDE ATAPI adaptor **£10**
- Dual speed, multi session. **£79**

## MULTIMEDIA ACCESSORIES



Each Multimedia accessory comes with 2 bonus points

### SOUND CARDS

- SOUND FX PRO** 16 stereo soundcard IDE, Quad speed. Panasonic, Sony & Mitsumi interface. With 10 software titles including Audiostation **£45**
- 16 BIT WAVETABLE** synthesis stereo soundcard IDE, Quad speed. Panasonic, Sony & Mitsumi Interface. With 10 software titles including Audiostation **£75**
- SPEAKERS**
- 20 watt** active stereo speakers Fully shielded, volume, bass & treble controls **£25**
- 80 watt** active stereo speakers Fully shielded, volume, bass & treble controls **£39**

# MULTIMEDIA WITH A BONUS

## TUNE TO YOUR FAVOURITE STATION

### TV CARD

- Watch your favourite TV programmes
- Capture and use images in documents
- Works with camcorders and VCR's too

£139

BONUS 2 POINTS



### RADIO CARD

- Tune your PC to your favourite radio station
- All necessary cables & adaptor plugs
- User friendly software and manuals



Soundcard not required

£25

BONUS 2 POINTS

### HARD DRIVES

- Step by Step installation video included



- 540Mb Seagate drive
- 1Gb Seagate drive

£139

£225

### TAPE DRIVES

#### BETTER SAFE THAN SORRY

- 1.300Mb Capacity
- High performance Interface card
- Up to 10Mb per minute backup speed
- Includes software & mounting brackets
- Industry standard QIC-3020-MIC format
- Backward read compatibility with QIC-80 and Irwin 80



£149

### MEMORY

Memory upgrades 8Mb, 16Mb, 32Mb available please ask for more details

## PC-TV-HIFI-FAX-MODEM

INC. 12 CD'S OR 20 BONUS POINTS



£995

£1395

- DX2-66 processor
- 540 Mb IDE hard disk
- 4 Mb RAM 128k cache
- TV Card
- Dual Speed CD Rom
- 16 bit stereo soundcard
- 14" SVGA .28 NI/1Mb monitor
- 80 Watts active speakers
- Modem 14.4 bps + CompuServe®
- Multidirectional Gamepad
- Pentium 75MHz processor
- 540 Mb IDE hard disk
- 8 Mb RAM 256k cache
- TV card
- Quad Speed CD ROM
- 16 bit stereo soundcard
- 14" SVGA .28 NI/1Mb monitor
- 80 Watts active speakers
- Modem 14.4 bps + CompuServe®
- Multidirectional Gamepad

All PC's are supplied with 2 x serial port, 1 x parallel port, integrated fast I/O and fast IDE. 1.44Mb 3.5" floppy disk drive, serial mouse with drivers, 102 enhanced keyboard, Windows™ for Workgroups 3.11 and Microsoft DOS® 6.22 installed.

OTHER PC CONFIGURATIONS AVAILABLE PLEASE ASK FOR DETAILS

#### PC-TV-HIFI-FAX-MODEM DX2-66

Payment calculations for system costing £995 Exc VAT:  
 £995 + £15 delivery + 17.5% VAT  
 = £1186.80 Total cash price. 20% deposit of £237.35 required followed by 36 monthly payments of £34.49 (APR = 19.9%)



#### PC-TV-HIFI-FAX-MODEM PENTIUM™ 75MHz

Payment calculations for system costing £1395 Exc VAT:  
 £1395 + £15 delivery + 17.5% VAT  
 = £1656.80 Total cash price. 20% deposit of £331.35 required followed by 36 monthly payments of £46.15 (APR = 19.9%)



Additional payment protection insurance is available. Western Systems (Europe) Limited is a licensed credit broker credit facilities are subject to status.

## THE SOFTWARE BONUS

### BONUS POINTS create your own software bundle

Cash in your bonus points and create your own software bundle. It's dead simple. The Bonus points are shown next to each item you purchase. The value points of each software title is indicated below. Just add-up and convert Bonus Points to software titles

- 8 POINT TITLES** • Interplay 10 titles • 7th Guest • Undersea/Space/Speed • Iron Helix • Cyberia • Return to Zork • Microsoft Works • 3D Dinosaur/Kids Zoo • Guinness book of Records • Sim City 2000 • Theme Park • Grolier Multimedia Encyclopedia '95



- 4 POINT TITLES** • Wing Commander II • Dragon Lore • Strike Commander • The Hoarde • Kings Quest • Mega Race • Seawolf • World Cup Golf • Star Wars Chess • Macromedia Action/Clipmedia II • 20th Century Video Almanac • Oceans Below



- 2 POINT TITLES** • Super VGA Harrier • It's a Birds Life • Links Golf • USA Today • National Parks • The Family Doctor • T2 Screen Saver • Spectre VR • That's Geek to Me • National Parks • Strategy Football • Chessmaster • Tutor Value Collection



## Musicstar

### 4 GREAT CD TITLES

#### PRIVATE LESSONS



#### JAM SESSION



#### MUSIC SCHOOL



#### RECORDING STUDIO



Buy the Musicstar software package comprising of these four highly recommended music software titles and get a Midi Keyboard free. The Musicstar software is also fully compatible with other Midi keyboards

BONUS 4 POINTS

ONLY

£69

FREE!! Midi Keyboard



## RED HOT & GOLD MEDAL

The Perfect Presents 12 CD Titles in each

Red Hot Pack: Super VGA Harrier™, Links Golf™, National Parks 2, It's a Birds Life™, Terminator 2™, Spectre VR™, That's Geek to Me™, USA Today™, Strategy Football™, Tutor Collection™, Family Doctor™ and Chessmaster™.

Gold Medal Pack: Blue Force™, DuneII™, Jetfighter™ II, Mailstrom™, Microcosm™, Show President™, Darklands™, Cyber Race™, Casino Master Gold Edition™ and The Complete House™.

£25

PER PACK



CALL NOW 0181 845 8383

WESTERN SYSTEMS (EUROPE) LIMITED

OPENING HOURS:

Mon - Fri: 9.00 - 6.30

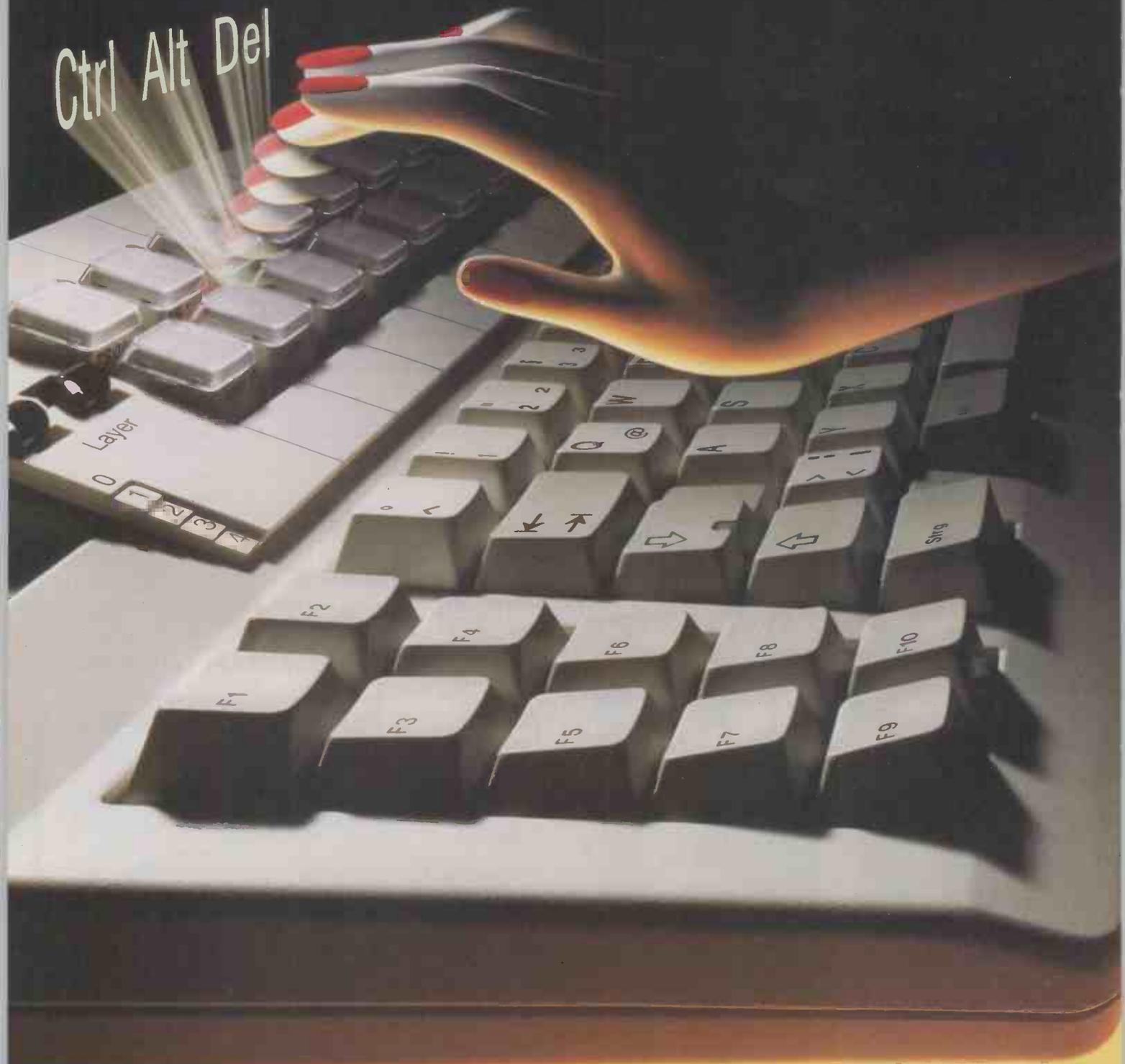
Sat: 10.00 - 2.00

Western House, Braintree Road, Ruislip, Middlesex, HA4 0EJ. Tel: 0181 842 0071 Fax: 0181 841 3891

All prices are exclusive of VAT. Inland delivery £15 per systems and £5 on other items. All sales are subject to Western Systems (Europe) Limited Terms and Conditions, available on application. E&OE. The Intel Inside Logo is a trademark of the Intel Corporation. All Trade marks recognised. Western Systems reserve the right to substitute CD Titles.

The Keyboard that adapts to your Needs.  
Now you can program 240 different Memory Keys  
yourself.

Ctrl Alt Del



**CHERRY** 

Keyboards Made in Europe.

Cherry Electrical Products Ltd., Coldharbour Lane, Harpenden, Herts., UK - AL5 4UN, Phone: (01582) 763 100, Telefax (01582) 76 88 8;  
Cherry Mikroschalter GmbH, Postfach 12 20, D-91 271 Auerbach/Opf., Telefon: (09643) 18-206, Telex 631 635 cher d, Telefax: (09643) 18-261;  
Cherry Sàrl, 1 Avenue des Violettes, Z.A. des Petits Carreaux, F-94 384 Bonneuil/M. cedex, Tél.: 1-43 77 29 51, Télex: 262 657 cher f, Téléfax: 1-43 77 20 84

In 24 freely programmable keys in each of 10 layers, you can store everything you need to make your work considerably easier: e. g. command sequences and text boilerplates. With a nonvolatile 2048-byte keyboard memory with backup battery. Outstanding ease of use. High degree of reliability. All memory keys can be reasigned. Selectable data transfer speed. User-friendly downloading program. IBM-compatible for PC, XT, AT and PS/2 systems. Ideal for word processing, software development, program operation and other user-oriented software applications. In CFC-free European quality. 100 % tested. 90 % recyclable. In all major country and language versions. With all approvals and certifications. Because Cherry's standard of quality won't stand for any compromises. Send today for further technical details!



Word processing



Software development



CAD

# DO YOU TRADE WITH THE USA? THEN YOU NEED TO CALL US!

**Low cost airfreight rates sold to you direct, not your agent.**

- \* Airport to Airport \*
- \* Airport to Door \*
- \* Door to Door \*

## EXAMPLE WHOLESALE AIRFREIGHT TARIFF

### US DOOR TO UK AIRPORT SERVICE

From	Minimum Charge	Up to 300kgs	Over 300kgs	Over 500kgs	Over 1000kgs
New York	£9.50	£0.66	£0.59	£0.56	£0.53
San Francisco	£13.00	£0.99	£0.96	£0.93	£0.89

### US DOOR TO AIRPORT SERVICE

From	Minimum Charge	Up to 300kgs	Over 300kgs	Over 500kgs	Over 1000kgs
New York	£29.50	£0.83	£0.79	£0.73	£0.66
San Francisco	£29.50	£1.19	£1.13	£1.03	£0.99

**For more information on other routes simply call EUROSELL**

**EUROSELL = LOW COST  
AIRFREIGHT, NO MIDDLEMEN,  
RATES SOLD DIRECT**

**eurosell**  
12 Gatwick Metro Centre

**TEL: (44) 01293 - 821721**

# RICHNIGHT

SERVICING THE INDUSTRY SINCE 1987 - SPECIALISTS IN MEMORY UPGRADE

## 30 & 72 PIN SIMM

30 PIN SIMM	60NS	70NS	80NS	100NS	30 PIN SIMM	60NS	70NS	80NS	100NS
256K X 8 BIT - 2 CHIP				3	1MB X 9 BIT - 3 CHIP	CALL	30	28	
256K X 9 BIT - 3 & 9 CHIP		10	10	8	1MB X 9 BIT - 9 CHIP	CALL	31	31	CALL
1MB X 8 BIT - 8 CHIP			28		4MB X 9 BIT - 9 CHIP	115	105	105	
72 PIN SIMM	60NS	70NS	80NS	72 PIN SIMM	60NS	70NS	80NS		
1MB = 256K X 36 BIT		40	40	8MB = 2MB X 36 BIT		250	240		
2MB = 512K X 36 BIT			75	16MB = 4MB X 32 BIT		370	350		
4MB = 1MB X 32 BIT		115	110	16MB = 4MB X 32 BIT EDO			480		
4MB = 1MB X 32 BIT EDO			140	16MB = 4MB X 36 BIT		420	395		
4MB = 1MB X 36 BIT		130	125	32MB = 8MB X 32 BIT			660		
8MB = 2MB X 32 BIT		230	220	32MB = 8MB X 32 BIT EDO			950		
8MB = 2MB X 32 BIT EDO			260	32MB = 8MB X 36 BIT		740	720		

## CACHE RAM CHIPS

8K X 8 BIT - 20 NS	4.50	32K X 8 BIT - 20 NS	5.00
--------------------	------	---------------------	------

## DRAM CHIPS - PLEASE CALL CYRIX PROCESSOR UPGRADES

PROCESSOR UPGRADES		80386DX - 16/ 20 MHZ TO 486 - 40 MHZ	135
80386SX - 16/ 20 MHZ TO 486 - 40 MHZ	135	80386DX - 25 MHZ TO 486 - 50 MHZ	155
80386SX - 25 MHZ TO 486 - 50 MHZ	155	80386DX - 33 MHZ TO 486 - 66 MHZ	175
NUMERIC PROCESSORS	80387SX - 0 TO 33 MHZ	80387DX - 0 TO 40 MHZ	48

## WORKSTATION MEMORY

HEWLETT PACKARD	4MB	8MB	16M	32M	64M
HP 9000 9x7 SERIES 937; 947; 957; 967; 977; 987; 9x7LX SERIES 917LX; 927LX; 937LX; 947LX; 957LX; 967LX; 9000 SERIES 807S; 817S; 827S; 837S; 847S; 857S; 867S; 877S; 887S; 897S			520	980	1800
HP APOLLO 9000 SERIES 375; 380; 400d; 400s; 400i; 425e; 425t; 433s	160	275	500	920	
HP APOLLO 9000 SERIES 382; 425e	160	275	500		
HP APOLLO 9000 SERIES 700/RX 16Ca; 16Ci; 19Ca; 19M	140	260			
HP APOLLO 9000 SERIES 705; 710		300	560	1000	
HP APOLLO 9000 SERIES 745; 747; 715/33; 715/50; 725/50		300	560	1000	1950
HP APOLLO 9000 SERIES 720; 730; 735; 750; 755			560	1000	1950
IBM	4MB	8MB	16M	32M	64M
XSTATION 120; 130	140				
RS/6000 POWERSTATION/ POWERSERVER 220 SERIES	140	260			
RS/6000 POWERSTATION/ POWERSERVER 320; 320E; 320H; 340; 340R; 350; 350R; 520; 520H; 530; 530E 530H; 550; 550E; 550S; 560; 560F; 580; 730; 930; 950; 970; 990			780	1150	2100
SUN MICROSYSTEMS	4MB	8MB	16M	32M	64M
MODEL 360; 380; 4110	140		440		
SPARCSTATION ELC (4/25); IPX (4/50)			420		
SPARCSERVER/ SPARCSTATION 330; 370; 390		260			
SPARCSTATION SLC (4/20)	140				
SPARCSTATION IPC (4/40); 1 (4/60); 1+ (4/65); 2 (4/75)	140		440		
SPARCSTATION CLASSIC LC (4/15); LX (4/30)		260		880	
SPARCSERVER/ STATION/ ENGINE 10 MODEL 30; MODEL 41; MODEL 52/ 54			500		1850
SPARCSERVER 630MP; 670MP; 690MP					1850

## DESKTOP MEMORY

AST	2MB	4MB	8MB	16M	32M	64M
ADVANTAGE 386SX/20; 386SX/25; PRO 386SX/25; BRAVO 3/25s; 3/33s	56		220			
ADVANTAGE 486/25; 486/33; 486/33p; 486SX/20; BRAVO 4/33(original); 486/25 PREMIUM 386/33TE; 486/25; 486/25E; 486/33; 486/33C; 486/33TE PREMIUM II 386/35; 386/33; 486/33; 486SX/20 POWER PREMIUM 3/33; 4/33; 4/33s; 4/50d; 4/66d PREMIUM SERVER SE 4/33	60		300			
ADVANTAGE PRO 486DX/33; 486SX/25; BRAVO 4/25s; 4/33; 4/33s; 4/50d; 4/66d BRAVO LC 4/25s; 4/33; 4/33s; 4/50d; 4/50s; 4/66d; 4/100t BRAVO LP 4/25s; 4/30s; 4/33; 4/33s; 4/66d BRAVO MS 4/50s; 4/66d; 4/100t; P/60; P/90; P/100; BRAVO MT 4/33; 4/33s; 4/50s; 4/66d; P/60	80	115	220	380	720	
ADVANTAGE PLUS 486DX/33; 486DX/25/50; 486DX/266	115	220	400			

AST (CONT.)	2MB	4MB	8MB	16M	32M	
BRAVO 286's; 386SX/16; 386SX/20; 386SX/25	70		210			
PREMIUM 386; 386C		120				
PREMIUM 386/25; 386/33; 386/33T; 386SX/16; PREMIUM II 386SX/20; 386SX/25 PREMIUM SERVER SE 4/50; 4/66; CUPID MEMORY BOARD		140				
PREMMIA 4/33; 4/33s; 4/50d; 4/66d; PREMMIA SE 4/66d; P/60	150	270	500	920		
PREMMIA GX P/90; P/100; PREMMIA LX P/60; PREMMIA MX 4/66d; 4/100t; P/60			240	470	810	
COMPAQ	2MB	4MB	8MB	16M	32M	
DESKPRO 286N; 3/25; 3/33; 386/25M; 386/33M; 386N; 386s/20; 386s/20N; 4/25S; 4/33; 4/66; 486/33M; 486s/16M; 486s/25M; 486DX/250M; 486DX/266M; DESKPRO XE 433s; 450; 466; PROLIANT 1000 486DX/266; ENHANCED PROLINEA; PROLINEA 4/25s; 4/33; 4/33s CDS; 4/50; 4/66; NET 1/25e; 1/25s; 1/25r; PROLINEA MT 4/33s; 4/50; 4/66; PROSARIO 400; 425; 433; 520; 520 CDTV; 600; 633; 660; 720 CDS; 724; 800; 833 CDS; 850; 866; 860 CDS; 920 CDS; 920CDTV; 924; 924 CDS; PROSIGNIA PC SERVER 486/33; 486DX/266; PROSIGNIA VS; SYSTEMPRO/ LT 386/25; 386/33; 486/33; 486DX/250; 486SX/25	75	130	240	400	790	
DESKPRO 386/33; 386/33L; 486/25; 486/33L; 486/50L; SYSTEMPRO 386/33; 486/33	80		280		1000	
DESKPRO 5/60M; 5/66M; XE 5/60; PROLIANT 1000 5/60; PROLIANT 2000 486/50; 5/66; PROLIANT 4000 486/50; 5/66; PROSIGNIA PC SERVER 5/60; 5/90			280	520	960	
PROLINEA 3/25s; 3/25zs	56		220			
SYSTEMPRO /XL 486/50; PENTIUM				520	980	
DELL	1MB	1-2MB	4-8MB	8MB	4MB MOD.	4MB BOA
DESKPRO 386/16	80	180	320	470	DESKPRO 386s	150
					DESKPRO 386/20; 386/20e; 386/25; 386/25e	150
DELL	2MB	4MB	8MB	16M	32M	
SYSTEM 316SX; 320SX (REV.1); 325SX	70					
SYSTEM 320SX (REV.2); 325D; 325P; 333D; 333P; 433P	130					
DIMENSION 386DX/33; 486SX/25; 486SX/33; 486DX/250; LOW PROFILE DESKTOP 486P/16; 486P/20; 486P/25; 486P/33; LOW PROFILE POWER DESKTOP 486P/50; 486P/66; NETPLEX P SERIES: POWER DESKTOP 486D/16; 486D/20; 486D/25; 486D/33; 486D/50; 486D/66; PRECISION 386DX/33; 486 SERIES	130	240	420	750		
DIMENSION XPS 450V; 466V; 4100; DIMENSION XPS midsize 466; DIMENSION XPS midsize 4100; OPTIPLEX 433e; 450e; 466e; 4100e; 425s(LV); 433(LV); 433s(LV); 450(LV); 466(LV); 425s(MX(V)); 433(MX(V)); 433s(MX(V)); 450(MX(V)); 466(MX(V)); PERFORMANCE 425s(L); 425s(M); 433(L); 433(M); 433s(L); 433s(M); 433(T); 450(L); 450(M); 450(T); 466(L); 466(M); 466(T)	130	240	420	750		
DIMENSION XPS P60; P60FS; P60MDT; P90; P90MDT; OMNIPLEX 433ME; 450ME; 466ME; 4100ME; OPTIPLEX XL590; XM590; POWEREDGE XE433; XE433s; XE450; XE466			240	470	810	
OMNIPLEX 560ME; 566ME; 590ME POWEREDGE SP433; SP450; SP466; SP560; SP566; XE560; XE566; XE580; XE5100			260	520	925	
OPTIPLEX 425LXe; 433LXe; 450LXe; 460LXe; 4100LXe OPTIPLEX 425Mx; 433Mx; 450Mx; 466Mx; 4100Mx	130	250	460	910		
PERFORMANCE 425sME; 433sME; 433sME; 450ME; 466ME 4000XE SERIES 486/33; 486/50; 486/66			260		925	
SYSTEM 425TE; 433TE; POWERLINE WORKSTATIONS 420DE; 420SE; 425DE; 425SE; 433DE; 433SE; 450DE; 450DE/2; 450SE; 450SE/2; 466DE; 466SE	80	150	260	520		
HEWLETT PACKARD	2MB	4MB	8MB	16M	32M	
NETSERVER LE SERIES 486DX/33; 486DX/266; 486SX/33; NETSERVER LM SERIES 4/33 LM; 4/66 LM; 5/60 LM; VECTRA 386/25 PC; 486/25M; 486/25MI; 486/25N; 486/25NI; 486/25T; 486/25U PC; 486/33U PC; 486/25VL; 486/33M; 486/33MI; 486/33N; 486/33NI; 486/33ST; 486/33T PC; 486/33VL; 486/33XM; 486/50N; 486/50U PC; 486/50XM; 486/66XM; 486/66N; 486/66ST; 486/66U PC; 486/66VL; 486 PC; 486s/20; 486s/33M; 486s/33MI; 486s/33NI; 486s/33XM	130	260	480	910		
VECTRA 386/16N PC; 386/20N PC; 386/35N PC; 386/33N; 386/33M	80		240			
VECTRA M2; N2; XM2; XP; XU; VECTRA VL2 4/25e; 4/33e; 4/33se; 4/50; 4/66; 4/100	130	260	460	910		
VECTRA QS/16S; QS/20; RS/20; RS/20C; RS/25; RS/25C			130			
IBM	1MB	2MB	4MB	8MB	16M	
APTIVA 310; 330; 350; 510; 530; 710; 730; PC 300 (6571); (6573); (6575); (6581); (6583); (6585); PC 700 (6675); (6676); (6885); (6886)			120	230	400	
PS/1 286 (2011); PS/1 386SX (2121)	80	140				
PS/1 PRO 386SX (2123); (2133- 72PIN); (2155- 72PIN); (2168- 72PIN) PS/Valuepoint (6381); (6382); (6384-72PIN); (6387); (6472); (6482); (6484); (6492); (6494)	75	130	240	400		
PS/1 (2133- 30PIN); (2155- 30PIN); PS/VALUEPOINT (6384- 30PIN)			120		440	
PS/2 252/266; 302/266		75				
PS/2 25SX; 35LS; 35SX; 40SX; 502; 55LS; 55SX; 56; 56SLC LS; 56SX; 56LS; 57; 57SLC; 57SX; 60; 65SX; 70; 76; 77; 80; 90 XP 486; 95 XP 486 (8595); E (9533); SERVER 85; PREMIER PS/2 56; 57; 76; 77; ULTIMEDIA-M57; M77	40	75	130	240		
PS/2 95 XP 486 (9595); SERVER 95 (9595); SERVER 95 ARRAY (9595)			140	280	460	
PS/2 SERIES; 16/32 BIT MCA MEMORY BOARD (6450609 & 34F3077)			190	250	360	



APPLE & ZENITH MEMORY - PLEASE CALL  
KYOCERA PRINTER MEMORY - PLEASE CALL

# 0181 668 4199

# MEMORY

100% COMPATIBLE - LIFETIME WARRANTY - TECHNICAL SUPPORT - BEST PRICES

## PORTABLE MEMORY

AST	2MB	4MB	8MB	16M
ADVANTAGE EXPLORER: ASCENTIA 700N; BRAVO NB		140		430
ASCENTIA 800N; 810N		140	270	460
ASCENTIA 900N; 910N		140	280	450
PREMIUM EXECUTIVE 286/12; 386SX/20; 386SX/25; 386SX/25C		140		
POWER EXECUTIVE 3/25SL; 3/25SL-C; 4/25SL (SE); 4/33SL; COLOUR; COLOUR PLUS; EL	75	140	260	430
POWER EXECUTIVE 4/25SL; COLOUR; COLOUR PLUS		140		450
<b>CANON</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	
NOTEJET 486/25 (BN-22)	75	130	250	
NOTEJET II 486C50 (BN-32P)	75	130	250	
NOTEJET 486C25 (BN-100C); 486C33 (BN-100C); 486M33 (BN-120); INNOVA 486NX		140	240	
<b>COMMODORE</b>	<b>2MB</b>	<b>4MB</b>		
C286-LT; C386SX-LT (16 MHZ)		85		
C386SX-LT (20 MHZ)				180
<b>COMPAQ</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>
CONCERTO 4/25; 4/33; LTE ELITE			145	260 480
CONTURA 3/20; 3/25; 3/25C	75	130	240	
CONTURA 4/25; 4/25C; 4/25CX; 4/25EX		140	260	480
CONTURA 400; 410		145	260	480
CONTURA AERO		140	240	480
LT 286	45	80	130	
LTE 386s/20	60	90	160	
LTE LITE/20; LITE/25; LITE/25C; LITE/25E		90	160	290 480
LTE LITE 4/25; 4/25C; 4/25E; 4/33C		145	260	480
PORTABLE 486/66; 486C/66	40	75	120	240
SLT 286	60		120	
SLT 386s/20	55	95	160	
<b>DELL</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	<b>16M</b>
212N; 320N; 320N+		80		
316LT; 320LT; 320LX		70		
320SL; 325SL		80		
LATITUDE 433; 433C; 433CX; 450C; 450CX		140		430
LATITUDE 433M; 433MC; 450NC; 450MCX		140	270	460
LATITUDE XP 450C; 450CX; 475C; 4100CX		130	245	435
NL20; NL25		80		
<b>EVEREX</b>	<b>2MB</b>	<b>4MB</b>	<b>16M</b>	
TEMPO CARRIER		80		
TEMPO LX		80		
STEPNOTE 486SX/33; 486DX/50; 486DX/475		130	435	
<b>IBM</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>
AMBRA TREKA 386SL		75		
LEXMARK SE10		145		
PS/2 CL57SX; THINKPAD 700; 700C; 720; 720C		155	215	

IBM (CONT.)	1MB	2MB	4MB	8MB	16M
PS/2 L40 SX; N33 SX; PS/NOTE 182		75	135	280	
PS/2 N51 SLC; N51 SX		75	135	265	
PS/2 P70 031; 061; 121; P75	40	75	130	240	
PS/NOTE 261B C45; E35; M40; THINKPAD 350; 350C			120	235	410
PS/NOTE N45 SL		90			
THINKPAD 230C; 230Cs			130	260	
THINKPAD 300		75		255	
THINKPAD 330; 340; 355; 360; 730T			140	265	430
THINKPAD 360; 360C; 360CS; 360P; 750; 750C; 750Ce; 750Cs; 750P; 755C; 755Cs; 755Cd			140	265	430
THINKPAD 500; 510Cs			145	270	525
THINKPAD 710T		75	135	280	
THINKPAD TP701 SERIES			130	260	480
<b>MTAC</b>	<b>4MB</b>				
3026E		180			
<b>PANASONIC</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	<b>16M</b>
CF-170; 270; 370		40			
CF-380; 480C		90	170	240	
CF-580			140		480
CF-1000			170		
CF-V21P (CD-NOTE); CF-41			150	270	480
<b>PHILIPS</b>	<b>2MB</b>	<b>4MB</b>			
PCL 300; 304		85	180		
<b>SANYO</b>	<b>2MB</b>				
17/NB; 18/NB; NB/6		80			
<b>SHARP</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	<b>16M</b>
PC 6200; 6220; 6240		55			
PC 6440			140		
PC 6800; 6621; 6641; 6661		90			
PC 6700; 6741; 6781; 6785; 6800; 6841; 6881; 6891			75	125	
PC 7700; 7750; 8150; 8650; 8650II; 8660			135	435	
PC 8501 COLOURSTAR		95			
PC 8700; 8900			140	245	460
<b>TEXAS INSTRUMENTS</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	<b>16M</b>
TRAVELMATE 2000		60			
TRAVELMATE 3000; 3000 WinSX; WinSLC/25			80		
TRAVELMATE SERIES 4000 Win; 4000E Win; 4000M				160	790
<b>TOSHIBA</b>	<b>2MB</b>	<b>3MB</b>	<b>4MB</b>	<b>8MB</b>	<b>16M</b>
DYNAPAD T100NX			145		
T1000LE; 1000SE; 1000XE; 1800; 1850; 1850C; 2000; 2000SX; 2000SXe; 2200SX	40		145	260	
T1600	40				
T1900; 1900C; 1910; 1950; 1950CS; 1950CT; 1960 T4500; 4500C; 4600; 4600C; 4700; 4700CS; 4700CT; 4800; 4850; 4900; DYNAPAD T200			145	280	540
T2100; 2105; 2150CT			150	280	520

TOSHIBA (CONT.)	2MB	3MB	4MB	8MB	16M
T2400; 2450; 3400; 3600			140	260	480
T3100	60				
T3200		50			
T3300SL	80		145		
T4400C DX; 4400SX; 4400C SX; 4400SXG; 6400DX; 6400DXC; 6400SX; 6400SXG; 6600C; 6600C/D; 6600C/CDV	80		150	260	480
T5200; 5200/100; 5200/200; 5200C; 8500	80			320	
<b>TWINHEAD</b>			<b>4MB</b>	<b>8MB</b>	<b>16M</b>
SLIMNOTE 386SL; 386SX; 486SLC		145		440	
SLIMNOTE 330S; 550S; 550T; 575T; 5100T		145	260	470	
<b>ZENITH</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	
SLIMSPOUT 286; SUPERSPOUT 286; 286e		50			
SUPERSPOUT SX			100		
MASTERSPOUT 386SL; 386SLe; II; ZDS- 600II; 620II; 625II; Z-STAR 433VL			80		
MASTERSPOUT 386SX			80		
Z-SPORT 420S; 425S				160	
Z-STAR EX				140	
Z-NOTE 320L; 320Lb; 325L; 325Lc; 325Lp			75	260	
Z-NOTE 200; 425L; 425Lnc; 425Lnp; 425Ln+; 425Ln+; 433Ln+; 433Ln+			145	295	
Z-NOTEFLEX			140	260	

EPSON (CONT.)	512	1MB	2MB	3MB	4MB
EPL-7500			170		
<b>HEWLETT PACKARD</b>	<b>256</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>
DESKJET 500; 500C; 510; 520; 550C; 560C; PLUS	38				
DESIGNJET 200; 600; 650C; PLOTTER; DESKJET 1200; 1200C; 1200C/PS; LASERJET 4; 4 PLUS; 4M; 4MP; 4MV; 4M PLUS; 4P; 4S; 4SIMX; 4V; COLOUR; 5		40	70	135	260
LASERJET II; IID		60	95	165	
LASERJET IIP; IIP PLUS; III; IID; IIIP; FAX		60	90	160	
LASERJET IIISI		40	70	115	240
LASERJET 4L		40			
PAINTJET XL300		95		185	300
<b>IBM /LEXMARK</b>	<b>1MB</b>	<b>2MB</b>	<b>3.5</b>	<b>4MB</b>	<b>8MB</b>
LASERPRINTER (4019-001); E(4019-E01); PENNANT SYSTEM (4028)	65	95	140		
LASERPRINTER SE(4029- 010); 6(4029-020); 6A(4029- 021); 10(4029-030); 10A(4029- 041); 10L(4029-040); (4037- 5E); VALUEWRITER 300; 600; WINWRITER 200; 400; 600	40	75		130	
LASERPRINTER 4039 10R; 10R DUPLX; 12L; 12R; 16L COLOUR JETPRINTER PS 4079; OPTRA L; Lx; Lx; R; Rx				130	250
<b>MANNESMAN TALLY</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	
MT-904; 904 PLUS	50				
MT-905		95	165		
MT-908		40	75		
MT-9008		40	75	130	240
<b>OKI</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	<b>8MB</b>	
OL 400		65	95		
OL400e; 400ex; 410e; 410ex		65	95	165	
OL 410; 810		65	95	165	
OL 800; 820		65	95	165	
OL 830; 840; 850		85			
OL1200				165	280
<b>PANASONIC</b>	<b>32K</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>	
KXP-1124		15			
KXP-4410; 4430		65	95	165	
KXP-4420; 4450; 4451		65	95	165	
KXP-4400; 4401; 5400; SP100		55	85		
KXP-4440; 5410		60	90	160	
KXP-4450		70			
KXP-4455			110		
<b>STAR</b>	<b>1MB</b>	<b>2MB</b>	<b>4MB</b>		
LASERPRINTER 4; STARSRIPT		65	95	170	
LASERPRINTER LS-5; 5EX; 5TT		65	110	190	
LASERPRINTER 8; 8II		70	95	175	
<b>TEXAS INSTRUMENTS</b>	<b>1MB</b>	<b>2MB</b>			
MICROLASER; PLUS; PLUS PS; PS; TURBO; XL; XL PS; XL TURBO				45	
MICROWRITER PS17; PS35				55	90

PRICES EXCLUDE VAT & CARRIAGE (8.00 N/D)

COPORATE, EDUCATIONAL AND GOVERNMENT ORDERS WELCOME

RICHNIGHT LTD. - 106 BRIGHTON ROAD, PURLEY, SURREY, CR8 4DB - FAX 0181 668 7249

CALLERS WELCOME - MON. TO FRI. 9.30-6.00 // SAT. 10.00-3.00

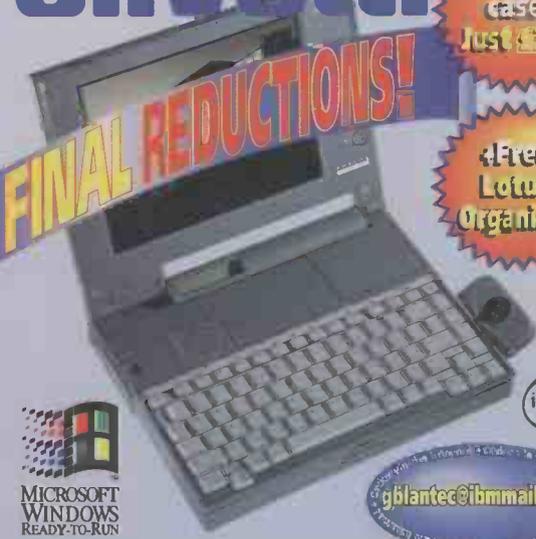
# 0181 668 4199



# SALE SALE SALE SALE

## LANTEC DIRECT's Biggest Bargains Ever! A 486 Notebook for only **£499!**

### FINAL REDUCTIONS!



Carrying case  
Just £50!

Free Lotus Organizer

### The Olivetti Philos 20 '486

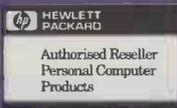
- Intel 486SL, 25Mhz, (3.3v) Microprocessor
- 4Mb RAM (expandable to 32Mb)
- 2.5" hard disk drive
- 120 Mb capacity
- 3.5" 1.44Mb floppy drive (removable)
- Backlit, VGA passive Matrix Mono LCD screen with:
  - 64 grey shades
  - 8.4" diagonal size
- 82/83-key, PS/2 compatible keyboard
- Rechargeable 15 Watt NiCad battery. (Battery life is from 3 to 6 hours depending upon peripherals used.)
- Integrated Pop-Up Trackball
- Serial port (RS232-C compatible)
- Parallel printer port
- External VGA video proprietary interface
- External keyboard/mouse port (PS/2 compatible)
- MS DOS 5.0 (or later)
- MS Windows 3.1
- Lotus Organizer for Olivetti
- Online manuals
- Interlink for file transfer
- File transfer cable
- Dimensions - 279mm x 216mm x 45mm
- Weight - 2.1kg
- "ExtraTime" Power Management System

\* You may ADD Lotus 1-2-3 spreadsheet v4.01 and Lotus AmiPro word processing v3.01 AND the Carrying Case for JUST £50 !!

LANTEC DIRECT ARE FULLY ACCREDITED BY THESE MANUFACTURERS



digital



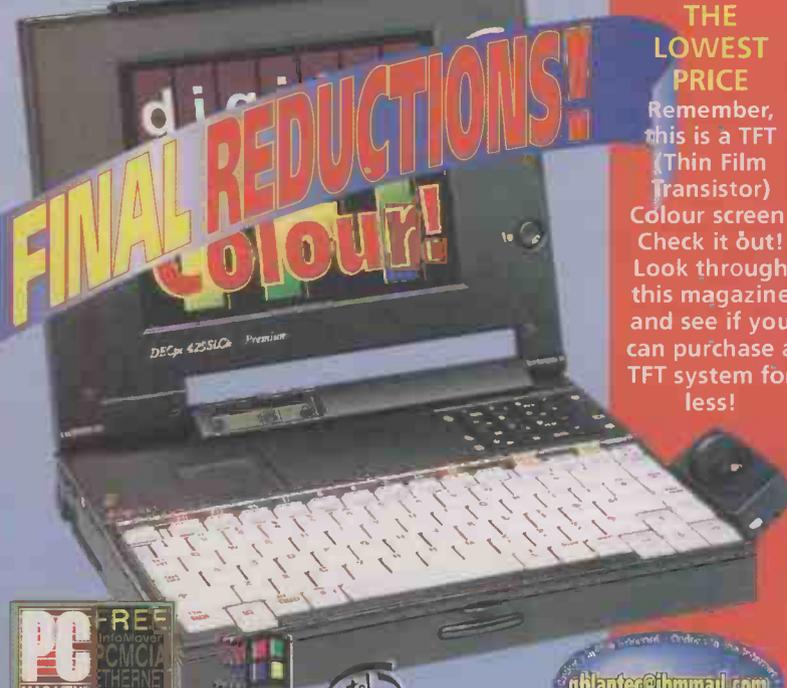
Authorised Dealer

IBM Personal Computers

# SALE SALE SALE SALE

## A Fast TFT Colour 486 for just **£999!**

DECpc 425SLC/e



### FINAL REDUCTIONS! Colour!

### THE LOWEST PRICE

Remember, this is a TFT (Thin Film Transistor) Colour screen. Check it out! Look through this magazine and see if you can purchase a TFT system for less!

- Intel 486SL 25Mhz 3.3v processor
- Integrated 486SL maths co-processor
- 8Kb internal cache memory
- Built-in sound system and speaker
- 4Mb of fast system RAM
- RAM expandable to 32Mb
- Removable IDE 120Mb hard disk drive
- 1.44Mb removable 3.5" floppy disk drive
- 8.4" Thin Film Transistor (TFT) Active Matrix colour LCD display
- On-board video controller with 512KB of video RAM
- Resolution: 640 x 480 in 256 colours on integrated LCD TFT display, or up to 1024 x 768 in 16 colours on external monitor - simultaneous display in 640x480 mode
- PCMCIA version 2.0 type III slot
- 98/99 key keyboard
- Integrated pop-up trackball mouse
- Interfaces: 1 serial, 1 parallel, external monitor & PS/2 standard mouse / keyboard socket, dock box connector port
- Nickel-Metal-Hydride (NiMH) battery pack
- Battery life up to 9.45 hours (maximum)
- Advanced power management
- Intelligent peripheral time-outs and suspend mode
- Service LCD panel "Fuel Gauge"
- Autosensing power supply - quick charges in only 85 minutes with system off
- MS DOS and Windows 3.1 included
- Weighs only 2.5Kg including battery
- FREE Carrying case
- Three year return-to-base warranty



## PLUS Interest Free Credit! PLUS

Personal and business INTEREST FREE CREDIT terms are available on this system at 0% APR to businesses and persons over the age of 18, subject to status and payment of instalments by direct debit. A deposit of 25% is required and six equal instalments. Example: Purchase price: £1,410 including VAT. £352.50 deposit is required, plus six monthly instalments of £176.25p. LANTEC are licensed Credit Brokers. Offer is subject to change without notice. Written quotations available upon request.

# SALE SALE SALE SALE



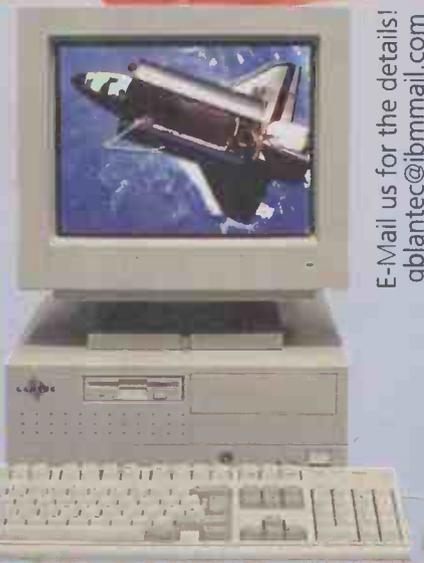
## The "PC2000" from LANTEC DIRECT

For anyone looking for a great bargain in 486s, look no further, you've found it! But you'll have to call us for the details we're not allowed to print here - like the name of the manufacturer of this superb 50MHz 486 PC. Just check out this specification and price!

- Manufactured in the UK by a VERY well known manufacturer to the highest quality
- 80486 processor
- 50 MHz clock speed
- 240Mb Hard disk
- Western Digital LocalBus Video Controller
- Acer Low Emission SVGA Display
- Display dot pitch .28mm
- Windows version 3.1
- Quality keyboard
- Quality mouse
- MS DOS 6.2

# £599

+VAT



E-Mail us for the details!  
gblantec@ibmmail.com

# SALE SALE SALE SALE

## Compaq Presario CDS 520 Multimedia

- The superb Compaq Presario CDS 520
- 486 SX2 processor
- 66 MHz clock speed
- 420Mb Hard disk
- 4Mb RAM expandable to 64Mb
- Dual-speed CD ROM Drive
- Built-in 16 bit sound system, microphone and speakers
- Integrated 9600/2400 fax/data modem
- Integrated 14" SVGA Monitor with 512Kb VRAM
- MS DOS 6.2 & Windows version 3.1 included
- Software included: • Microsoft Works • Microsoft Money • Microsoft Entertainment Pack • Microsoft Encarta on CD ROM • Dorling Kindersley Ultimate Human Body • MaxFax and CompuServe WINCIM

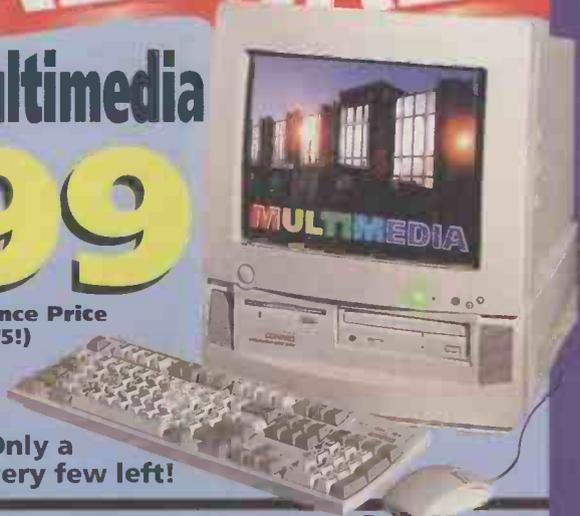
# £799

+VAT

LANTEC Stock Clearance Price (RRP was £1,275!)



Only a very few left!



## COMPAQ Portables + a free Modem with each Elite\*

**Compaq LTE Elite 4/75CX**

FREE PC MAGAZINE with this choice Portable

intel inside

MICROSOFT WINDOWS

- 486DX4 75MHz SL-Enhanced Intel Microprocessor
- 16Kb of internal cache memory • 8Mb of RAM memory expandable to 24Mb • 2 x PCMCIA Rel 2.0 Type II slots (or 1 x Type III) • Integrated internal AC power adapter/charger
- 9.5" Compaq TFT Active Matrix colour LCD Screen • VGA graphics supports 27,000 colours • Integrated Compaq enhanced EasyPoint Trackball • Total carrying weight from 6.9lbs • SmartStation and MiniStation deskbases available • 3 years world-wide warranty.

Model 340/W    Model 510/W

# £2459    £2629

\*Free Modems only whilst stocks last

**Compaq Contura 410C**

FREE PC MAGAZINE with this choice Portable

intel inside

MICROSOFT WINDOWS

- 486 DX2 50MHz SL-Enhanced Intel processor
- 8kb of internal Cache Memory
- 4mb RAM, expandable to 28Mb • 350Mb Hard disk (upgradable) • 9.5" STN dual scan colour screen 640 x 480 VGA • 1Mb of Video RAM providing 1024 x 768 resolution on optional external monitor • 2 x PCMCIA Rel 2.0 Type II slots (or 1 x type III) • Integrated 19mm trackball mouse • DOS 6.2, Windows 3.1, Lotus Organizer, MS Works and Symantec Games Pack • Weighs just 5.9lbs and includes free slip case • Up to 5.5 hours battery life • Port replicator available for Ethernet connectivity • 3 Years European Warranty.

# £1359

**Compaq Contura 420C**

FREE PC MAGAZINE with this choice Portable

intel inside

MICROSOFT WINDOWS

- 486 DX4 75MHz Intel processor • 16kb of internal Cache Memory • 4mb RAM, expandable to 28Mb • 350Mb Hard disk (upgradable) • 10.4" STN dual scan colour screen 640 x 480 VGA • 1Mb of Video RAM providing 1024 x 768 resolution on optional external monitor • 2 x PCMCIA Rel 2.0 Type II slots (or 1 x type III) • Integrated 19mm trackball mouse • DOS 6.2, Windows 3.1, Lotus Organizer, MS Works and Symantec Games Pack • Weighs just 5.9lbs and includes free slip case • Up to 5.5 hours battery life • Port replicator available for Ethernet connectivity • 3 Years European Warranty.

# £1529

Private and Business Sales: Corporate & Government:

01753 777777    01753 777744

Prices EXCLUDE VAT and DELIVERY and are subject to change without notice. PC Delivery Charge £14. Call the LANTEC DIRECT Orderline or fax your order to 01753 777780 or send your order with a cheque or postal order to: LANTEC DIRECT • Langley Business Centre • Station Road • Langley • Berkshire • SL3 8YR. Please allow seven working days for cheque clearance. Although most orders are despatched the same or following day, please allow up to 28 days for delivery. Credit cards will not be debited until goods are ready for despatch. Screen displays may be simulated. E&OE. All orders are subject to LANTEC DIRECT Terms and Conditions of Sale, copies of which are available upon request. LANTEC Information Services Limited are licenced credit brokers.

Internet Addresses: Private and small business sales: gblantec@ibmmail.com Corporate and Government sales: gblanac1@ibmmail.com CompuServe: INTERNET:gblantec@ibmmail.com

# LANTEC DIRECT



# New Models from TOSHIBA

LANTEC

Order via the Internet - Order via the Internet  
[gblantec@ibmmail.com](mailto:gblantec@ibmmail.com)  
 Order via the Internet - Order via the Internet

LANTEC DIRECT ARE FULLY ACCREDITED BY THESE MANUFACTURERS

COMPAQ

digital

HEWLETT PACKARD  
 Authorised Reseller Personal Computer Products

IBM

Authorised Dealer  
 IBM Personal Computers

intel

LEXMARK

Microsoft

olivetti

TOSHIBA

Order via the Internet - Order via the Internet  
[gblantec@ibmmail.com](mailto:gblantec@ibmmail.com)  
 Order via the Internet - Order via the Internet

LANTEC

## T1910CS The UK's most popular portable PC model!

(according to ROMTEC figures)

- Intel 4886SX Processor
- 33Mhz clock speed
- 4Mb RAM expandable to 20Mb
- 200Mb hard disk
- 3.5" floppy drive
- 9.5" STN colour display
- External VGA monitor port
- 1 x PCMCIA type II or III slot
- Quickport mouse
- 3.5 hours battery life
- DOS 6.2 and Windows 3.1
- 1 year world-wide warranty

LANTEC DIRECT PRICE

**£1159**

## T2130CS



- Intel 4886DX4 Processor
- 75Mhz clock speed
- 8Mb RAM expandable to 32Mb
- 520Mb hard disk
- 3.5" 1.44Mb floppy drive
- 10.4" STN colour display
- External SVGA monitor port
- 2 x PCMCIA type II or 1 x type III slot
- Mousepoint pointing device
- 4 hours battery life
- Built-in autosensing AC adapter
- Optional Port Replicator
- DOS 6.2 and Windows 3.1
- 1 year world-wide warranty

LANTEC DIRECT PRICE

**£1789**

## T2130CT



- Intel 4886DX4 Processor
- 75Mhz clock speed
- 8Mb RAM expandable to 32Mb
- 520Mb hard disk
- 3.5" 1.44Mb floppy drive
- 10.4" TFT colour display
- External SVGA monitor port
- 2 x PCMCIA type II or 1 x type III slot
- Mousepoint pointing device
- 3.5 hours battery life
- Built-in autosensing AC adapter
- Optional Port Replicator
- DOS 6.2 and Windows 3.1
- 1 year world-wide warranty

LANTEC DIRECT PRICE

**£1969**

## T2150CD



- Intel 486DX4 Processor • 75Mhz clock speed • 8Mb RAM • RAM expandable to 32Mb • 520Mb hard disk • 1.44Mb 3.5" external floppy drive • Internal IDE CD-ROM drive • 10.4" TFT or STN colour displays • 640 x 480 x 256 colour on STN and up to 65,536 colours on TFT screen • External SVGA monitor port with up to 65,536 colours • 2 x PCMCIA type II or 1 x type III slots • Mousepoint pointing device • Up to 3 hours battery life • Built-in autosensing AC adapter • Built-in Sound system • Optional Port Replicator • 84 full-size keys and 12 function keys • DOS 6.2 and Windows for Workgroups 3.11 • 3 years world-wide warranty.

STN MODEL

TFT MODEL

**£2169**

**£2719**

## Portege 610CT



- Intel Pentium Processor • 90Mhz clock speed • 8Mb EDO RAM • RAM expandable to 40Mb • 720Mb hard disk • External 3.5" floppy drive • 9.5" TFT colour display • External SVGA monitor port • 2 x PCMCIA type II or 1 x type III slot • Mousepoint pointing device • 4.5 hours battery life • Built-in sound system • Optional Port Replicator • MS-DOS 6.2 • Windows for Workgroups 3.1 • 3 years world-wide warranty.

**FASTEST  
 ULTRA-NOTEBOOK  
 YOU CAN BUY TODAY!**

**£2999**

# LANTEC present the digital HiNote family

## The Digital "HiNote" colour notebooks

- Choice of 486SX 33Mhz with 240Mb hard drive or 486DX2 50Mhz with 340Mb hard drive
- 4Mb RAM expandable to 20Mb
- 9.5" DSTN screen
- Local Bus video providing 640 x 480 x 256 colours on Internal screen or up to 1024 x 768 x 16 colours on external display (1024 x 768 x 256 colours on DX2 50)
- Integrated trackball mouse and palm rest area
- 8Kb internal cache memory
- PCMCIA 2.1 type III or II slot (2 x type II slots in DX2 50)
- 1.44Mb floppy drive
- Long life Nickel-Metal-Hydride (NiMH) Battery
- Serial and parallel port
- MS DOS 6.22 and Windows for Workgroups 3.11 pre-installed
- Windows '95 ready
- Free Lotus Organizer
- Weighs under 2.5kg
- 3 year return to base warranty



**486SX 33Mhz  
 DSTN 240Mb  
 New Low Price! £1059**

**486DX2 50Mhz  
 DSTN 340Mb  
 New Low Price! £1449**

## The Digital "HiNote Ultra" colour notebooks

- 486DX2 50Mhz Intel processor
- 340Mb hard drive
- Choice of 9.5" colour DSTN with 4Mb RAM (maximum 20Mb) or 9.5" colour TFT with 8Mb RAM (maximum 24Mb)
- Integrated trackball mouse
- Business Audio/MS Sound System, microphone and speaker (SoundBlaster compatible)
- Local Bus video & accelerator providing 640 x 480 x 256 colours on internal screen or up to 1024 x 768 x 256 colours on external display
- Wireless InfraRed connectivity
- 1 x PCMCIA 2.1 type III or 2 x type II slots
- Zero footprint, hot dockable snap-on 1.44Mb floppy drive
- Long life Lithium Ion (Lilon) flip-down battery
- Serial and parallel port
- MS DOS 6.22 and Windows for Workgroups 3.11 pre-installed
- Windows '95 ready
- Free Lotus Organizer
- Unique ultra-thin design
- Lightweight - just 2.1kg
- 3 year return to base warranty



**486DX2 50Mhz  
 340Mb DSTN  
 New Low Price! £1659**

**486DX2 50Mhz  
 340Mb TFT  
 New Low Price! £2389**

# Hewlett-Packard Printers



LANTEC



## The Hewlett-Packard DeskJet 660C



Fast, professional-quality black printing for crisp, sharp characters • Enhanced, clear and vivid colours • Easy to use • Easy to set up • Built-in sheet feeder • Three years warranty

### LANTEC DIRECT'S LOW PRICES

HP DeskJet 660C .....	£299
HP DeskJet 660C SupportPack .....	£65
HP DeskJet 660C spare black cartridge .....	£19
HP DeskJet 660C spare colour cartridge .....	£21

**DON'T FORGET TO ASK FOR THE HEWLETT-PACKARD SUPPORTPACK WHEN YOU ORDER!**



## The Hewlett-Packard DeskJet 320 A great companion to any PC

• 3 pages per minute in black and white • Up to 7 minutes per page in colour (with optional colour kit) • 600 x 300 DPI with Ret on plain paper (in monochrome), 300 x 300 DPI in colour • 500 pages monthly usage • Optional 60 sheet input tray • 6 typefaces and 13 scaleable Windows fonts • 1 year warranty included • Warranty extendable to on-site with Hewlett-Packard SupportPack.

### LANTEC DIRECT'S LOW PRICES

HP DeskJet 320 .....	£169
HP DeskJet 320 & Cut Sheet Feed .....	£189
HP SupportPack .....	£40
HP DeskJet 320 Colour Kit .....	£28
HP DeskJet 320 Battery pack .....	£25
HP DeskJet 320 spare black cartridge .....	£15
HP DeskJet 320 spare colour cartridge .....	£22



## The Hewlett-Packard LaserJet 4L

This 4 page-per-minute 300 DPI Resolution printer combines great printing quality, simplicity and a very small footprint to offer the ideal printing solution for the desktop or home office. The HP Explorer software (supplied) makes every aspect of printer setup and operation easy. Treat yourself to a real HP Laser Printer at a really super LANTEC Direct price.

### LANTEC DIRECT'S LOW PRICES

HP LaserJet 4L .....	Just £363
HP LaserJet 4L SupportPack .....	£100
HP LaserJet 4L Toner cartridge .....	£57
HP LaserJet 4L 1Mb memory expansion kit .....	£56

**DON'T FORGET TO ASK FOR THE HEWLETT-PACKARD SUPPORTPACK WHEN YOU ORDER!**



## The Hewlett-Packard DeskJet 600

Replacing the HP DeskJet 540, the HP DeskJet 600 is easy to set up and install. Designed to be "Family-friendly" the Dr. DeskJet troubleshooting software tools will help you if things go wrong. Basically a mono -

chrome printer, (at up to 4 pages per minute,) the DeskJet 600 will print occasional colour (with the optional Colour Kit) at up to 1 minute per page.

### LANTEC DIRECT'S LOW PRICES

HP DeskJet 600 .....	£215
HP DeskJet 600 SupportPack .....	£40
HP DeskJet 600 Spare black cartridge .....	£19
HP DeskJet 600 Optional Colour Kit .....	New item - please call

**DON'T FORGET TO ASK FOR THE HEWLETT-PACKARD SUPPORTPACK WHEN YOU ORDER!**

Enjoy total peace of mind by purchasing a Hewlett-Packard SupportPack. This will extend your warranty to 3 years and will provide you with on-site, next day response for each of the above printers. The costs are: HP DeskJet 320 and HP DeskJet 600 - £40, HP DeskJet 660C - £65, and HP LaserJet 4L - £100.

• STOP PRESS •

**A few late items from the LANTEC Summer Sale. These are warehouse soiled, obsolete or ex-demonstration items. All genuine bargains! Profit from LANTEC's Summer Stock Clearance Sale!**

47057 Compaq Aero 4/25 m 84, mono .....	£499	5129 Intel DX2/50mhz overdrive chips .....	£49
48020 Compaq Presario CDS 520 .....	£649	44070 DEC 17" multi-sync colour monitor .....	£599
32287 Compaq SLT Battery pack .....	£25	44425 DEC 466DX2 LPX 8mb Ram 245mb disk .....	£669
1670 Xircom token ring pocket adapter .....	£200	45688 DEC 14" VGA+ colour monitor .....	£169
44174 IBM 16/4 ISA-16 Token ring adapter .....	£150	45743 DEC 433sx LPV+ 4mb Ram, 170mb disk .....	£469
44278 IBM PS/VP 6384 - W1/8/245/0 .....	£1399	45743 DEC 466DX2 LPV+ 8mb Ram, 340mb disk .....	£779
46656 HP Laserjet 4M+ .....	£999	44991 DEC 433DX LPX 4mb Ram, 170mb disk .....	£499
39978 HP Scanjet 2P .....	£199	45746 DEC 433DX LPV+ 4mb Ram, 170mb disk .....	£499
40649 HP Document Feeder for Scanjet 3P .....	£99	45763 DEC 15" VGA+ colour monitor .....	£229
47166 HP Jetstore 5000 internal 2/4gb DAT drive ....	£499		
38682 HP JetDirect Ethernet card for III or 4 .....	£199		
38940 Toshiba Deskstation IV .....	£269		
41969 IBM Colour Jet PS4079 printer .....	£1499		

Like all companies of our size and turnover, LANTEC always have a few bargains of this type available. If you are looking for something unusual or if you are prepared to take an ex-demonstration unit, it's always worth asking our staff to check our computer systems to see if we have it. Just call the appropriate number below.

• STOP PRESS •

Private and Business Sales: Corporate & Government  
 LANTEC 01753 777777 01753 777744  
 REGISTERED MAIL, VISA, MASTERCARD, AMERICAN EXPRESS, SWITCH, BS EN ISO 9002:1994

Prices EXCLUDE VAT and DELIVERY and are subject to change without notice. PC Delivery Charge £14. Call the LANTEC DIRECT Orderline or fax your order to 01753 777780 or send your order with a cheque or postal order to: LANTEC DIRECT • Langley Business Centre • Station Road • Langley • Berkshire • SL3 8YR. Please allow seven working days for cheque clearance. Although most orders are despatched the same or following day, please allow up to 28 days for delivery. Credit cards will not be debited until goods are ready for despatch. Screen displays may be simulated. E&OE. All orders are subject to LANTEC DIRECT Terms and Conditions of Sale, copies of which are available upon request. LANTEC Information Services Limited are licenced credit brokers.

Internet Addresses: Private and small business sales: gblantec@ibmmail.com Corporate and Government sales: gblanac1@ibmmail.com Computer services: INTERNET:gblantec@ibmmail.com

LANTEC DIRECT

LANTEC



# At £2,999\* it's the new affordable CD Recordable Pentium® based PC

If you're looking to purchase a new Intel Pentium® processor-based PC which is going to be used to store valuable data, then you should purchase a system which can back-up and archive the hard disk onto recordable CD-ROMs costing only £4.95 each. Alternatively you may want to use CD-ROMs to distribute large amounts of data throughout your organisation or even to clients.

Recordable CD-ROMs are the most effective, durable, permanent means of storing up to 650MB onto a single CD and can provide decades of safe storage. Any file can be quickly accessed and read directly using any multisession CD-ROM drive on any PC.

Our **CDR P-90 CD Record-2 Pentium®** processor-based PC comes packed with exciting features, including an internal x2 speed high-spec CD Recorder, MPEG decoder and bundled Lotus software. With recordable CD storage costing less than 1p/MB, can you afford not to back-up with the new CD revolution? *The PCs below are examples of our affordable options.*

 **CD Revolution Ltd**

*CDR House, Gogmore Lane, Chertsey, Surrey KT16 9AP*

*Tel: 01932 562000 Fax: 01932 571999*

*also available in South Africa from CD Revolution (Pty) Ltd*

*Tel: 021 880 1497/1710 Fax: 021 880 0305*

Feature	CDR P-90/P-100 ISDN Video Conf.	CDR P-90/P-100 CD Record-2	CDR P-90/P-100 CD Record-4	CDR P-90/P-100 MPEG Encode
Choice of Intel 90 or 100 MHz Pentium® Processor with SIS chip-set	yes	yes	yes	yes
8MB RAM expandable to 128MB (72-pin) 256K cache 64-bit memory	yes	yes	yes	yes
1.2GB fast (10ms) IDE Hard Drive	yes	yes		
Audio/Visual 2GB SCSI Hard Drive + Adaptec 2940 PCI SCSI Card			yes	yes
3.5" 1.44MB Floppy Drive	yes	yes	yes	yes
Quad Speed CD ROM Drive - VideoCD compatible	yes	yes	yes	yes
16-bit Sound Blaster Sound Card with Yamaha Speakers	yes	yes	yes	yes
Jakarta 2MB RAM 24-bit PCI SVGA Graphics Accelerator + MPEG Decoder	yes	yes	yes	yes
Media Styler (Special Edition) multimedia authoring + VideoCLIP (Sampler) MPEG Editing	yes	yes	yes	yes
Intel ProShare ISDN Video Conferencing with concurrent data transfer & sharing facility	yes			
Choice of metal Mini or metal Midi-Tower case	yes	yes	yes	yes
2 Serial Ports, 1 Parallel Port, 1 Controller Port	yes	yes	yes	yes
15" High Resolution FST SVGA Colour Monitor	yes	yes	yes	yes
Professional Keyboard and MS Ergonomic Mouse	yes	yes	yes	yes
MS DOS 6.2 Windows for Workgroups 3.11 (loaded) or Windows 95	yes	yes	yes	yes
Lotus - Organiser/1-2-3/ Ami Pro/Approach/ScreenCam/Smartpics Sage Moneywise	yes	yes	yes	yes
CompuServe Software & 1 months subscription + 5 Popular Multimedia Titles	yes	yes	yes	yes
Internal Yamaha Quad Speed SCSI CD Recorder			yes	yes
Internal Sony/ Philips/ JVC/ Pinnacle Dual Speed SCSI CD Recorder		yes		
Adaptec 1505 SCSI card for CD Recorder		yes	yes	yes
Corel CD Creator or WinOnCD ToGo - CD recording software (loaded)		yes	yes	yes
OPTIVision real-time MPEG Encoder				yes
<b>Affordable ready-to-go prices for CDR P-90 (Please add £100 for CDR P-100)</b>	<b>£3,499</b>	<b>£2,999</b>	<b>£4,099</b>	<b>£10,999</b>

All trademarks recognised. Pentium is a trademark of Intel Corporation. Specifications and prices subject to change without prior notice. \*Prices are for business to business and exclude VAT & delivery, E&OE.

# Omega



## CD Business Systems

Sales lines are open  
Mon-Fri  
9:00 am  
until  
5:30 pm

Order  
Hotline

01282  
777  
888

FAX  
01282  
777209

### Omega Tailor-Made CD Business Systems

Specify  
your own  
configuration  
by using this  
stage  
process:

#### Select the Processor Base System.

(Includes 1.44 floppy, 4Mb or 8Mb RAM, local bus graphics, IDE controller, standard ports, Desktop 4 bay case, keyboard & mouse)

i6DX2 66 4Mb .....£319  
i6DX4-100 4Mb .....£349  
i486 75 8Mb .....£549  
i486 90 8Mb .....£629  
i486 100 8Mb .....£709

#### Select the IDE Hard Disk.

0Mb .....£50  
0Mb .....£120  
0Mb .....£170  
38Gb .....£220  
5Gb .....£320

#### Select the Screen.

" SVGA colour .....£120  
" SVGA NI .....£160  
" SVGA NI .....£230  
" SVGA NI .....£440

#### Select the CD / Multimedia Options.

Double speed CD-ROM  
drive alone .....£50  
Double speed CD-ROM  
drive plus 16-bit sound card &  
speakers .....£90  
Quad speed CD-ROM  
drive alone .....£100  
Quad speed CD-ROM  
drive plus 16-bit sound  
card & speakers .....£140

#### Additional Options.

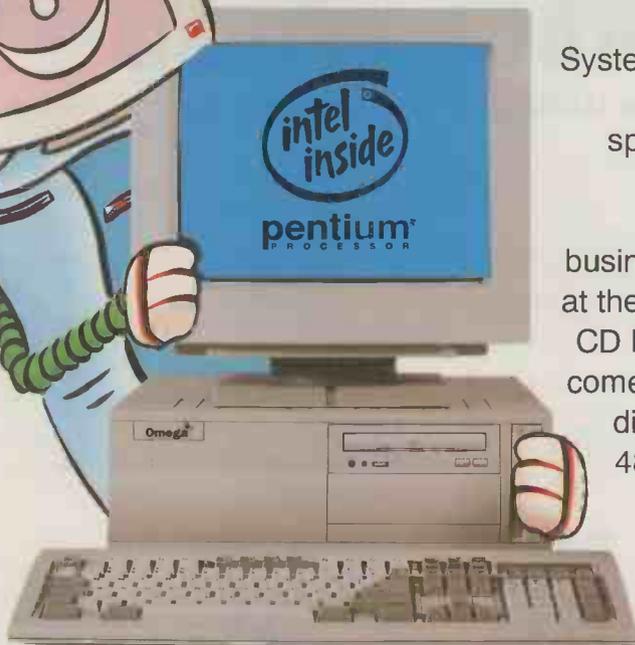
OS 7 & OS/2 Warp .....£Call  
OS 5 & Windows 3.11 .....£Call  
Windows '95 .....£Call  
OS 5 & Windows 3.11 for  
workgroups .....£Call  
6 models with 256K  
cache .....£40  
RAM upgrade per 4Mb  
.....£100  
6 video RAM upgrade to  
1Mb .....£35  
Pentium® video RAM  
upgrade to 2Mb .....£40  
0Mb Tape streamer, .....£90  
0Mb Tape streamer .....£150  
2Gb omega tape  
streamer .....£220  
tape cartridge .....£Call  
24 data/fax modem .....£35  
4 data/fax modem .....£100  
8 data/fax modem .....£159  
Joystick .....£10  
16-bit sound card .....£30  
4 in stereo speakers .....£10

Options 2-5 can only be  
purchased with a PC System

APPROVED  
to  
specifications  
in the  
instructions  
subject to the  
conditions  
of them



Omega is a division of Corporate Systems Ltd



"Omega CD Business Systems come fitted with the best quality high specification components and provide the ideal hardware for all your business needs. Take a look at the Best Buy 486DX4-100 CD Business System which comes with fast 850Mb hard disk, 8Mb RAM, 100MHz 486DX4 processor, quad speed CD-ROM drive and a superb SVGA colour screen for just £839 +VAT!"

### 486DX2-66

#### CD Business System

- 486DX2-66 processor
- 4Mb RAM expandable to 64Mb
- 170Mb hard disk
- Double speed CD-ROM drive
- 3.5" 1.44Mb floppy drive
- 32-bit VESA graphics
- 14" SVGA colour screen
- Parallel and 2 serial ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

£539

+ VAT

With 8Mb RAM and 540Mb  
disk .....£709

### 486DX4-100

#### CD Business System

- 486DX4-100 processor
- 8Mb RAM expandable to 64Mb
- 540Mb hard disk
- Double speed CD-ROM drive
- 3.5" 1.44Mb floppy drive
- 32-bit VESA graphics
- 14" SVGA colour screen
- Parallel and 2 serial ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

£739

+ VAT

With quad speed CD and  
850Mb disk .....£839

### 75MHz Pentium®

#### CD Business System

- Intel® 75MHz Pentium® processor upgradeable to Pentium® 90, 100, 120 or 133MHz
- 8Mb RAM; 256K Cache
- 850Mb enhanced IDE hard disk with 256K hard drive cache
- Double speed CD-ROM drive
- PCI 64-bit graphics with 1Mb Video RAM
- 14" SVGA colour screen
- 3.5" 1.44Mb floppy drive
- Parallel and 2 fast serial ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

£889

+ VAT

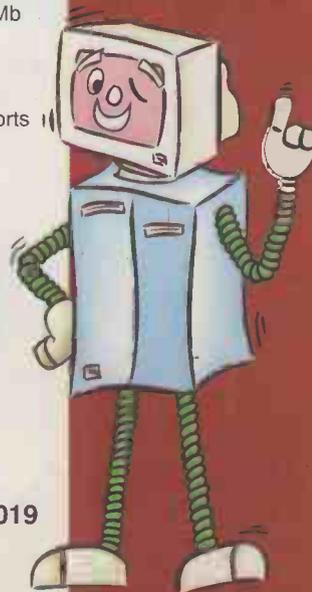
P90 model with quad  
speed CD drive .....£1019

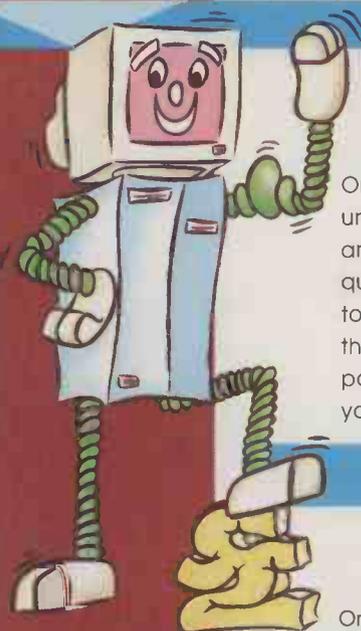
Terms & conditions: All prices are subject to VAT (17.5%) and delivery costs (£19 + VAT) and may change without notice. Goods are normally delivered within few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Goods are not supplied on a trial basis. Credit account orders are normally 3% extra. Errors and omissions exempted. Business user prices shown. End user enquiries welcome. The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation. E&OE

# MrPC

MRPCBS2A

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT  
TELEPHONE 01282 777 888 FAX 01282 777 209





# Omega Systems

Omega high performance systems are unbeatable in terms of quality, performance and value. These systems use the highest quality hardware components and are offered to you at the best prices in the UK. We achieve these low prices because of our huge buying power and by letting you choose the software you need rather than bundling software with

systems. We guarantee you will not find better prices for the same specification and quality of components.

The examples shown here are just some of the configurations available. We can tailor-make a system to your requirements using the simple 5 stage procedure opposite.

**"I will not be beaten on price"**

\*see my price guarantee

Omega's VESA 486 systems use the highest performance components and are future-proof with chip-change upgradeability. All systems come with 32-bit local bus graphics and high quality keyboard and mouse.

## 486 SYSTEMS

### Omega 486DX2-66

- 486DX2-66 processor
- 4Mb RAM expandable by SIMMS
- Pentium® technology upgradeable
- 3.5" 1.44Mb floppy drive
- VESA bus graphics with Windows® accelerator
- IDE hard and floppy controller
- Parallel, 2 serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced keyboard
- Microsoft® compatible mouse

### Omega 486DX4-100

- 486DX4-100 processor
- 4Mb RAM expandable by SIMMS
- Pentium® technology upgradeable
- 3.5" 1.44Mb floppy drive
- VESA bus graphics with Windows accelerator
- IDE hard and floppy controller
- Parallel, 2 serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced keyboard
- Microsoft compatible mouse

### Omega 486DX4-100S

- 486DX4-100 processor
- 4Mb RAM expandable by SIMMS
- Pentium® technology upgradeable
- 256K External SRAM Cache
- 3.5" 1.44Mb floppy drive
- VESA bus graphics with Windows accelerator
- IDE hard and floppy controller
- Parallel, 2 serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced keyboard
- Microsoft compatible mouse

4Mb System (as specified)	<b>£319</b>	<b>£349</b>	<b>£389</b>
4Mb, 14" Screen, 125Mb	<b>£459</b>	<b>£489</b>	<b>£529</b>
8Mb, 14" Screen, 540Mb	<b>£659</b>	<b>£689</b>	<b>£729</b>



**Terms & conditions**  
All prices are subject to VAT (17.5%) and delivery of £19.00 and may change without notice. Goods are normally delivered within a few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Goods are not supplied on a trial basis. Credit account orders are normally 3% extra. Errors and omissions exempted. Business user prices shown. End user enquiries welcome. All trademarks are acknowledged.

Omega's 586 systems use the latest Intel Pentium® processors with PCI bus and super fast PCI graphics. These systems offer you the highest performance at the lowest price!

## 586 SYSTEMS

### Omega P75

- Intel 75 Pentium® processor
- 8Mb RAM expandable by SIMMS
- 256K external SRAM cache
- 3.5" 1.44Mb floppy drive
- PCI Bus with 4 PCI slots
- 1Mb PCI bus graphics with Windows accelerator
- PCI IDE hard and floppy controller
- Parallel, 2 serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (4 PCI)
- 102 Enhanced keyboard
- Microsoft compatible mouse

### Omega P90

- Intel 90 Pentium® processor
- 8Mb RAM expandable by SIMMS
- 256K external SRAM cache
- 3.5" 1.44Mb floppy drive
- PCI Bus with 4 PCI slots
- 1Mb PCI bus graphics with 64-bit Windows accelerator
- PCI enhanced IDE hard and floppy controller
- Parallel, 2 fast serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (4 PCI)
- 102 Enhanced keyboard
- Microsoft compatible mouse

### Omega P100

- Intel 100 Pentium® (or Pentium 133 Processor £250 extra)
- 8Mb RAM expandable by SIMMS
- 256K external SRAM cache
- 3.5" 1.44Mb floppy drive
- PCI Bus with 4 PCI slots
- 1Mb PCI bus graphics with 64-bit Windows accelerator
- PCI enhanced IDE hard and floppy controller
- Parallel, 2 fast serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (4 PCI)
- 102 Enhanced keyboard
- Microsoft compatible mouse

8Mb System (as specified)	<b>£549</b>	<b>£629</b>	<b>£709</b>
8Mb 14" Screen, 540Mb	<b>£789</b>	<b>£869</b>	<b>£949</b>
8Mb 14" Screen, 850Mb	<b>£839</b>	<b>£919</b>	<b>£999</b>

## Omega Multimedia Systems

Any of Omega's systems can be fitted with high performance multimedia options to produce powerful multimedia systems.

Each option includes:-

- Quad speed or double speed IDE CD-ROM drive
- 16-bit high quality stereo sound card with sound software
- Twin high quality stereo speakers

Double Speed Multimedia option **£90**  
Quad Speed Multimedia option **£140**



# "LET ME BUILD YOUR SYSTEM"

Simply follow the 5 stage process to specify the system most suited to your requirements.

## 1. Select the Omega base system (see specifications opposite)

- 486DX2-66 4Mb **£319**
- 486DX4-100 4Mb **£349**
- 486DX2-66 4Mb and 256K **£349**
- 486DX4-100 4Mb and 256K **£389**
- 75MHz Pentium®, 8Mb and 256K **£549**
- 90MHz Pentium®, 8Mb and 256K **£629**
- 100MHz Pentium®, 8Mb and 256K **£709**

## 2. Select the IDE hard drive

- 120Mb **£20**
- 170Mb **£50**
- 540Mb **£120**
- 850Mb **£170**
- 1.08 Gb **£220**
- 1.6 Gb **£320**

## 3. Select the screen

- 14" SVGA **£120**
- 14" SVGA NI **£160**
- 15" SVGA NI **£230**
- 17" SVGA NI **£440**

## 4. Select A CD/Multimedia option

- Double speed CD-ROM drive alone **£50**
- Double speed CD-ROM plus 16-bit sound card and speakers **£90**
- Quad speed CD-ROM drive alone **£100**
- Quad speed CD-ROM plus 16-bit sound card and speakers **£140**

## 5. Additional options

- RAM upgrade per 4Mb **£100**
- 486 Video RAM upgrade to 2Mb **£35**
- Pentium video RAM upgrade to 2Mb **£40**
- 250Mb Tape streamer **£90**
- 800Mb Iomega Tape streamer **£150**
- 3.2Gb Iomega Tape streamer **£220**
- 9624 approved data/fax modem **£35**
- 14.4 approved data/fax modem **£80**
- 28.8 approved data/fax modem **£160**
- PC joystick **£10**
- 16-bit sound card **£30**
- Twin stereo speakers **£10**

### Pre-loaded Software Options

- DOS 7 & OS/2 Warp **£Call**
- Windows '95 **£Call**
- DOS & Windows 3.11 **£Call**
- DOS and Windows 3.11 for Workgroups **£Call**

The above options in stages 2 - 5 can only be purchased with a PC system

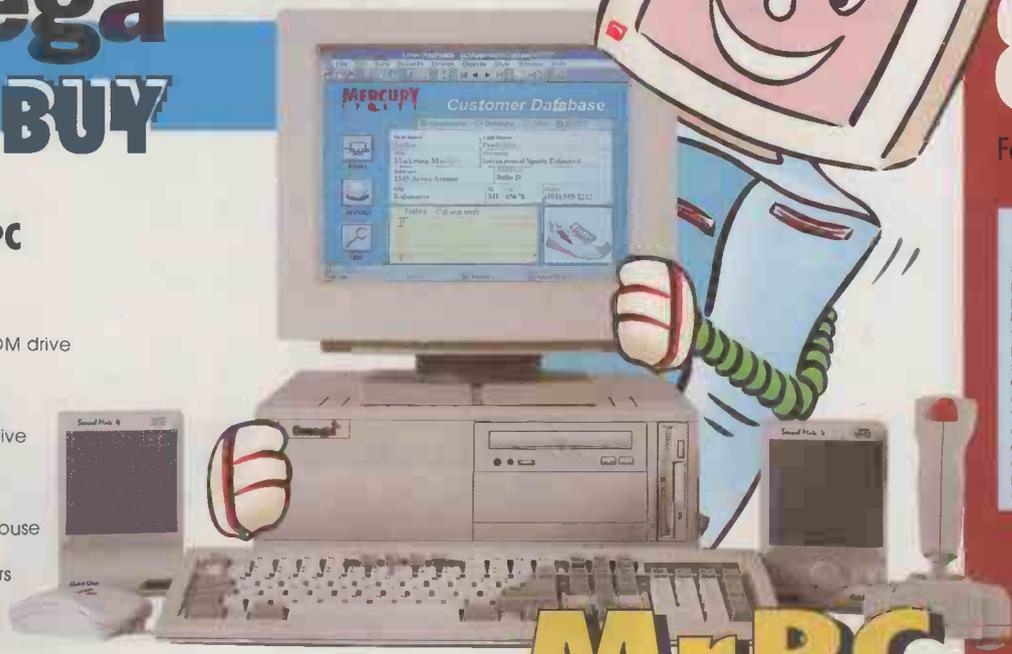
"Take a look at Omega's 'Best Buy' 486DX2-66 Multimedia system which comes with an incredible specification for just **£649+VAT**. With fast 540Mb hard drive, 66MHz 486DX2 processor, double speed CD multimedia, 4Mb RAM and a superb SVGA colour screen, this is surely the best value in multimedia PC system in the UK today!"

# Omega BEST BUY

## 486DX2-66 Multimedia PC

- 486DX2-66 processor
- 4Mb RAM
- 540Mb hard disk
- Double speed CD-ROM drive
- 16-bit sound card
- PC joystick
- Twin stereo speakers
- 3.5" 1.44Mb floppy drive
- 32 bit VESA graphics
- 14" SVGA screen
- Standard ports
- 102 keyboard and mouse
- 12 months warranty extendable to 3 years

**£649**  
SPECIAL PRICE



MrPC11A

# MrPC

"Buy with confidence"

- 1 Lowest Prices with Full Service
- 2 Part of Multi-Million Pound Computer Group
- 3 Over 150,000 Satisfied Customers
- 4 Quality Leading Brand Products Only
- 5 Friendly Helpful Sales Staff
- 6 Huge Stocks, Ready To Ship
- 7 Minimum of 12 Months Guarantee
- 8 Comprehensive After-Sales Service
- 9 FREE Hardware Technical Support Line
- 10 The Best Value In the UK

Sales lines are open Mon-Fri  
9am until  
5:30 pm

Order  
Hotline

01282  
777  
888

Fax 01282 777 209

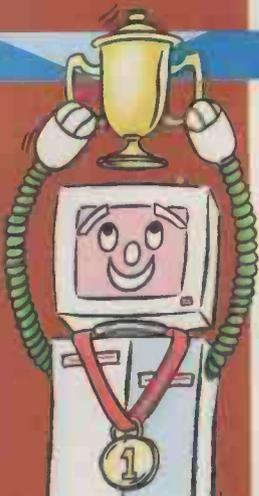
### \*MrPC PRICE GUARANTEE

Due to our huge buying power, our advertised prices are normally the lowest in the UK. If you find a lower advertised price on any current ex-stock product which is confirmed to be genuine, we will beat that price. This guarantee applies to our advertised prices and excludes clearance products sold below cost.

All prices exclude delivery £19.00 and VAT @ 17.5%

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT  
TELEPHONE 01282 777 888 FAX 01282 777 209

# MrPC SOFTWARE



**"Lowest Prices in the UK"**  
See my price guarantee



**PageMaker Classic**  
3.5" disk media unless specified

**ADOBE**

Adobe Acrobat Pro	£299
Adobe Type Manager v2.5 Win	£64
Adobe Illustrator Win	£398
Adobe Photoshop Win	£398
PageMaker v5 Win	£385
PageMaker Classic Win	£52
Persuasion Win	£189
PC Collection Win	£829
IntelliDraw Win	£84
PhotoStyler Win	£386

**ASYMETRIX**

Asymetrix Mediabltz Win	£57
Multimedia Toolkit	£460
Toolbook	£195

**AUTODESK**

Autosketch for Windows	£139
Generic CAD v6.1 DOS	£379
Autodesk Animator Pro Win	£335
AutoCAD LT	£379

**BORLAND**

Delphi CD	£219
Paradox 5.0 Win	£219
Paradox 4.5 Dos	£275



**Asymedia Mediabltz**

dBASE 5.0 Win	£228
dBASE 5.0 Dos	£327
dBASE 5.5 Win	£5Call
C++ 4.5 Dos & Win	£218
Turbo C++ 3.0 Dos	£65
Turbo C++ 4.5 Win	£73
Turbo C++ 4.5 Win CD	£229
C++ 4.5 & Tools	£335

**BRODERBUND**

Harry & The Haunted House	£25
Maps & Facts	£25
Myst Windows	£25
Ruffsbone	£25
Arthur's Birthday	£25
Arthur Teacher Trouble	£25
Carmen World Deluxe	£25
Just Grandma & Me	£23
Little Monster at School	£25
Tortoise & the Hare	£25

**CENTRAL POINT/SYMANTEC**

CP PC Tools Pro (V9) DOS	£89
CP PC Tools for Win v2	£62
CP Xtree Gold v3	£64
CP Xtree for Windows v2	£65
Norton Antivirus +Subs v3 Win	£102



**Quattro Pro for Windows v5**

Norton Desktop v3 for Win	£88
Norton PC Anywhere DOS	£87
Norton PC Anywhere Win H&R	£99
Norton PC Anywhere Win Host	£50
Norton PC Anywhere Win Remote	£60
Norton Utilities v8 DOS	£84
ACT v2 for Windows	£125
Symantec Q&A v4 for Win	£118
TimeLine for Win	£319
On Target for Win	£79
Speed Drive	£46
Norton Anti-Virus 95	£54
Norton Anti-Virus 95 trade up	£26
Norton Navigator 95	£68
Norton Utilities v8 CD	£72
Norton Navigator 95 trade up	£34
Norton Utilities 95	£84
Norton Utilities 95 CD	£88
Norton Utilities 95 trade up	£50

**COREL**

CorelDraw 3	£62	£43
CorelDraw 4	£105	£86
CorelDraw 5	£287	£31
CorelDraw 3 to 5 Upg	£270	£199
CorelDraw 4 to 5	£145	£116
Corel Ventura v5	£255	£195
Corel Ventura v5 UPG	£145	£145



**Paradox v5**

Corel SCSI v2	£66
Corel CD Power	£27
Corel Prof Photos CD's	£170
Corel Art Show 5 CD	£20
Corel Gallery	£26
Corel Gallery 2	£45
Corel Flow	£45
Corel CD Office Companion	£68
CD Office Companion 6	£309
CD Office Comp 3 or 4 to 6 Upg	£259
CD Office Comp 5 to 6 Upg	£259

**CRT**

Learn Windows 95	£25
------------------	-----

**DELIRINA**

Delrina DOSFAX	£32
Winfax Pro for Win	£55
Winfax Pro Upgrade from Lite	£32
Opus 'n Bill Screen Saver	£29

**DORLING KINDERSLEY**

Encyclopedia of Nature	£31
Encyclopedia of Science	£31
History of the World	£27.90
Stowaway	£21
PB Birthday	£19
The Ultimate Human Body	£31



**IBM OS/2v3 + Lotus SmartSuite**

The Way Things Work	£31
World Reference Atlas	£37

**GSP**

Timeworks v2 DOS	£29
GSP Pressworks for Windows	£29
GSP Designworks v2 Windows	£64
GSP Designworks & Pressworks	£79

**IBM**

IBM PC DOS v7	£41
IBM PC DOS v7 Upg	£30
IBM OS/2 v2.0	£28
IBM OS/2 v2.1	£79
IBM OS/2 Warp + Stacker v4 3-5	£80
IBM OS/2 Warp + Stacker CD v4	£59
IBM OS/2 Warp	£51
IBM OS/2 v3 Warp CD	£44
IBM OS/2 Warp / SmartSuite	£206
IBM OS/2 Warp with Windows 3.5	£90
IBM OS/2 Warp with Windows CD	£79

**WINDOWS 95 SOFTWARE**

After dark Win 95 3.5" or CD	£19
Dash Board	£26
Sidekick 95	£26
Astron How animals move	£21



**dBASE v5 for Windows** £219



**CA Simply Business** £39



**CD Office Companion** £68



**CorelDraw v4 CD** £86



**IBM OS/2 v3** £51

- Windows 95 Upg .....£59
- Lotus SmartSuite Upg .....£158
- Quattro Pro for Win .....£29
- MS DOS 6.2 .....£36
- MS Office 4.2 Upg .....£149
- CA Simply Business .....£39
- CorelDraw 3 .....£43
- Quicken v4 .....£28
- MS Works v3 .....£80
- dBase for v5 Win .....£228
- MS Money v3 .....£24
- MS Excel 5 Upg .....£82
- MS Word 6 Upg .....£82
- Paradox for Win .....£219
- WinFax Pro Upg .....£32
- MS Encarta '95 CD .....£55
- Lotus SmartPics .....£84
- MS Office 4.3 Pro Upg£240
- Visio v3 .....£89

**Terms & conditions.**  
All prices are subject to VAT (17.5%) and Delivery and may change without notice. Delivery charges, PC systems £19, Lasers and large items £15, other items £10. Goods are normally delivered within a few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Business user prices shown. End user enquiries welcome. Goods are not supplied on a trail basis. Credit account orders are normally 3% extra. Errors and omissions excepted. Clearance Bargains may include shop soiled goods



**EASY TUTOR Windows 95** £25



**SYMANTEC NORTON UTILITIES** £84



**The Ultimate Human Body** £31



**THE BEST WAY TO SEND RECEIVE & MANAGE FAXES IN WINDOWS** £53



**ENCYCLOPEDIA OF SCIENCE** £31

**IMSI**

TurboCAD v3.2 DOS	£56
TurboCAD for Windows	£57
Formtool Gold	£47
Winbase	£15
CD Speedway	£27
Picture This	£47
Space Missions CD	£27
World War II CD	£27
Masterclips CD	£61
Masterclips	£83

**RODERICK MANHATTAN**

Org Plus Win	£89
Planix Win	£89
Family Tree Maker Win	£39
Arts & Letters Apprentice Win	£48

**PFS: WindowWorks** .....£39  
**PFS: Power Album** .....£33  
**PFS: Publisher for Win** .....£33  
**PFS: CV & Job Search Pro** .....£33  
**Calendar Creator Plus** .....£33  
**PC Paintbrush** .....£42  
**PhotoFinish for Win** .....£85

**Crosstalk for Windows** .....£65  
**Gibson Spirit II** .....£39  
**Alpha 5, Home & Business** .....£39  
**Fastback Plus** .....£75  
**Laplink v5 DOS** .....£57  
**Laplink v1 Win** .....£75  
**Stacker 4 DOS/WIN** .....£59  
**Stacker 4 Comp Upg** .....£36  
**Smartcom for Windows** .....£99  
**Smarterm 320 v4 DOS** .....£165  
**Smarterm 420 Win** .....£149  
**Procomm Plus for Win v2** .....£54  
**Procomm Plus v2 DOS** .....£54  
**GEMM v7.5** .....£45  
**XtraDrive Disk Doubler** .....£39  
**Game Runner** .....£31

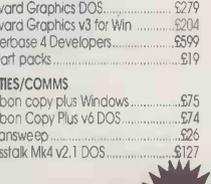
**Lotus Freelance v1.0 WIN** .....£49  
**Lotus 1-2-3 v4 Upg** .....£19  
**Lotus SmartSuite v2.1 CU voucher** .....£79  
**Microsoft Application** .....£19  
**Microsoft Office Pro v4.2 Upg CCP** .....£49  
**Microsoft Office v2.5 distribution kit** .....£49  
**Microsoft Entertainment pack** .....£9  
**Microsoft Office v4 Upg** .....£49  
**Microsoft Works for DOS v2** .....£9  
**Microsoft DOS v6 upgrade** .....£9  
**Microsoft DOS v5 upgrade** .....£5  
**Procomm Plus CD** .....£10  
**Microsoft Office Pro v4 Educat** .....£89  
**Microsoft Excel v4 Educat** .....£49  
**Word WIP Office v2** .....£39  
**Borland Office v2 CU Voucher** .....£49  
**Microsoft Works for Win v2 Educat** .....£59  
**Lotus 1-2-3 v3.1 1.5 25"** .....£19  
**Borland Paradox v4.5** .....£9  
**Ashton DBase** .....£9  
**Ashton DBase Compiler** .....£9



**IBM PC DOS 7 CD upgrade** £30



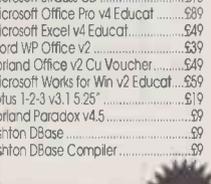
**QuickTax 95** £28



**Quicken v4 for Windows** £28



**Visio v3 for Windows** £89



**Borland Delphi CD** £219



Mr PC is a division of Corporate Systems Ltd

# MICROSOFT™



£26

Microsoft Plus



£59

Windows 95



£82

MS Excel v7 95 CCP



£19

MS Explorapedia



£53

MS Works v4 95

## APPLICATIONS

### Microsoft Windows 95

Windows 95 Upgrade	£59
Windows 95 Upgrade CD	£59
Windows 95 Upgrade MLP1	£56
Windows 95 (Upgrade from DOS)	£112
Office 95	£330
Office 95 CD	£330
Office 95 CU	£162
Office 95 CU CD	£162
Office 95 CCP	£139
Office 95 CCP CD	£139
Office Pro 95	£429
Office Pro 95 CD	£429
Office Pro 95 CU	£425
Office Pro 95 CU CD	£425
Office Pro 95 CCP	£204
Office Pro 95 CCP CD	£204
Plus	£26
Power point v7 95	£226
Power point v7 95 CU	£107
Power point v7 95 CCP	£82
Publisher 95	£84
Excel v7 95	£226
Excel v7 95 CU	£107
Excel v7 95 CCP	£82
Access v7 95	£226
Access v7 95 CU	£107
Access v7 95 CCP	£82
Word v7 95	£226
Word v7 95 CU	£107
Word v7 95 CCP	£82
Works v4	£53
Project 4.1 95	£289

### MICROSOFT OFFICE

MS Office v4.2 Win	£326
MS Office v4.2 Win CD	£326
MS Office v4.2 Win Upg	£149
MS Office v4.2 Win C.U.	£241
MS Office v4.3 Win PRO	£415
MS Office v4.3 Win Pro CD	£419
MS Office v4.3 Win Pro Upg	£240
MS Office v4.3 Win Pro C.U.	£258

### MICROSOFT POWERPOINT

MS PowerPoint v4 Win	£227
MS PowerPoint v4 Win Upg	£82
MS PowerPoint v4 CU	£110

### MICROSOFT PROJECT

MS Project v4 Win	£285
MS Project v4 Win MLP1	£240
MS Project v4 Win Upg	£82

### MICROSOFT PUBLISHER

MS Publisher v2 Win	£81
MS Test V3 Win	£420

### MICROSOFT FOXPRO

MS FoxPro v2.6 DOS STD	£69
MS FoxPro v2.6 DOS PRO	£297
MS FoxPro v2.6 Win STD	£69
MS FoxPro v2.6 Win PRO	£297

### MICROSOFT EXCEL

MS Excel v5 Win	£227
MS Excel v5 Win Upg	£82
MS Excel v5 Win CU	£110

### MICROSOFT ACCESS

MS Access v2 Win	£227
MS Access v2 Win Upg	£82
MS Access v2 CU	£110
MS Access v2 Win Dev Kit	£225

### MICROSOFT WORD

MS Word v6 Win	£228
MS Word v6 Win Upg	£86
MS Word v6 Win CU	£110
MS Word v6 DOS	£164

### MICROSOFT WORKS

MS Works v3 DOS	£80
MS Works v3 Win	£82
MS Works v3 Win Upg	£36

### OPERATING SYSTEMS

#### MICROSOFT DOS

MS DOS v6.22	£36
MS DOS v6.22 MLP1	£32

#### MICROSOFT WINDOWS

MS Windows v3.1	£60
MS Windows v3.1 MLP1	£52
MS Windows v3.1 Upg	£36
MS Windows printing system	£72

#### MICROSOFT WINDOW NT

MS NT Workstation v3.5	£212
MS NT Workstation v3.5 MLP1	£175
MS NT Server v3.5	£460
MS NT Server v3.5 MLP1	£392



£55

Encarta '95 CD



£82

MS Access v7 95 CCP



£82

MS Word v7 95 CCP



£204

MS Office 95 Professional CCP



£139

MS Office 95 CCP

## LOTUS



£89

Lotus 123 v5 Upg



£84

Lotus Ami Pro v3.1



£79

Lotus Organizer v2



£89

Lotus Freelance v2.1 Upg

Lotus 123 v2.4 DOS	£234	Improv for Windows	£86
Lotus 123 v4 DOS	£287	Organizer v2	£79
Lotus 123 Rel 5	£219	Lotus Write v2	£41
Ami Pro v2 for Windows	£29	SmartPics clipart	£84
Ami Pro v3.1	£82	SmartSuite 3.1 Upgrade	£159
Approach v3 for Windows	£82	SmartSuite 3.1	£315
Freelance v4 DOS	£219	SmartSuite bundles	£POA
Freelance v2.1	£258	Notes Starter Pack	£600

### \*MRPC PRICE GUARANTEE

Due to our huge buying power, our advertised prices are normally the lowest in the UK. If you find a lower advertised price on any current ex. stock product which is confirmed to be genuine, we will beat that price. This guarantee applies to our advertised prices and excludes clearance products sold below cost.



£159

Lotus SmartSuite 3.1 special price for users of any Lotus product

## NOVELL



£119

PerfectOffice Upgrade



£163

WordPerfect



£145

Quattro Pro v6

### Network

Novell Personal Network	£43
Network 3.12 5usr	£385
Network 3.12 10usr	£905
Network 4.1 5usr CD	£415
Network 4.1 10user CD	£946

### Office products

Perfect Office Upg	£119
Perfect Office CU	£145
Perfect Office Prof upgrade CD	£199
Perfect Office Prof upgrade 3.5	£179
Presentations DOS 3.5	£214
Presentations comp Upgrade DOS	£99

### Presentations Win v2

Presentations comp	£165
Upgrade Win	£99
WordPerfect 6 for DOS	£210
WordPerfect 6 DOS Upg	£73
WordPerfect 6 DOS Comp Upg	£105
WordPerfect 6.1 for Win	£163
WordPerfect 6.1 Win Upg	£62
WordPerfect 6.1 Win Com Upg	£85
Quattro Pro for Window v6	£29
Quattro Pro for Windows v6	£145

### Presentations

Presentations	£57
Info Central	£165

Info Central

"This is what I have to offer"

- Lowest Prices with Full Service
- Part of Multimillion Pound Computer Group
- Over 150,000 Satisfied Customers
- Quality Leading Brand Products Only
- Friendly Helpful Sales Staff
- Huge Stocks, Ready To Ship
- Minimum of 12 Months Guarantee
- Comprehensive After-Sales Service
- FREE Hardware Technical Support Line
- The Best Value in the UK

Sales lines are open Mon-Fri 9am until 5:30 pm

Order Hotline

01282 777 888

FAX 01282 777 209



Mr PC

# MrPC SYSTEMS



## OMEGA SYSTEMS



**£459**

### Omega 486 Systems

- 486DX2-66 or 486DX4-100 processor
- 4Mb RAM expandable by SIMMS
- Pentium™ technology upgradeable
- 125Mb hard drive
- 3.5" 1.44Mb floppy drive
- VESA bus graphics with Windows accelerator
- 14" SVGA colour screen
- IDE hard and floppy controller
- Parallel, 2 serial, joystick and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced keyboard
- Microsoft compatible mouse

486DX2-66 .....	£459
486DX4-100 .....	£489

### Omega 586 Systems

- 75, 90, 100MHz Pentium™ processor
- 8Mb RAM expandable by SIMMS
- 256K external SRAM cache
- 850Mb Enhanced IDE hard disk
- 3.5" 1.44Mb floppy drive
- PCI bus with 4 PCI slots
- 1Mb PCI bus graphics with windows accelerator
- 14" SVGA colour screen
- PCI IDE hard and floppy controller
- Parallel, 2 serial and keyboard ports
- Expandable desktop case
- 4 drive bays and 7 expansion slots
- 102 Enhanced keyboard
- Microsoft compatible mouse

Pentium 75 .....	£539
Pentium 90 .....	£919
Pentium 100 .....	£999

### OPTIONS

These options are only available with Omega Systems

170Mb HD instead of 125Mb .....	£30
540Mb HD instead of 125Mb .....	£100
850Mb HD instead of 540Mb .....	£50
1.08Gb HD instead of 540Mb .....	£100
1.4Gb HD instead of 540Mb .....	£200
15" NI SVGA instead of 14" .....	£110
17" NI SVGA instead of 14" .....	£320
RAM upgrade per 4Mb .....	£100
486 Video RAM Upg to 2Mb .....	£35
Pentium™ video RAM upg to 2Mb .....	£40
350Mb Tape streamer .....	£90

700Mb Tape streamer .....	£150
9624 Data/fax modem .....	£35
14.4 Data/fax modem .....	£100
Double speed CD-ROM drive .....	£70
Quad speed CD-ROM drive .....	£100
PC Joystick .....	£10
16-bit Sound card .....	£30
Twin stereo speakers .....	£10

**Pre-loaded Software Options**

DOS & Windows 3.11 .....	£Call
DOS & Windows 3.11 for workgroups .....	£Call
PC DOS 7 & OS/2 .....	£Call

## IBM APTIVA



**£599**

### IBM Aptiva

- Intel 486SX-25, 486SX-33 or 486DX2-66 processor
- Intel overdrive™ upgradeable
- 4Mb RAM, max 64Mb/128Mb
- 170Mb, 270Mb or 540Mb local bus IDE hard drive
- VESA local bus technology
- 3.5" 1.44Mb floppy drive
- Integrated VESA local bus graphics
- 4 Drive bays and 4 slots
- Parallel, serial and mouse ports
- 14" SVGA colour screen
- MS Compatible mouse and 102 keyboard
- Rapid resume energy saver, password
- PC Dos 6.3, MS Windows 3.1 Microsoft Works v3 and AptivaWare software
- 12 Month warranty extendable to 3 years
- IBM Helpline support

486SX-25 170Mb .....	£599
486SX-33 270Mb .....	£699

Mr PC. Compaq prices are the best in the UK. Please give us a call for the latest prices

## COMPAQ



**£799**

### New Compaq Presario

- 486SX2-66, 486DX2-66 or 486DX4-90 processor
- 4Mb or 8Mb RAM. Max 64Mb
- 420Mb hard disk
- 3.5" 1.44Mb floppy drive
- Local bus SVGA graphics
- Compact, standard desktop or mini-tower models
- Serial parallel, joystick and mouse ports
- 14" Low radiation NI SVGA colour screen
- 16-bit stereo sound card, microphone and speakers
- High speed multisection CD-ROM drive
- Integrated 9600/2400 fax/data modem with telephone answering
- MS DOS 6.2, Windows 3.1, Tabworks.

### Pentium 75 (Model 772)

Includes 720Mb hard disk, 256K cache, mini-tower case, PCI bus graphics but no modem. Rest of specification as above.

**Software**

Microsoft Works v3, MS Money, MS Entertainment pack, Microsoft Encarta '95 CD, The Ultimate Human Body CD

CDS 520 486SX2-66 compact .....	£799
CDS 524 486DX2-66 compact .....	£1039
CDS 742 486DX4-90 desktop .....	£1139
CDS 942 486DX4-90 tower .....	£1189
CDS 772 Pentium 75 tower .....	£1399

## NOTEBOOKS



**£799**

### Omega 486DX2-66

### Omega Notebooks

- 486DX2-66 or 486DX4-100 processor
- 4Mb or 8Mb RAM, max 20Mb
- 340Mb, 540Mb or 810Mb hard disk
- High contrast 9.5" LCD VGA mono or colour screen
- 3.5" removable 1.44Mb floppy disk drive
- VESA local bus graphics
- PCMCIA Type II/III slot
- Built-in trackball
- Serial parallel, VGA and PS2/ports
- Up to 3 hours battery life
- Battery and AC Pack included
- 12 month warranty

486DX2-66, 340/4 mono .....	£799
486DX4-100, 340/4 mono .....	£839
486DX2-66, 340/4 colour .....	£1169
486DX4-100, 340/4 colour .....	£1209

**OPTIONS**

540Mb HD instead of 340Mb .....	£90
810Mb HD instead of 340Mb .....	£260
4Mb RAM module .....	£150
8Mb RAM module .....	£300
16Mb RAM module .....	£600

### Toshiba T2100

- 486DX2-66 processor
  - 4Mb RAM, max 28Mb
  - 260Mb or 350Mb hard drive
  - STN mono or TFT colour display
  - MS DOS 6.1, Win 3.1 and ballpoint mouse
- |                                |       |
|--------------------------------|-------|
| 486DX2-50 260Mb STN mono ..... | £845  |
| 486DX2-50 350Mb STN col .....  | £1599 |
| 486DX2-50 350Mb TFT col .....  | £1945 |

"My Best Selling Printers"

1. HP DeskJet 850C .....£385
2. Canon BJ30 .....£149
3. HP DeskJet 660C .....£299
4. HP LaserJet 4L .....£349
5. Epson Stylus 1000 .....£319
6. HP LaserJet 4 Plus .....£977
7. HP DeskJet 320 .....£163
8. Epson EPL 3000 .....£359
9. Panasonic KXP 2124M .....£191
10. OKI 400EX .....£269
11. Canon BJ200EX .....£168
12. Star LC24-200C .....£198
13. NEC P2Q .....£97
14. Canon BJC600E .....£326

"you won't find lower prices"

# PRINTERS



**HP LASERJET**

HP LaserJet 4L .....	£349
HP LaserJet 4 Plus .....	£977
HP LaserJet 4M Plus .....	£1294
HP LaserJet 4SI .....	£2054
HP LaserJet 4SIMX .....	£2925
HP LaserJet 4V .....	£1364
HP LaserJet 4MV .....	£1967
HP LaserJet 5L .....	£Call
HP LaserJet 5P .....	£574
HP LaserJet 5MP .....	£719
HP LaserJet Colour .....	£4179

- Printer options**
- Remember to order with your printer
- Extra toner
  - Extra ink cartridges



**CANON**

BJ30 .....	£149
BJC70 .....	£221
BJ200EX .....	£168
BJ230 .....	£236
BJ300 .....	£335
BJ330 .....	£389
BJC4000 .....	£231
BJC600E .....	£328
BJC800 .....	£1064
BJC820 .....	£1199
LBP4 U .....	£391
LBP430W .....	£359
LBP1260 .....	£693

- Extra ribbons
- Extra software fonts
- RAM upgrades etc



**EPSON**

DLQ 3000 .....	£671
DFX - 5000+ .....	£1045
DFX - 8000 .....	£1849
EPL 3000 .....	£559
EPL 5200+ .....	£485
FX870 .....	£238
FX1170 .....	£297
LX300 .....	£92
LQ300 .....	£141
LX1050+ .....	£179
LQ570+ .....	£209
LQ - 1070+ .....	£291
LQ 870 .....	£369
LQ1170 .....	£429
Stylus 1000 .....	£319
Stylus Colour .....	£337
SG870 .....	£406
SG-1170 .....	£545
SG Colour XL .....	£1389

**NEC**



P2Q .....	£97
P3Q .....	£178
P72 .....	£372
P90 .....	£548
S610 Laser Plus .....	£282
S660 Laser .....	£338
S660L Laser .....	£565
S3000 Colour .....	£638



**PANASONIC**

KXP1150 .....	£87
KXP2023 .....	£107
KXP2124M .....	£191
KXP 2135 .....	£123
KXP 3626 .....	£252
KXP 3696 .....	£259
KXP 4430 .....	£389
KXP 4440 .....	£690
KXP 5400 PS .....	£519
KXP 6100 .....	£266
KXP 6150 .....	£Call
KXP-Colour Kit .....	£28

**OKI**



Okilaser 400EX .....	£269
Okilaser 410EX .....	£355
Okilaser 810EX .....	£625



**STAR**

LC-90 .....	£78
LC-100 C .....	£89
LC-15 .....	£176
LC24-20 Mk2 .....	£112
LC24-200 C .....	£198
LC24-15 Mk2 .....	£231
LC-240 .....	£89
LC-240C .....	£99
XB24-200C .....	£309
XB24-250C .....	£379
Star S.448 .....	£148
LS-05 Laser .....	£364
Wintype 4000 .....	£287
Wintype 800C .....	£585

**LEXMARK**



- Lexmark Winwriter 200**
- 4 ppm print speed
  - Laser quality 300 dpi resolution
  - 12 months on-site maintenance
  - GDI & PCL4 language compatible
  - Windows & TrueType scalable fonts
  - 512Kb RAM standard, upgradeable to 4.5Mb
  - Bi-directional parallel port interface
  - Easy to use print features totally controlled from PC (no printer buttons)
  - 150 sheet paper tray - Prints plain paper, letter, legal, labels and envelopes

# PERIPHERALS

## PLOTTERS



**£3711**

DesignJet 650C

**HP DesignJet**

230 A1	£1387
230 A0	£1909
250 A1	£1738
250 A0	£2387
600 A1 600dpi	£2716
600 A0 600dpi	£3246
650C A1 Colour	£3711
650C A0 Colour	£4386

### HP PaintJet

XL300 A4	£1599
XL300 A3 Value Pack	£1768
XL300 Postscript A4	£2568
XL300 Postscript A3 Value Pack	£2752

## TAPE DRIVES & MEMORY



**£86**

Jumbo 350Mb

### TAPE STREAMERS

Jumbo 680Mb	£150
Trakker par. port 350Mb	£154
Trakker 680Mb	£238
lomega Ditto 800Mb	£150
lomega Ditto 3.2Gb	£220
Cartridges for above	Call

### RAM Memory

1Mb Standard SIMM	£27
4Mb Standard SIMM	£99
4Mb 72 pin SIMM	£95
8Mb 72 pin SIMM	£199

## SCANNERS



from **£485**

Agfa scanners

**Agfa Scanners**

StudioScan	£485
StudioScan Ili	£585
Arcus II	£2128

**HP Scanners**

HP ScanJet 3P PC	£229
HP ScanJet 3C PC	£609

**Epson Scanners**

GTX6500 SCSI	£495
GTX8500 Parallel	£535
GTX8500 SCSI	£620
GTX9000 Parallel	£638
GTX9000 SCSI	£728
Lapcat	£292

**Logitech**

Scanman 32 Win	£56
Scanman 256	£78
Scanman Colour	£165
Scanman Easytouch 256	£105

## MICE



FROM **£17**

Logitech

**Logitech**

Pilot II Serial	£17
Pilot II PS/2	£18
Mouseman RH Bus	£33
Mouseman Cordless RH	£49
Serial/PS2	£49
Trackman PC Serial/PS2	£43
Trackman Portable Serial/PS2	£31
Mouseman Sensa	£39

**Microsoft**

Ballpoint PS/2	£52
Home mouse	£24
Serial PS/2 Mouse	£35

## MONITORS



**£278**

NEC MultiSync XV 15" Monitor

**Taxan Monitors**

400LR 14"	£177
410LR 14"	£184
580LR 15" +	£262
880LR 17"	£499
885LR 17"	£565
895LR 17"	£795
1080LR 20"	£849
2100LR 21"	£1435

**Panasonic Monitors**

Panasonic TX-D1537 15"	£309
Panasonic TX-D1751 17" MPR11	£609
Panasonic TX-D1732 17"	£449
Panasonic TX-D2023 20"	£1032
Panasonic TX-D2131 21"	£1299

## KEYBOARDS



**£49**

Comfy Keyboard

**Comfy Keyboard**

Comfy Keyboard	£49
The great concert in Comfyland	£25
Christmas in Comfyland	£19
Adventure of the missing bone	£25

**Microsoft Natural Keyboard** ..... £60



## MODEMS



**FREE**

Offer must end 31st October 1995

FREE\* Mobile Phone offer

Buy any NEC Multisync monitor get an NEC P100 mobile phone **FREE\*** including connection.

\*Connection is subject to status

### NEC Monitors

**Value Series**

NEC XV14 14"	£215
NEC XV15 15"	£278
NEC XV17 17"	£558

**Efficiency Series**

NEC XE15 15"	£388
NEC XE17 17"	£686
NEC XE21 21"	£1325

**Professional Series**

NEC XP17 17"	£895
NEC XP21 21"	£1745

## MODEMS



**£165**

Worldport PCMCIA 28.8

Zoom 14.4 Int	£85
Zoom 14.4 Ext	£92
Zoom 28.8 Int	£139
Zoom 28.8 Ext	£158

**US Robotics**

Sportster 28.8	£165
Sportster 14.4 Int	£107
Sportster 14.4 Ext	£109
Worldport 28.8 PCMCIA	£165
Courier Turbo v34	Ext £262
Courier Turbo v34	Int £262

**Pace**

Pace Modifox 2496	£35
Pace Microlin NB32+ PCMCIA 14.4	£189
Pace Modifox 144 14.4 Netlink	£110
Pace Microlin Fx V32bis Int	£134
Pace Microlin Fx V32bis Ext	£147
Pace Message Desk Int	£185
Pace Message Desk Ext	£185
Pace Microlin V34 Int	£179

## CLEARANCE BARGAINS

Citizen Swift 200C	£69
Citizen Swift 90C	£69
Citizen Swift tractor feeder	£10
Citizen auto s/feeder for Citizen 24	£10
Epson Stylus 800	£99
Epson Stylus 800	£119
Epson EPL4000	£349
Epson L6200 printer	£90
Epson L6400	£100
Epson EPL multimedia tray	£29
Epson pull tractor feeder FX1050	£19
Epson LG650 LX850 s/feeder	£19
Epson LX850 LG850 CSF	£299
Epson LG1010 CSF	£39
Epson 2550 scanner	£29
HP VL2E SX33 210Mb (Base/Mon)	£399
HP LaserJet A4 250 sheet tray	£19
HP DeskJet 900C	£175
HP LaserJet 4P	£499
IBM low rad 14" monitor	£139
IBM Value Point K2C SX33 170Mb (Base/Mon)	£499
IBM 540 540Mb (Base/Mon)	£499
IBM 573 540Mb (Tower base/Mon)	£549
Mitac Supergreen, 540Mb, 14" mon	£479

NEC S601 paper face up tray	£29
NEC P20 SF	£10
NEC P60 cur sheet feeder	£29
NEC P90 sheet feeder	£29
NEC P2200/P2+ sheet feeder	£9
NEC 5E monitor	£549
NEC 610	£199
OKI sheet feeder for 320/390	£20
OKI CL800 printer	£399
OKI CL840 printer	£599
OKI L1800 printer	£799
OKI 400	£229
OKI 182 parallel printer epe	£79
OKI 182/280 pull tractor feed	£79
Olivetti pull tractor for IP350	£9
HP VL2E SX33 210Mb (Base/Mon)	£399
Panasonic KDP-110 SF for 2180/2123	£59
Panasonic KDP-4151	£599
Panasonic TX1713 17"	£449
Panasonic C1381 multisync monitor	£1
Star LP4 Postscript laser	£499
Star LC24-200	£99
Star LC100 sheet feeder	£15
Star XB24-10 sheet feeder	£9
WYS 55 green terminal	£79

"Buy with confidence"

- 1 Lowest Prices with Full Service
- 2 Part of Multi-Million Pound Computer Group
- 3 Over 150,000 Satisfied Customers
- 4 Quality Leading Brand Products Only
- 5 Friendly Helpful Sales Staff
- 6 Huge Stocks, Ready To Ship
- 7 Minimum of 12 Months Guarantee
- 8 Comprehensive After-Sales Service
- 9 FREE Hardware Technical Support Line
- 10 The Best Value in the UK

Sales lines are open Mon-Fri 9am until 5:30 pm

Order Hotline

01282 777 888

Fax 01282 777 209

# MULTIMEDIA

## CREATIVE LABS



**£61**

SoundBlaster 16

### SoundBlaster Range

SoundBlaster 16 AWE-32	£162
SoundBlaster 16 SCSI-2 AdSP	£124
SoundBlaster 16 SCSI-2	£103
SoundBlaster 16 MCD	£82
SoundBlaster 16 Value	£61
SoundBlaster Pro IDE 64	£36
WaveBlaster	£124
AdSP Upgrade	£38
SoundBlaster Pro IDE ADSP	£110
SoundBlaster Pro IDE ADSP	£89
SoundBlaster 16 AWE-32 Value	£122

### Multimedia Cards

VideoBlaster RT300	£279
Video Spigot	£89
Creative MP400 (MPEG)	£199

### Multimedia Kits

Discovery CD16 Kit	£209
GameBlaster CD Kit	£249
Digital Edge III Kit	£399

## SOUND CARDS



**£49**

16 Bit Sound card

### 16-BIT SOUND CARDS

High performance 16-bit stereo soundcard with standard interfaces ..... £49

### MRPC CD-ROM KITS

**MrPC CD-ROM Double** ..... £59

Double speed IDE CD Kit

- Double speed Multi-session CD-ROM drive
- IDE ATAPI Interface
- Connects directly to your IDE hard disk cable

**MrPC CD-ROM Quad** ..... £109

Quad Speed IDE CD Kit

- Latest Quad Speed IDE CD-ROM drive
- IDE ATAPI Interface
- Connects directly to your IDE hard disk cable

## MRPC MULTIMEDIA KITS



### MRPC MULTIMEDIA KITS

**Multimedia Kit 1** ..... £119

Double speed multimedia bundle

- Double speed IDE CD-ROM drive
- Connects directly to your IDE hard drive cable
- Audio cable included
- 16-bit high performance soundcard
- Multimedia software
- Dual stereo speakers
- PC joystick
- 3 CD titles

**Multimedia Kit 2** ..... £169

Quad speed multimedia bundle

- Quad speed IDE CD-ROM drive
- Connects directly to your IDE hard drive cable
- Audio cable included
- 16-bit high performance soundcard
- Multimedia software
- Dual stereo speakers
- PC joystick
- 3 CD titles

### MICROSOFT MULTIMEDIA BUNDLES

- Double speed or quad speed CD-ROM drive
- CD audio cables
- 16-bit high performance soundcard
- Twin stereo speaker system
- PC Joystick
- Microsoft Encarta 95 CD
- Microsoft Works CD
- Microsoft Golf CD
- Microsoft Dangerous Creatures CD
- Microsoft Beethoven CD

Double speed MM Kit 3 ..... £149

Quad speed MM Kit 4 ..... £199

## MULTIMEDIA ADD-ONS

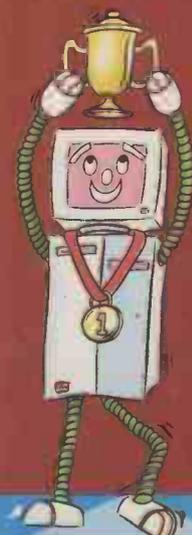


Virtual Pilot

PC Joystick	£19
Joystick Card	£9
Suncom Command Control	£16
Suncom Flight Yoke	£46
CH Flightstick	£29
CH Flightstick Pro	£57
CH Virtual Pilot	£65
Speakers	£17
Microphone	£9
Mid Cables	£18

### CD Leisure Software

Full Throttle	£28
Flight Unlimited	£28
Virtual Pool	£23
Disc World	£28
Dungeon Master 2	£23
Dark Forces	£28
Theme Park	£29
Eleventh Hour	£26
AI Unser Junior	£15
Racing	£15
Superkarts	£20





# COMPAQ PRESARIO

The Compaq Presario offers a combination of education, entertainment and communication for all the family. The 500 series offers a unique and stylish all-in-one design.

Windows 95 upgrade **FREE** from Compaq

## CDS 520

- 4Mb RAM
- Double speed CD
- Fax, data & voice modem
- Encarta S/W Bundle
- 3 year warranty
- Lowest price in UK



## CDS 524

- 8Mb RAM
- Quad speed CD
- Fax, data & voice modem
- Encarta S/W Bundle
- 3 year warranty
- Lowest price in UK



## The Benefits of Buying Compaq CDS Models from Mr PC

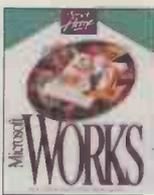
- World's No.1 PC manufacturer
- Exceptional quality
- 3 Year Compaq warranty
- Fast 486 processors
- Large 420 hard drives
- Built-in multimedia
- High Quality 16-bit sound
- High speed CD-ROM
- Full-Feature fax machine
- Automatic answering machine
- Powerful data modem
- Links To CompuServe
- Excellent Microsoft software
- Wide range to choose from
- Best prices in UK

### PRESARIO MODEL CDS 520

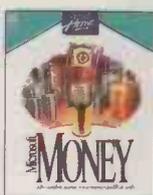
- 486SX2-66 processor
- 4Mb RAM expandable to 64Mb
- 420Mb hard disk
- 3.5" 1.44Mb floppy drive
- Local bus SVGA graphics
- Compact 3 bay case with 2 expansion slots
- serial parallel, joystick, MIDI and mouse ports
- 14" Integral low radiation NI SVGA colour screen
- 16-bit stereo sound card, microphone and speakers
- Double speed multisession CD-ROM drive
- MS DOS 6.2, Windows 3.1 (Free Windows 95 upgrade), TabWorks, Welcome Centre, Control Centre and Learning Centre
- Microsoft Works v3, MS Money and MS Entertainment pack
- Microsoft Encarta® '95 CD and The Ultimate Human Body
- 3 Year Compaq warranty

### PRESARIO MODEL CDS 524

- 486DX2-66 processor
- 8Mb RAM expandable to 64Mb
- 420Mb hard disk
- 3.5" 1.44Mb floppy drive
- Local bus SVGA graphics
- Compact 3 bay case with 2 expansion slots
- Serial parallel, joystick, MIDI and mouse ports
- 14" Integral low radiation NI SVGA colour screen
- 16-bit stereo sound card, microphone and speakers
- Quad speed multisession CD-ROM drive
- Integrated 9600/2400 fax/data modem with telephone answering and CompuServe
- MSDOS 6.2, Windows 3.1 (Free Windows 95 upgrade), Tabworks, Welcome Centre, Control Centre and Learning Centre
- Microsoft Works v3, MS Money and MS Entertainment Pack
- Microsoft Encarta '95 CD & The Ultimate Human Body CD
- 3 Year Compaq warranty



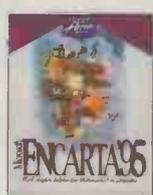
Microsoft Works



Microsoft Money



Entertainment Pack



Encarta '95 CD



Ultimate Human Body

### CDS 520

486SX2-66, 420 / 4Mb double speed CD-ROM and modem

# £799

Plus VAT

### CDS 524

486DX2-66, 420 / 8Mb quad speed CD-ROM and modem

# £1039

Plus VAT

#### \*MR PC PRICE GUARANTEE

Due to our huge buying power, our advertised prices are normally the lowest in the UK. If you find a lower advertised price on any current ex-stock product which is confirmed to be genuine, we will beat that price. This guarantee applies to our advertised prices and excludes clearance products sold below cost.

# MrPC

### "Buy with confidence"

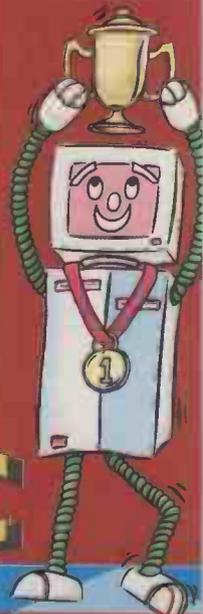
- 1 Lowest Prices with Full Service
- 2 Part of Multi-Million Computer Group
- 3 Over 100,000 Satisfied Customers
- 4 Quality Leading Brand Products Only
- 5 Friendly Helpful Sales Staff
- 6 Huge Stocks, Ready To Ship
- 7 Minimum of 12 Months Guarantee
- 8 Comprehensive After-Sales Service
- 9 FREE Hardware Technical Support Line
- 10 The Best Value in the UK

Sales lines are open Mon-Fri 9am until 5:30 pm

Order Hotline

01282  
777  
888

FAX  
01282  
777209



Mr PC is a division of Corporate Systems Ltd.

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT

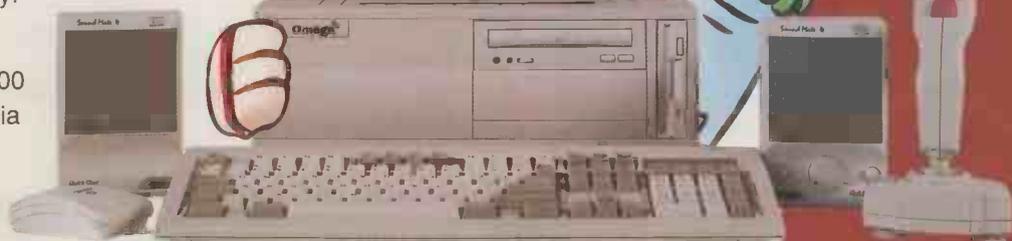
MrPCCD1B

# Multimedia

## Omega

"Take a look at our Best Buy Omega 486DX2-66 multimedia system which comes with an incredible specification for just £649+VAT. With fast 540Mb hard disk, 66MHz 486DX2 processor, double speed CD-ROM drive, speakers, joystick and a superb SVGA colour screen, this is surely the best value in multimedia PC systems in the UK today!

Alternatively go for Omega ultimate DX4-100 and Pentium® multimedia systems which feature quad speed drives, a minimum of 8Mb RAM and hard disks up to 1.6Gb."



Sales lines are open  
Mon-Fri  
9:00 am  
until  
5:30 pm

Order  
Hotline

01282  
777  
888

FAX  
01282  
777209

### 486DX2-66

## Multimedia PC

- 486DX2-66 processor
- 4Mb RAM expandable to 64Mb
- 540Mb hard disk
- Double speed CD-ROM drive
- 3.5" 1.44Mb floppy drive
- 16-bit sound card
- PC joystick
- Twin stereo speakers
- 32-bit VESA graphics
- 14" SVGA colour screen
- Parallel, 2 serial and joystick ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

**£649**

+ VAT

With 8Mb RAM and quad speed CD ..... **£799**

### 486DX4-100

## Multimedia PC

- 486DX4-100 processor
- 8Mb RAM expandable to 64Mb
- 540Mb hard disk
- Double speed CD-ROM drive
- 3.5" 1.44Mb floppy drive
- 16-bit sound card
- PC joystick
- Twin stereo speakers
- 32-bit VESA graphics
- 14" SVGA colour screen
- Parallel, 2 serial and joystick ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

**£779**

+ VAT

With quad speed CD and 850Mb disk ..... **£879**

### 75MHz Pentium®

## Multimedia PC

- Intel® 75MHz Pentium® processor
- Upgradeable to 90 or 100MHz Pentium® processor
- 8Mb RAM; 256K cache
- 540Mb enhanced IDE hard disk with 256K hard drive cache
- Double speed CD-ROM drive
- 3.5" 1.44Mb floppy drive
- PCI 64-bit graphics with 1Mb video RAM
- 14" SVGA colour screen
- 16-bit stereo sound card
- PC joystick
- Twin stereo speakers
- Parallel, 2 fast serial and joystick ports
- 102 Keyboard and mouse
- 12 Month warranty extendable to 3 years

**£879**

+ VAT

850Mb model with quad speed CD ..... **£979**  
850Mb P90 model with quad speed CD ..... **£1059**

Terms & conditions: All prices are subject to VAT (17.5%) and delivery costs (£19 + VAT) and may change without notice. Goods are normally delivered within few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Goods are not supplied on a trial basis. Credit account orders are normally 3% extra. Errors and omissions exempted. Business user prices shown. End user enquiries welcome. The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation. E&OE

# MrPC

MRPCMP3A

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT  
TELEPHONE 01282 777 888 FAX 01282 777 209

### Omega Tailor-Made Multimedia Systems

Specify your own  
configuration by  
choosing this 5 stage  
process:

#### Select the Processor Base System.

(Includes 1.44 floppy,  
4Mb or 8Mb RAM,  
local bus graphics,  
IDE controller,  
standard ports,  
Desktop 4 bay case,  
keyboard & mouse)

486DX2-66 4Mb ..... £319  
486DX4-100 4Mb ..... £349  
Pentium 75 8Mb ..... £549  
Pentium 90 8Mb ..... £629  
Pentium 100 8Mb ..... £709

#### Select the IDE Hard Disk.

2Mb ..... £50  
4Mb ..... £120  
8Mb ..... £170  
16Gb ..... £220  
32Gb ..... £320

#### Select the Screen.

14" SVGA colour ..... £120  
14" SVGA NI ..... £160  
14" SVGA NI ..... £230  
14" SVGA NI ..... £440

#### Select the CD / Multimedia Options.

Double speed CD-ROM  
drive alone ..... £50  
Double speed CD-ROM  
drive plus 16-bit sound card &  
speakers ..... £90  
Double speed CD-ROM  
drive alone ..... £100  
Double speed CD-ROM  
drive plus 16-bit sound  
card & speakers ..... £140

#### Additional Options.

OS 7 & OS/2 Warp ..... £Call  
OS 7 & Windows 3.11 ..... £Call  
Windows '95 ..... £Call  
OS 7 & Windows 3.11 for  
workgroups ..... £Call  
6 models with 256K  
cache ..... £40  
RAM upgrade per 4Mb .....  
£100  
6 video RAM upgrade to  
16Mb ..... £35  
Pentium® video RAM  
upgrade to 2Mb ..... £40  
0Mb Tape streamer ..... £90  
0Mb Tape streamer ..... £150  
2Gb omega tape  
streamer ..... £220  
Tape cartridge ..... £Call  
24 data/fax modem ..... £35  
24 data/fax modem ..... £100  
28 data/fax modem ..... £159  
Joystick ..... £10  
16-bit sound card ..... £30  
Twin stereo speakers ..... £10

Options 2-5 can only be  
purchased with a PC System

APPROVED CONNECTION to  
Telecommunications services specified in  
the instructions. Subject to the  
conditions set forth therein.



MrPC is a division of Corporate Systems Ltd.

# Microsoft®

"Lowest Prices in the UK"  
\*see my price guarantee

## Upgrade to Microsoft® Windows® 95

# £49

Buy any CD-ROM or multimedia kit from MrPC and pay only £49. If purchased separately £59

Microsoft Windows makes everything you do with your computer faster and easier.

- Save time with an easier-to-use interface; long filenames; and one-click access to all of your programmes and documents with the Start button.
- 32-bit, multitasking lets you run multiple programmes or perform multiple tasks simultaneously.
- See our main advertisement for details of Microsoft Windows 95 keyboard and mouse

Sales lines are open Mon-Fri 9:00 am until 5:30 pm

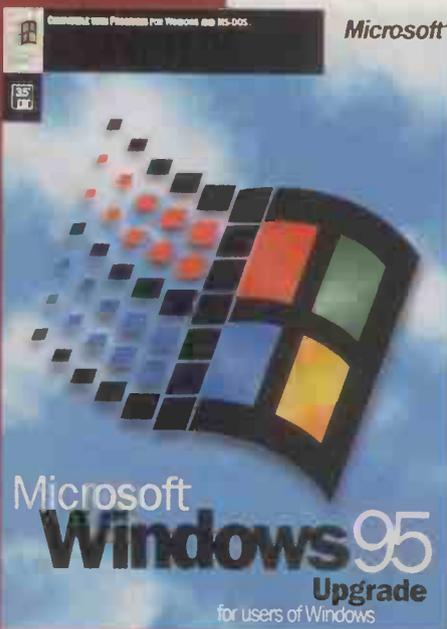
Order Hotline

01282

777

888

FAX 01282 777209



"My Windows® 95 prices are the lowest in the UK"

\*see my price guarantee

### Introducing Microsoft Plus!

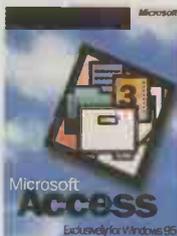
A companion for the Windows 95 operating system, Microsoft Plus! adds space and style to your PC.



£26

### Microsoft Access for Windows 95

Provides all levels of users the flexibility to manage, locate, and share information easily.



CCP £82

Trade Up . . . £107

### Microsoft Schedule + for Windows 95

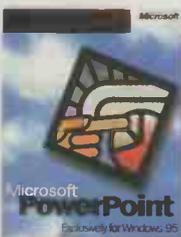
With Microsoft Schedule+ for Windows 95, manage calendars, tasks, and contacts for yourself or share them within workgroups.



£66

### Microsoft PowerPoint for Windows 95

Powerpoint presentation graphics programme for Windows 95 adapt to your needs, so you can create a professional-looking presentations



CCP £82

Trade Up . . . £107

### Microsoft Word for Windows 95

Microsoft Word for Windows 95 helps make everyday writing tasks more automatic and complex tasks simple.



CCP £82

Trade Up . . . £107

### Microsoft Excel for Windows 95

Microsoft Excel for the Windows 95 operating system was designed based on your needs. Whether you're working on a simple summary, charting sales trends, or performing advanced analysis.



CCP £82

Trade Up . . . £107

### Microsoft Works for Windows 95

Provides the all of the tools you need, a word processor, spreadsheet, database, drawing and communication tools, to make everyday computing tasks easier.



£55

### Microsoft Office

Microsoft Office Standard for Windows 95, you get these full-featured programmes; Microsoft Excel, Word, the PowerPoint\* presentation graphics programme, and a new addition - Microsoft Schedule+. In Microsoft Office Professional, you get all these plus Microsoft Access. All available on CD or 3.5" floppy.



CCP £139

Trade Up . . . £162



CCP £204

Trade Up . . . £245

Terms & conditions: All prices are subject to VAT (17.5%) and delivery costs (£19 + VAT) and may change without notice. Goods are normally delivered within few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Goods are not supplied on a trial basis. Credit account orders are normally 3% extra. Errors and omissions exempted. Business user prices shown. End user enquiries welcome. The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation

### \*MR PC PRICE GUARANTEE

Due to our huge buying power, our advertised prices are normally the lowest in the UK. If you find a lower advertised price on any current ex-stock product which is confirmed to be genuine, we will beat that price. This guarantee applies to our advertised prices and excludes clearance products sold below cost.

All prices quoted are for CCP upgrade. A CCP is a Compliance checking program that can be used to upgrade from Microsoft Works, Word, Access & Excel

# MrPC

MRPCMWB

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT  
TELEPHONE 01282 777 888 FAX 01282 777 209

Mr PC is a division of Corporate Systems Ltd.



# Omega

## Notebooks

Notebooks are fast becoming the standard PC for many business and home users. Take a look at Omega's special price on high quality, high specification notebooks. Omega's best buy 486DX4-100 colour system comes with 8Mb RAM, 540Mb IDE removable hard disk and a superb crisp sharp dual scan STN colour screen at just £1449 +VAT.



Sales lines are open  
Mon-Fri  
9:00 am  
until  
5:30 pm

Order  
Hotline

01282  
777  
888

FAX  
01282  
777209

### Omega Mono Notebook

- 486DX2-66 or 486DX4-100 processor
- 4Mb or 8Mb RAM expandable to 20Mb
- 340Mb, 540Mb or 810Mb IDE hard disk
- High contrast 9.5" LCD VGA mono screen
- 3.5" removable 1.44Mb floppy disk drive
- VESA Local Bus graphics with Windows® acceleration
- PCMCIA Type II/III slot
- Superb built-in trackball
- Parallel, serial port, VGA and PS2/ports
- Integral 79-key keyboard with embedded keypad
- Weight only 4.5lbs
- Up to 3 hour battery life
- Battery and AC Pack included
- 12 month warranty

**£799** + VAT

MONO	340Mb	540Mb	810Mb
486DX2-66	£799	£889	£1059
486DX4-100	£839	£929	£1099

8Mb models .....£150 Extra  
12Mb models .....£300 Extra

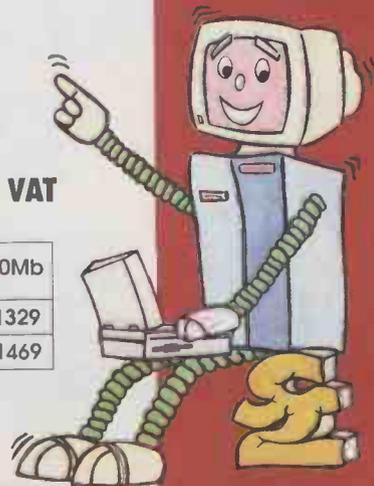
### Omega Colour Notebook

- 486DX2-66 or 486DX4-100 processor
- 4Mb or 8Mb RAM expandable to 20Mb
- 340Mb, 540Mb, 810Mb or 1.2Gb IDE hard disk
- High contrast 9.5" STN dual scan VGA colour screen
- 3.5" removable 1.44Mb floppy disk drive
- VESA local bus graphics with Windows acceleration
- PCMCIA Type II/III slot
- Superb built-in trackball
- Parallel, Serial port, VGA & PS2/ports
- Integral 79-key keyboard with embedded keypad
- Weight less than 5lbs
- Up to 3 hour battery life
- Battery and AC pack included
- 12 month warranty

**£1169** + VAT

COLOUR	340Mb	540Mb	810Mb
486DX2-66	£1169	£1159	£1329
486DX4-100	£1209	£1299	£1469

8Mb models .....£150 Extra  
12Mb models .....£300 Extra  
20Mb models .....£600 Extra  
810Mb to 1.2Gb upgrade ...£220 Extra



MRPCNO2A  
**MrPC**

BLACKBURN ROAD, SIMONSTONE, BURNLEY BB12 7GT  
TELEPHONE 01282 777 888 FAX 01282 777 209

Just look  
at the  
specifications  
on these  
leading  
notebooks

- ✓ 486DX2-66 or 486DX4-100 processors
- ✓ Up to 20Mb RAM
- ✓ Choice of hard disk up to 1.2Gb
- ✓ Crisp sharp mono and colour screens
- ✓ Local bus graphics
- ✓ PCMCIA slots



Terms & conditions: All prices are subject to VAT (17.5%) and delivery costs (£19 + VAT) and may change without notice. Goods are normally delivered within few days of cleared payment. All orders will be fulfilled within 28 days unless otherwise notified. No surcharges are made to Access, Visa, Amex or Switch. Goods are not supplied on a trial basis. Credit account orders are normally 3% extra. Errors and omissions exempted. Business user prices shown. End user enquiries welcome. The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation



# WESTLAKES

440 HIGH ROAD, WEMBLEY, MIDDX. HA9 6AH

TEL: 0181-902 2392  
FAX: 0181-902 1780

LASER PRINTER • TONERS • DRUMS • PHOTOCONDUCTORS • DEVELOPERS • FUSERS

Photoconductor Unit	*Fuser	TONER	DRUM
Apple Laserwriter Pro 600/630		£95	
Apple Personal Laserwriter 300/320		£60	
Apple Select 310		£59	
Brother HL630/631/660		£23	£105
Brother HL1260		£100	
Citizen Overture 110 / 110+ / 112		£24	**£149
Citizen Prolaser 12 / Proscript 12		£95	£275
Compaq Pagemarq 15/20		£235	**£295
DataProducts LZR 600/650/900/960		£35	£103
DataProducts LZR 855		£109	£110
DataProducts LZR 1200		(6's) £90	£159
Digital Dec LN03		£27	
Digital Declaser 1000		£56	
Digital Declaser 2100 / 2200		£59	
Digital Declaser 3000		£80	**£155
Digital Declaser 5100		£85	
Epson GQ3500 / GQ5000		£16	£109
Epson EPL3000		£75	
Epson EPL4000 / 4100 / 4300		£88	**£119
Epson EPL5200		£105	
Epson EPL5600		£115	
Epson EPL7100 / 7500 / 8100		£145	
Epson EPL9000/9100		£159	
Facit P6060 / 8040 / 8045 / 8048 (2's)		£21	£100
Fujitsu VMS600		£129	
Fujitsu VMS800		£130	**£215

Photoconductor Unit	*Fuser	TONER	DRUM
HP II / IID / III / IIID	(92295A)	£48	*£189
HP IIP / IIIP	(92275A)	£52	*£169
HP 4L / 4ML / 4P / 4MP	(92274A)	£47	*£169
HP 5P / 5MP	(C3903A)	£59	
HP 4 / 4M	(92298A)	£68	*£199
HP IIIISI / 4SI	(92291A)	£79	*£289
HP 4V / 4MV	(C3900A)	£115	

Photoconductor Unit	*Fuser	TONER	DRUM
HP II / IID / III / IIID	(92295A)	£39	
HP IIP / IIIP	(92275A)	£39	
HP 4L / 4ML / 4P / 4MP	(92274A)	£39	
HP 4 / 4M	(92298A)	£62	

**All Cartridges are Fully Guaranteed**

IBM Lexmark 4019/4028/9	(High Yield)	£149	
IBM Lexmark 4039 / 3916	(Standard)	£135	
IBM Lexmark 4039 / 3916	(High Yield)	£155	
IBM Lexmark Optra/OptraL	(High Yield)	£165	
Kodak Ektaplus 7008		£20	£89
Kodak Ektaplus 7016		£89	**£65
Kyocera F800 / 800T / 820	(TK6/DK5)	£29	£125
Kyocera F1000 / 1010	(TK4/DK3)	£26	£125
Kyocera FS1500 / 3500	(TK9)	£38	
Kyocera FS1550 / 1600	(TK12)	£49	
Kyocera F1800 / 3300	(TK7/DK6)	£29	£125
Kyocera F2200 / 2200S	(TK3/DK3)	£26	£125

Photoconductor Unit	*Fuser	TONER	DRUM
Mannesmann Tally MT904/908	(2's)	£18	£75
Mannesmann Tally MT905 or MT906		£18	£85
Mannesmann Tally MT910		£14	£119
Nec LC08 / Silentwriter OPC Kit		£10	£89
Nec Silentwriter S60P/S62P/S102P		£109	
Nec SuperScript SS610		£79	
Oki Laserline 6 / Ricoh PC 6000		£12	£85
Oki 100-400/410-800/30/40/50/70		£18	£159
Oki Lasertoner OL400E / 410E-EX		£17	£132
Olivetti PG306 / 308 / 404 / 408	(2's)	£26	£89
Panasonic KXP4400/4401		£13	£69
Panasonic KXP4420		£32	£79
Panasonic KXP4410 / 4430		£37	£119
Panasonic KXP4450 / 4451 / 4455		£25	£109
Panasonic KXP6100		£14	£124
QMS 860 / 860+		£129	
Ricoh 4080 / 4081 / 4150		£28	£95
Ricoh LP1200		£82	£99
Sharp JX9400 / 9460 / 9600 / 9660		£114	**£99
Sharp JX9500		£35	**£97
Star LS-5 / LS-5 EX / LS-5 TT		£72	
Texas Instruments MicroLaser		£38	£105
Texas Instruments MicroLaser XL		£49	£129
Texas Instruments MicroLaser Pro		£135	**£130
Texas Ins MicroLaser Power Pro/E		£135	**£130
Xerox 4030		£79	£218

## INKJET SUPPLIES

## BRANDED INKJET CARTRIDGES

INKJET PAPER	
HP LX Glossy Inkjet (50)	32.95
HP CX Inkjet Paper (200)	14.95
Canon Glossy Paper (50)	21.95
Canon Coated Paper (200)	19.95
Epson Stylus Glossy (30)	42.50
Epson Stylus 720Dpi (200)	20.95
Epson Stylus 360Dpi (200)	17.95
Esselte Inkjet Colour Printer (250)	16.95
Esselte Inkjet Mono Printer (250)	6.95
PlusJet Inkjet Mono Printer (500)	6.95

INKJET FILM TRANSPARENCY	
3M Inkjet Film Removable Stripes (50)	19.95
3M Inkjet Film Paper Backed (50)	24.95
HP LX Inkjet Transparency (50)	32.95
Canon 4000 Transparency (50)	39.95
EpsonStylus Transparency (50)	52.50

Black	Colour
Apple Stylewriter I/II	14.95
Canon BJ10/20 (BC01)	14.75
Canon BJ200 (BC02)	16.25
Canon BJ300/330 (BJ1642)	11.95
Canon BJ30/70 PRINTHEAD	25.95
Canon BJ30/70 TANKS 3's	10.95
Canon BJ70 PRINTHEAD	29.95
Canon BJ70 TANKS 3's	8.95 / 14.95
Canon BJC600 BLACK STANDARD	5.95 / 6.95
Canon BJC600 BLACK HIGH CAP.	7.95 / 6.95

CANON BJC-600 (BJI-201)	
Set of 4 Colours	£24.50
Canon BJC800 (BJI643)	15.50 / 19.95
Canon BJC4000	24.50 / 38.50
Canon BJC4000 (TANKS)	6.50 / 13.95

Black	Colour
Epson Stylus Colour	12.50 / 25.95

EPSON STYLUS 800 / 1000	
3 + Twin Packs @	£15.95

Black	Colour
HP Deskjet Portable	13.50 / 18.50
HP Deskjet 500 Series	16.95 / 18.50

HP DESKJET Double Capacity	
3+ Ink Cartridge @	£16.50

HP Deskjet 660C	19.95 / 21.95
HP Deskjet 850C	20.95 / 19.95
HP Deskjet 1600C	20.95 / 21.95
HP Deskjet 1200C	19.95 / 21.95
HP Paintjet XL	20.95 / 22.95
HP Paintjet XL300	14.95 / 16.95
HP Designjet 650C	19.95 / 25.95

Kodak Diconix 150/300	9.95
Olivetti JP150 Mono Block	18.95
Olivetti Printhead +4ink	36.95
Xerox 4020 (Pack of 2's)	8.50 / 8.50

## INKJET REFILLS

Jetfill Epson Stylus800Refills 2's	£10.95
Jetfill Canon BC01/02 Refills 2's	£10.95
Jetfill HP Standard Refills 2's	£10.95
Jetfill HP Double/Cap Refills 2's	£17.95

## LASER SUPPLIES

### LASER PRINTER PAPER

Copy Speed Paper (80gsm) (500)	4.95
PlusJet Laser Paper (90gsm) (500)	6.95

### LASER FILM TRANSPARENCY

3M Laser Film Paper Backed (50)	11.95
HP Laser Film (HP-92295) (50)	13.95

## DATA CARTRIDGES

Data Cartridges	3M	Maxell
DC 2120	8.50	8.50
DC 2120 (QIC-80 Formatted)	9.50	9.50
DC 2120 (Irwin Formatted)	15.50	
DC 2120XL xi (New)	13.95	
MC 3000	17.95	
MC 3000XL	20.95	
DC 6150 / 600A	9.95	9.75
DC 6250	12.95	12.75
DC 6525	14.95	14.75
SONY QW5122F Qic-Wide	16.95	

<b>3M 10 x DC-2120</b> (QIC 80 Standard)	
Data Cartridges for	£79
<b>3M 10 x DC-2120</b> (QIC 80 Formatted)	
Data Cartridges for	£85

## DAT TAPES

Dat Tapes	3M	Maxell
HS4 / 60 4mm	6.95	6.25
HS4 / 90 4mm	7.75	7.25
HS8 / 112 8mm	6.95	6.75
HS4 & HS8 Drive Cleaner	10.95	

3M HS4-90 DAT TAPES	
10 + FREE CLEANER	£75

HP DDS 4mm 60M	(92283A) 8.75
HP DDS 4mm 90M	(92283B) 8.50
HP DDS 4mm 120M	(92300A) 14.95

## MAGNATO OPTICAL

Magnato Optical	3M	Maxell
3.5" 128Mb	20.00	17.50
3.5" 230Mb	27.50	20.00
5.25" 600 / 650 Mb	55.00	54.00
5.25" 1.2 / 1.3 Gb	65.00	63.00

3M 3.5" Magnato Optical	
Dos Formatted	
5 x 230Mb	£125

## 3 1/2" DS/HD DISKS

Branded	Unformatted	Formatted
3M	£47	£49
SONY	£47	£46
TDK	£44	£46
MAXELL	£44	£46

Unbranded	Formatted
50 HD Disks	£15.00
100 HD Disks	£28.00
250 HD Disks	£68.00
500 HD Disks	£130.00

*Guaranteed (1 for 1 Replacement)*

3M DISKS OFFER	
<b>3M 3M</b>	
<b>FORMATTED</b>	
<b>3 1/2" DS/HD</b>	
<b>100 Disks</b>	
Only	£49

3 1/2" DS / HD OFFER	
<b>UNBRANDED</b>	
<b>FORMATTED</b>	
<b>3 1/2" DS/HD</b>	
<b>100 Disks</b>	
+100 CAPACITY DISKBOX	
£30	

## SYQUEST CARTRIDGES

Syquest SQ400 5.25" 44Mb	32.95
Syquest SQ800 5.25" 88Mb	37.95
Syquest SQ3105 3.5" 105Mb	42.95
Syquest SQ3270 3.5" 270Mb	47.95
Syquest SQ5200 5.25" 200Mb	58.95

## IOMEGA ZIP DISKS

Iomega Zip 100Mb Disk (PC)	10.95
Iomega Zip 100Mb Disk (Mac)	10.95

## CD-RECORDABLE

3M CD-R 74 Minutes 650Mb	10.95
TDK CD-R 74 Minutes 650Mb	6.95
MAXELL CD-R 74 Min 650Mb	9.95

## MICE

Logitech Pilot II Mouse Serial	£19.00
Logitech Trackman PC Serial	£29.00
Logic 3 Mouse Serial	£15.00
Imsi Mouse PS/2	£15.95

## CABLES

Parallel Cable Standard 1.8m	£2.75
Parallel Cable Moulded 3m	£6.95
Parallel Cable Moulded 5m	£8.95
25M-25M D-Sub Moulded 2m	£6.95
36M-36M Cen. Moulded 2m	£7.95
Serial / Null Modern Cables 2m	£8.95

## DATA SWITCHES

2 Way Manual (Parallel / Serial)	£8.95
3 Way Manual (Parallel / Serial)	£12.95
4 Way Manual (Parallel / Serial)	£16.95
2 Way Crossover (Parallel/Serial)	£19.95
AutoSwitch 2 PC to 1 Printer	£27.95
AutoSwitch 4 PC to 1 Printer	£39.95

## ACCESSORIES

3.5" 100 Capacity Disk Box	3.95
3.5" 240 Capacity Disk Drawer	12.95
Glass VDU Screen Filter 14"	7.95

**Removable / Lockable HDD Racks**

3.5" Hard Disk Rack - IDE	19.95
3.5" Hard Disk Rack - SCSI	24.95

**Cherry Keyboard**  
(Genuine) 102 Key £29.95



Carriage	Standard	Next Day
UK Mainland	£3.50	£5.00
Outside UK Mainland	P.O.A.	P.O.A.
Hardware	£8.00	£12.00

**TERMS & CONDITIONS**  
TRADING HOURS: 9:00 A.M. - 5:30 P.M. (MON - SAT)  
PAYMENT MUST ACCOMPANY ALL ORDERS. TELEPHONE CREDIT CARD ORDERS ARE NORMALLY DESPATCHED SAME DAY. PLEASE ALLOW 5 WORKING DAYS FOR CHEQUES TO CLEAR.  
WE ACCEPT VISA, MASTERCARD, ACCESS, DELTA & SWITCH. NO CREDIT CARD SURCHARGE. PRICES & SPECIFICATION MAY CHANGE WITHOUT NOTICE. (ALL TRADEMARKS ACKNOWLEDGED)  
GOODS OFFERED SUBJECT TO AVAILABILITY. ALL PRICES EXCLUDE DELIVERY & V.A.T. (E. & O. E.)

Government, Colleges, Universities, Schools, Hospitals, Local Councils, etc., Official Orders Welcome.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

# Computers by Post

HUGE STOCKHOLDINGS  
MAIL ORDER LEADERS  
SINCE 1989

## TOSHIBA - The world leader in portable computing

T2100CT/350MB  
**£1945**  
Item No. 77-28-4E



### Toshiba T2100 -

The notebook with impeccable price/performance standards

The T2100 combines powerful processing, outstanding ergonomics, eye catching screen technology and the latest in portable expandability at a price you will find hard to resist.

T2100CS/350MB  
**£1610**  
Item No. 77-28-3E

T2100/260MB  
**£845**  
Item No. 77-28-2E

#### Features:

- ✓ Processor: i486DX2 (50MHz), 3.3v (includes numeric co-processor)
- ✓ RAM: 2100/2100CS - 4MB expandable to 28MB 2100CT - 8MB expandable to 32MB
- ✓ Hard Disk: 260MB or 350MB (upgradable)
- ✓ Graphics: VGA/SVGA, VESA local bus support
- ✓ Display: 2100 - dual scan STN mono, 9.5" diagonal 2100CS - dual scan STN Colour, 10.4" diagonal; 2100CT - high res TFT Colour LCD, 8.4" diagonal display
- ✓ Floppy Drive: Internal 3.5" 1.44MB
- ✓ PCMCIA expansion: 1 x R2.0 III or 2 x R2.0 II
- ✓ Ops System: MS-DOS 6.22 with Toshiba enhancements, MS Windows 3.11
- ✓ Included: Mousepoint, Password Security and Kensington cable lock provision
- ✓ Warranty: 12 months international (return to Toshiba)
- ✓ Warranty upgrade available

CALL FOR LATEST MODELS

## T2150 - The Ultimate Multimedia Notebook

#### Features:

- ✓ Processor: i486DX4 (75MHz), 3.3v (includes numeric coprocessor)
- ✓ RAM: CDS-4MB expandable to 28MB CDT-8MB expandable to 32MB
- ✓ Hard Disk: 260MB or 520MB
- ✓ Graphics: VGA/SVGA, VESA Local Bus Support
- ✓ Display: CDS - STN colour LCD (640 x 480 pixel), up to 256 colours, 10.4" diagonal size :CDT - TFT colour LCD (640 x 480 pixel), up to 65, 536 colours, 10.4" diagonal size
- ✓ Floppy Drive: CDS - External 3 1/2" 1.44MB (only available as option with 260MB version) :CDT - external 3.5" 1.44MB (incl.)
- ✓ PCMCIA expansion: 1 x R2.0 III or 2 x R2.0 II
- ✓ Battery: NiH<sub>2</sub> (up to 2 hours continuous use)
- ✓ Ops System: MS-DOS 6.2x with Toshiba enhancements, MS WFWG3.11, Cardware PCMCIA card support software, MaxTime Power Management and Plug & Play BIOS
- ✓ Included: Built-in microphone, Mousepoint, Password security and Kensington cable lock provision
- ✓ Weight: 3.35kg (7.3lbs)
- ✓ Warranty: 36 months international (return-to-base)



Call for Accessories

T2150CDS/260MB  
**£2035**  
Item No. 77-28-5E

T2150CDS/520MB  
**£2165**  
Item No. 77-28-6E

T2150CDT/520MB  
**£2715**  
Item No. 77-28-7E

## Toshiba Accessories for the 2100/2150 Series- ready to go!

MEMORY EXPANSION	TOSHIBA PART NO.	ITEM NO.	PRICE
T2100/T2150 4MB	PA2026U	77-41-5E	<b>£215</b>
T2100/T2150 8MB	PA2027U	77-41-6E	<b>£395</b>
T2100/T2150 16MB	PA2028U	77-41-7E	<b>£849</b>
T2100/T2150 24MB	PA2029U	77-41-8E	<b>£1599</b>

2YR Warranty TFT  
**£129**  
Item No. 75-80-1E

2YR Warranty MONO/DSIN  
**£80**  
Item No. 75-80-0E



BATTERIES	TOSHIBA PART NO.	ITEM NO.	PRICE
T1910/T2400 Battery pack (NiH <sub>2</sub> )	PA2429U-R	75-60-7E	<b>£99</b>
Battery charger	PA2422U-E	73-44-4E	<b>£125</b>

CALL FOR ADAPTORS			
CONNECTIVITY & MULTIMEDIA	TOSHIBA PART NO.	ITEM NO.	PRICE
Adv. PCMCIA V32 Fax Modem	TPCV32PF-UK	71-81-4E	<b>£215</b>
Adv. PCMCIA V34 Fax Modem	TPCV34PF-UK	70-85-4E	<b>£339</b>
Adv. PCMCIA Ethernet adaptor	PCE-10BC	75-61-1E	<b>£213</b>

CALL FOR OTHER ACCESSORIES													
DESCRIPTION	PROCESSOR	RAM	DISK	SCREEN	ITEM NO.	PRICE	DESCRIPTION	PROCESSOR	RAM	DISK	SCREEN	ITEM NO.	PRICE
T1910CS	486SX/33	4MB	200MB	STN COL	72-80-8E	<b>£1162</b>	T2150CDT	486DX4/75	8MB	520MB	TFT COL	77-28-7E	<b>£2715</b>
T2100	486DX2/50	4MB	260MB	MONO	77-28-2E	<b>£845</b>	T2450CT	486DX4/75	8MB	320MB	TFT COL	76-99-9E	<b>£2245</b>
T2100CS	486DX2/50	4MB	350MB	STN COL	77-28-3E	<b>£1355</b>	T3600CT (ex.FDD)	486DX2/50	8MB	250MB	TFT COL	75-48-0E	<b>£2115</b>
T2100CT	486DX2/50	8MB	350MB	TFT COL	77-28-4E	<b>£1945</b>	T4850CT	486DX4/75	8MB	810MB	TFT COL	76-56-9E	<b>£2965</b>
T2110CS	486DX4/75	4MB	350MB	STN COL	78-39-0E	<b>£1525</b>	T4900CT	Pentium/75	8MB	810MB	TFT COL	76-57-0E	<b>£3395</b>
T2130CS	486DX4/75	4MB	520MB	STN COL	78-39-1E	<b>£1779</b>	Satellite Pro 400CS	Pentium/75	8MB	810MB	STN COL	78-403-E	<b>£2420</b>
T2130CT	486DX4/75	8MB	520MB	TFT COL	78-39-2E	<b>£1945</b>	Satellite Pro 400CDT	Pentium/75	8MB	810MB	16.7 TFT	78-40-4E	<b>£3139</b>
T2150CDS	486DX4/75	4MB	260MB	STN COL	77-28-5E	<b>£1945</b>	Paritégé	Pentium/90	8MB	720MB	16.7TFT	78-40-5E	<b>£3015</b>
T2150CDS	486DX4/75	4MB	520MB	STN COL	77-28-6E	<b>£2165</b>							

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

### COMPUTERS BY POST OUR COMPANY

With 13 years solid trading experience behind us, CBP is now part of the £100m multi-national DSI (Data Systems International) Group which is currently the largest specialist mail order reseller of PCs and related products in the UK.

### COMPUTERS BY POST THE DEAL

- ✓ CBP Huge stockholdings.
- ✓ CBP Price match any delivered price found in this issue of magazine.
- ✓ CBP Big name, BRAND leading, QUALITY products.
- ✓ CBP Payment may be made using cash, cheque, credit cards and BACS transfer.
- ✓ CBP Proforma invoices generated for official orders same day.
- ✓ CBP Easy ordering by fax, phone or post to our offices in Wembley.
- ✓ CBP Credit card orders are only charged to your card as the goods are shipped.
- ✓ CBP Collection service available from our warehouse in Southall, Middlesex.
- ✓ CBP Product suitability is your responsibility. Please check with the manufacturer(s) before ordering.
- ✓ CBP You may return any goods purchased within 30 days providing they are unopened and unused subject to prior authorisation. A re-stocking fee will be charged.
- ✓ CBP Technical Referral Service - direct to the manufacturers experts - for pre- and post-sales technical enquiries.

### COMPUTERS BY POST CONTENTS

- ✓ Toshiba Portables & Accessories
- ✓ Compaq Presario 7100
- ✓ TI Pentium Notebooks
- ✓ Sound Galaxy Waverider 32 +
- ✓ ADI Pro Vista 14
- ✓ Cyberman CD Rom
- ✓ NEC Monitors
- ✓ Lasat Credit
- ✓ Epson LapCat
- ✓ Kyocera printers
- ✓ OS/2 Warp
- ✓ Star WinType 4000
- ✓ TI Printers & Accessories
- ✓ OKI LED Page Printers
- ✓ Microsoft Launch
- ✓ Corel Draw 6 & Office
- ✓ Power Translator Deluxe
- ✓ Touchstone WIN'95 Advisor
- ✓ Alpha Home & Business
- ✓ FastCAD Software
- ✓ Norton Utils & Anti-Virus
- ✓ Business Plan Builder

- NEW MODELS
- NEW
- IN STOCK
- IN STOCK
- SWAP OUT SERVICE
- PCMCIA
- PRODUCT OFFER
- PCMCIA
- NEW
- LOW COST
- TRIED & TESTED
- LATEST PRICES
- GREAT VALUE
- LOW PRICE
- WIN'95
- NEW
- TRANSLATION
- LOW PRICE
- GREAT PRICES
- LATEST CAD
- WIN'95
- NEW

MEMORY UPGRADES • BATTERY PACKS • POWER ADAPTORS • MODEMS • CARRY CASES  
• KEYBOARDS • CRYPT CARDS • DOCKING STATIONS • EXTRA 2 YEAR WARRANTY • CLEARANCE SPECIALS!

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

TELEPHONE ORDERS: (0181) 982 6380  
FACSIMILE ORDERS: (0181) 982 6367  
Always quote the Product Item No. when you contact us.  
Full details of how to order and our address are available on Software III at the end of this Ad.

### TOSHIBA PORTABLES

All prices exclude delivery and VAT at 17.5%

CALL FOR LATEST PRICES

"WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE"

# Computers by Post

HUGE STOCKHOLDING MAIL ORDER LEADER SINCE 1982

## COLOUR MONITORS



More than just a Monitor...

Pro Vista 14 - multi-frequency monitor



- 2 year On-Site Swap Out Warranty
- Energy Star & VESA DPMS power saving
- MPR II low radiation
- Front mounted analogue image adjustment
- Max res. 1024x768 non-interlaced
- 31/35/48 kHz horiz. freq.

PRO VISTA 14  
Item No. 78-52-1E  
**£159**

Model	Size	RGB Temp Adj.	Item No.	Price
Pro Vista 14	14" 0.28	x	78-52-1E	£159
MicroScan 3V	14" 0.28	x	71-79-2E	£185
MicroScan 4V	15" 0.28 FST	x	72-00-9E	£249
MicroScan 4GP 15"	0.28 FST	✓	72-01-4E	£269
MicroScan 5EP 17"	0.28 FST	✓	72-01-5E	£449
MicroScan 5AP 17"	0.28 FST	✓	72-01-7E	£459

Model	Size	Display	Item No.	Price
GS1462 DM	14" LR	SVGA	75-16-6E	£169
GS1520 DM	15" LR	1280x1024 ni	75-16-8E	£259
GS1505	15" LR	1280x1024 ni	70-88-7E	£219
GS1727	17" LR	1280x1024 ni	70-88-6E	£450

Model	Size	Display	Item No.	Price
XV-14	14" LR	MultiSync	77-62-2E	£215
XV-15	15" LR	MultiSync	76-97-0E	£279
XE-15	15" LR	MultiSync	76-97-1E	£389
XV-17	17" LR	MultiSync	76-97-2E	£359
XE-17	17" LR	MultiSync	75-97-3E	£685
XP-17	17" LR	MultiSync	76-97-4E	£898
XE-21	21" LR	MultiSync	76-97-5E	£1149
XP-21	21" LR	MultiSync	76-97-6E	£1715

Model	Size	Display	Item No.	Price
14C	14" LR	1024 x 768	75-31-8E	£169
15A	15" LR	1024x768 ni	75-45-4E	£275
15B	15" LR	1024x768 ni	77-09-4E	£269
17A	17" LR	1280x1024 ni	75-45-6E	£659
17B	17" LR	1280x1024 ni	77-09-5E	£525
17C	17" LR	1024x768 ni	75-65-5E	£419
20B	20" LR	1280x1024 ni	77-09-6E	£895

Model	Size	Display	Item No.	Price
Ergovision 410 LR	14"	1024 x 768	75-66-0E	£190
Ergovision 580+ LR	15"	1280 x 1024	77-80-7E	£275
Ergovision 880 LR	17"	1280 x 1024	76-30-1E	£499
Ergovision 885 LR	17"	1600 x 1200	93-81-2E	£565
Ergovision 895 LR	17"	1280 x 1024	77-80-8E	£795
Ergovision 1080 LR	20"	1600 x 1200	76-30-2E	£849
Ergovision 2100 LR	21"	1600 x 1200	77-80-9E	£1435

CALL FOR WYSE TERMINALS

## LCD PROJECTION PANELS

### 3M PROJECTION PANELS

Model	Colours	Max. Res.	Item No.	Price
2080	16 Magenta	720 x 480	91-58-4E	£975
4100 B Colour	16 True	640 x 480	94-53-2E	£1365
4850 Colour	1.4m True	640 x 480	75-47-5E	£2045
6150 Colour	1.67m True	640 x 480	76-29-0E	£2885
6450 Colour	1.67m True	640 x 480	76-29-1E	£3315

CALL FOR ALL BRANDED ACCESSORIES

## FAX

LOW PRICES

Model	Item No.	Price
BT DF100, Alpine	93-66-8E	£195
BT DF100, Dark grey	93-61-4E	£195
BT DF300, Alpine	76-11-5E	£265
BT DF300, Dark grey	76-11-6E	£265
Panasonic UF-V40	93-93-8E	£258
SAHUSUNG SF 500	92-01-6E	£169
SAHUSUNG SF1505	76-26-8E	£239
SAHUSUNG SF2800	77-47-8E	£275
FAX/ANSWERING		
BT DF200 Alpine	93-61-8E	£249

BT DF200 Dark grey	93-66-9E	£249
BT DF400, Dark grey	76-11-8E	£325
BT DF400, Alpine	76-11-7E	£325
Panasonic KX-F2300E	93-68-5E	£279
Panasonic KX-F2400E	93-68-2E	£299
Panasonic UF-V60	93-93-9E	£344
PLAIN PAPER FAX-INKJET		
BT BF800	93-78-2E	£745
Canon B320	76-34-2E	£659
Canon B340	76-34-3E	£775
HP FAX-900	93-76-1E	£449
HP FAX-950	93-76-2E	£625
Panifax UF-321	93-72-5E	£635
PLAIN PAPER FAX-LASER		
OKIFAX 1000	93-65-8E	£695
PANAFAX UF-745	93-84-0E	£1089
PANAFAX UF-755E	76-58-2E	£1349

## FAX WARRANTY

\* 12 Months onsite warranty, \*\* HP backed 12 month warranty. Please note: All Panasonic Faxes include 12 months onsite cover

## NICE & KEYBOARD DEVICES

DEXXA		
2 Button Mouse	75-72-9E	£12.95
3 Button Mouse	75-73-5E	£14.25
LOGITECH		
Mouseman cordless GW Series	77-89-2E	£48
New Mouseman (Serial PS/2)	78-12-8E	£32
Trackman	94-09-6E	£35
Pilot Mouse II Serial	94-09-3E	£18
Trackman Live Serial/PS/2	75-79-3E?	£99
Trackman Voyager	75-79-3E	£50
Serial PS/2 Mouse Trackman	91-65-2E	£44
MICROSOFT		
Home Mouse	72-58-8E	£27
Natural keyboard	73-68-0E	£65
Bus Mouse 2.0HP version	75-97-1E	£49
Serial PS/2 Mouse IP 3 1/2"	72-18-2E	£39
Serial PS/2 Mouse IP version 5 pack 3 1/2"	75-97-3E	£169
Serial PS/2 Mouse IP 2.0 IP + WIN 3.11	75-97-2E	£89
KEY TRONIC		
KT2000 - WIN'95 PS/2	78-38-8E	£44
KT2000 - 102 Key, XT & PS2 Cable	92-79-9E	£44
PRO-TOUCH - 102 KEY, XT & PS2 Cable	75-11-8E	£29.95

## MULTIMEDIA

### Cyberman CD CM2 SX PCMCIA CD ROM Drive

- ✓ Double or quad speed
- ✓ Type II compatible
- ✓ Free Labeled headphones
- ✓ Double speed: transfer - 353KB/sec, access 325ms
- ✓ Audio (SB only): 16-bit, wavetable, 44.1kHz, 4x sampling
- ✓ MIDI with Roland MPU-401 I/F
- ✓ Plays audio CDs
- ✓ Dual with or without sound and quad without sound



PRICES FROM  
**£265**

Item No. 78-52-2E

## CD ROM DRIVES

AZTECH		
CDA 268-031, double Internal, IDE	72-23-4E	£73
CDA 486-011, quad Internal IDE	76-02-7E	£125
GOLDSTAR		
S20B, double, Internal, ATAPI IDE	78-39-9E	£69
S40B, quad, Internal, ATAPI IDE	78-40-0E	£129
INNOVATIVE COMMUNICATIONS		
CYBERMAN CD dual PCMCIA 2.1	78-52-2E	£265
CD-952, dual, PCMCIA 2.1 CM2 SX	78-10-1E	£245
NEC (SCSI 1 & 2 I/F)		
3Kx + Portable	76-19-4E	£242
4x External	76-19-6E	£363
4x Internal	76-19-5E	£255
NEC (SCSI 1 & 2 I/F KITS)		
AT ISA Bus	73-05-0E	£40
PANASONIC (without I/F kit)		
CR-504, Quad Internal SCSI2	78-47-0E	£149
CR-562, 320ms, 306KB/Sec Internal, ISA	75-66-4E	£68
CR-562B, Dual, Parallel Port	77-86-8E	£159
PIONEER		
DR-UA124X, Internal 4.4x IDE (with i/f)	78-39-6E	£135
DR-U124X, Internal 4.4x SCSI2	78-39-7E	£212
DRM-624X, external Jukebox 4.4x SCSI-2	78-39-8E	£415
TOSHIBA		
XM-3601B, 150ms, min 660 KB/Sec, Internal, SCSI-2 (w/out I/F)	77-27-8E	£210
XM-3601B, 150ms, min 660 KB/Sec, External, SCSI-2 (w/out I/F)	77-27-9E	£279
KT-3601BA, 150ms, min 660 KB/Sec, Internal, SCSI-2 (with AT I/F)	77-40-4E	£265
KT-3601SA, 150ms, min 660 KB/Sec, Internal, SCSI-2 (with AT I/F)	77-40-5E	£309

## SOUND CARDS & SPEAKERS

CREATIVE LABS (12 months warranty)		
SoundBlaster Pro Value, 8-bit	75-37-3E	£36
SoundBlaster 16 Value, IDE	78-47-3E	£65
SoundBlaster 16 Value, 16-bit	75-37-4E	£69
SoundBlaster 16 Pro IDE with ADSP	78-47-4E	£110
SoundBlaster 16 Multi-CD Value, 16-bit with ADSP	75-92-8E	£112
SoundBlaster 16 SCSI-2 Value, 16-bit	75-37-6E	£115
SoundBlaster AWE32	75-92-9E	£133
SoundBlaster AWE32 IDE	91-92-6E	£175
SoundBlaster AWE32 IDE	78-47-5E	£165
Midi Adaptor (1 in, 1 out)	74-34-2E	£20

Call for 9, 32 & 36 bit Simm Upgrades. Example 4MBx9 chip 70ns  
**92-92-7E £125**  
Anti-static wrist straps also sold

## SOUND GALAXY

Waverider 32+(inc. mic., headphones & software)	76-54-0E	£89
Nova 16 Extra, 16 bit sound; (headphones, mic & 15 software titles)	76-02-4E	£77
CREATIVE LABS		
SBS-300 Speakers	77-90-4E	£65
Pro Digital Speakers	75-28-0E	£28
Scrubbed speakers for Sound Blaster only	74-62-5E	£17
INNOVATIVE COMMUNICATIONS		
Portable Sound Plus, parallel output port	70-64-3E	£109
SONY SPEAKERS		
SRS-PC30	77-90-0E	£45
SRS-PC50	77-90-1E	£65
YAMAHA SPEAKERS		
YS1-M5	77-90-2E	£36
YSF10	77-90-3E	£43

## UPGRADE KITS

CREATIVE LABS		
GameBlaster CD16	76-24-0E	£155
SoundBlaster CD 16 Discovery Kit	75-39-8E	£149
SoundBlaster EZ 16 Discovery Kit	77-69-9E	£325
SOUND GALAXY		
Stellar Quad Kit	78-30-0E	£195
Voyager Quad Kit	78-06-4E	£259

## VIDEO CAPTURE CARDS

CREATIVE LABS		
VideoBlaster MP400	77-90-7E	£179
VideoBlaster SE100	77-90-5E	£169
VideoBlaster RT300	77-90-6E	£265
HAUPPAUGE		
Win/TV Celebrity	75-19-7E	£265
Win/TV Cinema	75-01-2E	£182
Win/TV Prisma	77-92-6E	£149

## VIDEO CONFERENCING

CREATIVE LABS		
Creative Labs ShareVision PC300	77-93-0E	£923

## TAPE STREAMERS

INTERNAL		
Colorado		
Jumbo 350, 340MB	Item No. 77-73-5E	Price £79
Jumbo 680, 680MB, 9.5MB/min, QIC-3010	76-33-3E	£129
Comer		
TapeStar 420, 420MB, 9.5MB/min, QIC-80	Item No. 74-44-8E	Price £97
TapeStar 850, 850MB, 9.5MB/min, QIC-3010	76-77-3E	£165
PARALLEL PORT		
Colorado		
Jumbo Trakker 350, 340MB	Item No. 77-72-6E	Price £149
Jumbo Trakker 700, 680MB, 9.5MB/min, QIC-3010	76-29-5E	£199
Comer		
TapeStar 420, 420MB, 9.5MB/min, QIC-80	74-44-4E	Price £209
TapeStar 850, 420MB, 9.5MB/min, QIC-3010	74-44-7E	£275

## SCANNERS

EPSON (Parallel I/F)		
GT6500 PC, SCSI (inc. Photoshop LE)	73-77-1E	£465
GT8500 PC, Parallel (inc. Photoshop LE)	77-61-2E	£495
GT8500 PC, SCSI-2 (inc. Photoshop LE)	77-61-3E	£575
GT9000 PC, Parallel (inc. Photoshop LE)	77-99-3E	£599
GT9000 PC, SCSI-2 (inc. Photoshop LE)	75-96-7E	£669
HEWLETT PACKARD		
ScanJet 3P AT MONO	75-99-9E	£232
ScanJet 3C AT COLOUR FLATBED	77-68-4E	£625
SICOS		
SICOS COLOUR PAGE SCANNER - ISA	75-16-5E	£236
LOGITECH		
ScanMan EASYTOUCH	74-05-6E	£98
ScanMan 32 WIN/CATCHWORD	74-43-9E	£56
ScanMan PC COLOUR WIN	92-79-7E	£153
ScanMan PowerPage Parallel A4 Scanner	75-08-4E	£288
ScanMan 256 WIN	77-06-4E	£70

## UPS/ELECTRICAL PROTECTION

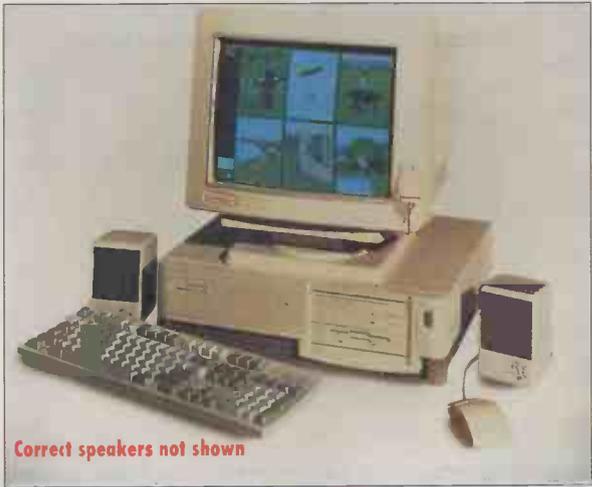
APC SMART UPS (LINE INTERACTIVE)		
Model	Item No.	Price
250VA Low Profile	73-13-2E	£159
400VA Low Profile	92-61-7E	£199
600VA Tower	92-47-7E	£210
1250VA Tower	92-69-1E	£495
APC BACK-UPS (OFF-LINE)		
250VA	92-68-6E	£76
400VA	92-68-7E	£104
600VA	92-68-8E	£145
900VA	92-68-9E	£255
24 MONTH WARRANTY WITH SWAP OUT SERVICE		

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE\*

# Computers by Post

HUGE STOCKHOLDINGS  
MAIL ORDER LEADERS  
SINCE 1982

## Compaq Presario CDS 7100 - don't wait any longer for a multi-media PC



Correct speakers not shown

Compaq has just launched a new range of multi-media Presario PC's. The new 7100 series represents the new Presario entry level - if you've resisted buying a computer so far, this range will make the wait worthwhile. All models feature quad speed CD-ROM, 16-bit sound card with integral speakers and only the 7106 does not include a fax/data V.32 modem which provides answerphone, fax and e-mail facilities.

Features:

- ✓ Processor: up to Pentium 90 MHz
- ✓ RAM: 8MB expandable to 64MB
- ✓ Hard Disk: up to 840MB
- ✓ Graphics: SVGA, 32-bit PCI with 1MB of VRAM
- ✓ Display: 14" diagonal display size (separate from system unit)
- ✓ Floppy Drive: internal 3.5" 1.44MB
- ✓ CD ROM: quad, 5.25" format.
- ✓ Fax/Modem: 14,1400bps with software (except 7106 model)
- ✓ Expansion slots: 1 x ISA; 2 x ISA/PCI
- ✓ Vacant drive bays: 2 x 5.25"; 1 x 3.5"
- ✓ Ops System: MS-DOS 6.2 with Presario enhancements, MS Windows v3.1
- ✓ Included: Novell Perfect Works for Windows, MS Money for Windows on 3 1/2" and Compton's Encyclopedia and King's Quest VII on CD
- ✓ Weight: 29Kg
- ✓ Warranty: 36 months (return to manufacturer)

**IN STOCK NOW!**

PRICES FROM  
**£1059**  
Item No. 78-94-3E

DESCRIPTION	PROCESSOR TYPE	HARD DRIVE	ITEM NO.	PRICE
CDS7106	DX4/100	8MB/420MB	78-94-3E	£1059
CDS7110	DX4/100	8MB/540MB	78-94-4E	£1189
CDS7150	P/75	8MB/540MB	78-94-5E	£1359
CDS7170	P/90	8MB/840MB	78-94-6E	£1445

CALL FOR FULL SPECIFICATION & ACCESSORIES

**PORTABLES**

**COMPAQ PORTABLES**

LITE ELITE	RAM/HD	Item No.	Price
4/75C M340/W DX4/75	8MB/340MB	77-03-2E	£1975
4/75C M510/W DX4/75	8MB/510MB	77-03-3E	£2175
4/75CX M340/W DX4/75	8MB/340MB	75-02-0E	£2499
4/75CX M510/W DX4/75	8MB/510MB	75-02-1E	£2675
4/75SCL M510/W DX4/75	8MB/510MB	77-03-4E	£2975
4/75SCL M810/W DX4/75	8MB/810MB	77-03-5E	£3249

CONTURA 410	RAM/HD	Item No.	Price
410 DX2/509.5" MONO STN	4MB/170MB	78-55-0E	*£895
410C DX2/509.5" COL STN	4MB/250MB	78-55-1E	*£1375
410CX DX2/508.4" COL TFF	4MB/250MB	77-01-2E	£1695

CONTURA 420	RAM/HD	Item No.	Price
420C DX4/75COL 9.5" COL STN	4MB/350MB	78-31-7E	£1535
420C DX4/75 9.5" COL STN	4MB/420MB	78-31-8E	£1695
420 C XD4/75 9.5" COL STN	4MB/720MB	78-31-9E	£2375

NEC VERSA	RAM/HD	Item No.	Price
VERSA 5/330/1SX/23 DUAL COL	4MB/210MB	78-21-5E	£995
VERSA 5/500/1DX2/50 TFF COL	4MB/260MB	76-63-0E	£1699
V/500 i DX2/50 DUAL COL	4MB/250MB	75-19-3E	£1545
V/500 i DX2/50 TFF COL	4MB/340MB	75-36-1E	£1995
M/100C i DX4/100 TFF COL	8MB/540MB	75-79-5E	£2999
M/100T i DX4/100 TFF COL	8MB/540MB	75-79-6E	£3195

TI-TRAVELMATE	RAM/HD	Item No.	Price
TRAVELMATE 4000M	4MB/455MB	78-77-3E	£1589
DX4/75 10.5" Dual Scan Colour	4MB/340MB	76-09-1E	£1789
DX4/75 10.4" TFF	4MB/455MB	78-77-4E	£2075
DX4/100 10.4" TFF	4MB/525MB	78-77-5E	£2475

TRAVELMATE 5000	RAM/HD	Item No.	Price
P75 10.5" Dual Scan	8MB/500MB	78-11-5E	£2989
P75 10.4" TFF	8MB/722MB	78-11-4E	£3375

TEXAS INSTRUMENTS  
**TravelMate™**  
**5000**  
Maximising the Pentium's full potential

PRICES FROM  
**£2989**  
Item No. 78-11-5E

**DESKTOPS**

**COMPAQ SEE FEATURE ABOVE**

PRESARIO CDS (Multimedia)	RAM/HD	Item No.	Price
522 SX2/66 14" SVGA. LOC	4MB/270MB	77-98-6E	£935
524 DX2/66 14" SVGA. LOC	8MB/420MB	77-68-1E	£1190
CD TV 528 DX2/66 14" SVGA LOC	8MB/420MB	77-98-7E	£1403
772 P/75 14" SVGA. LOC	8MB/535MB	77-98-9E	£1531
962 P/60 14" SVGA. LOC	8MB/535MB	77-99-1E	£1445
972 P/75 14" SVGA. LOC	8MB/725MB	77-99-2E	£1616

PROLINEA	RAM/HD	Item No.	Price
PROLINEA V3 4/50	4MB/270MB	77-33-9E	£710
PROLINEA V3 4/66	8MB/270MB	77-34-1E	£925
PROLINEA V3 4/66	8MB/420MB	77-34-2E	£985
PROLINEA V3 4/100	8MB/270MB	77-34-4E	£1085
PROLINEA V3 4/100	8MB/420MB	77-34-3E	£1145
PROLINEA V3 5/75	8MB/270MB	77-34-5E	£1199
PROLINEA V3 5/75	8MB/420MB	77-34-6E	£1265
PROLINEA V4 4/66	8MB/270MB	77-34-7E	£954
PROLINEA V4 4/66	8MB/420MB	77-34-8E	£1019
PROLINEA V4 4/100	8MB/270MB	77-34-9E	£1179
PROLINEA V4 5/75	8MB/420MB	77-35-0E	£1295
PROLINEA V4 5/90	8MB/420MB	77-35-1E	£1439
PROLINEA V4 5/90	16MB/720MB	77-35-2E	£1695
PROLINEA V5 5/90	16MB/420MB	77-35-7E	£1489
PROLINEA V5 5/90	16MB/720MB	77-35-9E	£1749
PROLINEA V5 5/100	16MB/720MB	77-36-0E	£2114

**MODEMS**

**INTERNAL/PCMCIA**

HAYES	Item No.	Price
OPTIMA 144 PCMCIA 2.11 V32bis FAX	76-12-9E	£199
OPTIMA 288 PCMCIA 2.0 FAX	78-21-5E	£315

ZOOM 14.4X - V32bis FAX	74-18-5E	£125
ZOOM 28.8X V34bis, EXTERNAL FAX	78-21-4E	£145

**DESKTOP**

HAYES - 2 YEAR WARRANTY	Item No.	Price
ACCURA 144, V32bis FAX	75-09-2E	£135
ACCURA 288, V.FAST FAX	75-09-3E	£173
OPTIMA 144, V32bis FAX	74-77-4E	£249
OPTIMA 288, V.FAST FAX	74-77-5E	£339
OPTIMA 288 VALUE PACK	76-27-0E	£645
ESP COMMUNICATIONS ACCELERATOR V2.0 (16-BIT SERIAL BOARD, ISA PC'S & WINDOWS)	74-30-7E	£59

**PORTABLE**

PACE - 5 YEAR WARRANTY	Item No.	Price
MICROLIN QUAD FX V22bis FAX	84-83-5E	£88
MICROLIN FX 32 PLUS V32bis FAX	72-16-9E	£148
MOBI-FAX 144	76-39-7E	£94

UPGRADING TO WINDOWS 95? CHECKOUT YOUR SYSTEM. YOU MAY NEED EXTRA RAM MEMORY TO GET THE FULL BENEFIT

TELEPHONE ORDERS: (0181) 982 6380  
FACSIMILE ORDERS: (0181) 982 6367

**PROCESSOR/MODEMS**

All prices exclude delivery and VAT at 17.5%

Always quote the Product Item No. when you contact us. Full details of how to order and our address are available on Software III at the end of this Ad.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE\*

"WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE"

# Computers by Post

HUGE STOCKHOLDING MAIL ORDER LEADER SINCE 1992

OTHER MEMBERS OF THE ECOSYS COST CUTTING, PLANET FRIENDLY PRINTER RANGE

FS-400  
**£435**

Item No. 77-06-3E

FS-1550  
**£875**

Item No. 76-25-8E

FS-1600  
**£1069**

Item No. 76-25-9E



## The Kyocera FS-400 The advanced personal page printer that saves on print costs



A compact 4ppm personal page printer that offers full system printer capabilities and savings on print costs due to its cartridge-free design. Kyocera are the company which introduced low-cost printing, the FS-400 is a low cost printer that offers unrivalled potential for small businesses or organisations needing a low-volume, centralised printing resource. The only consumable needed is toner, cartridge waste is eliminated by a long life drum for a considerable reduction in page printing costs.

### STANDARD FEATURES:

**Output:** 4ppm

**Emulations:** HPLJIII, IBM X24E, Epson LQ-850

**RAM:** 1MB

**Resolution:** 300 x 300dpi/300 x virtual 1200 lrt

**Interfaces:** Centronics Parallel plus high speed option I/O port

**Fonts:** 79 bitmapped, 13 scalable

**Small footprint:**

**Dimensions:** 353W x 350D x 173Hmm / **Warranty:** 12 months (return to base)

**Input Trays:** 1 x 100 sheet Universal

**Output Trays:** 1 x 100 sheet face down



### DOT MATRIX PRINTERS

EPSON	ITEM NO.	PRICE	ML395B 24 Pin	71-79-5E	£635
LX-300 9 pin	75-45-1E	£95	ML520 9 Pin	71-48-2E	£355
LX-300 Colour Kit	75-45-2E	£29	ML521 9 Pin	71-48-3E	£395
FX-870 9 Pin	71-03-6E	£245	ML591 24 Pin	71-02-0E	£499
FX-1170 9 Pin	71-01-8E	£299	<b>PANASONIC</b>		
LQ300 24 Pin	76-65-1E	£147	KX-P1150 9 Pin	72-97-4E	£89
LQ-570+ 24 Pin	71-61-0E	£212	KX-P3696 9 Pin	76-64-8E	£266
LQ-870 24 Pin	94-01-9E	£377	KX-P2023 24 Pin	73-14-5E	£108
LQ-1070+ 24 Pin	73-86-0E	£298	KX-P 2124 24Pin	76-14-3E	£199
LQ-1170 24 Pin	94-02-0E	£435	KX-P2135C 24 Pin	76-14-4E	£125
DFX-5000 9-Pin	71-50-8E	£1179	KX-P3626 24 Pin	76-64-9E	£252
DFX-8000 9-Pin	73-46-3E	£2019	<b>STAR</b>		
DLQ-3000 24 Pin	75-95-9E	£789	LC-90 9-Pin	76-35-1E	£79
<b>NEC</b>			LC100 9 Pin Col.	92-66-7E	£89
PinWriter P2Q 24 Pin	72-78-2E	£98	LC15 9 Pin	71-79-7E	£177
PinWriter P3Q 24 Pin	75-58-9E	£178	LC24-15 Mk II	72-78-3E	£230
PinWriter P72 24 Pin	71-49-9E	£372	LC-240 24 Pin Mono	76-35-4E	£90
<b>OKI</b>			LC-240 24 Pin Colour	76-35-5E	£103
ML321 9 Pin	71-31-7E	£365	See Warranty Key Below		

### INKJET PRINTERS

CANON	ITEM NO.	PRICE	HEWLETT PACKARD	ITEM NO.	PRICE
BJ-30 Black	77-67-3E	£152	DeskJet 600C	78-45-2E	£215
BJ-30 White	77-29-5E	£152	DeskJet 660C Col	77-07-3E	£294
BJ-200EX	77-23-4E	£171	DeskJet 660C Col & Support	77-08-2E	£352
BJ230	91-52-5E	£238	DeskJet 850C Col	77-07-5E	£389
BJ300	71-39-3E	£344	DeskJet 850C Col & Support	77-08-4E	£449
BJ330	71-39-4E	£389	DeskJet 1200C Col	71-69-4E	£629
BJC-70 Black Colour	77-67-4E	£225	DeskJet 1200C & support	76-09-3E	£719
BJC-70 White Colour	77-53-1E	£225	DeskJet 1200C/PS Col	71-75-2E	£1012
BJC-4000 Colour	76-08-4E	£232	DeskJet 1600C Col	77-07-6E	£829
BJC600 E Colour	77-51-0E	£328	DeskJet 1600CM Col	77-07-7E	£1245
BJC800 Colour	94-80-5E	£1065	PaintJet XL300 Col	71-56-9E	£1585
<b>EPSON</b>			<b>TEKTRONIX</b>		
STYLUS COLOUR	75-39-7E	£348	Phaser 140 Colour	77-24-6E	£835
<b>HEWLETT PACKARD</b>			<b>TEXAS INSTRUMENTS</b>		
DeskJet 600C	78-45-2E	£215	Tl microMarc Colour, thermal	73-54-5E	£250
DeskJet 660C Col	77-07-3E	£294	See Warranty Key Below		
DeskJet 660C Col & Support	77-08-2E	£352	Do you need a connecting cable or spare ribbons? Buy them with your printer and save money!!		
DeskJet 850C Col	77-07-5E	£389	<b>LASER/THERMAL PRINTERS</b>		
DeskJet 850C Col & Support	77-08-4E	£449	Make/Model		
DeskJet 1200C Col	71-69-4E	£629	Brother HL-630 GDI, 6ppm	76-03-8E	£320
DeskJet 1200C & support	76-09-3E	£719	Brother HL-6301 GDI, 6ppm	76-29-7E	£345
DeskJet 1200C/PS Col	71-75-2E	£1012	Brother HL-660 GDI	76-59-5E	£458
DeskJet 1600C Col	77-07-6E	£829	Brother HL-1260 GDI	76-59-6E	£895
DeskJet 1600CM Col	77-07-7E	£1245	Epson EPL5200+ 6ppm	77-66-1E	£465
PaintJet XL300 Col	71-56-9E	£1585	Epson EPL9000 A3 8ppm	76-68-6E	£1195
<b>OKI</b>			Epson EPL9000PS A3 8ppm	76-68-7E	£1358
OKI OL410ex, 4ppm	74-83-3E	£384	Fargo Primera & PC PRU	75-35-1E	£599
OKI OL110ex, 4ppm	77-69-1E	£665	Fargo PrimeraPro Col. Therm.	76-72-5E	£1225
OKI OL400ex 4ppm	71-49-5E	£278	HP LaserJet 5P, 6ppm	77-07-8E	£575
OKI OL410ex, 4ppm	74-83-3E	£384	HP LaserJet 5P & Support	77-08-7E	£695
OKI OL110ex, 4ppm	77-69-1E	£665	HP LaserJet 5MP, 6ppm	77-07-9E	£725
Panasonic KXP4430, 5ppm	94-78-0E	£484	HP LaserJet 5MP & Support	77-08-8E	£829
Panasonic KXP4440, 10ppm	74-08-4E	£699	<b>TI</b>		
Panasonic KXP6100, 6ppm GDI	77-64-9E	£265	Tl microLaser Pro 600 PS23, 8ppm	735-47E	£799
Panasonic KXP6150, 6ppm GDI	78-24-1E	£305	Tl microLaser Pro 600 PS65, 8ppm	765-79E	£935
Star WinType 4000 GDI 4ppm	75-47-8E	£288	Tl microLaser Pro 1212ppm	6532-5E	£899
Star WinType 8000 Thermal	75-70-0E	£595	Tl microLaser Power Pro, 12ppm	735-46E	£1025
Star WinType 600, 5ppm	73-55-0E	£549	See Warranty Key Below		
Tl microLaser Pro 600 PS23, 8ppm	735-47E	£799			
Tl microLaser Pro 600 PS65, 8ppm	765-79E	£935			
Tl microLaser Pro 1212ppm	6532-5E	£899			
Tl microLaser Power Pro, 12ppm	735-46E	£1025			

### LASER/THERMAL PRINTERS Cont.

HP LaserJet 4 Plus, 12ppm	75-15-8E	£979
HP LaserJet 4 Plus & Support	75-15-9E	£1135
HP LaserJet 4M Plus, 12ppm	75-10-6E	£1295
HP LaserJet 4M Plus & Support	76-46-3E	£1439
HP LaserJet 4V 16ppm,	76-02-9E	£1365
HP LaserJet 4V & Support	76-13-1E	£1565
HP LaserJet 4MV 16ppm,	76-03-0E	£1985
HP LaserJet 4MV & Support	76-46-4E	£2185
HP LaserJet 4Si 16ppm	71-69-2E	£2085
HP LaserJet 4Si & Support	76-11-3E	£2555
HP LaserJet 4Si/MX, 16ppm	71-75-6E	£2965
HP LaserJet 4Si/MX & Support	76-46-2E	£3395
HP Color LaserJet A3	76-69-8E	£4195
HP Color LaserJet A3 & Support	77-05-7E	£5395
Kyocera FS-400	77-06-3E	£435
Kyocera FS-1550	76-25-8E	£875
Kyocera FS-1600	76-25-9E	£1069
Man Tally 19005, 5ppm	93-74-9E	£319
NEC SuperScript Color	76-77-5E	£649
3000GDI Thermal	76-55-8E	£279
NEC SuperScript 610+, 6ppm	76-56-5E	£385
NEC SuperScript 660, 6ppm	76-56-6E	£545
NEC SuperScript 660i, 6ppm	71-49-5E	£278
OKI OL400ex 4ppm	74-83-3E	£384
OKI OL410ex, 4ppm	77-69-1E	£665
OKI OL110ex, 4ppm	94-78-0E	£484
Panasonic KXP4430, 5ppm	74-08-4E	£699
Panasonic KXP4440, 10ppm	77-64-9E	£265
Panasonic KXP6100, 6ppm GDI	78-24-1E	£305
Panasonic KXP6150, 6ppm GDI	75-47-8E	£288
Star WinType 4000 GDI 4ppm	75-70-0E	£595
Star WinType 8000 Thermal	73-55-0E	£549
Star WinType 600, 5ppm	735-47E	£799
Tl microLaser Pro 600 PS23, 8ppm	765-79E	£935
Tl microLaser Pro 600 PS65, 8ppm	6532-5E	£899
Tl microLaser Pro 1212ppm	735-46E	£1025

### PRINTER MANUFACTURER'S WARRANTY DETAILS

† = Does not include On-Site Maintenance \* = 1 Year On-Site Maintenance  
\*\* = 2 Year On-Site Maintenance \*\*\* = 3 Year On-Site Maintenance  
Please note: Panasonic on-site warranty is limited to the UK Mainland



### microMarc Color Thermal InkJet Printer High Quality Colour at an Affordable Price

#### Features:

- ✓ Up to 5ppm mono
- ✓ Up to 1ppm colour
- ✓ Max 600 x 300dpi (resident fonts)
- ✓ HP DeskJet compatible with PCL3
- ✓ Parallel I/F
- ✓ 128 KB receiver buffer
- ✓ Auto sheet feeder (120cap)
- ✓ 12 months return-to-manufacturer warranty

microMarc Color  
**£250**

Item No. 73-54-5E

### WINTYPE 4000 the Windows Laser Printer Low cost, high performance

- ✓ 4ppm GDI Laser Printer
- ✓ 600dpi class Output
- ✓ Power Save Mode
- ✓ 12 Months return to manufacturer warranty

**£288**

Item No. 75-47-8E



MINIMUM SYSTEM REQUIREMENT APPLY-INCLUDING WINDOWS 3.11 IN ENHANCED MODE

UPGRADING TO WINDOWS 95? CHECK OUT YOUR SYSTEM. YOU MAY NEED EXTRA RAM MEMORY TO GET THE FULL BENEFIT

## PRINTERS/WINDOWS 95 TELEPHONE ORDERS: (0181) 982 6380

FACSIMILE ORDERS: (0181) 982 6367

All prices exclude delivery and VAT at 17.5% Always quote the Product Item No. when you contact us.  
Full details of how to order and our address are available on Software III at the end of this Ad.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE



CALL FOR PRICES

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

# Computers by Post

HUGE STOCKHOLDINGS  
MAIL ORDER LEADERS  
SINCE 1982

## OKI LED PAGE PRINTERS AT GDI PRICES

Buy an OKI OL-400EX to give you a great value page printer that can still print from DOS

### OL-400EX

- Features:
- ✓ max. 4ppm output
  - ✓ 1MB RAM
  - ✓ Low cost per copy
  - ✓ PCL4/HP2 emulation
  - ✓ 42 bitmapped fonts
  - ✓ Small footprint
  - ✓ 12 months on site warranty



OL-400EX  
**£278**  
Item No. 71-49-5E

OL-810EX  
**£675**  
Item No. 77-69-1E

### 810EX

- Features:
- ✓ max. 8ppm output
  - ✓ 2MB Ram
  - ✓ PCL5e emulation
  - ✓ 12 TrueType, 35 Intellifonts fonts
  - ✓ 12 months on site-warranty

## Epson LapCat GT-300

the compact document handling solution

The new Epson LapCat is a complete solution combining the stylish and very compact Epson 300dpi GT300 sheet fed scanner with Xerox Desktop management Suite - an excellent document handling software package.

Thanks to the Epson LapCat, virtually any job can be handled on your own PC:

- add a printer and you've got an instant desktop copier
- add a fax modem and you've got a personal fax machine.
- avoid retyping - scan documents straight into your WVP package...
- scan and send documents over electronic mail

And all at the click of a button!

What's more the Epson LapCat is a portable solution so that you can even use it to work from home.

### Features

- ✓ A4 Mono sheet fed 300dpi scanner
- ✓ 256 greyscales
- ✓ PC and Mac versions available



Epson LapCat  
**£299**  
Item No. 78-16-3E

## SYMANTEC™

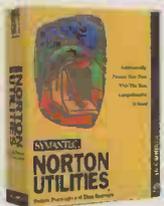
### Norton AntiVirus for Windows 95 at £54.45

Windows 95 specific virus protection Detects, destroys and prevents more viruses than any other virus product. Offers you the native protection for Windows 95 that your current Windows 3.1 version cannot. You'll hardly notice it's there. No loss in productivity!



### Norton Utilities for Windows 95

The only continuous system protection and data recovery for Windows 95



Offers you the native protection for Windows 95 that your current Windows 3.1 version cannot. Prepares for the move to Windows 95, provides "automatic" protection, true 32-bit performance to make sure you maximise the full potential of Windows 95 as quickly as possible. See Norton Navigator feature - "Ease your way round Windows 95".

Norton AntiVirus for Windows 95  
**£89.95**  
Item No. 34-65-3E

# OS/2 WARP

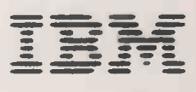


## The tried and tested 32-bit operating system WARPING. IT'S ALL YOU EVER WANTED

- ✓ One button installation
- ✓ Plug and play for PCMCIA
- ✓ TV and photo CD support
- ✓ Integrated multi media for video capture and playback
- ✓ Runs DOS, Windows and OS/2 applications
- ✓ Integrated Internet and CompuServe with free access time provided
- ✓ Full function word processing, spreadsheet, charting database and report writer
- ✓ Fax in the box
- ✓ Proven stability and performance with OS/2 WARP's crash protection running DOS, Windows and OS/2 in a crash proof environment
- ✓ Executes multiple applications at once for increased productivity
- ✓ Bonus Pak - a set of full function applications and utilities.

OS/2 WARP CD  
**£44**  
Item No. 31-65-8E

OS/2 WARP 3 1/2"  
**£56**  
Item No. 32-48-1E



## LASAT CREDIT PCMCIA - THE AWARD WINNING FAX/MODEM

The credit PCMCIA has received the Reviewer's Choice in a recent survey in Personal Computer magazine and Highly Recommended in Personal Computer World. Outstanding features include Autosync and a 16,500 UART chip for speeds up to 115,200 bps. An unsurpassed 10 year warranty is also included.



CREDIT 144  
**£165**  
Item No. 75-16-3E

CREDIT 288  
**£199**  
Item No. 78-41-6E

## CALL FOR ACCESSORIES AND CLEARANCE SPECIALS

TELEPHONE ORDERS: (0181) 982 6380  
FACSIMILE ORDERS: (0181) 982 6367

PERIPHERALS/PRINTERS/WIN95

Always quote the Product Item No. when you contact us. Full details of how to order and our address are available on Software III at the end of this Ad.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

CALL FOR ACCESSORIES AND CLEARANCE SPECIALS

"WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE"

# Computers by Post

HUGE STOCKHOLDING MAIL ORDER LEADER

## COREL DRAW 6 for Windows® 95

CorelDRAW 6 is the world's premier 32-bit Windows 95 graphics application offering fully-featured applications for illustration, photo-editing and bitmap creation, business and multimedia presentations and 3D rendering.

<b>DRAW 6 CD</b>	<b>DRAW 6 Upgrade CD</b>
<b>£475</b>	<b>£275</b>
Item No.: 34-58-2E	Item No. 34-58-3E



## COREL Draw 3, 4 & 5

CorelDRAW 3, the perfect entry-level graphics package – including CorelDRAW, CorelPHOTO-PAINT, CorelCHART, CorelSHOW, CorelTRACE and CorelMOSAIC. CorelDRAW 4, all the power and modules of CorelDRAW 3 and more – including CorelMOVE (for animation), OCR and multi-page layout. CorelDRAW 5 combines the graphics power of CorelDRAW and the advanced publishing capabilities of Corel VENTURA 5 within an integrated user interface. See line list for prices.



SEE LINE LISTING

## COREL CD Office Companion

The best CD to complete your office suite.

Maximise your productivity with just one CD which contains: \* CorelFLOW 2 for business graphics; \* Corel Web Mosaic for Web browsing and CorelFAX for fax; \* Corel PLANNER for personal management; \* Corel GALLERY 2 for clipart and digital photos; \* Corel FONT MASTER™ for 500 TrueType fonts; \* Corel BOOKCASE™ for reference information and a collection of multimedia utilities.

Corel CD Office Companion

**£67.50**  
Item No. 34-58-4E

## COREL Gallery 2CD

Corel Gallery 2 is the world's best clipart and more. With 15,000 clipart images plus a state-of-the-art Visual Multimedia File Manager, 500 royalty free photos, 500 fonts, 75 sound clips, and 10 video clips, Corel Gallery 2 is the ideal partner for all your word processing, desktop publishing, and graphics applications.

Corel Gallery 2 CD  
**£45**  
Item No. 30-60-0E



NEW

## Touchstone WINCheck/It Check/It Set up Advisor

WinCheck/It from Touchstone, the all in one Windows problem solver, includes six main features. Fix Up, Clean Up, Tune Up, Uninstaller, Find Set-up and Check up.



WinCheck/It  
**£35**  
34-31-5E

Check/It Set up Advisor guides you through the process of analysing your current configuration or finding the optimum settings for a new device you plan to install

Use SetUp advisor to:

- ✓ Simplify installation procedures.
- ✓ Spot existing configuration problems.
- ✓ Avoid set up conflicts with Upgrades.
- ✓ Make sure you purchase a compatible device.
- ✓ Look up manufacturers set up recommendations.



Check/It Set up  
**£22.50**  
34-31-7E

## WIN'95 ADVISOR

Everything you need to get ready for Windows® '95 Get the answers you need quickly and easily!

WIN'95 is designed to take all of the guesswork out of installing Microsoft Windows 95. Make the right decisions with WIN'95 Advisor and install Windows 95 right the first time

- ✓ Prepares your Windows 3.1 System for a fast, safe and easy upgrade
- ✓ Makes expert recommendations on hardware and software requirements
- ✓ Optimizes Windows 95 installation Including Multimedia Benchmarks and Clean&Zip

WIN'95 Advisor  
**£29.95**  
Item No. 34-91-4E



**SpellWrite For Windows** The world's most installed word processor just got better! SpellWrite v1.5 with enhancements brings Windows Write bang up to date. Includes full spell checking, word count, fully interactive Bubble Help, user friendly Toolbar, save on disk space & memory and all at a budget price. With a 85,000 word English dictionary including full word context checking and tiny memory footprint SpellWrite v1.5 continues to aid professional presentation of information. It works in any windows program. No more spelling errors in accounts, database records, e-mail, spreadsheets etc. "Free Win 95 upgrade when available".

SpellWrite 3 1/2"  
**£18.50**  
Item No. 34-63-1E

## BubbleHelp For Windows 3.1

Windows help is now at your fingertip! Click the right-hand mouse button for instant help. Bubblehelp explains Windows 3.1 from the basics right through to the finer points. Click on any area of the Windows screen and an explanation of what it is and how to use it will 'bubble up'. Ever wanted to finally get to grips with Windows? Here's your chance!

Bubble Help Win  
**£16.75**  
Item No. 30-02-2E



### ACCOUNTS - BUSINESS

QUICKBOOKS V3.0 WIN	34-31-1E	£86
QUICKEN V4 DELUXE BUSINESS PACK WIN 3 1/2"	34-27-5E	£45
QUICKEN RETURN 1995	34-27-7E	£28
SAGE INSTANT ACCOUNTING V1.0 WIN	33-53-8E	£85
SAGE INSTANT BUSINESS PACK WIN 3 1/2"	32-65-5E	£125
SAGE INSTANT PAYROLL WIN 3 1/2"	32-43-1E	£65
SAGE STERLING ACCOUNTANT PLUS V3.0 WIN 3 1/2"	34-33-5E	£275
SAGE STERLING ACCOUNTANT V7.0 DOS 3 1/2"	30-32-3E	£242
SAGE STERLING +2 PAYROLL WIN 3 1/2"	33-52-0E	£135
SAGE STERLING V3.0 Fin. Cont. WIN 3 1/2"	34-33-4E	£273
SAGE STERLING Fin. Cont. V7.0 DOS 3 1/2"	30-99-0E	£319

WINCOMM PRO V1.1 3 1/2"	32-74-4E	£58
WINFAX PRO V4.0	33-38-9E	£56
HAYES SMARTCOM WINDOWS V1.0	72-52-8E	£49

### DATABASES

ACT 2.0 WIN 3 1/2"	32-44-1E	£122
ALPHA FIVE 3 1/2"	32-90-5E	£69
ALPHA FIVE FOR HOME & BUSINESS 3 1/2"	34-48-7E	£47.50
DATABASE V5.0 WIN 3 1/2"	34-13-5E	£95
DATABASE V5.0 DOS 3 1/2"	34-41-3E	£385
LOTUS APPROACH 3.0 WIN	33-60-1E	£82
LOTUS APPROACH R3.0 WIN CCP UPGRADE	34-24-9E	£65
MS ACCESS V2.0	33-35-9E	£224
MS ACCESS V2.0 1 MLP	33-36-0E	£198
MS ACCESS V2.0 CCP UPGRADE	33-36-5E	£84
MS ACCESS V2.0 DISTRIBUTION KIT 3 1/2"	33-52-9E	£224
dbASE 5 WIN 3 1/2"	33-52-7E	£215
dbASE 5 WIN VERSION UPGRADE	33-52-3E	£115
dbASE 5 WIN COMP UPGRADE	33-52-7E	£115
dbASE 5 DOS 3 1/2"	33-52-4E	£299
MS FOXPRO V2.6 STANDARD DOS	33-49-0E	£70
MS FOXPRO V2.6 PRO DOS	33-49-1E	£276
MS FOXPRO V2.6 STANDARD WIN	33-48-8E	£70
MS FOXPRO V2.6 PRO WIN	33-48-9E	£276
PARADOX V4.5 DOS	31-92-3E	£333
PARADOX V5 FOR WINDOWS 3 1/2"	32-38-8E	£219
PARADOX V5 WIN COMP U/P	31-32-3E	£125
Q&A V4.0 WIN	31-89-0E	£135
Q&A V4.0 DOS	32-69-7E	£199

### DTP

ALDUS Pagemaker 5.0 FOR WINDOWS	32-21-6E	£375
ALDUS Pagemaker CLASSIC WIN 3 1/2"	33-44-2E	£55
COREL GALLERY 2 CD	30-60-0E	£45
COREL PHOTOPAINT 5 PLUS CD	33-83-5E	£47.75
COREL VENTURA 5 WIN CD	33-78-8E	£195
COREL VENTURA W/G V4.2 TO V5 CD	32-82-8E	£65
MS PUBLISHER v.3.0 WIN/95 CD	34-69-1E	£65
MS PUBLISHER v.3.0 WIN/95 3 1/2"	34-69-0E	£65
MS PUBLISHER FOR WINDOWS V2.0	31-07-0E	£62
QUARK EXPRESS V3 31 WIN	33-50-6E	£565
SERIF PAGEPLUS 3 WIN 3 1/2"	33-77-0E	£45

### E-MAIL

LOTUS ccMAIL DESKTOP R2.2 WIN 3 1/2"	34-51-6E	£66
LOTUS ccMAIL MOBILE R2.2 WIN 3 1/2"	34-51-7E	£108
MS MAIL PC3.2 SERVER v. 10 MLP 3 1/2"	91-00-3E	£279
MS MAIL REMOTE V3.2 WIN 3 1/2"	73-25-1E	£85

### GRAPHICS

ASTOUND V2 WIN	34-12-4E	£95
COREL DRAW V3.0 3 1/2"	30-28-9E	£65
COREL DRAW V3.0 CD	30-21-0E	£43
COREL DRAW W/G V3 TO V5 3 1/2"	33-82-3E	£255
COREL DRAW W/G V3 TO V5 CD	33-82-4E	£199
COREL DRAW W/G V3 TO V4 CD	33-82-6E	£95
COREL DRAW V4.0 3 1/2"	32-35-9E	£106
COREL DRAW V4.0 CD	33-02-9E	£87.50
COREL DRAW W/G V4 TO V5 3 1/2"	33-82-1E	£145
COREL DRAW W/G V4 TO V5 CD	33-82-2E	£118
COREL DRAW V5.0 3 1/2"	33-53-2E	£355
COREL DRAW V5.0 CD	33-63-7E	£279
COREL FLOW 2.0 WIN 3 1/2"	33-54-5E	£45
FREELANCE R2.01 WIN	33-44-1E	£268
HARVARD GRAPHICS V3.0 WIN	33-60-2E	£195
MS POWERPOINT V4.0	33-70-5E	£214
MS APPLICATION TRADE-IN VOUCHER	33-27-7E	£129
VISIO V3.0 WIN	33-67-1E	£85
VISIO SHAPE - ADV. FLOW CHARTS	33-67-7E	£39
VISIO SHAPE - ADV. NETWORK DIAGRAMS	33-67-6E	£39
VISIO SHAPE - ADV. SOFTWARE DIAGRAMS	33-34-7E	£39
VISIO SHAPE - CHEMICAL ENGINEERING	33-34-9E	£39
VISIO SHAPE - ELECTRICAL ENGINEERING	33-35-0E	£39
VISIO SHAPE - MECHANICAL ENGINEERING	33-34-8E	£39
VISIO SHAPE - MARKETING	33-67-8E	£39

### INTEGRATED

MS WORKS V4.0 WIN/95 3 1/2"	34-68-9E	£55
MS WORKS V3.0 DOS 3 1/2"	30-82-7E	£83
MS WORKS V3.0 WIN 3 1/2"	31-89-1E	£82
MS WORKS V3.0 WIN 1 MLP	33-08-7E	£73
MS WORKS V3.0 WIN CCP UPGRADE 3 1/2"	31-99-0E	£39

### LANGUAGES

BORLAND C++ V4.5 DOS/WIN CD	30-09-5E	£212
C++ V4.5 & DATABASE TOOLS CD	34-32-0E	£329
DELPHI V1.0 WIN CD	34-26-5E	£155
DELPHI V1.0 CLIENT/SERVER WIN CD	34-33-3E	£635
TURBO C++ 4.5 WIN CD	34-46-8E	£55

### MICROSOFT

VISUAL BASIC V3.0 WIN	32-35-5E	£79
VISUAL BASIC V3.0 PRO WIN	32-35-7E	£189
VISUAL C++ v1.52 STD WIN CD	34-56-0E	£59
VISUAL C++ 2.0 PRO WIN CD	33-83-8E	£249

### LEISURE/EDUTAINMENT

3-D BODY ADVENTURE CD	32-47-7E	£29
BODYWORKS 3.0 CD	30-12-4E	£32
DK-THE WAY THINGS WORK CD	65-96-7E	£38
DK-MY FIRST INCREDIBLE ANIMAZING DICTIONARY CD	65-96-4E	£25
DK-SHOWING DK-SHOWING DK-SHOWING	65-96-5E	£25
DK-THE ULTIMATE OCEANOGRAPHY CD	65-96-8E	£38
DK-THE ULTIMATE HUMAN BODY	65-96-4E	£38
MS ANCIENT LANDS CD	33-42-7E	£30

### LEISURE/GAMES ON CD

DARK FOREST CD	30-03-9E	£37.95
DESCENT CD	30-03-7E	£29.95
DISCWOULD CD	30-03-8E	£37.95
DOOM 2 CD	30-00-3E	£35
MAGIC CARPET CD	30-02-1E	£30
MS GOLF V2.0 WIN CD	34-10-7E	£22
MYST (WINDOWS) CD	30-04-0E	£28
PETER GABRIEL XPLORA CD	30-02-3E	£32
PGA TOUR GOLF 486 CD	30-01-4E	£29
THEME PARK	30-01-2E	£29
UNDER A KILLING MOON CD	30-01-1E	£34
US NAVY FIGHTER	30-02-5E	£32
WING COMMANDER 3 CD	30-02-0E	£34

### MULTIMEDIA/SOFTWARE

VIDEO DIRECTOR V2.0 WIN 3 1/2"	33-72-0E	£75
--------------------------------	----------	-----

(Continued on Software III)

CALL FOR CD VERSIONS PLEASE NOTE: 3 1/2" DISKS ARE SUPPLIED AS STANDARD \* Must have old version loaded

UPGRADING TO WINDOWS 95? CHECK OUT YOUR SYSTEM. YOU MAY NEED EXTRA RAM MEMORY TO GET THE FULL BENEFIT

## SOFTWARE I/WINDOWS 95

All prices exclude delivery and VAT at 17.5%

TELEPHONE ORDERS: (0181) 982 6380

FACSIMILE ORDERS: (0181) 982 6367

Always quote the Product Item No. when you contact us.

Full details of how to order and our address are available on Software III at the end of this Ad.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE



CALL FOR PRICES

CALL FOR PRICES

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE\*

# Computers by Post

HUGE STOCKHOLDINGS MAIL ORDER LEADERS SINCE 1982

## Ready to unlock the potential of personal computing?

Microsoft provides you with the master keys! **Microsoft**

All are 32-bit applications specifically designed to take full advantage of Windows 95 and help move you into the future of computing today!!

### Microsoft® Office Standard for Windows® 95!

Makes it easier than ever to focus on your job instead of your software. Microsoft Office for Windows 95 gives you:

- ◆ MS Excel; MS Word; MS Powerpoint and for the first time MS Schedule +, Microsoft's own time manager, all are 'exclusively for Windows 95'. Microsoft Office is the top selling business applications suite which already features:
- ◆ INTELLISENSE™ performs routine tasks for you with enhanced AutoCorrect and much more
- ◆ Answer Wizard gives you answers to plain English help requests
- ◆ improved OFFICELINKS shares information more easily including OfficeBinder to use a group of files as one
- ◆ OFFICE SHORTCUT BAR for one-click access
- ◆ FIND FAST indexing tools for quick file management.

Windows 95 will give you full 32-bit support and the new interface and user assistance of Windows 95.

### Microsoft Word for Windows 95

The word processor you know plus more:

- ◆ easy access to addresses for letters, memos and faxes with the ADDRESS BOOK

## Microsoft Windows 95

Office for Win 95 CCP Upgrade **£142** Item No. 34-53-5E CD

Office for Win 95 MLP Licence Upgrade **£142** Item No. 34-53-6E 3 1/2"



- ◆ work smarter with the intelligent and grammatical FIND AND REPLACE
- ◆ use your word processor to present words, charts and graphics from throughout the MS Office suite of applications.

### Microsoft Excel for Windows 95

From simple tasks to sophisticated analysis Excel is the one:

- ◆ significant performance improvements
- ◆ new analysis tools to simplify your work
- ◆ enhanced development tools make it easier to create customer solutions.

### Microsoft Powerpoint for Windows 95

Ease of use and flexibility are Powerpoint's watchwords:

- ◆ add life with extended animated builds, sounds and more
- ◆ use Meeting Minder to take notes and assign action items on the spot



◆ AutoClip Art suggests helpful images to illustrate the point.

**Microsoft Schedule + for Windows 95 - NEW to MS Office**

Manage calendars, tasks and contacts for yourself or share them within workgroups. It's the time manager that puts time on your side. Features include:

- ◆ easy storage and retrieval of names, addresses and phone numbers
- ◆ import/export contacts data from other apps and insert into Word documents
- ◆ organise To Do lists and print into 1,500 paper formats.

### Microsoft® Office Professional for Windows® 95!

MS Office plus the new version of Access, the database for Windows 95 which includes: Dynamic Filters, Intelligent Tables, the Table Advisor Wizard and other features.

#### A reminder about Windows 95 compatibility

Windows 95 is designed to run all of your existing DOS and Windows programs, however, DOS or Windows will not be able to run a native Windows 95 program (one written exclusively for WIN 95).

As new versions of your current software are released it is highly probable that they will be Windows 95 versions and as such unusable by anyone NOT running Windows 95.

#### What type of PC do I need for Microsoft Office for Windows 95.

Minimum 386DX or higher processor (486 recommended), MS Windows 95 or MS Windows NT V3.51 operating system NOT WINDOWS 3.1, 8MB RAM for Windows 95, 16MB† for Windows NT.

†Subject to change

#### Here's how you can buy Office Standard for Windows 95!

	Item No	CD	Price
Office for Win 95 CCP Disk Upgrade	34-53-5E	34-53-6E	£142
Office for Win 95 MLP Licence Upgrade	34-53-7E	34-53-7E	£119
Office for Win 95 Competitive Upgrade*	34-53-8E	34-53-9E	£169
Office for Win 95 Full product	34-54-0E	34-54-1E	£325
Office for Win 95 MLP License	34-54-2E	34-54-2E	£285

#### Here's how you can buy Office Professional for Windows 95!

	Item No	CD	Price
Office Pro Win 95 CCP Disk Upgrade	34-54-3E	34-54-4E	£212
Office Pro Win 95 MLP Licence Upgrade	34-54-5E	34-54-5E	£248
Office Pro Win 95 Competitive Upgrade*	34-54-6E	34-54-7E	£248
Office Pro Win 95 Full product	34-54-8E	34-54-9E	£425
Office Pro Win 95 MLP License	34-55-0E	34-55-0E	£375

MS Publisher v3.0 for Windows 95 **£63.95** Item No. 34-69-1E CD

Best selling desktop publishing program for Windows with a £20 cashback.

MS Publisher v3.0 for Windows 95 **£63.95** Item No. 34-69-0E 3 1/2"

Microsoft Plus! for Windows® 95 **£28.95** Item No. 34-44-5E

To give Windows 95 even more space and style, add new Microsoft Plus!. System Agent, Drive Space, and Internet browser. MS Plus for Windows 95 CD

MS Works for Windows 95 3 1/2" **£54.95** Item No. 34-68-9E

Microsoft Works 4.0 for Windows® 95 The best selling integrated software for Windows with £20 cashback voucher for owners of previous versions, including OEM versions and users of competitive products.

Note: \* Please confirm disk or voucher product at point of order. Upgrade qualifications Owners of the following: Microsoft Access; Excel; FoxPro; MultiPlan; Office Standard; Office Professional; PowerPoint; Project for Windows; MS Word PC; MS Word for Windows. You must have these products loaded. Competitive upgrade qualifications Owners of the MS-DOS or Windows based word processing, spreadsheet, presentation graphics or - for Office Pro only - database applications. Check whether disk or voucher at point of sale.

CALL FOR INDIVIDUAL APPLICATION PRICES AND AVAILABILITY

TELEPHONE ORDERS: (0181) 982 6380  
FACSIMILE ORDERS: (0181) 982 6367  
Always quote the Product Item No. when you contact us.

Microsoft Windows 95  
All prices exclude delivery and VAT at 17.5%

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE\*

Full details of how to order and our address are available on Software III at the end of this Ad.

"WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE"

# Computers by Post

HUGE STOCK HOLDINGS  
MAIL ORDER LEADERS  
SINCE 1982



## BusinessPlan Builder

BusinessPlan Builder creates structured business plans of any size of company. Users are provided with the relevant questions and answers from which to create a business plan and this information is then automatically formatted, ready for presentation.

Includes 3 year Projected Financial Forecasts, 70+ Sources of

UK Funds and over 2,500 vital UK Names & Addresses, plus much, much more

BusinessPlan Builder  
**£89.95**  
Item No. 34-63-2E



## Power Translator Deluxe

Fast and accurate translation software

Globalink

Globalink continues to help remove the barriers to communicating in a foreign language. Power Translator translates foreign language documents to your mother tongue and vice versa. It allows you to correspond in the language you need.

- ✓ Translates in context
- ✓ Core dictionary contains words, word phrases, alternate translations and idioms.
- ✓ Customise dictionary
- ✓ Fast accurate draft translations in minutes
- ✓ Supports MS Word, WordPerfect, Ami Pro, RFT and ASCII
- ✓ Hear it in English, French, German (if/ware permitting)

Power Translator Deluxe  
**£99**

### LANGUAGE OPTIONS

LANGUAGE	ITEM NO	PRICE
FRENCH	3455F-E	£99
GERMAN	3455S-E	£99
SPANISH	3455E-E	£99

**Other Globalink Products**  
Please call for price and availability on the Power Translator and Language Assistant Pro ranges for the ultimate in language translation software.

You've never drawn like this before, Simply 3D from Visual Software



Simply 3D CD  
**£47.50**  
Item No. 30-05-6E

- ✓ 70 Seamless textures
- ✓ Animation
- ✓ 3D text
- ✓ 3D objects
- ✓ Multimedia presentations
- ✓ Pre built objects included in tutorials

Your passport to a whole new world of 3D

- ✓ Creates 3D graphics
- ✓ Animation
- ✓ 3D Modelling
- ✓ 3D Rendering and image editing

Virtual Reality  
**£149.95**  
Item No. 34-65-7E



Create real applications in no time without programming  
**Great Value, High Performance CAD**

Alpha five Home & Business is a powerful Windows database that allows you to fully automate your business with point and click ease without the need to program.

Alpha Five Home & Business  
**£47.50**  
Item No. 34-48-7E

## EasyCAD for Windows

Great Value, High Performance CAD

The new CAD package which offers you high-end drawing performance at a low price you'll find hard to resist.

- ✓ Low cost, high performance anywhere, anytime
- ✓ Unmatched speed, low hardware requirements
- ✓ Advanced editing and dimensioning, programmable icons and menus, powerful and precise drawing commands



EasyCad Win 3.1  
**£87.50**  
Item No. 34-34-1E

## FloorPlan Plus 3D V2.0

(with Estimator and 3D Design options)



The low cost design package which allows you to develop your ideas for the office, shop or home before getting the professionals involved!

PPP3D ONLY  
**£45**  
Item No. 33-62-8E

Option 1  
PPP3D-Estimat  
**£75**  
Item No. 33-63-4E

Option 2  
PPP3D-300-ONLY  
**£89**  
Item No. 33-63-3E

(Continued from previous page)

### OCR/IMAGE PROCESSING

DM/IMAGE V3.0 WIN	30-14-5E	£249
DM/IMAGE PRO 5 WIN	33-33-8E	£325

### OPERATING SYSTEMS

IBM OS/2 WARP V3.0 3 1/2"	32-48-1E	£56
IBM OS/2 WARP V3.0 CD	31-65-8E	£44
IBM OS/2 WARP V3.0 WITH STACKER 4 OS/2	33-83-7E	£85
IBM OS/2 WARP V3.0 WITH WIN 4 OS/2 3 1/2"	33-83-7E	£85
IBM OS/2 WARP V3.0 CONNECT CD	34-52-5E	£89
IBM PC DOS 7.0 3 1/2"	31-18-5E	£35
MSDOS 6.22 UPGRADE	33-54-2E	£39
MS WINDOWS 3.1	30-05-4E	£64
MS WINDOWS 3.11 CCP UPGRADE	33-64-0E	£39

### PEER-TO-PEER

MS WING V3.11-3 1/2"	31-87-1E	£89
PERSONAL NETWORK V1.0 SINGLE USER	33-19-9E	£44
PERSONAL NETWORK V1.0 5-USER	33-99-5E	£159

### PERSONAL INFO MANAGEMENT

STARFISH SIDEKICK 2.0 WIN 3 1/2"	34-52-6E	£39
SIDKICK/DASHBOARD BUNDLE 3 1/2"	30-88-7E	£29.95
ECCO PROFESSIONAL WIN	33-40-3E	£125
LOTUS ORGANIZER R2.0	33-95-3E	£85
LOTUS ORGANIZER R2.0 VERSION U/G	34-01-6E	£45

### PROJECT MANAGEMENT

ABC FLOWCHARTER V4.0 WIN	34-31-0E	£429
COREL FLOW 2.0 WIN 3 1/2"	34-54-5E	£45
ON-TARGET	32-75-6E	£65
MS PROJECT V4.0 WINDOWS	33-36-2E	£284
MS PROJECT V4.0 WINDOWS 1 MLP	33-36-3E	£243

### MS PROJECT V4.0 WINDOWS CCP UPGRADE

ORGLPLUS V3.0 FOR WINDOWS	33-36-6E	£85
	34-25-9E	£85

### ROUTE FINDERS

MS AUTOROUTE EXPRESS 4 WIN 3 1/2"	34-55-9E	£29.95
MS AUTOROUTE EXPRESS WIN CD	34-55-8E	£39.95
MS AUTOROUTE PLUS V1.0 WIN	33-31-4E	£272

### SECURITY/ANTI VIRUS

DR SOLOMONS ANTI-VIRUS DOS 1/2, CD	32-73-0E	£59
DR SOLOMONS ANTI-VIRUS OS/2 1/2, CD	34-31-2E	£81
DR SOLOMONS ANTI-VIRUS WIN 1/2, CD	30-45-7E	£79
NORTON ANTI-VIRUS V3.0 WIN/DOS	31-83-8E	£95
HORTON DISKLOCK V3.0 WIN/DOS	34-32-4E	£62

### SPREADSHEETS

LOTUS 123 R5.0 WIN	33-39-3E	£219
LOTUS 123 R5.01 WIN 1 MLP	33-38-7E	£194
LOTUS 123 R4.0 DOS	34-31-2E	£298
LOTUS 123 R4.0 DOS 1 MLP	35-59-0E	£256
LOTUS 123 R4.0 DOS	30-18-2E	£248
MS EXCEL V5.0	31-88-6E	£222
MS EXCEL V5.0 1 MLP	31-88-7E	£198
MS EXCEL V5.0 CCP UPGRADE	33-73-2E	£85
QUATTRO PRO 6.0 WIN	33-92-0E	£152
QUATTRO PRO 5 DOS	31-35-3E	£35

### SUITE PRODUCTS

LOTUS SMARTSUITE R3.1 3 1/2"	34-13-6E	£325
LOTUS SMARTSUITE R3.1 CD	34-11-6E	£325
LOTUS SMARTSUITE R3.1 1 MLP	34-13-7E	£289
LOTUS SMARTSUITE R3.1 SLIP UPGRADE 3 1/2"	34-23-8E	£159
LOTUS SMARTSUITE R3.1 UPGRADE/TRADE UP 3 1/2"	34-40-8E	£159
LOTUS SMARTSUITE R3.1 UPGRADE/TRADE UP CD	34-33-7E	£159
MS OFFICE V4.2 3 1/2"	33-09-1E	£324

### MS OFFICE V4.2 CD

MS OFFICE V4.2 1 MLP	33-12-3E	£294
MS OFFICE V4.2 3 1/2" CCP UPGRADE	33-23-0E	£165
MS OFFICE V4.2 TRADE IN VOUCHER	33-27-5E	£225
MS OFFICE PRO V4.3 3 1/2"	33-09-1E	£424
MS OFFICE PRO V4.3 CD	33-64-8E	£424
MS OFFICE PRO V4.3 1 MLP	33-44-4E	£358
MS OFFICE PRO V4.3 CCP UPGRADE 3 1/2"	33-44-6E	£245
MS OFFICE PR V4.3 TRADE-IN VOUCHER	33-27-6E	£262
NOVELL PERFECT OFFICE 3.0 STD 3 1/2"	33-94-3E	£349
NOVELL PERFECT OFFICE STD U/P 3 1/2"	30-11-4E	£135
NOVELL PERFECT OFFICE TRADE UP 3 1/2"	30-11-5E	£165
NOVELL PERFECT OFFICE PRO U/P 3 1/2"	30-11-6E	£179
NOVELL PERFECT OFFICE 3.0 PRO 17/0 3 1/2"	30-12-0E	£204

### UTILITIES

AMI DIAG V4.5 3 1/2" DOS	33-87-1E	£59
BUBBLEHELP V1.0 WIN	30-02-2E	£19.95
CHECK IT ROAD TECH 3 1/2"	34-31-6E	£49
CHECK IT SET UP ADVISOR WIN 3 1/2"	34-31-7E	£22.50
CHECK IT PRO VOLS II/II	31-02-6E	£61
COREL CD POWERPAK WIN CD	33-80-2E	£25
COREL SCSI V2.0 WIN/DOS/OS/2	33-73-1E	£55
ECLIPSE FIND FROM PHOENIX 31/2" WIN	31-83-1E	£25
FIRST AID FOR WINDOWS 31/2"	33-98-1E	£47
LAPLINK PRO 5 DOS	32-70-9E	£65
LAPLINK FOR WINDOWS V3.0	33-75-6E	£89
NORTON DESKTOP FOR WINDOWS V3.0	33-21-0E	£87
NORTON SPEEDRIVE V4.0 DOS/WIN	33-77-1E	£47
NORTON UTILITIES V8.0	33-32-1E	£85
PL TOOLS PRO DOS	31-93-4E	£69
PL TOOLS 2 FOR WINDOWS	33-28-6E	£49
QEMM 386/486 V7.5 31/2"	33-75-5E	£45
QEMM/STACKER BUNDLE SPECIAL	32-12-7E	£69

### QUARTERDECK CLEANSWEEP

SCSI DIAG FROM AMI 31/2" DOS	34-09-3E	£32.50
STACKER V4.0 WIN/DOS	33-31-9E	£39
WIN CHECKIT WIN 31/2"	33-78-7E	£55
XTREE GOLD V3.0	34-31-5E	£35
XTREE GOLD V3.0	31-72-5E	£82
XTREE V4.0 Windows	33-90-1E	£65

### WORDPROCESSING

AMERICAN LABELPRO 2 WIN 3 1/2"	33-79-2E	£32
AMI PRO R3.1	33-62-4E	£85
LETTERPERFECT V1.1 FOR DOS	32-48-5E	£29
MAHS BEACON TEACHES TYPING FOR DOS	31-07-6E	£25
MAHS BEACON TEACHES TYPING FOR WIN	31-07-7E	£25
MS WORD FOR WIN V6.0	31-77-1E	£224
MS WORD FOR WIN V6.0 CCP UPGRADE	33-23-3E	£85
MS WORD FOR WIN V6.0 1 MLP	31-77-2E	£198
MS WORD FOR PC V6.0	31-00-8E	£182
MS WORD FOR PC V6.0 DOS 1 MLP	31-65-9E	£162
SPELLWRITE 1.5 FOR WINDOWS V1.5	31-23-4E	£18.75
WORDPERFECT V5.2 4 WIN	33-78-0E	£219
WORDPERFECT V6.0 DOS	31-93-7E	£211
WORDPERFECT V6.0 DOS U/G VOUCHER	31-08-1E	£273
WORDPERFECT SIX.0 DOS 1 ADD LIC	31-05-7E	£175
WORDPERFECT SIX.0 DOS 5 ADD LIC	31-05-8E	£799
WORDPERFECT 6.1 WIN 3 1/2"	33-79-9E	£165
WORDPERFECT 6 WIN U/G VOUCHER	30-12-1E	£73
WORDPERFECT COMP 1/U/VOUCHER	30-12-7E	£85
WORDPERFECT SIX WIN 1 ADD LIC	33-78-3E	£129
WORDPERFECT SIX WIN 5 ADD LIC	33-78-4E	£589
WORDSTAR 2.0 WIN	33-46-6E	£29

CALL FOR DETAILS ON LARGER LICENCE PACKS  
MLP = MICROSOFT LICENCE PACK  
LLP = LOTUS LICENCE PACK  
(FOR EXTRA USERS - NO DISKS OR DOCUMENTATION)  
Call for CD Version etc.

Sales Lines Open Mon-Fri 9.00am - 6.30pm Sat 9.00am - 1.00pm

### CHECK OUT OUR DELIVERY CHARGES

All charges are per order (up to 25Kg), delivered to the UK mainland. PCs & Lasers £7.95 (x.VAT) Other Products £5.95 (x.VAT) Call for details of other options.

### REMEMBER! IT'S THE DELIVERED COST THAT COUNTS!

Subject to availability despatch is normally effected within TWO days from receipt of cleared payment. Please allow SEVEN working days for cheque clearance. All orders will be fulfilled within 28 days unless otherwise notified (Credit cards charged only after goods are ready for despatch). Invoices sent to you under separate cover.

All prices and manufacturer's specifications are subject to change without notice. Please check suitability with the manufacturers before ordering. Goods are not offered on a trial basis. Goods are offered for sale subject to our standard conditions of sale available on request. Re-stocking fees may be charged. E. & O.E.

Payment terms: Cheque & Credit Card, Proforma, immediately available upon request BACS payment welcome.  
Computers by Post, (PCW) Alpertown House, Bridgewater Rd. Wembley, Middx. HA0 1EH

## HOW TO ORDER

- Identify the products you need and their item code (e.g. 05-05-0E).
- Call us on **0181 982 6380** or Fax us on **0181 982 6367** Or post your order to the Address above
- Include your credit/charge card details (No. and expiry date) or cheque with your order. Cheques payable to: Computers By Post  
Add delivery and VAT to the total at the current rate to your order.

UPGRADING TO WINDOWS 95? CHECK OUT YOUR SYSTEM. YOU MAY NEED EXTRA RAM MEMORY TO GET THE FULL BENEFIT

## SOFTWARE III WINDOWS 95

All prices exclude delivery and VAT at 17.5%

Full details of how to order and our address are available on Software III at the end of this Ad.

## TELEPHONE ORDERS: (0181) 982 6380

## FACSIMILE ORDERS: (0181) 982 6367

Always quote the Product Item No. when you contact us.

WE WILL MATCH ANY DELIVERED PRICE ADVERTISED IN THIS MAGAZINE

1995  
1st Choice Editor  
Computer 7/95  
COMPUTER SHOPPER  
1995  
1st Choice Editor  
Computer 7/95

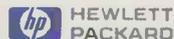
# TIME D I R E C T



Established for almost nine years, Time Direct is now one of the UK's leading suppliers for high quality branded products from the world's leading PC manufacturers.

## LEADING BRANDS

When you buy from Time Direct you also have the support and backing of the world's leading brands such as IBM, Toshiba, Hewlett-Packard, Intel,



**Microsoft**  
**COMPAQ**  
**TOSHIBA**

Novell, Lotus and Microsoft. We are authorised for all the products we sell and our fully trained staff will be able to advise you on all your requirements.

## BUSINESS & CORPORATE SPECIALISTS

We specialise in the requirements of business buyers from companies of all sizes and large corporates. Volume enquiries can be discussed directly with our experienced account managers on 01282 77 00 99.

## GOVERNMENT & EDUCATIONAL DIVISION

This specialised division meets the needs of volume buyers in Health, Education and Central and Local Government. Our unique buying power and direct relationships with manufacturers means that we are able to offer competitive quotations in both tender situations and specific project needs.

## NOTEBOOK SPECIALISTS

Notebooks are fast becoming the standard PC in the business and corporate environment. Our sales staff are trained on the complete ranges of Toshiba, Compaq, IBM, Twinhead, Panasonic, Texas Instruments and Hewlett-Packard. We can fulfil all your notebook requirements including options such as the latest PCMCIA devices.



## NETWORKING DIVISION

Contact our networking division on 01282 77 00 99 for advice on complete network solutions. They are able to offer the entire range of services including consultancy, full installation, cabling, multi-user network applications, training and support.



## QUALITY SERVICE

Time Direct are one of very few direct resellers who are fully accredited by the British Standards Institute for the ISO 9000 quality standard (BS 5750) we are certified to BS 5750 part 2 for the purchasing, configuration, sales, Installation and maintenance of computer systems. It is a testament to the quality of our service, the reliability of our products and our consistent value for money that the vast majority of our business comes from our existing customers.



## TECHNICAL SUPPORT

Our hardware technical support and software assistance services are in addition to any support provided by manufacturers and will enable you to quickly resolve any problems and remain productive.



## PRICE & VALUE

Time Direct are part of the Granville group of companies, the UK's leading direct PC group. Our huge buying power, centralised resources and financial strength enables us to offer you the best prices in the UK with the best service in the industry.

## ORDERING

Please give us a call on 01282 77 00 66 to discuss your requirements. Credit accounts can be opened for business customers (subject to status) buying on a regular basis and corporate, government and educational orders. Payment can also be made by Visa, Access, Switch, American Express and cheque. Please note that business user prices are shown (excluding VAT at 17.5%).

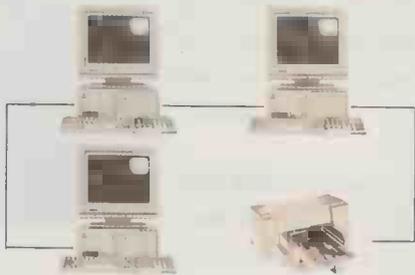
**01282 77 00 66**

Networking/Volume enquires Telephone 01282 77 00 99



Mitac's new range of high performance desktop system and workstations are ideally suited for business users. Models are available with 486 or Pentium processors and can be configured to your individual requirements whether they be as stand alone systems or network workstations.

Our networks division will also be able to provide you with a full range of services including consultancy & planning, full quotation, site survey, installation, cabling, training and on-going support.



3 User Workgroup Networks from

# £1999

## MITAC 486DX2-66



- 486DX2-66 Processor
- 4Mb or 8Mb RAM expandable to 64Mb
- Pentium Technology Upgradeable
- 120Mb, 170Mb or 540Mb IDE Hard Disk
- 3.5" 1.44Mb floppy drive
- 1Mb local bus graphics with Windows Accelerator
- 14" SVGA Colour Screen
- IDE Hard and Floppy Controller
- Parallel, 2 Serial & Keyboard Ports
- Expandable Desktop Case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced Keyboard
- Mouse optional (from £9)
- Select required operating system

Models

486DX2-66 170Mb drive 4Mb RAM.....	£499
486DX2-66 540Mb drive 4Mb RAM.....	£569
486DX2-66 540Mb drive 8Mb RAM.....	£669

See options for other configurations

# £479

## MITAC 486DX4-100



- 486DX4-100 Processor
- 4Mb or 8Mb RAM expandable to 64Mb
- Pentium Technology Upgradeable
- 170Mb or 540Mb IDE Hard Disk
- 3.5" 1.44Mb floppy drive
- 1Mb local bus graphics with Windows Accelerator
- 14" SVGA Colour Screen
- IDE Hard and Floppy Controller
- Parallel, 2 Serial & Keyboard Ports
- Expandable Desktop Case
- 4 drive bays and 7 expansion slots (2 VESA)
- 102 Enhanced Keyboard
- Mouse optional (from £9)
- Select required operating system

Models

486DX4-100 540Mb drive 4Mb RAM.....	£599
486DX2-66 540Mb drive 8Mb RAM.....	£699

See options for other configurations

# £529

## MITAC 75MHz PENTIUM®



- Intel 75MHz Pentium® Processor
- 8Mb or 16Mb RAM expandable to 128Mb
- 540Mb or 850Mb Enhanced IDE (Fast ATA) Hard Disk with 256K Hard Disk Cache
- 256K external SRAM Cache
- 3.5" 1.44Mb floppy drive
- PCI Bus with 4 PCI slots
- PCI bus 64-bit s3 graphics with 1Mb
- Video RAM
- 14" SVGA Colour Screen
- Enhanced PCI IDE Hard and Floppy Controller
- Parallel, 2 Fast Serial & Keyboard Ports
- Expandable Desktop Case
- 4 drive bays and 7 expansion slots (4 PCI)
- 102 Enhanced Keyboard
- Mouse optional (from £9)

Models

75MHz Pentium® 850Mb drive 8Mb RAM.....	£849
16Mb RAM models.....	£200 extra

See options for other configurations

# £799

All prices exclude delivery and VAT (17.5%). Delivery:- Systems £13, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.



Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

**01282 77 00 66**

SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking / Volume enquires Telephone 01282 77 00 99

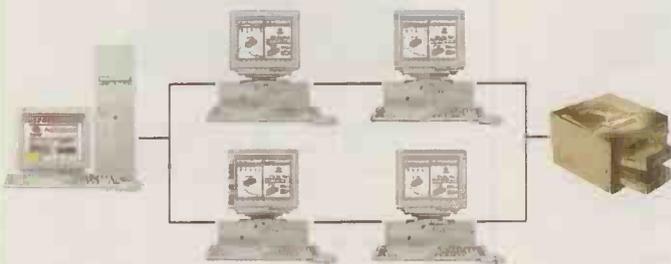


# COLOSSUS

For users requiring ultimate performance we recommend the new range from Colossus Computer Corporation. These systems are amongst the most powerful available and are suited to the power user.

We can also offer a full range of Colossus Network Servers configured to your requirements

## NOVELL



Colossus 4 station Novell Server Network From **£4999**

### COLOSSUS 486DX4-100



- 486DX4-100 Processor
- 256K external Cache
- 4Mb or 8Mb RAM expandable to 64Mb
- Pentium Technology Upgradeable
- Enhanced 540Mb or 850Mb IDE Hard Disk with 256K Cache
- 3.5" 1.44Mb floppy drive
- 1Mb 64-bit PCI local bus graphics with Windows Accelerator

- 14" SVGA Colour Screen
- PCI Enhanced IDE Hard and Floppy Controller
- Parallel, 2 Serial & Keyboard
- Ports
- Expandable Desktop Case with 7 drive bays
- 102 Enhanced Keyboard
- Microsoft Compatible Mouse

Models	
540Mb drive 8Mb RAM	£799
850Mb drive 8Mb RAM	£849
Multimedia models	£99 extra

See options for other configurations

# £699

### COLOSSUS 75MHz PENTIUM®



- Intel 75MHz Pentium® Processor
- 8Mb or 16Mb RAM expandable to 128Mb
- 540Mb, 850Mb or 1.08Gb Enhanced IDE (Fast ATA) Hard Disk with 256K Hard Disk Cache
- 256K external SRAM Cache
- 3.5" 1.44Mb floppy drive
- 1Mb 64-bit PCI local bus graphics with Windows Accelerator

- 14" SVGA Colour Screen
- PCI Enhanced IDE Hard and Floppy Controller
- Parallel, 2 Serial & Keyboard Ports
- Expandable Desktop Case with 7 drive bays
- 102 Enhanced Keyboard
- Microsoft Compatible Mouse

Models	
90MHz Pentium 540Mb drive 8Mb RAM	£999
100MHz Pentium 540Mb drive 8Mb RAM	£1099
850Mb drives models	£50 extra
1.08Gb drive models	£100 extra

See options for other configurations

# £899

### DESKTOP/NETWORKING OPTIONS

RAM	
System RAM Upgrade per 4Mb	£100 extra
Video RAM Upgrade to 2Mb	£50 extra

Hard Drive Upgrades from 540Mb	
850Mb	£50 extra
1.08Gb	£100 extra
1.6Gb	£200 extra
2Gb SCSI II	£380 extra
Adaptec PCI SCSI Controller	£200 extra

Screen Upgrades from 14"	
14" NI	£40
15" NI	£110
17" NI	£270

Multimedia Upgrades	
Double Speed CD	£50
Quad Speed CD	£100
NEC 6 speed SCSI CD	£300
NEC SCSI/AT adapter	£60
16-bit Sound card	£40
Twin stereo Speakers	£10

Tape Backup	
250Mb Tape backup	£90
800Mb Tape backup	£150
3.2Gb Tape backup	£220
2Gb SCSI DAT Drive only	£600
4Gb SCSI DAT Drive only	£750

Modems	
14.4 Fax/Data	£80
28.8 Fax/Data	£160

Networking	
16 bit ethernet NE2000 compatible combi	£40
32-bit PCI ethernet card	£150
APC Smart UPS 600	£call
APC Smart Ups 900	£call

Operating Systems	
MSDOS 6.22 & Windows 3.11 for Workgroups	£60
Windows 95	£80
Novell Netware 4	£call

Mice (For Mitac systems)	
Standard Mouse	£9
Deluxe Mouse	£19

All prices exclude delivery and VAT (17.5%). Delivery - Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.

# THE DIRECT

Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

# 01282 77 00 66

SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

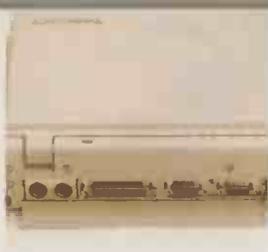
Networking/Volume enquires Telephone 01282 77 00 99



The Satellite Pro 400 has a versatile configurable storage format via swappable CD-ROM and FDD.



The easy to use Integral Mousepoint on all except T4850



All systems include PS/2 mouse, external PS/2 keyboard parallel printer, serial and external SVGA ports. (no PS/2 mouse on T21 series)



Port replicator (mini docking station) option is available for the T21 series, plus enhanced port replicator for Satellite Pro.

## COMMON TOSHIBA FEATURES

Toshiba notebooks are unbeatable in terms of quality, advanced features, performance and ease of use. Do not consider a low quality clone-buy the best. The following common features are standard with all models:-

### SCREENS

Mono notebooks include a high quality sidelit Super Twist Nematic (STN) mono LCD capable of 64 grey scales and VGA resolution. STN colour portables utilise the latest advanced STN (Dual Scan) screens for enhanced contrast and faster response. Thin Film Transistor (TFT) or active matrix screens provide the best displays with upto 16.7 million bright colours, ultra fast response and the ability to use motion video.

### KEYBOARD

Ergonomically designed 84 key full-size keys with 12 function keys and overlay numeric keypad. Dedicated cursor control keys.

### INTERFACES

Standard ports include centronics parallel, RS-232C serial, PS/2 ext. keyboard, PS/2 mouse and VGA/SVGA for ext. monitor. Either Quickport port with bundled Ballpoint mouse or Integral MousePoint device included. Other ports and PCMCIA details see Individual notebook. (NB. PS/2 mouse port on T21 series via port rep)

### POWER

Autosensing AC adaptor (100 to 240V) suitable for world wide usage provides power for notebook and recharges batteries. Removable rechargeable batteries are standard (type of battery and life varies as shown).

### SOFTWARE

Microsoft MS DOS 6.2 with Toshiba notebook enhancements, Windows 3.1 (Rel 3.11) or WFWG 3.11 are pre-loaded. CardWare PCMCIA support provides transparent use of PCMCIA cards without incompatibility problems and supports 'insertion'.

### SPECIAL FEATURES

Intel 3.3v or 2.9v SL technology with low power consumption. Reset button for warm reboot. AutoResume puts your systems in standby mode for upto 7 days. AutoSave automatically saves your data if your battery power is running out. LIM EMS/XMS/HARD RAM support. MaxTime Power Management can be set to switch off your disk drive, screen, keyboard and CPU after a certain time. Advanced Power Management is also supported. Flash BIOS allows easy upgradeability in the future. Kensington Cable Lock Provision for physical security. Password/MultiSafe security with various levels of protection.

## MONO 486DX2-50



### T2100

This powerful 486DX2 notebook combines ultra-fast 50MHz with innovative ergonomics. An advanced high-resolution 9.5" mono STN screen enhances the level of performance yet further.

- Intel DX2-50 processor
- 4Mb RAM expandable to 28Mb
- 260Mb Mib hard disk
- Internal 3.5" 1.44Mb floppy drive
- VGA/SVGA (640 x 480 pixel resolution) 9.5" diagonal display
- 84 key keyboard with mouseport and overlay numeric keypad
- Standard ports
- 11.8" x 8.9" x 1.9" with 3.0Kg (6.6lb) weight
- Built-in autosensing AC adaptor
- NiH2 removable battery. Up to 4 hours usage.

### Options

4Mb RAM (PA2012U)	£170
8Mb RAM (PA2013U)	£290
16Mb RAM (PA2014U)	£745
NiH2 Battery (PA2430UR)	£94

£845

## COLOUR 486DX2-50



### T2100 CS

A superb large colour 10.4" dual scan screen. Local bus video makes this 486DX2-50 the ideal platform for high-quality graphics and mobile presentations.

- Intel DX2-50 processor
- 4Mb RAM expandable to 28Mb
- 350Mi.b hard disk
- Internal 3.5" 1.44Mb floppy drive
- VGA/SVGA (640 x 480 pixel resolution) STN 10.4" diagonal display
- 84 Key keyboard
- Standard ports and port replicator
- PCMCIA Rel 2.0 one type III or two type II)
- 11.8" x 8.9" x 2.1" with 3.1Kg (6.8lb) weight
- NiH2 removable battery (4 hours use)
- MS DOS 6.22, MS Windows 3.11

T1910CS (illustrated above) Call for price and availability

### Options

4Mb RAM (PA2026U)	£215
8Mb RAM (PA2027U)	£385
16Mb RAM (PA2028U)	£745
Port Replicator (PA2708U)	£128
Battery (PA2437U)	£95
Battery charger (PA2436U)	£148

£1355

## COLOUR DX4-75 CD ROM



### T2150CDT

The DX4-75 notebook offers spectacular performance using a 520Mib hard disk drive and top of the range TFT colour LCD 10.4" screen

- Intel DX4-75 processor
- 8Mb RAM expandable to 32Mb
- 520Mi.b hard disk
- Dual Spin internal 5.25" CD-ROM
- External 3.5" 1.44Mb floppy drive
- VGA/SVGA (640x480 pixel resolution) TFT 10.4" diagonal display
- 84 Key keyboard with mousepoint
- Standard ports, and port replicator
- Built in AC Adaptor
- PCMCIA Rel 2.0 two Type II or one Type III
- 11.8" x 8.9" x 2.1" with 3.2kg (7 lb) weight
- Soundblaster Pro compatible sound system
- NiH2 removable battery (3 hours use)
- MS DOS 6.22 and MS Windows for work groups 3.11

T2150CD5266	£2305
T2150CD5520	£2167
T2150CD17520	£2715

### Options

4Mb RAM (PA2026U)	£215
8Mb RAM (PA2027U)	£385
16Mb RAM (PA2028U)	£745
Port Replicator (PA2708U)	£128
Battery (PA2437U)	£95
Battery charger (PA2436U)	£148

£2715

## TFT COLOUR PENTIUM NOTEBOOK



### Satellite Pro 400CS

Toshiba's first modular notebook with Pentium processing power. Swappable CD-ROM and floppy disk drive modules and one touch docking.

- Intel Pentium® 75 processor
- 8Mb EDO RAM expandable to 40Mb
- 810Mb hard disk
- Swappable internal external 3.5" 1.44Mb floppy drive
- VGA/SVGA (640 x 480 pixel resolution) colour STN 10.4" diagonal display
- 84 key keyboard and MousePoint device
- Parallel, serial port
- Serial infra-red port
- Enhanced port replicator port
- SVGA port
- External FDD port
- Memory exp slot
- PCMCIA Rel. 2.0 slot, 2 x type II slot or 1 x type III
- Rechargeable, removable Lithium Ion battery (4 hrs use)
- MS DOS 6.22 and Windows for Workgroups 3.11
- Microphone, headphone and speaker sockets

### OPTION

8Mb EDO RAM (PA2031U)	£420
16Mb EDO RAM (PA2032U)	£804
32Mb EDO RAM (PA2034U)	Call
Quad speed CD-ROM (PA2653U)	£285
Li Ion battery 4hrs use (PA2467UR)	£166
Battery charger (PA2468U)	£166

£2425

## TFT COLOUR PENTIUM NOTEBOOK



### Satellite Pro 400CDT

Unbeatable high end performance A4 package with modular storage and Pentium processing power coupled with flexible connectivity facilities.

- Intel Pentium® 75 processor
- 8Mb EDO RAM expandable to 40Mb
- 810Mb hard disk
- Swappable enhanced IDE quad speed CD-ROM
- Swappable internal external 3.5" 1.44Mb floppy drive
- VGA/SVGA (640 x 480 pixel resolution) colour TFT 10.4" diagonal display
- 84 key keyboard and MousePoint device
- Parallel, serial port
- Serial infra-red port
- Enhanced port replicator port
- SVGA port
- External FDD port
- Memory exp slot
- PCMCIA Rel. 2.0 slot, 2 x type II slot or 1 x type III
- Rechargeable, removable Lithium Ion battery (4 hrs use)
- MS DOS 6.22 and Windows for Workgroups 3.11
- Microphone, headphone and speaker sockets

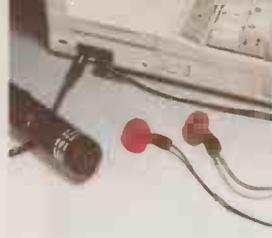
8Mb EDO RAM (PA2031U)	£420
16Mb EDO RAM (PA2032U)	£804
32Mb EDO RAM (PA2034U)	Call
Li Ion battery 4hrs use (PA2467UR)	£166
Battery charger (PA2468U)	£166

£3139

# TOSHIBA



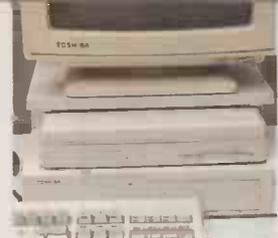
Two PCMCIA slots on all models provide ultimate expansion. Intel fax/data modem at an incredible £99 (except T3600)



Built-in Microsoft Sound System on T4850, and T4900.



With Soundblaster Pro compatible sound system on T2150, Portégé and Satellite Pro



Deskstation IV turns your T4850 and T4900 notebooks into expandable desktop systems

### DUAL SCAN COLOUR DX4-75

### TFT COLOUR DX4-75

### TFT COLOUR SUBNOTE



T2110CS

Brilliant notebook, offers greater power than the T2100CS. Has top end 75MHz DX4 processor and a large 10.4" dual scan screen combine with a high capacity nickel hydride battery providing long lasting quality performance.

- Intel DX4-75 processor
- 4Mb RAM expandable to 28Mb
- 350Mi.b hard disk upgradeable
- Internal 3.5" 1.44Mb floppy drive
- VGA/VSVA (640 x 480 pixel resolution) STN 10.4" diagonal display
- 84 key keyboard and MousePoint device
- Parallel, serial port
- Replicator port
- SVGA port
- Memory exp slot
- PS2 keyboard port.
- PCMCIA Rel.2.0 slot, 2 x type II slot or 1 x type III
- Rechargeable, removable nickel hydride battery (4 hrs use)
- MS DOS 6.22 and Windows 3.11

T2130CS £1779

Options

4Mb RAM (PA2026U)	£187
8Mb RAM (PA2027U)	£340
16Mb RAM (PA2028U)	£744
24Mb RAM (PA2029U)	£1526
Battery (PA2437U)	£80
Battery charger (PA2436U)	£149

# £1525



T2130CT

The T2130CT combines top-end DX4-75 processing with a TFT 10.4" colour screen and comes with 8Mb RAM, 520Mi.b hard disk

- Intel DX4-75 processor
- 8Mb RAM expandable to 32Mb
- 520Mb hard disk upgradeable
- Internal 3.5" 1.44Mb floppy drive
- VGA/VSVA (640 x 480 pixel resolution) TFT 10.4" diagonal display
- 84 key keyboard and MousePoint device
- Parallel, serial port
- Replicator port
- SVGA port
- Memory exp slot
- PS2 keyboard port.
- PCMCIA Rel.2.0 slot, 2 x type II slot or 1 x type III
- Rechargeable, removable nickel hydride battery (4 hrs use)
- MS-DOS 6.22 and Windows 3.11

Options

4Mb RAM (PA2026U)	£187
8Mb RAM (PA2027U)	£340
16Mb RAM (PA2028U)	£744
24Mb RAM (PA2029U)	£1526
Battery (PA2437U)	£80
Battery charger (PA2436U)	£149

# £1995



Portégé 610CT

The world's first 90MHz Pentium® ultra notebook and the most powerful Toshiba portable. It offers very high performance in a lightweight ultra notebook package

- Intel 90MHz Pentium® processor
- 8Mb EDO RAM expandable to 40Mb
- 720Mi.b hard disk
- External 3.5" 1.44Mb floppy drive
- VGA/VSVA (640 x 480 pixel resolution) TFT 9.5" diagonal display
- 84 key keyboard and MousePoint device
- Parallel, serial port
- Replicator port
- SVGA port
- External FDD port
- Memory exp slot
- PCMCIA Rel.2.0 slot, 2 x type II slot or 1 x type III
- Rechargeable, removable Lithium Ion battery (4 hrs use)
- MS-DOS 6.22 and Windows for Workgroups 3.11
- Microphone, headphone and speaker sockets

Options

8Mb EDO RAM (PA2031U)	£420
16Mb EDO RAM (PA2032U)	£904
32Mb EDO RAM (PA2034U)	Call
Li Ion battery (PA2489UR)	£166
Battery charger (PA2488U)	£166

# £3019

### TFT COLOUR DX4-75

### TFT COLOUR PENTIUM

### TOSHIBA OPTIONS

### THIRD PARTY OPTIONS



T4850CT

The DX4-75 has all the power you will ever need out on the road - even for multimedia applications. Whatever your requirements, the T4850CT is perfectly equipped to handle them all.

- Intel DX4-75 processor
- 8Mb RAM expandable to 40Mb
- 810Mi.b hard disk
- Internal 3.5" 1.44Mb floppy drive
- VGA/VSVA (640x480 pixel resolution) TFT 10.4" diagonal display
- 84 full size keys with overlay numeric keypad, 12 function keys
- Standard ports
- PCMCIA Rel 2.0 one Type II and one Type III
- 11.7" x 8.3" x 2.2" with 3.2kg (6.9 lb) weight
- NiH<sub>2</sub> removable battery 3.5 hours use
- MS DOS 6.2 and MS Windows for work groups 3.11

Options

4Mb RAM (PA2012U)	£170
8Mb RAM (PA2013U)	£296
16Mb RAM (PA2014U)	£745
NiH <sub>2</sub> Battery (PA2429UR)	£94
DeskStation IV	£374

# £2970



T4900CT

The T4900CT is the first notebook to have Intel 3.3volt 75MHz Pentium processor. It takes mobile computing into a spectacular new dimension offering unsurpassed performance for all power-hungry applications.

- Intel Pentium P75 processor
- 8Mb RAM expandable to 40Mb
- 810Mi.b hard disk
- Internal 3.5" 1.44Mb floppy drive
- VGA/VSVA (640 x 480 pixel resolution) TFT 10.4" diagonal display
- 84 key keyboard with mouse point
- Standard Ports
- PCMCIA Rel 2.0 one Type II and one Type III
- 11.7" x 8.3" x 2.2" with 3.1kg (6.8 lb) Weight
- Microsoft sound system
- Built in speakers and microphone
- NiH<sub>2</sub> removable battery 3 hours use
- MS DOS 6.2 and MS Windows for work groups 3.11

Options

8Mb EDO RAM (PA2031U)	£420
16Mb EDO RAM (PA2032U)	£904
32Mb EDO RAM (PA2034U)	Call
Li Ion battery 4hrs use (PA2489UR)	£166
Battery charger (PA2488U)	£166

# £3395

- External Battery Charger:
- T3400/T3600 (2482U) ...£166
  - T2100 ...£149
  - T1910CS ...£107
  - Others (PA2422U-E) ...£107

- ExtraUniversal AC Adaptor:
- T1910, T4700CT, T4800 (PA2478U) ...£56
  - T2400 (PA2430U) ...£48
  - T4800 (PA2411U) ...£48
  - T3400, T3600 (PA2426U-E) ...£48

- Toshiba PCMCIA cards:
- PCMCIA ethernet adaptor (PCE-108C) ...£192
  - PCMCIA V34 Modem ...£254

- Other Options:
- Carry case T6600C (T239L) ...£39
  - Carry case others (T202L) ...£34
  - Ballpoint Quickport mouse (PA2805U) ...£73
  - Deskstation IV ...£374 (Docking station for T4900, T4700 and T4800 models. It includes all standard ports, two full-size 16-bit slots, 5.25" drive bay, power supply and monitor stand)

- PCMCIA Options
- Intel 2496 fax/data modem ...£99
  - New media bus toaster SCSI Adapter ...£173
  - New Media visual SCSI adaptor ...£149
  - New Media 16-bit Sound card ...£196
  - New Media combo ethernet card ...£125
  - MiniStore 130Mb hard disk ...£399
- Parallel Port Devices
- Backpack DS CD-ROM Drive ...£299
  - Backpack 5.25" floppy drive ...£149
  - Logitech Scanman Easytouch Scanner ...£142
  - Trakker 250Mb Tape backup ...£208

- Keyboards & Mice
- External COL 130 key keyboard (needs PS/2 adaptor) ...£29
  - PS/2 to DIN keyboard adaptor ...£9
  - Microsoft Natural keyboard ...£69
  - IMSI PC Stylus PS/2 ...£29
  - IMSI Mini Thumball ...£24
  - Logitech Trackman Portable ...£32
- Portable Printers
- HP DeskJet 320 ...£169
  - Canon BJ30 ...£193

- Other Options:
- Universal third party car adaptor ...£99
  - Laplink XL & serial cable ...£39
  - Laplink Pro v5 for Win ...£74
  - Time external speakers ...£18

TDR16E

All prices exclude delivery and VAT (17.5%). Delivery: Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.



Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

01282 77 00 66  
SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking/Volume enquires Telephone 01282 77 00 99



The keyboard flips up with easy access to memory slot, batteries, floppy drive and hard disks, all of which are removable on 360 & 755 models



Port Replicators I & II (mini-docking stations) provide standard ports and cable convenience (Replicator I also has additional PCMCIA III or two type II slots)



The unique easy to use TrackPoint II or III pointing device provides better cursor control than any mouse! Equally good for right & left handers.



Portable Dock I has standard ports, SCSI, speakers, one ISA slot, one 5.25" drive bay (suitable for CD-ROM) and a handle. Shown with ThinkPad attached.

## COMMON THINKPAD FEATURES

The IBM ThinkPad range of notebooks are the most advanced notebooks money can buy. In terms of quality, innovation, useability and technology, these systems are way ahead of the competition.

### CASE

Elegant yet robust case made from special carbon fibre re-inforced plastic for extra durability, yet incredible light weight.

### TRACKPOINT

IBM's innovative red device situated in the middle of the keyboard has no moving parts and responds naturally to your finger's pressure. Easier to use than any mouse or trackball

### SCREENS

High quality screens open to 180 degrees and feature edge to edge display with contrast and brightness control.

-STN colour screens on some 360 & 755 models provide sidelit 9.5" diagonal, 256 colours

-TFT or active matrix screens (8.4" on 360; 10.4" on 370, 755 & 701CS) provide the best displays with 256 bright colours.

-New Black Matrix on array 10.4" TFT colour screens on 755CE, LV, LX & 755CD reduce glare, give the brightest and clearest display and 65 thousand colours.

### GRAPHICS

All 360, 370 & 755 models include VESA local bus graphics with 1Mb RAM and Windows accelerator. Simultaneous display to external SVGA screen.

### MODULAR DESIGN

All models except 340 allow removable hard disk (340Mb to 810Mb), floppy drive and battery. The keyboard easily flips up for access.

### KEYBOARD

Ergonomically designed, quiet, 85 key full-size keys with 12 function keys and overlay numeric keypad.

### INTERFACES

Standard ports include enhanced centronics parallel, RS-232C serial, PS/2 ext. keyboard/mouse and SVGA for external monitor. One type III PCMCIA slot (also functions as two type II on 360/755 370, or one type II on 340).

### POWER & MANAGEMENT

Powerful rechargeable batteries coupled with Advanced Power Management and non-disruptive battery exchange allow you to work a whole day without being near a powerpoint. Fuel gauge provides an indicator of battery life. AC adaptor provides power for notebook and recharges batteries with quick charge facility (1.5 hours). Minimum battery life figure shown is for full use whilst top figure is for typical use with power management.

### SECURITY

Hard disk is removable (except 340) and lockable in the computer and can be protected by a password. Kensington Cable Lock Provision and security loop for physical security. Just send in the registration card to IBM for engraved nameplate personalised for you or your company.

### SOFTWARE

IBM PC DOS 6.3, Windows 3.1 plus additional software as shown. Various utilities including PC Card Director with Auto Configuration, Hot PCMCIA insertion (Easy Playing).

### DOCKING OPTIONS

360, 370 & 755 models have ability to use 4 docking stations; port replicator 1 for economical expansion and cable management, replicator 2 also has additional PCMCIA slots. Portable Dock 1 and larger Dock 2 full size docking stations provide extra drive bays and expansion slots and room for multimedia options in addition to port replication.

### IBM SERVICE & SUPPORT

12mth IBM HelpWare hotline support. 12mth warranty with 3 year warranty on 755 models.

## WHICH THINKPAD IS FOR YOU?

**ThinkPad 340.** The entry level ThinkPad with colour screen and 200Mb hard disk. Has limited expansion and modularity. Ideal for home and small business use.

**ThinkPad 360.** All the modularity, expansion capability, security and versatility of the ThinkPad range with a wide choice of screens, hard disk, processors and docking facilities.

**ThinkPad 701/701CS.** These two new subnote type models are designed to provide unique and powerful, lightweight solutions with full size 85-key keyboards & 10.4" dual scan or TFT displays.

**ThinkPad 755.** All the features of the ThinkPad 360 plus multimedia sound, larger screens and faster processors. Ideal for presentations and business uses where performance is important.

**ThinkPad 755CE & 755CD.** The ultimate mobile computers with innovative technology, the world's best BMA TFT screen, 100MHz processor, full-feature multimedia and modern facilities, and InfraRed communications. Ideal for the top executive.

**ThinkPad 755CV & 755CX.** Two new ThinkPads with all the features of the ThinkPad 755CE. The 755CV model has a 10.4" TFT BMA screen with removable back panel, allowing it to be placed over an overhead projector, ideal for presentations. The 755CX model has 10.4" TFT BMA Screen and is powered by Intel's P75 processor.

## THINKPAD 340CSE



**340CSE**  
The ideal entry level 486 colour notebook with fast 50MHz processor, 200Mb hard disk PCMCIA and dual scan colour

- Fast IBM 486SLC2-50 processor
- 48mm x 297mm x 210mm with 2.2Kg weight
- 16K internal CPU Cache
- 4Mb RAM expandable to 12Mb
- 200Mb IDE fixed hard disk
- 3.5" 1.44Mb floppy drive
- VGA (640 x 480) Graphics
- 9.5" (diagonal) dual scan VGA colour display
- 4Mb RAM expandable to 12Mb
- 35W worldwide AC/DC power adaptor, internal quick charger (1.5 Hrs)
- 12mth warranty extendable to 3 years
- Quiet full size 85 key keyboard with TrackPoint III and built-in numeric keypad function
- Integral Trackpoint II pointing device
- Pre-Installed IBM DOS 6.3, Windows 3.1 & diskette factory software

Options  
4Mb RAM.....£186  
8Mb RAM.....£369  
NiCad battery.....£41  
AC adaptor.....£36

**£1255**

## THINKPAD 701CS/755/755CX

### COMMON FEATURES

ThinkPad 755 range is available with a range of processors, large 9.5" dual scan or 10.4" TFT colour screens, various hard disks.

All systems have a modular design with multimedia capability included as standard. All the features of the 360 are included such as Trackpoint II, lightweight design and built-in modularity.

- 4Mb or 8Mb base RAM expandable to 20Mb using one 4, 8 or 16Mb IC DRAM card or 36Mb/40Mb (using DIMM adaptor which provides two slots, which can be fitted with two 16Mb DIMM modules)
- Removable 3.5" 1.44Mb floppy drive
- VESA Local Bus Graphics with 1Mb RAM, Windows accelerator and dual VGA support for external SVGA display (256 colours at 1024 x 768)
- 85 key keyboard (701 range has TrackWrite full size 85-key keyboard 19mm keys and advance TrackPoint III)
- Standard ports include enhanced parallel, serial, PS/2 for mouse, keyboard or external SVGA
- PCMCIA type III slot (can be used as two type II slots)
- Sound card is included as standard (701 range has Soundblaster Compaibility)
- Expansion but port for dock 1, dock2, port replicator 1 and port replicator 2 (701 range is Dock II Compatible, adaptor kit required)

**ThinkPad 755CE and 755CD** include 486DX4-100 processor, 8Mb base RAM, extra multimedia/modem features, Trackpoint III, Black Matrix on array TFT screens, motion video support, infra-red comms, and 5.25" CD on 755CD model

**ThinkPad 701C & 701CS** include IBM's new TrackWrite expandable full sized keyboard & 10.4" displays.

**ThinkPad 755CV & 755CX** Two new ThinkPads with all the features of the ThinkPad 755CE. The 755CV model has a 10.4" TFT BMA screen with removable back panel, allowing it to be placed over an overhead projector, ideal for presentations. The 755CX model has 10.4" TFT BMA screen and is powered by Intel's P75 processor.

### Popular 755 Options

8Mb DRAM (35G2316).....	£405
16Mb DRAM (66G6574).....	£1031
DIMM Adaptor (provides 2 slots).....	£72
8Mb DIMM (TOMMD08).....	£599
16Mb DIMM (TOMMD16).....	£1031
750 NiMH battery.....	£135
750 Battery safety cover.....	£12
NiMH battery Pack II (755CE/CD).....	£117

Other options: See General Options

## 701CS 486 DX2-50/DX4-75 STN/TFT



### ThinkPad 701CS

Open a ThinkPad 701 and you'll find IBM's new TrackWrite expandable full sized keyboard. The display screen is equally uncompromising dual scan or TFT, both are 10.4" colour panels

• General specification as shown under common features	• PF keys, TrackPoint III
• Intel DX2-50 or 486DX4-75	• Standard ports, and 160 pin expansion bus
• 4Mb or 8Mb RAM upgradeable to 20Mb	• Internal Super NiCad rechargeable battery pack 1.5 hour charge auto sensing AC adaptor
• 360Mb, 540Mb or 720Mb hard disk	• PCMCIA Rel 2.0 two Type II or one Type III
• VGA/SVGA 1Mb VESA LB 10.4" diagonal display all models	• 44mm H x 247mm W x 201mm D
• External 3.5" 1.44Mb floppy disk drive	• Soundblaster & Soundblaster Pro compatible sound system
• TrackWrite full size 85-key keyboard, full size 19mm keys including 12 full-size	• MS DOS 6.22 MS windows 3.11
701CS DS1 DX2-50 360/4Mb.....	£2551
701CS DS2 DX2-50 540/4Mb.....	£2772
701CS DS3 DX4-75 360/8Mb.....	£3209
701CS DS4 DX4-75 540/8Mb.....	£3429
701CS DS5 DX4-75 720/8Mb.....	£3645
701C TF1 DX2-50 360/4Mb.....	£2989
701C TF2 DX2-50 540/4Mb.....	£3209
701C TF3 DX4-75 360/8Mb.....	£3645
701C TF4 DX4-75 540/8Mb.....	£3665
701C TF5 DX4-75 720/8Mb.....	£4085

**£2551**

## 486DX2-50/DX4-100 TFT COLOUR



### ThinkPad 755C / 755CV

Powerful TFT colour ThinkPad 755 models with 486DX2-50, 486DX4-75 or DX4-100 Processor and a range of hard disks. (shown with Dock 2 & matching keyboard options)

• General specification as shown under common features	• 2.9Kg weight with battery and drives
• 486DX2-50 processor or 486DX4-100	• DOS 6.3, Windows 3.1, Lotus Organizer and PC Card Director (DOS 7 and IBM OS/2 Warp v3 on 755CV model)
• 4Mb RAM to 36Mb maximum	• Battery life 3.1 to 8 hours
• 10.4" TFT colour display with 256 colours and 100:1 contrast ratio (removable back panel on 755CV, allowing it to be placed over an overhead projector)	• 35 watt universal AC adaptor with 755CV
• 340Mb, 540Mb, 810Mb removable hard disks or 1.2Gb on 755CV	• Built-in sound card with audio jacks, microphone and speaker (16-bit sound card on 755CV)
• 51h x 297w x 210d in mm	• IBM 3 year warranty
755C TFT 486DX2-50 340Mb.....	£2723
755C TFT 486DX4-75 340Mb.....	£3312
755C TFT 486DX4-75 540Mb.....	£3605
755C TFT 486DX4-75 810Mb.....	£4046
755CS DS2 486DX2-50 340Mb.....	£2916
755CS DS5 486DX4-75 340Mb.....	£3209
755CS DS6 486DX4-75 340Mb.....	£3501
755CV1 TFT DX4-100 540/8Mb.....	£4734
755CV2 TFT DX4-100 810/8Mb.....	£5013
755CDV DV1 DX4-100 540/8Mb.....	£5116
755CV3 TFT DX4-100 1.2Gb/8Mb.....	£5431

**£2723**

# IBM ThinkPad



Matching black monitor and black keyboard are available to complement your IBM ThinkPad. Shown with monitor stand and Dock 2 (2 ISA slots, 2 bays & PCMCIA slots).



Various nylon and leather cases are available for ThinkPad and Portable Dock 1.



A plethora of high quality multimedia, comms & productivity software for the mobile professional comes pre-loaded on many models.



The Communicate Connexion 1440C PCMCIA type II fax/data modem attaches to the Motorola Micro TAC II mobile phone (and others e.g. BT Pearl, Vodac VP130, Ford Compact).

### THINKPAD 360 / 370

#### Common Features

ThinkPad 360 / 370 range is available with a range of processors, screens, hard disks and software pre-loads. All systems have a modular design and full docking capabilities

- Standard Thinkpad features such as Trackpoint II, lightweight design and built-in modularity
- 4Mb base RAM expandable to 20Mb using one 4, 8 or 16Mb IC DRAM card (fits into memory slot), 4Mb to 36Mb on 370
- Removable 3.5" 1.44Mb floppy drive (to reduce weight)
- VESA local bus graphics with 1Mb RAM, Windows accelerator and Dual VGA support for external SVGA display (256 colours at 1024 x 768). Active black matrix TFT 10.4" on 370
- 85 Key keyboard which flips open to provide access to battery, removable hard disk and floppy bays
- Standard ports include enhanced parallel, serial, PS/2 for mouse or keyboard (adaptor allows use of both)
- PCMCIA type III slot (can be used as two type II slots)
- Sound card port for optional sound card (only to special order - factory fitted)
- Expansion bus port for dock 1, dock 2, port replicator 1 and port replicator 2
- Sizes, weights, battery (NiMH) life vary as show
- Pen model is also available

#### Popular 360 Options

4Mb RAM (TONPM04) .....	£186
8Mb RAM (TONPM08) .....	£369
16Mb RAM (TOMP16) .....	£923
360 NiMH battery #66G2846 .....	£95
750 NiMH battery #66G2846 .....	£135
750 battery safety cover #66G0027 .....	£12

Other options: See General Options

### DUAL SCAN COLOUR/ TFT COLOUR



ThinkPad 360/360C/360CE/360CS/360CSE & 370C Popular dual scan colour ThinkPad 360 models with 486DX2-50 processor and a range of hard disks. Shown with optional modem and mobile phone

- General specification as shown under common features
- 486DX2-50 processor or 486DX4-75 processor
- 4Mb RAM upgradeable to 20Mb or 36Mb on 370C model
- 9.5" STN dual scan colour display with 256 colours and 20:1 contrast ratio on 360, 360CS and 360CSE
- 8.4" TFT active matrix colour display with 256 colours and 100:1 contrast ratio of 10.4" on 360C and 360CE
- TFT Black matrix on 370C
- 340Mb or 540Mb removable hard disks
- 360CS DS4 486DX2-50 340Mb .....
- 360CE TF4 486DX2-50 340Mb .....
- 370C TC1 486DX4-75 340Mb .....
- 370C TC2 486DX4-75 540Mb .....

# £1791

### GENERAL OPTIONS FOR ALL

#### Additional Removable Hard Disk

340Mb .....	£590
540Mb .....	£882
810Mb .....	£1323

#### PCMCIA Type II Cards

Intel fax/data modem .....	£39
Communicate Connexion 1440C .....	£Call

#### IBM PCMCIA options

3270 Card .....	£269
14.4 fax/data modem .....	£324
Modem UK DAA for above .....	£63
164 Token Ring card .....	£360
10Base2 Ethernet card .....	£180
10BaseT Ethernet card .....	£180

#### Docking Options (360 & 755)

Port Replicator 1 #66G3515 .....	£198
Port Replicator 2 #66G3530 .....	£172
Portable Dock 1 #66G3971 .....	£536
Includes 5.25" bay, one ISA slot, one special slot for A to D adaptor for motion video, two integral speakers, SCSI port, and standard ports	
Dock 1 carry case #66G3985 .....	£77
Dock 1 display stand #66G3517 .....	£77
Ext. floppy enclosure #66G3987 .....	£32
Dock 1 CD-ROM kit #66G3506 .....	£414
Dock 1 Anal. to Digit. video card #66G3509 .....	£563
Dock 1 audio cable #66G3521 .....	£18
Dock 1 SCSI install kit #66G3513 .....	£41
Dock 1 IDE install kit #66G3502 .....	£45
Dock 2 #T0202UK .....	£500
Dock 2 II display stand #T0202SHU .....	£50
Dock 2 SCSI tape backup #T0202BUK .....	£973

#### Carry Cases

Deluxe leather overnight #B130922 .....	£176
Deluxe leather #B130921 .....	£104
Deluxe nylon #79F0961 .....	£72
Nylon #07G1530 .....	£38

#### Black Matching Extras

Black 15X FST SVGA screen .....	£432
Black external keyboard .....	£140
Black Keypad for keyboard .....	£45
Black mouse .....	£30

#### Other Options

Keyboard/mouse connector cable .....	£23
KeyGuard .....	£63
Numeric keypad .....	£22

AC adaptor 40W .....	£48
AC adaptor 50W .....	£108
Car battery adaptor .....	£48
Quick charger (can take 2 batteries) .....	£176

Microphone kit .....	£36
Laplink XL & serial cable .....	£39

#### 755CE/CD only options

Headset .....	£95
DAA/telephone kit .....	£104
FDD bay PCMCIA cartridge .....	£41

#### 701/701 CS Options

4Mb RAM SO-DIM .....	£169
8Mb RAM SO-DIM .....	£369
Super NiCad battery .....	£49
NiMH Battery pack .....	£59
Multiport II .....	£119

### P75 BMA TFT COLOUR



#### ThinkPad 755CX

The new Pentium ThinkPad from IBM with P75 processor, large TFT BMA screen, Advanced Multimedia / Modem and Infra red Comms.

- General specification as shown under common features
- 8Mb RAM upgradeable to 40Mb
- 10M4" TFT Black Matrix on array colour display with 65,000 colours, reduced glare and excellent visibility even in daylight, 100:1 contrast ratio, VGA Resolution on CX4, CX5 and CX6
- Trackpoint III pointing device with improved rubber grip and drag & drop features
- 540Mb, 810Mb or 1Gb removable hard disks
- 50h x 297w x 210d in mm; 2.9Kg weight with battery & drives
- IBM PC DOS 7, IBM OS/2 Warp v3 & Windows 3.11
- Software Suite including Lotus Organizer 1.1, ScreenCam, CC-Mail Mobile, Audiofile, TalkWorks, Asymetrix Presentation PE, Soundcard, microphone and speaker
- 35 watt universal AC adaptor with internal quick charger 1.5 - 2 hours
- Built-in IRDA compatible Infra-red ports

755CX P75/540/8Mb TFT CX4 .....	£3433
755CX P75/810/8Mb TFT CX5 .....	£3712
755CX P75/1.2Gb/8Mb TFT CX6 .....	£4131
755CX P75/540/8Mb TFT CX1 .....	£4522
755CX P75/810/8Mb TFT CX2 .....	£4801
755CX P75/1.2Gb/8Mb TFT CX3 .....	£5220

# £3433

### 486DX4-100 BMA TFT COLOUR & MPC2



#### ThinkPad 755CD/755CE

Ultimate TFT colour fully MPC2 compliant multimedia notebook with 486DX4-100 processor, Large TFT BMA screen, advanced stereo multimedia/modem, and built-in CD ROM

- General specification as shown under common features
- 8Mb RAM upgradeable to 40Mb
- 10.4" TFT Black matrix on array colour display with 65,000 colours, reduced glare and excellent visibility even in daylight, 100:1 contrast ratio.
- Trackpoint III pointing device with improved rubber grip and drag & drop features
- 340Mb, 540Mb or 810Mb removable hard disks
- 57h x 297w x 210d in mm; 2.9Kg weight with battery & drives
- IBM PC DOS 6.3, Windows 3.1, & PC card director
- Software Suite including Lotus Organizer 1.1, ScreenCam, CC-Mail Mobile, Audiofile
- TalkWorks, Asymetrix Presentation PE & Digital Video Producer, Puma TranXil, OAG flightDisk, Video for Windows runtime
- Built-in sound card with audio jacks, headphone jack, MIDI/Joystick port, (no MIDI on 755CE)
- Video capture/overlay features and Composite (video) in; video out to TV ports (755CD only)
- Battery life 3.5 to 7 hours
- Built-in IRDA compatible Infra-red ports
- Built-in 5.25" double speed multi-session CD-ROM Drive (755CD only)

755CE CE2 486DX4-100 340Mb .....	£3595
755CE CE3 486DX4-100 540Mb .....	£3802
755CE CE4 486DX4-100 810Mb .....	£4081
755CD CD3 486DX4-100 540Mb .....	£4941
755CD CD4 486DX4-100 810Mb .....	£5220

# £3595

### THINKPAD POWER SERIES 820 TFT



#### ThinkPad Power 820 / 850

Blazingly fast performance of the PowerPC 604 microprocessor, superior RISC architecture, TFT black matrix display and internal CD-ROM. Designed to give commercial users the competitive edge.

- PowerPC 603 100MHz 16Mb expandable to 48Mb 540Mb, 810Mb or 1.2Gb removable hard disks
- 10.4" TFT black matrix display, 640x480 or 800x600
- PCI Local bus graphics
- Internal double speed CD-ROM drive
- External 3.5" 1.44Mb floppy drive (exchangeable with internal CD-ROM drive)
- Built in microphone and stereo speakers
- PCMCIA expansion slots (two type I/II or one type III)
- Keyboard with TrackPoint III
- Support for multiple 32-bit operating system

820 PPC603e/100 540/16Mb #820A1UK .....	£4028
850 PPC603e/100 540/16Mb #850A1UK .....	£4698

Note 850 is expandable to 96Mb RAM and has PCI G10 bus with motion video as standard	
<b>Options</b>	
8Mb RAM #DDMEM08 .....	£594 Extra
16Mb RAM #DDMEM16 .....	£805 Extra
540Mb hard disk #DWSF540 .....	£490 Extra
810Mb hard disk #DWSF810 .....	£769 Extra
1.2Gb hard disk #DWSF12G .....	£1193 Extra
NiMH Battery #T02ABATE .....	£112 Extra
AC Adaptor #DWPJQUE .....	£54 Extra

# £4028

All prices exclude delivery and VAT (17.5%). Delivery:- Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE



Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

01282 **77 00 66**

SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking/Volume enquires Telephone 01282 77 00 99

### PRESARIO 520



**CDS520**

Multimedia systems with dual speed CD-ROM drives, 486SX2-66, 4Mb RAM

- 486SX2-66 processor
- 4Mb RAM
- 420Mb hard disk
- 3.5" 1.44Mb floppy drive
- Local bus SVGA graphics
- 14" integrated SVGA colour monitor
- Serial parallel, joystick, MIDI and mouse ports
- 16-bit sound card, microphone and speakers
- Dual speed CD-ROM drive
- Integrated 9600/2400 fax/data modem
- telephone answering and CompuServe
- MS DOS 6, MS Windows 3.1, MS Works for Windows 3.0, Money 3.0, MS Entertainment Pack IV, MS Encarta and DK The Ultimate Human Body CD
- 3 year Compaq warranty

CDS 520 486SX2-66 Compact (177002-032).....£849

**£849**

Please call for latest prices and availability on Presario models

### PRESARIO 524 SERIES



**CDS524**

Multimedia system with quad speed CD-ROM drive, 486DX2-66, 8Mb RAM

- 486DX2-66 processor
- 8Mb RAM
- 420Mb hard disk
- 3.5" 1.44Mb floppy drive
- Local bus SVGA graphics
- 14" integrated SVGA colour monitor
- Serial parallel, joystick, MIDI and mouse ports
- 16-bit sound card, microphone and speakers
- Quad speed CD-ROM drive
- Integrated 9600/2400 fax/data modem
- telephone answering and CompuServe
- MS DOS 6, MS Windows 3.1, MS Works for Windows 3.0, Money 3.0, MS Entertainment Pack IV, MS Encarta and DK The Ultimate Human Body CD
- 3 year Compaq warranty

CDS 524 486DX2-66 Compact (210252-032).....£1099

**£1099**

Please call for latest prices and availability on Presario models

### PRESARIO 700 SERIES



**CDS724/CDS772**

Desktop solution, 486DX4/90 and 75MHz Pentium® processor, 8Mb RAM, quad speed CD-ROM drive

- 486DX4-90 processor, upgradeable to DX4-100 or Intel overdrive processor
- 8Mb RAM upgradeable to 104Mb (136Mb on CD772)
- 420Mb hard disk, 535Mb on CDS 772
- 3.5" 1.44Mb floppy drive
- Enhanced local bus SVGA graphics
- PCI local bus on CDS 772
- 14" integrated SVGA colour monitor
- Serial parallel, joystick, MIDI and mouse port
- 16-bit sound card, microphone and speakers
- Quad speed CD-ROM drive
- Integrated 9600/2400 fax/data Modem
- telephone answering and CompuServe
- MS DOS 6, MS Windows 3.1, MS Works for Windows 3.0, Money 3.0, MS Entertainment Pack IV, MS Encarta and DK The Ultimate Human Body CD
- 3 year Compaq warranty

CDS 742 486DX4-90 Desktop (210052-032).....£1298  
CDS 772 Pentium-75 Desktop (186652-033).....£1495

**£1298**

Please call for latest prices and availability on Presario models

### CONTURA TFT



The amazing high quality Compaq Contura TFT colour notebook with Intel 486DX processor and excellent TFT screen. Simply the best buy!

- Intel 486DX-25 processor
- 4Mb RAM upgradeable to 20Mb
- 3.5" 1.44Mb floppy drive
- 120Mb or 209Mb IDE hard disk
- Superb 8.4" VGA TFT active matrix colour screen with 256 colours
- Parallel, mouse, serial, ext. keyboard and ext. SVGA ports
- Integral Compaq trackball mouse
- Powered by battery with advanced power management or AC/power adaptor
- Dimensions: 22.6cm x 4.8cm x 29.7cm. Weight 3Kg
- DOS 6 & Microsoft Windows 3.1 pre-loaded
- Compaq Tabworks Software
- 3 year Compaq warranty

4/25cx 120Mb TFT .....£1099  
4/25cx 209Mb TFT .....£1299

**£1099**

- Options**
- 4Mb RAM module .....£146
  - Contura car adaptor .....£35
  - NCAD battery .....£32

TDRCCQT

### CONTURA 430CX



New 486DX4-100 model 720Mb with 8Mb of RAM and 10.4" TFT colour screen

- Intel 486DX4-100 processor
- 8Mb RAM upgradeable to 32Mb
- 3.5" 1.44Mb floppy drive
- 720Mb IDE hard disk
- SVGA Graphics with 1Mb local bus video
- 10.4" TFT colour
- Two PCMCIA type II or one type III slot
- Parallel, serial & docking base ports (docking base includes other ports)
- Powered by NiMH battery with up to 5 hour life,
- advanced power management or AC/power adaptor
- Status panel with 'dashboard' display
- Dimensions: 22.83cm x 5.49cm x 30.39cm. Weight 2.84Kg
- DOS 6, Microsoft Windows 3.1, Lotus Organizer & Tabworks
- Integral Compaq trackball mouse
- 3 year Compaq warranty

Other Models Available

410 mono	250Mb	189100-033	£945
410 STN	350Mb	140100-034	£1315
410 TFT	350Mb	140300-034	£1695
420CX STN	420Mb	140350-035	£1695
420CX TFT	420Mb	189250-035	£2295
430CX STN	720Mb	140200-432	£2119
430CX TFT	720Mb	189200-432	£2545

**£2545**

- Options**
- 4Mb RAM module 187653-001 .....£178
  - Docking base 147619-031 .....£108
  - Docking base with E-Net 147667-001 .....£183
  - NiMH Battery 189029-001 .....£36
  - Intel PCMCIA modem .....£39

### COMPAQ PROLINEA 486



New Compaq Prolinea models come with three case styles and PCI graphics. All except 486-50 include a minimum of 8Mb of RAM

- 486DX2-50, 486DX2-66 or 486DX4-100 processor
- 8Mb RAM (4Mb on 486DX2-50 model)
- 128Kb cache on 486DX4-100
- Integrated 1Mb PCI local bus graphics
- Triflex/PCI bus
- 270Mb, 420Mb or 720Mb PCI IDE hard disk
- User friendly: plug & play bios, easy to open with sliding motherboard and swinging drive cage.
- Compaq keyboard & mouse
- MS DOS, Windows 3.1 & Compaq utilities
- CDS models include quad speed CD & 16-bit business sound
- Slimline models: 3 bays & 3 slots
- Standard desktop: 4 bays & 4 slots
- Mini-Tower: 5 bays & 5 slots

**Select screens from below**

**Slimline (3/3) Models**

486DX2-50 (3/3) 270Mb (17210-A23)	£685
486DX2-66 (3/3) 420Mb (172202-A23)	£899
486DX4-100 (3/3) 420Mb (172002-A23)	£1029

**Desktop (4/4) Models**

486DX2-66 (4/4) 420Mb (172702-A23)	£915
486DX4-100 (4/4) 420Mb (172802-A23)	£1059

**Mini-Tower (5/5) Models**

486DX2-66 (5/5) 420Mb (173802-A25)	£955
------------------------------------	------

**Options**

14" 1024 NI Mitac	£170
15" 1024 NI Taxan	£250
14" SVGA Compaq	£199
14" 1024 Compaq	£238
15" 151FS Compaq	£323

**£685**



Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

**01282 77 00 66**

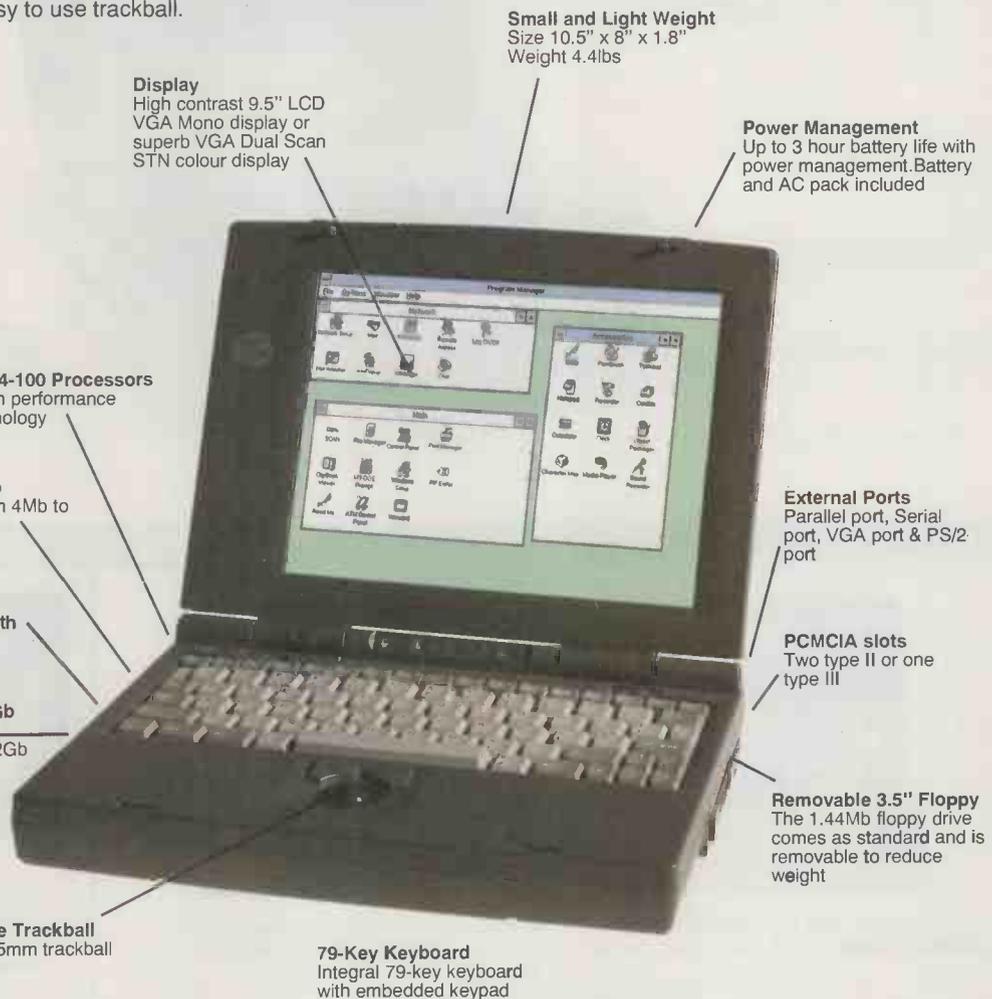
SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking/Volume enquires Telephone 01282 77 00 99

All prices exclude delivery and VAT (17.5%). Delivery: Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.

## Mitac Notebooks

Excellent new high performance range of personal notebooks from Mitac with wonderfully crisp mono or dual scan STN colour screens and featuring the high performance 486DX2-66 or 486DX4-100 processors with low power consuming 3.3v technology. RAM options from 4Mb to 20Mb, fast IDE hard disks, from 340Mb to 1.2Gb and the latest PCMCIA type II/III slots. They come with a 3.5" 1.44Mb removable floppy drive, all the standard ports and feature a full notebook keyboard with easy to use trackball.



**Warranty**  
Systems comes with 12 months warranty and can be extended to 3 years

**Preloaded Software**  
All systems are ready to use with DOS and MS Windows 3.11

### MITAC NOTEBOOK MODELS

MONO 486DX2-66 340Mb / 4Mb					COLOUR 486DX2-66 340Mb / 4Mb				
£849					£1219				
Hard Disk	340Mb	540Mb	810Mb	1.2Gb	Hard Disk	340Mb	540Mb	810Mb	1.2Gb
486DX2-66	£849	£939	£1109	£1329	486DX2-66	£1219	£1309	£1479	£1699
486DX4-100	£889	£979	£1149	£1369	486DX4-100	£1259	£1349	£1519	£1739

#### Options

RAM upgrade to 8Mb .....£150 Extra  
RAM upgrade to 12Mb .....£300 Extra  
RAM upgrade to 20Mb .....£600 Extra

#### Options

RAM upgrade to 8Mb .....£150 Extra  
RAM upgrade to 12Mb .....£300 Extra  
RAM upgrade to 20Mb .....£600 Extra

TDRMN28A

All prices exclude delivery and VAT (17.5%). Delivery:- Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.

# TIME DIRECT

Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

**01282 77 00 66**  
SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm  
Fax No: (01282) 77 06 08

Networking/Volume enquires Telephone 01282 77 00 99

# £1299

TFT Model £1799  
with DX4-75 processor

## Special Offers

The TravelMate 4000M Series provides everything you'd expect in state-of-the-art, high performance notebook computers.

Texas Instruments newest notebooks pack in additional performance with exceptional features that include a 16-bit sound card that is compatible with Sound Blaster Pro and much more.



### 486DX2-50 455Mb DUAL SCAN

### 486DX4-75 / 100 TFT

### Options



The UK's best value Dual Scan multimedia notebook - incredible specification at just £1299

- 486DX2-50 Processor
- 4Mb RAM, 20Mb max
- 8Kb Internal Cache
- 455Mb hard drive
- 1.44Mb 3.5" Floppy Drive
- 9.5" Dual Scan colour display
- 640 x 480 Resolution
- 1Mb Video RAM
- Interfaces: parallel, serial, keyboard/mouse, audio-in, audio out, Fast SCSI II, microphone and 16-bit MIDI with game port
- Sound capabilities: 16-bit media vision jazz 16 sound card, thunderboard, CD multisection photo, CD audio and pro audio 16,
- internal microphone, internal speaker and bi-directional MIDI interface
- NIMH battery (3-5 Hours)
- Integral pointing device with Microsoft drivers
- MS DOS, MS Windows for Workgroups, Adaptac EZ-SCSI, Windows Sound Software and Real Time Video with Indeo Video
- 2.9Kg weight, 21.6 x 27.9 x 5.1cm

Models  
DX2-50 455Mb Dual Scan 9.5" colour.....£1299

Limited Offer **£1299**



Full feature TFT colour multimedia notebook. Attach CD-ROM for just £399

- DX4-75 Processor
- 4Mb Ram, 20Mb max.
- 8Kb internal Cache
- 455Mb or 525Mb hard drive
- 1.44Mb 3.5" floppy drive
- 10.4" TFT colour display
- 640 x 480 Resolution
- 1Mb video RAM
- Interfaces: parallel, serial, keyboard / mouse, audio-in, audio out, Fast SCSI II, microphone and 16-bit MIDI with game port
- Sound capabilities: 16-bit media vision jazz 16 sound card, thunderboard,
- CD multisection photo, CD audio and pro audio 16, Internal microphone, internal speaker and bi-directional MIDI interface.
- NIMH battery (3-5 hours)
- Integral pointing device with Microsoft drivers
- MS DOS, MS Windows for Workgroups, Adapter EZ-SCSI, Windows sound software and real time video with indeo video
- 2.9Kg weight, 21.6 x 27.9 x 5.1cm

Models  
DX4-75 455Mb TFT 10.4".....£1799  
DX4-100 525Mb TFT 10.4".....£2499

**£1799**



The Portable CD-ROM Docking System gives your TravelMate 4000M notebook the power of a desktop multimedia system, with all the advantages of portability. With a weight of under five pounds including battery, the ergonomically styled Portable Docking System includes:

- A Double-Speed CD-ROM Drive That Operates at 250 Milliseconds
- Built-in Stereo Speakers
- Controls for Volume, Balance and Mix
- Microsoft headphones and external microphone
- A Separate NIMH Battery, giving you the options of AC or Battery Powered Operation
- A 50-pin Centronics SCSI II Connection
- Battery Charger System
- Optional SCSI II Bay

# £399

- Other Options
- 4Mb RAM.....£149
  - 16Mb RAM.....£945
  - NIMH Battery.....£85
  - AC Adaptor.....£85
  - Briefcase (for Main unit, CD-ROM system and accessories).....£79
  - Carrying Case (for Main unit and accessories).....£39
  - Leather Case (for Main unit only).....£29

TDRWM1B

All prices exclude delivery and VAT (17.5%). Delivery:- Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE.

# TIME DIRECT

Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

**01282 77 00 66**  
SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking/Volume enquires Telephone 01282 77 00 99

# Colossus Power Notebooks

The new range of high performance Colossus notebooks incorporate advanced features and high specification such as removable hard disks up to 1.2Gb, 32Mb RAM, multimedia capability, advanced touchpad mouse, VESA local bus graphics and a choice of advanced upgradeable screens. These high specification systems are now available directly from Time Direct at truly amazing prices.

**Choice of Removable Screens**  
9.5" STN VGA mono screen, 10.5" dual scan colour or 9.5" TFT colour screens with 256 vivid colours. Modular design allow the screen to be upgraded

**LCD Status Display**  
All the important parameters are easily visible on this LCD display

**External Ports**  
One advanced bi-directional parallel port, 9 pin fast serial ports with 16550 UART, keyboard, external monitor and PS/2 mouse ports

**486DX4-75 or 486DX4-100 Processors**  
These Intel processors are the fastest processors available and use low power consumption SL technology

**Ample RAM up to 32Mb**  
Two memory module slots allow flexible memory upgrade to 32MB using 4, 8 or 16Mb modules

**Fast Local Bus Graphics**  
Advanced 32-bit VESA local bus graphics card with 1Mb Video RAM and Windows® Accelerator

**Advanced Ports**  
Ports for docking, and optional infra red and TV tuner modules

**PCMCIA 2.0 Slots**  
One type III or two type II slots suitable for advanced modems and network cards

**Light Weight**  
Only 6.2lb weight with dimensions of 8.8"x11.6"x1.9"

**High Quality 84-Key Keyboard**  
with 12 function keys and embedded numeric keypad with ergonomic palmrest

**Large Removable Hard Drives**  
High capacity state-of-the-art 2.5" IDE drives with 340Mb, 540Mb, 810Mb or 1.2Gb capacity

**Multimedia Ready**  
Twin speaker system built-in with microphone. Sound card module option available

**Removable 3.5" Floppy**  
The 1.44Mb floppy drive comes standard and is removable to reduce weight

**Long Life Battery**  
The latest NiMH rechargeable battery is removable. There is full advance power management support with suspend to RAM and suspend to disk

**Advanced Touchpad Mouse**  
The incredible touchpad is easier to use and more reliable than any trackball. This is the most advance pointing device available for notebooks

**Pre-loaded Software**  
All systems are ready to use with MS DOS 6.22 and Windows 3.11

## 9.4" MONO

486 DX4-75 340Mb / 4Mb

£1049

486DX4-100 model.....£50 Extra  
RAM upgrade per 4Mb.....£140  
540Mb model.....£90  
810Mb model.....£260  
1.2Gb model.....£480  
Sound card.....£80

## 10.4" DUAL SCAN COLOUR

486 DX4-75 340Mb / 4Mb

£1419

486DX4-100 model.....£50 Extra  
RAM upgrade per 4Mb.....£140  
540Mb model.....£90  
810Mb model.....£260  
1.2Gb model.....£480  
Sound card.....£80

## 9.4" TFT COLOUR

486 DX4-100 540Mb / 8Mb

£2249

RAM upgrade per 4Mb.....£140  
810Mb model.....£170  
1.2Gb model.....£390  
Sound card module.....£80

TDRCN30B1

All prices exclude delivery and VAT (17.5%). Delivery: Systems £19, Lasers and large items £15, software and small items £10. Visa /Access/ American Express /Switch and Government orders welcome. Prices, specifications and offers are subject to change and subject to our conditions of sale copies of which are available on request. Mail order only. No collections please. Goods are normally despatched within 7 days. All orders will be fulfilled within 28 days unless otherwise specified. E&OE



**TIME DIRECT**

Granville House, Blackburn Road, Simonstone, Burnley, Lancashire BB12 7GT

**01282 77 00 66**  
SALES LINES OPEN  
Monday - Friday 9.00am - 6.00pm

Networking/Volume enquires Telephone 01282 77 00 99

## HP DeskJet 320/340



The portable DeskJet printer for the mobile user

- Interface, HP PCL 3 language
- Small size (310x65x147mm) and light weight (1.96Kg)
- Windows compatibility
- 3 year return to HP warranty
- Consumables - please call for prices

**£169**

- 600 x 300 dpi resolution
- Optional colour ColorSmart technology. Resolution 300 x 300 and speed 4-7 minutes per page. 256 levels of greyscale for dramatic black graphics
- Fast print speeds of upto 3 ppm
- 48K print buffer, Centronics

With Sheet feeder bundle  
HP DeskJet 340

**£207**  
**£Call**

## HP DeskJet 540/600



The HP DeskJet 540 offers sharp, clear 600 x 300 dpi black printing and HP's ColorSmart technology

- 600 x 300 dpi resolution
- Fast print speeds of upto 3 ppm for fast, time-saving output
- 16K print buffer, Centronics interface, HP PCL 3 language and built-in Proprietary emulation
- Built-in auto-sheet feeder with capacity of 100 sheets
- Automatic envelope sensor: no need to make a manual
- Up to 50 transparencies at a time, and stacks of up to 20 envelopes

**£210**

HP DeskJet 600

**£Call**

## HP DeskJet 660C



The HP DeskJet 660C offers quality colour printing using

- ColorSmart technology parallel interface, HP PCL 3 language
- Built in auto-sheet feeder with capacity of 100 sheets
- 256 levels of greyscale for dramatic black graphics for Windows
- 3 year return to HP warranty
- Consumables - please call for prices

**£299**

- All the features of DeskJet 540 plus HP's ColorSmart technology
- Resident colour and black cartridges, black and colour printing without switching cartridges
- 600 x 600 dpi resolution (mono), 600 x 300 (colour)
- Fast print speeds of upto 3 ppm for mono and an average of 4 minutes per page for colour
- 80K print buffer, Centronics

HP DeskJet 850C

**£399**

## HP LaserJet 4 Plus



This 12 ppm, 600 dpi resolution printer gives your office the advantage of superior looking documents and a wide assortment of built-in scalable fonts

- 600 dpi plus HP Resolution Enhancement and Microfine Toner
- 12 ppm print speed (RISC CPU with cache)
- Two input trays
- 250 sheet output tray
- 2Mb RAM
- RAM expandable to 66Mb

**£1005**

- 1 year HP warranty
- Consumables - please call for prices

### Postscript Model 4M Plus

With Adobe Postscript (takes up 1 SIMM slot) with autoswitching, 80 scalable fonts (10 TrueType, 35 Intellifont & 35 Adobe PS), 6Mb RAM (2Mb base RAM plus 4Mb SIMM 2 slots free) and network ready with integrated ethernet and Mac LocalTalk interface (in addition to the others with autoswitching)

**£1331**

## HP LaserJet 4V



The new 16 ppm, 600 dpi resolution printer that sets a new standard for workgroup printers, offering A4/A3 paper size

- 600 dpi plus HP Resolution Enhancement and Microfine Toner
- 16 ppm print speed (33MHz RISC CPU)
- Two input trays (1 x 100 sheets and 1 x 250 sheets)
- 1 envelope handling capacity
- 250 sheet output tray

**£1399**

- 4Mb RAM expandable to 68Mb
- 1 year HP warranty
- Consumables - please call for prices

### Postscript Model 4MV

With Adobe Postscript (takes up 1 SIMM slot) with autoswitching, 80 scalable fonts (10 TrueType, 35 Intellifont & 35 Adobe PS), 12Mb RAM (4Mb base RAM plus 8Mb SIMM- 2 slots free) and network ready with integrated ethernet and Mac LocalTalk interface (in addition to the others with autoswitching)

**£2034**

## HP LaserJet 4Si



The 16 ppm, 600 dpi, high speed, high volume printer for small businesses with large workloads, or networks supporting thousands of nodes in multiple environments

- 600 dpi plus HP Resolution Enhancement and Microfine Toner
- 16ppm print speed (Intel RISC CPU)
- Two input trays (2 x 500 sheets)
- 1 envelope handling capacity with 100 envelope power feeder option
- 500 sheet output tray
- 2Mb RAM expandable to 34Mb
- Network ready with

- integrated Ethernet and Mac LocalTalk interface (in addition to the others with autoswitching). Also includes 2 JetDirect slots
- 1 year on-site HP warranty
- Consumables - please call for prices

**£2145**

### Postscript Model 4Si MX

With Adobe Postscript (takes up 1 SIMM slot) with autoswitching, 80 scalable fonts (10 TrueType, 35 Intellifont & 35 Adobe PS) and 10Mb RAM (2Mb base RAM plus 8Mb SIMM 2 slots free)

**£3033**

## HP DeskJet 1200C/1600



The combination of high quality black text, using HP's Resolution Enhancement technology, plus full featured colour in a single, affordable printer satisfies the full range of printing needs in the office

- All the features of DeskJet 660C with 600x300 dpi black text and 300 dpi full colour printing using ColorSmart technology. Fast 7 ppm black and 1 ppm colour speed
- Operation with four print cartridges (cyan, magenta, yellow, and black) gives millions of colour with full Pantone support.
- Fully HP LaserJet compatible with Colour PCL5 language, slot for HP LaserJet cartridges
- 2Mb RAM expandable to 26Mb (4Mb expandable to

- 20Mb with 1200/PS model)
- Automatic 180 sheet feeder with 100 sheet output tray
- Memory 4Mb Max 100Mb upto 70Mb with PostScript upgrade installed. (6Mb Max 70Mb on HP 1600CM)
- Consumables - please call for prices

**£639**

HP DeskJet 1200/PS ... £999  
HP DeskJet 1600C ... £849  
HP DeskJet 1600CM ... £1249

## HP LaserJet 4L/5L



This 4 ppm, 300 dpi resolution printer combines great print quality to offer the ideal printing solution for the desktop or small office

- 300 dpi plus HP Resolution Enhancement and Microfine Toner
- 4 ppm print speed
- One 100 sheet input tray and 50 sheet output tray
- 1 envelope handling capacity. A4, letter, legal, exec and envelope paper sizes
- 1Mb RAM

- RAM expandable to 2Mb via one memory slot.
- Bi-tonics parallel interface
- HP Explorer software, One button control panel and Econmode feature to use less toner
- 1 year HP warranty
- Consumables - please call for prices

**£360**

### Postscript Model 4ML

With Adobe Postscript as well as HP PCL5 with autoswitching, 80 scalable fonts, 4Mb RAM and Mac LocalTalk interface (in addition to Centronics with autoswitching)

**£739**

HP LaserJet 5/L.....£Call

## HP LaserJet 5P



This 4 ppm printer offers superb 600 dpi resolution print quality at a price and size that are perfect for the desktop, small office and workgroup

- 600 dpi resolution
- 6 pages per minute. Average 4000 pages.
- 1 internal bitmapped font and one cartridge slot
- One 250 sheet input tray
- 1 envelope handling capacity
- 100 sheet output tray
- 2Mb RAM with memory enhancement to 50Mb RAM
- Bi-tonics parallel and serial interfaces

- Bi-directional parallel port compliant infrared
- PowerSave energy save feature
- 1 year HP warranty
- Consumables - please call for prices

**£585**

HP LaserJet 5MP.....

**£739**

## HP Color LaserJet



The new HP LaserJet that does colour! A printer that meets the demands of today's shared office environments

- 300 dpi plus 4 toner cartridges (Black, Yellow, Magenta and Cyan)
- HP ColorSmart produces sharp colour images in 16.7m colours with additional 250 sheet tray options
- One input trays (1 x 250 sheets)
- 1 envelope handling capacity option
- 100 sheet output tray

- 8Mb RAM expandable to 72Mb Bi-tonics parallel interface modular I/O slot.
- HP Explorer software, eight button control panel and Econmode feature to use less toner. PowerSave energy save feature
- 1 year on-site HP warranty
- Consumables - please call for prices

**£4199**

Postscript Printing: We recommend Postscript SIMM, additional 4Mb RAM (at least), HP JetDirect card for network and rear feed tray options.

## HP Scanners



HP ScanJet 111C HP's affordable colour / greyscale flat-bed scanner with impressive features and software bundle

- 400 dpi optical resolution (1600 dpi enhanced resolution) - Scan text, drawings and illustrations and photographic images
- Recognises over 16m colours and 256 levels of greyscale
- HP Accusage technology via Calera Wordscan OCR software recognises text down to 4 point
- TWAIN support, OCR aware, automatic brightness and contrast settings. Fast preview and final scan, powerful image editing tools, user selectable resolutions from 4% to 400% in 1% increments, on-line learning, and easy setup and installation

- Scans transparencies from 35mm to other media up to A4. Up to 50 pages at a time with optional document feeder
- PC bundle includes SCSI adaptor, cable, power cord, scanner, HP DeskScan II for Windows scanning utility, Calera Wordscan OCR package and Aldus Photostyler SE image editing software
- 1 year HP warranty
- Consumables - please call for prices

**£679**

### HP ScanJet 3P

Entry level flat-bed mono scanner with 256 greyscales and up to 1200 dpi enhanced resolution. Similar specification to the colour model but with 300 dpi optical (1200 dpi enhanced) resolution and 256 greyscale levels. Includes HP Picture place image editing and Calera WordScan 3.

**£339**

## HP Plotters



Leading Inkjet technology coupled with 600 dpi resolution, excellent colour, fast speeds and ability to vary line thickness. HP's DesignJet range offers the best value

All models are available with A0 or A1 size, 600 dpi resolution in mono on plain paper. AutoCAD and Windows drivers included. RS232C and Centronics interfaces with autoswitching. One year on-site warranty

- DesignJet 230: Desktop mono InkJet plotting with ability to take sheets only (Legs optional). 600 dpi.
- DesignJet 600: Mono InkJet plotters with sheet or roll feed and legs as standard. 600 dpi and 4Mb RAM as standard
- DesignJet 650: Colour and mono inkjet plotters with sheet or roll feed, legs as standard. 600 dpi (mono mode) and 300 dpi (colour). 4Mb RAM buffer expandable to 20Mb. Four ink cartridges with ink level indicators

DesignJet 230 A1 **£1399**  
DesignJet 230 A0 **£1917**  
DesignJet 600 A1 **£2769**

DesignJet 600 A0 **£3309**  
DesignJet 650C A1 **£3785**  
DesignJet 650C A0 **£4469**

# HEWLETT-PACKARD



Excellent Quality • Superior Service • Unbeatable Value

# DABS DIRECT

PERSONAL COMPUTER SYSTEMS



- DABS 486/100 SYSTEM**
- 486 DX4/100 Processor
  - 8Mb RAM
  - Enhanced IDE 850Mb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 3 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£810**  
486DX4/100MHz PCI

- DABS P75 SYSTEM**
- Intel® Pentium® 75MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 8Mb EDO RAM
  - Enhanced IDE 850Mb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£970**  
Pentium 75MHz PCI

- DABS P90 SYSTEM**
- Intel® Pentium® 90MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 8Mb EDO RAM
  - Enhanced IDE 850Mb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£1040**  
Pentium 90MHz PCI

- DABS P100 SYSTEM**
- Intel® Pentium® 100MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 8Mb EDO RAM
  - Enhanced IDE 850Mb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£1120**  
Pentium 100MHz PCI

- DABS P120 SYSTEM**
- Intel® Pentium® 120MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 16Mb EDO RAM
  - Enhanced IDE 1.2Gb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£1410**  
Pentium 120MHz PCI

- DABS P133 SYSTEM**
- Intel® Pentium® 133MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 16Mb EDO RAM
  - Enhanced IDE 1.2Gb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - 5 Year Warranty\*

**£1510**  
Pentium 133MHz PCI

- DABS P75MULTIMEDIA SYSTEM**
- Intel® Pentium® 75MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 8Mb EDO RAM
  - Enhanced IDE 850Mb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - Creative Labs Soundblaster 16 IDE
  - Quad speed CD drive
  - Active Speakers
  - MS Works, MS Encarta
  - 5 Year Warranty\*

**£1170**  
Pentium 75MHz PCI  
Multimedia

- DABS P120MULTIMEDIA SYSTEM**
- Intel® Pentium® 120MHz Processor
  - Triton Chip set
  - Upgradeable past 133MHz
  - 16Mb EDO RAM
  - Enhanced IDE 1.2Gb Hard Disc
  - PCI Accelerated 1Mb video card
  - Onboard EIDE Mode 3 controller
  - 14in non-interlaced SVGA monitor
  - 256k 15ns standard secondary RAM
  - 1.44Mb Floppy drive
  - 4 PCI and 4 ISA expansion slots
  - 2 fast serial, ECP parallel and game
  - Cherry high quality 102 key keyboard
  - Original Microsoft Serial Mouse V2.0
  - MS Windows 95
  - Creative Labs Soundblaster 16 IDE
  - Quad speed CD drive
  - Active Speakers
  - MS Works, MS Encarta
  - 5 Year Warranty\*

**£1620**  
Pentium 120MHz PCI  
Multimedia

**DABS SYSTEMS**

486 PCI SYSTEMS	540Mb	850Mb	1.2Gb	1.6Gb
System/HD				
486DX4/100MHz PCI	790	810	845	1075

PENTIUM™ SYSTEMS	540Mb	850Mb	1.2Gb	1.6Gb
System/HD				
Pentium 75MHz PCI	950	970	1005	1235
Pentium 90MHz PCI	1020	1040	1075	1305
Pentium 100MHz PCI	1100	1120	1155	1385
Pentium 120MHz PCI	1355	1375	1410	1640
Pentium 133MHz PCI	1455	1475	1510	1740

Prices From **£790**

**MULTIMEDIA UPGRADE OPTIONS**

Creative Soundblaster 16 Value IDE	64
Creative AWE32 Value sound card	125
Quad Speed CD Drive	99
12w Speakers	14
25w Speakers	21
80w Speakers Bass, Treble	35
MPEG 1Mb Video Card add	45

**HARDWARE OPTIONS**

Tape Streamer 420Mb Int add	95
Tape Streamer 850Mb Int add	155
Microsoft Natural Keyboard add	50
250/280VA UPS (single PC) add	90
USR Sportster 14k4 Int modem add	107
USR Sportster 28k8 Int modem add	156

**PENTIUM OPTIONS**

16Mb EDO RAM instead of 8Mb add	235
32Mb EDO RAM instead of 8Mb add	705
512k cache instead of 256k add	40
Extra 1Mb DRAM on Video card	50
Midi Tower (3 x 5.25" bay) add	10

**486 OPTIONS**

8Mb instead of 4Mb add	99
16Mb instead of 4Mb add	299
Extra 1Mb DRAM on Video card	50
Midi Tower (3 x 5.25" bay) add	10
Adaptec 1542C and SCSI HD	150

**MONITOR UPGRADE OPTIONS**

15" LR 1280x1024 NI, MPR-II add	80
17" LR 1280x1024 NI, MPR-II add	330
20" LR 1280x1024 NI, MPR-II add	900
21" LR 1280x1024 NI, MPR-II add	1000
Sony CPD-15SF add	150
17" Idek VisionMaster MF-8617A add	355

*These prices only available with systems*

Our customers know us best

"Quite simply they have saved us a huge amount of money"

Jonathan Shepstone,  
Systems librarian at The  
Patterson Institute  
PC Direct August 1995

Russell's experience, remains unbeaten: "Dabs' remarkably quick delivery and after-hours support have been important in maintaining a high level of service"

Stephen Russell, medical physicist  
at Christie Hospital  
PC Direct August 1995



\* 5 year warranty comprises 1 year OSM, 4 years RTB (labour only)  
\* OSM agreement on hardware commences 14 days after receipt of goods.  
Pentium is a trademark of the Intel Corporation

1 Subject to status  
In the event of a shortage of Windows 95, we reserve the right to ship systems with Windows 3.1 and DOS 6.2

**DABS 2**  
COLLECTION LOCATIONS

**DABS**  
NATIONWIDE DELIVERY



**MORE THAN JUST LOW PRICES**

- Nationwide Delivery
- One Stop Shop
- Knowledgeable and friendly service
- Free Technical Support
- Instant Account Facilities
- Repair & Upgrade Services
- Value for Money
- Freephone Ordering

**DABS**  
TOTAL PACKAGE PRICE

**DABS**  
WARRANTY

**5**  
YEARS

**DABS**  
WARRANTY

**1 YEAR**  
OSM  
**4 YEARS**  
RTB (LABOUR ONLY)

**DABS**  
WARRANTY

**LIFETIME**  
TELEPHONE  
TECHNICAL  
SUPPORT

TRANSAX

DELTA

VISA

MASTERCARD

ACCESS

freephone

0800 558866

DABS DIRECT

PERSONAL COMPUTER SYSTEMS

PRICE MATCHING

We can usually match other dealers prices. Please call for details

Working 01483 797474

INTERNET sales@dabs.co.uk

CD-ROM DRIVES

CREATIVE LABS

Discovery 2x	169	Discovery 4x	269
Multimedia Home 4x	290	Gameblaster AWE 4x 299	
AWE32 MCD	165		



**Goldstar GCD-R5 40B Quad Speed CD ROM Drive**  
 • Enhanced IDE (ATAPI) Interface  
 • Intelligent 256K data buffering system  
 • 220ms access time  
 • 3000 Sec sustained transfer rate  
 • 4.5MB/Sec  
 • Photo CD Multiresolution support  
 • CD-DA, CD-ROM/XA, CD-I support  
 • Video CD Ready  
 • High Fidelity audio support  
 • Motor tray loading mechanism  
 • 50,000 POH MTBF

£103

<b>GOLDSTAR</b>			
GCD-R5 20B	69	GCD R5 40B	103
<b>MITSUMI</b>			
FX400 IDE 4x	101	Secondary IDE i/f	9
<b>NEC</b>			
Quad Speed IDE Int	115	3pp+ SCSI External	242
6x1 SCSI Internal	126	8x SCSI External	363
2wc 7-disc SCSI Ext	349	Parallel SCSI i/f	90

<b>PANASONIC</b>			
CR-562	68	AT interface	10
Phase Change SCSI	450	CR504B Quad SCSI	160
CR574 Quad IDE	102		
<b>PIONEER</b>			
DRU-124x 4x IDE	126	DRU-602X 2x SCSI	395
DRU-604X 4x SCSI	789	DRU-124X 4x SCSI	199
DRU-124X 4x IDE	126	DRU-624X 6x SCSI ex455	
<b>TOSHIBA</b>			
XMS302B Int 4x IDE	115	5201B Int 3.4x SCSI	129
XMS301B Int 4.4x SCSI	210	3501B Int 4x SCSI	225

**Multimedia Kit 2000 £225**  
 Everything you need to create your own affordable entertainment centre  
 • Quad speed CDROM, 600Kb/s access time  
 • Upgradeable Diamond sound card  
 • Pair of stereo speakers  
 • 7 Top titles:  
 • Compton's Interactive Encyclopedia 1995  
 • Magic Carpet, Sim City  
 • Norway, Dragon Love  
 • Wing Commander II  
 • Deluxe, The Lemmings  
 • Chronicles

DIAMOND

**CD RECORDING**

Philips CD0522 Kit	1495	JVC XR-2001E Kit	1399
Yamaha CR0100e Kit	1999	Ricoh RS1060	1399
WinOnCD	659	WinOnCD To Go	149
Corel CD Creator	109	Toast Pro 2.5 Mac	399

IDE HARD DISCS

(Bracketed figure is nominal capacity in Mb)

<b>CONNER</b>			
CFS420A (420)	89	CFS40A (540)	104
CFS850D (850)	145	CFS1275AT (1.2Gb)	196
CFS635AT (635)	113		
<b>QUANTUM</b>			
TR420AT (420)	100	TR850AT (850)	143
FB540AT (540)	111	FB1080AT (1.08Gb)	188
<b>SAMSUNG</b>			
30560A (560)	104	30854A	155
<b>SEAGATE</b>			
ST3491A (425)	99	ST3660A (540)	103
ST5850AT (850)	147	ST31220A (1.08Gb)	170
<b>WESTERN DIGITAL</b>			
AC2420 (420)	113	AC2540 (540)	143
AC2850 (850)	149	AC31200 (1.2Gb)	238
AC31500 (1.6Gb)	372		

SCSI HARD DISCS

(Bracketed figure is nominal capacity in Mb)

<b>CONNER</b>			
CFP1060 (1.06Gb)	326	CFP1090 (1.09Gb)	265
CFP2105 (2.1Gb)	526	CFP2107 (2.1Gb)	510
CFP4207 (4.2Gb)	890		
<b>MICROPOLIS</b>			
42212 (1Gb)	674	32434 (4Gb)	1065
1991 (9.1Gb)	1774		
<b>QUANTUM</b>			
FB540S (540Mb)	119	TR850S (850Mb)	170
FB1080S (1.08Gb)	272	Atlas (2.1Gb)	599
VP32210 (2.2Gb)	569	GP4301S (4.3Gb)	699
<b>SEAGATE</b>			
ST31230N (1Gb)	332	ST32430N (2.1Gb)	637
ST32550N (2.1Gb)	715	ST15230N (4Gb)	853
ST15150N (4Gb)	1009	ST410800N (9Gb)	1776

SPEAKERS

**GENERIC**

12 watt Tone	13	25 watt Tone	25
70 watt Bass/Treble	35	80 watt Bass/Treble	39
PC30	33	PC50	50

All active (powered) except where stated

CASES

Ultimate - Mat VLB - 2 x 5.25", 2x3.5", 1xHD, 200w	45
Desktop - 3 x 5.25", 1 x 3.5", 2 x HD, 200w	35
Mini Tower - 2 x 5.25", 2 x 3.5", 2 x HD, 200w	35
MIDI Tower - 3 x 5.25", 2 x 3.5", 2 x HD, 230w	51
Full Tower - 5 x 5.25", 2 x 3.5", 3 x HD, 230w	85

MONITORS

ALL Monitors listed are MPR-II, Low Radiation and Non-Interlaced EXCEPT where marked \*

More than Just a Monitor...

All ADI Monitors Feature:  
 • 2 year On-Site Swap out warranty  
 • Energy Star VESA DPM's Power Saving  
 • MPR II Low Radiation  
 • Digital Image Control  
 • Non-Interlaced flicker free res.  
 • Full Scan Image for up to 15% larger display area

Prices From £185  
 Better Monitors at Competitive Pricing

The New VisionMaster family from iiyama

<b>MF-8115</b>			
15" 0.28mm FST colour			
Up to 1280x1024 @90Hz			
VGA Screen Display Menu			
Colour Balance Control			
VESA & Energy Star Power Saving			
MPRII, TUV & CE Compliance			

<b>MF-8617E</b>			
17" 0.26mm FST colour			
Up to 1280x1024 @90Hz			
VGA Screen Display Menu			
Colour Balance Control			
VESA & Energy Star Power Saving			
MPRII, TUV & CE Compliance			

<b>MT-9017E</b>			
17" 0.25mm Diamond/Tn colour			
Up to 1600x1200 @97Hz			
VGA Screen Display Menu			
Colour Balance Control			
VESA & Energy Star Power Saving			
MPRII, TUV & CE Compliance			

<b>MF-8221E</b>			
21" 0.22mm(Hz) FST colour			
Up to 1600x1200 @97Hz			
VGA Screen Display Menu			
Colour Balance Control			
VESA & Energy Star Power Saving			
MPRII, TUV & CE Compliance			

<b>MT-9021E</b>			
21" 0.30mm Diamond/Tn colour			
Up to 1600x1200 @97Hz			
VGA Screen Display Menu			
Colour Balance Control			
VESA & Energy Star Power Saving			
MPRII, TUV & CE Compliance			

**GoldStar**  
 14" High Resolution Monitor  
 • 14" XGA Ultra High Resolution  
 • 0.28mm Anti-Static Non-Clare Dark Kr.  
 • 1024 x 768 Non-Interlaced  
 • DPMS Power Management  
 • MPR II Low Radiation  
 • Front Controls

<b>AUTOSCAN 1450</b>			
14" monitor with tilt & swivel base			
MPRII Low Radiation			
0.28mm dot pitch CRT			
Autoscan (30-50KHz) VGA/SVGA			

<b>PROVISTA</b>			
14" 0.28	1024x768	155	
Microscan 3v	14" 0.28	1024x768	185
Microscan 4v	15" 0.28	1280x1024	249
Microscan 4GP	15" 0.28	1280x1024	269
Microscan 5AP	17" 0.28	1280x1024	449
Microscan 5EP	17" 0.28	1280x1024	459

<b>Iiyama</b>			
MF-8115 15"	259	MF-8617 17"	490
MF-8221 21"	1247	MT-9121 21"	1209
MF-8621 21"	1645		
<b>GOLDSTAR</b>			
GS1462DM 14"	169	GS1468	7
GS1505DM 15"	194	GS1520DM 15"	227
GS1725DM 17"	340	GS210DM 20"	849

<b>MICROVITEC</b>			
Autoscan 1450 14"	147	Autoscan 1438 14"	205
Proscan 1565 15"	231	Proscan 1782 17"	515
<b>NEC</b>			
XV14 14"	215	Multivsync XV15 15"	275
Multivsync XE15 15"	388	Multivsync XV17 17"	549
Multivsync XE17 17"	685	Multivsync XP17 17"	895
Multivsync XE21 21"	1139	Multivsync XP21 21"	1475

<b>NOKIA</b>			
44BS090P 14"	225	44SE090P 15"	305
4478030 17"	519	449M032 15"	355
447M090 17"	629	447X092 17"	710
447M092 17"	685	445M090 21"	1299

For pricing on other monitors please call

TERMINALS

<b>WYSE</b>			
WY-35	275	WY-55	249
WY-60	315	WY-120	295
WY-160	340	WY-185	305
WY-285	769	WY-520	690
WY-325	469	WY-370	259

For LR models add £20

DEC

VF-510	239	VF-510 LE	249
VF-520	275	VF-520 LE	265

Available in Green/Amber/White. Prices include keyboard

SCREEN CARDS

<b>CREATIVE LABS</b>			
SB 16 Pro Value IDE	62	SB 16 Pro IDE	85
SB 16 Pro ASP IDE	108	SB 16 Pro ASP SCSI 103	
SB AWE 32 Full IDE	165	SB AWE 32 Value IDE122	
MIDI Lead	15	Voice Assist	59
WaveBlaster 2	94		

<b>ORCHID</b>			
Gamewave 32+	70	Sounddrive 16 EZ	59
Sounddrive EZ SCSI	78	Soundwave 32 Pro	129
Soundwave 32Pro	143	Wavebooster 2Mb	65
Wavebooster 4Mb	85	Wavebooster 4MbFX	99

MICE

<b>MICROSOFT</b>			
Mouse V2 Combo	33	Home Mouse	27
<b>LOGITECH</b>			
Pilot Serial or PS/2	17	Pilot Trackball	25
Mouseman PC or Mac	31	Trackman Portable	30
Mouseman Cordless	49	Trackman Combo	40
Trackman Live	95	Trackman Voyager	45

PRIMAX

3 button serial (white/black/blue/red)	7
Master Mouse	19

WYSE

<b>WY-14+</b>			
Digital Front Controls			
Separate and/or composite sync			
MTBF-70,000 hours			
MPRII & Energy Star Compliant			

£185

MOTHERBOARDS

All exclude processor and heatsink

486/P24C 3VLB/BIISA 256K 12pin 2IF	69
486/P24C 3PC/4ISA 256K 72pin EIDE SIS	85
486/P24T 3VLB/BIISA 256K 30/72	99
Pentium 75-100 3PC/4ISA 512K SIS	195
Pentium 75-120 4PC/4ISA 256K EIDE OPTI	150
Pentium 75-180 4PC/4ISA 256K EIDE TRITON	175
<b>INTEL</b>	
Pentium 90 4 PC/4 ISA & CPU 256K	700
Pentium 66MHz 3PC/4 ISA 256K	420
Advanced ZP Pentium 75 & 8Mb EDO	615
Advanced ZP Pentium 90 & 8 Mb EDO	518
Advanced ZP with Pentium 90MHz	679

PROCESSORS

<b>AMD</b>			
486DX2/60	81	486DX4/100	95
<b>INTEL</b>			
486DX4/75	80	486DX4/100	105
Pentium 75	128	Pentium 90	205
Pentium 100	279	Pentium 120	406
Pentium 133	499	485 Heatsink+Fan	5
Pentium Heatsink	15		
<b>INTEL OVERDRIVE</b>			
Any 486 -> DX4/75	153	Any 486 -> DX4/100	179
Pentium	259		

SIMM MEMORY

256k	10	10	38	38
1Mb	27	29	38	38
2Mb	79	80	69	69
4Mb	89	94	108	120
8Mb	-	185	205	235
16Mb	475	-	319	Call
32Mb	-	-	625	Call

Memory pricing is volatile - please call before ordering

INTERFACE CARDS

IDE DRIVE CONTROLLERS

2 HD+2 FD+2 serial+1 parallel+1 game ISA	10
2 HD+2 FD+2 15550A ser+1	

Excellent Quality • Superior Service • Unbeatable Value

# DABS DIRECT

freephone

# 0800 558866

PERSONAL COMPUTER SYSTEMS

**BOLTON 01942 794000 EDINBURGH 0131 556 4114 LONDON 0171 582 4777**

## BRANDED PC'S

COMPAQ DESKPRO STANDARD (3X3)			
4/66 Model 270	1042	4/66 Model 420	1102
4/100 Model 270	1202	4/100 Model 420	1261
5/75 Model 270	1371	5/75 Model 420	1430
COMPAQ DESKPRO STANDARD (4X4)			
4/66 Model 270	1076	4/66 Model 420	1135
4/100 Model 420	1295	5/75 Model 420	1464
5/90 Model 420	1624	5/90 Model 720	1911
COMPAQ DESKPRO MINI TOWER (5X5)			
5/75 Model 420	1506	5/75 Mod 420CDS	1717
5/90 Model 420	1666	5/90 Mod 420CDS	1877
5/90 Model 720	1953	5/100 Model 720	2257

## COMPAQ PRESARIO

CD5522	932	CD5524	1075
CDTV528	1256	CD5742	1184
CD5772	1378	CD5942	1220
CD5962	1327	CD5972	1507

## COMPAQ PROLINE SLIMLINE (3X3)

4/50 Model 270	705	4/66 Model 270	915
4/66 Model 420	975	4/100 Model 270	1075
4/100 Model 420	1135	5/75 Model 270	1194
5/75 Model 420	1253		

## COMPAQ PROLINE STANDARD (4X4)

4/66 Model 270	950	4/66 Model 420	1008
4/100 Model 420	1169	5/75 Model 420	1287
5/90 Model 420	1430	5/90 Model 720	1583

## COMPAQ PROLINE MINI TOWER (5X5)

4/66 Model 270	950	4/66 Model 420	1050
5/75 Model 420	1329	5/75 Mod 420CDS	1531
5/90 Model 420	1472	5/90 Mod 420CDS	1675
5/90 Model 720	1725	5/100 Model 720	2088

Please call for pricing on DESKPRO XE & XL models

## Apple PC's

Performa 630	12/50 CD DOS	1249
Power Mac 6100/60	8/250 & DOS Card	1470
Power Mac 6100/60	8/250 CD & DOS Card	1575

## PORTABLES

COMPAQ CONTURA			
Aero 4/33C M170	924	4/10 M250	995
410C M350	1495	410CX M350	1912
420C M350	1515	420C M420	1583
420CX M420	2004	430C M720	2105
430CX M720	2527		

## CTX

All CTX models include 3 years OSM			
SX/33 4/260 Mono	1009	DX2/50 4/260 Mono	1050
DX4/75 4/260 Mono	1258	DX4/100 4/260 Mono	1342
SX/33 4/260 DStN	1342	DX2/50 4/260 DStN	1426

## HP OMNIBOOK

600C DX50 M170	1423	600C DX4/75 M170	1751
600C DX50 M250	1809	600C DX4/75 M250	2122
4000C DX4/100 340	2238	4000C DX2/50 520	2480
4000C DX2/50 340	2455	4000C DX4/100 340	2485
4000C DX4/100 520	3030		

## TOSHIBA

T1910CS/200	1255	T1950C/200	1718
T2100/260	845	T2100CS/250	1361
T2100C/350	1935	T2150CDS/260	2005
T2150CDS/250	2145	T2150CDS/270	2695
T3600C/250	2095	T4600C/200	2235
T4600C/320	2406	T4800C/500	3143
T4800C/500	2945	T4900C/772	3375
T6600C/510	2975	T2110CS 4/350	1533
T2130CS 8/520	1789	Z130C 8/520	2131
Satellite Pro 400CS	2434	Satellite Pro 400C/DT3156	
Portage 610CT	3032		

## CF-41 6T62

486DX4/100, 8Mb RAM, 800HD, CD ROM, 10.4" TFT screen	£3325
--	-------

## CF-41 PT84

486DX4/100, 16Mb RAM, 800HD, CD ROM, 10.4" TFT screen	£3995
---	-------

## Specifically designed for your notebook computer, available in other colours

Universal Notebook	44	Business Traveller	149
Netpac black	26	Netpac green	26
Premier Leather case 107		Fabric Premier	75

## HANDHELDS

HEWLETT PACKARD			
HP200LX 1Mb	380	HP200LX 2Mb	429
200LX Connectivity Pack	75	200LX PC Cable	17
200LX Mac Cable	17	200LX OSM	34

## PSION ORGANISER SERIES II

Model LZ	99	Model LZ64	125
32k Rampak	39	32k Datapak	29
128k Flashpak	49	256k Flashpak	109
Formatter 256k	17	Mains Adapter	10
PC Link	45	Carry Case	10

## PSION SERIES 3

Series 3a 256k	175	Series 3a 512k	199
Series 3a 1Mb	249	Series 3a 2Mb	299
Series 3S 256k	129	PC Comms Link	48
Parallel Cable	23	Leather Wallet	17
Fax Modem	129	128k Flash SSD	26
128k RAM SSD	37	256k Flash SSD	39
512k RAM SSD	89	512k Flash SSD	65
1Mb RAM SSD	175	1Mb Flash SSD	87
2Mb Flash SSD	137	4Mb Flash SSD	255
3Base	24	3Flight Manager	58
Agenda 3 Win	59	Agenda Link	31

**Apple PC**  
MACINTOSH PERFORMA 630CD DOS  
COMPATIBLE

- 486DX2/66MHz, 32 bit data bus
- 66.33MHz Motorola 68LC040, 32 bit data bus
- MS-DOS compatibility subsystem can be expanded to 32MB of local RAM using one 72-pin DIMM slot
- SuperDrive HD floppy, DOS, OS/2, Mac OS, SCSI HD, 12Mb RAM
- speed CD ROM
- ADB port, 2xRS-422 serial ports, SCSI port, audio port
- shared remote receiver and dedicated detector for TV/video tuner

**£1249**

## NETWORK CARDS

3COM			
3C-5098 BNC	65	3C-5098 TP UTP	55
3C-5098 Combo	57	3C-5298 BNC MCA	150
3C-589 Combo PCMCIA	139	3C-579 BNC EISA	140

**DLINK**

DE-220C BNC	37	DE-220C Combo	45
DE-220CAT Combo/AUI	30	DE-220T UTP ISA	55
DE-620CT Combo Par	129	DE-620CT Combo PCM	75

**GENIUS**

NE2000 BNC-RJ45	20	NE2000BNC+RJ45PCI 53	
NE2000 BNC-RJ45 PnP	45	NE2100BNC+RJ45PnP46	
Packet Parallel	49	PacketParallel BNC-RJ4563	

**INTEL ETHEREXP PRO**

10 Combo PnP	65	10 Combo PnP PCI	109
10 Combo Flash PnP	75	100 PCI	145

**NOVELL**

NE2000 BNC	48	NE2000T UTP	48
NE2000-3 Combo	59	NE2/0 BNC MCA	159
NE3200 BNC EISA	275	NE2000 BNC PCM	165

**SMC**

Elite Ultra 16	45	Elite Ultra 16	165
TokenCard Elite	155	PC100 PCI	389

**PCMCIA ETHERNET ADAPTER**

EliteCard UTP	84	EliteCard Combo	115
EliteCard UTP 5pk	365	EliteCard Combo 5pk	490

**PCI ADAPTERS**

EtherPower PCI Adapter UTP	89	395
EtherPower PCI Adapter BNC	89	395
EtherPower PCI Adapter Combo	96	465

**16BIT ETHERNET ADAPTERS**

EtherEZ Plug 'n' Play Adapter BNC	58	275
EtherEZ Plug 'n' Play Adapter UTP	58	250
EtherEZ Plug 'n' Play Adapter Combo	65	325

50pk's are also available

**FAST ETHERNET**

PCI Fast Ethernet Adaptor 10/100Base-T	131	639
EISA Fast Ethernet Adaptor 10/100Base-T	155	729
Fast Ethernet 16port UTP Hub	2155	
Fast Ethernet 10/100 PCI	129	
Fast Ethernet 10/100 EISA	149	

**TOKENCARD ADAPTERS**

Elite168N 16/4 MBS	165	Elite/A MCA	165
Elite Master32 EISA for STP & UTP	235		

**XIRCOM**

BNC Parallel	185	BNC PCMCIA2	165
UTP Parallel	185	UTP PCMCIA2	135
Combo Parallel	199	Combo PCMCIA2	130
CEM II PCMCIA2 10BT Ethernet & FAX/Modem	265		
CEM II PCMCIA2 Combo ethernet & FAX/Modem	265		

All cards are ISA unless otherwise specified

**HUBS**

3COM LINKBUILDER			
FMS II 12port & AUI 379	FMS II 24port & AUI	670	

**DLINK**

DE809TC 8port & BNC 130	DE812TP 12port BNC, 64k 175		
DE816TP 16port & BNC & AUI 235	DE824TP 24port & BNC & AUI 335		
DE1200 12port	299	DE1600 12port	525

**HP ADVANCESTACK**

Hub 8u	132	Hub 12u	215
Hub 12u	415	Hub 24	605
Hub 48	1132	Hub 12 SNMP	542
Hub 24 SNMP	819	Hub 48 SNMP	1289

**SMC**

TP6 6Port	135	TP66 6Port	165
CX6 6Port	430	FL6 6Port	971
TP12 12Port	295	CX3 3Port	210

**TIGERSTACK**

3312C 12port	325	3314T 14port	360
3376TC 26port	575	3378T 28port	645

**New! Newton Message Pad 120**

**& Windows Connection Kit**

- The new Newton includes personal management and e-mail software.
- Fast RISC processing
- 2Mb RAM
- 4Mb ROM

**£399**

**Kingsley Technology**

**EtherX LC network card**

- "QStart"™ Auto Config - up & running in 4 clicks!
- Auto install for major networking OS
- NE2000 compatible - guaranteed
- Lifetime guarantee
- RJ-45 - BNC interfaces

**£39**

## FAX

MN1100	92	MN3300	99
MN3300M	115	MN7700	132

**MSL Manager**

Active FaxSwitches  
Quickly identifies incoming calls on ONE telephone line and directs to phone fax or modem (transparent operation)

Mercury & System X compatible

**4 MODELS AVAILABLE**

**ANDEST £89**

**HEWLETT PACKARD**

Fax 370	277	Fax 470	235
Fax 473	323	Fax 475M	280
Fax 490DT TAM	235	Fax 1400M	629
Fax 900	439	Fax 950	619
Fax Support Pack	70		

**SAMSUNG**

SF40	173	SF500	194
SF800 TAM	246	SF1505	225
SF2800 TAM	282	SF5500 claim paper	789

**SHARP**

UX135	195	UX228	225
UX254 TAM	265	UX3500 claim paper	545

For prices on other fax machines please call

## MODEMS

**ANDEST**

Rocket Silver pack	119	Rocket Gold Pack	125
Rocket Gold + R board VPA (V22bis)	330	RocketTurbo-Platinum209	330
VPA (V32bis) +R board4005			

**DFI**

F1114V+	84	F1114HV+	84
F1128V+	159	F1128HV+	159

**HAYES**

Accura 144 Fax	135	Accura 288 Fax	171
Ultra 24	99	Ultra 144	375
Optima 144 Fax	259	Optima 288 V34 Fax	339

**Safire 144 ext** 114  
**Safire 288 ext** 185  
**Credit 144 PCMCIA** 145  
**Credit 288 PCMCIA** 189

**MULTITECH**

MT1932ZDXK Ext	105	MT2834ZDXK Ext	152
MT1432BLK Ext	271	MT1432MK Portable	275
MT2834BLK Ext	320	MT2834TI PCMCIA	157
MT2834TI PCMCIA	139	MT1932ZPX Int	151
MT2834 PXI	155		

**MOTOROLA**

Data/Fax Modem 28.8	185	3400 Online 28.8	180
---------------------	-----	------------------	-----

**SUPRA** not DABT approved

FaxModem 14,4LC	85	FaxModem 28.8 v34	160
-----------------	----	-------------------	-----

**PACE**

Linnet 32+ FX Ext	155	Linnet 32 VFX Ext	239
Linnet V34/VFC Ext	239	Microlin FX32+ Ext	134
Microlin FX32+ Ext	147	Microlin FX34 Int/Ext 240	
Mobifax Fax Ext	92	Netlink Internet Pack	115
Netlink Gold	170		

**PSION DACOM**

Gold Card V32bis/PCMCIA	149	Gold Card V34 PCMCIA	199
Meteor 14k4	170	Meteor 28k8	219

**TRICOM**

Tempest Quad 2400 int	104	Tempest Quad2400 ext	130
Tempest 32 V32bis ext	130	Tempest 34 V34bis ext	187
Traveller V34 internal	105	Traveller V32 internal 185	
Traveller 34IP 28.8	330	Traveller Fast Packet	330

**US ROBOTICS**

Sportster 14k4 Int/Ext	104	Sportster 14k4 Mac	104
Sportster 28k8 Int/Ext	156	Sportster 28k8 Mac	156
Courier V34 Ext	233	W'port 28k8 PCMCIA	160

**ZOOM**

14K4 Int	79	14K4 Ext	93
28K8 Int	139	28K8 Ext	159

## MODEMS

**Avro Pacific Fax Friend**

Auto fax & data switch

**£49**

- Fax/Phone
- Eliminates extra line rental charges
- No rewiring, plugs into any extension
- Extends use of a fax machine with built in switches that normally only operate with a single telephone

**RoadRunner Rocket modem Silver Pack**

- V32bis fax/modem
- V42/V42bis Data
- V42, V42bis, MNP 1-5
- Group III fax to 9600bps
- Serial Cable
- 9V battery and PSU
- Small and light

**ANDEST £119</**

**PRICE MATCHING**  
Please call for details



# DABS DIRECT

PERSONAL COMPUTER SYSTEMS

TRANSAX

**FREE PRINTER CABLE WITH ALL PRINTERS**

**Woking 01483 797474 INTERNET sales@dabs.co.uk**

## SOFTWARE

### BUSINESS

ACCOUNTING			
Quicktax Win	33	Quicken 6 DOS	32
Quicken 4 Win	28	QuickenDeluxe Home45	
Quicken Deluxe Business 45		QuickBooks 3 Win	82
QuickTax Return '95	27	QuickInvoice	28
SAGE			
Sage DOS	Win	DDS Net	Win Net
Bookkeeper	55	75	
Accountant	159	189	
Accountants	241	271	399 449
Fin Controller	318	353	305 545
Payroll II	240	115	165
Sage Instant Acc	85	Sage Instant Payroll	65
Sage Moneywise	31	Sage Job costing	109

CAD			
AutoCAD LT v2	353	ACAD LT Libraries	Call
Autosketch DOS 3	60	Autosketch 2 Win	145
Generic CAD 6.1	379	TurboCAD DOS/Win	59
COMMUNICATIONS			
Carbon Copy	74	Datamail	89
CrossTalk Win	69	Datatalk 4 DOS	85
Delrina Comms Server	60	DDSFax Pro 2	44
Landesk Service	460	Laplank Win	95
Laplank Pro 5	59	PC Anywhere H-R	95
ProComm 2 Win	69	Reflection 4	199
WinFax Pro 4	55	WinComm Pro	59

DATABASES			
Approach 3	82	Access 2	221
Database 5 DOS	190	Database 5 3u DOS	639
dbase 5.5 Win	225	dbase 5 DOS	119
dbase 5.5 Upgrade	48	Filemaker Pro Win	80
FoxPro 2.6	72	FoxPro 2.6 Pro Win	279
FoxPro Win Dev Kit	226	Notes Starter 2u	499
Notes Express	135	Paradox 5 Win	219
Paradox 4.5 DOS	325		
DTP			
Acrobat 2 Win	150	Pressworks P/Pack	51
PageMaker 5	389	PageMaker Classic	52
PagePlus Lite Win	29	PFS: Publisher	19
PressWorks 2	30	Xpress 3.3	550

GRAPHICS			
Corel Draw 3 FD/CD	64	Corel Draw 3 CD	42
Corel Draw 4 FD/CD	99	Corel Draw 4 CD	85
Corel Draw 5 FD/CD	355	Corel Draw 5 CD	275
Corel Draw 6 CD	280	Draw 3/4 - 6 CD	230
Draw 5-6 CD	140	Corel 3-5 Upg FD/CD	245
Corel 3-5 Upg CD	199	Corel 4-5 Upg FD/CD	145
Corel 4-5 Upg CD	115	Corel PhotoPaint 5+	45
Corel Art Show 4	31	Corel CD Powerpack	24
Corel Flow	45	Corel Gallery 2	45
Corel Prof Photo CD	13	Charisma Win	180
Dabbler Win V3	75	Designworks Win V3	64
Designworks Win V3 CD	75	Freelance 2 Win	258
Fractal Des Painter	250	Illustrator Win	289
MediaBlitz Win	45	Perform Pro Win	118
Persuasion 3 Win	193	Photoshop 3 Win	382

**WinFax PRO™ 4.0**  
Send and receive fax files, e-mail and more.  
**Order Now!** and get a FREE upgrade to Windows 95 product.  
**£46**

**Comms Suite™ 2.1**  
WinFax PRO™ 4.0 and WinComm PRO™ 1.1a. The complete solution for communications in one affordable package.  
**£78**

**State-Of-The-Art Fax Power**  
Outstanding features and lightning speed make FaxWorks Pro the right choice for professional fax capabilities.  
**£49**

**FaxWorks Pro LAN Is A Winner!**  
FaxWorks Pro LAN includes all features in FaxWorks Pro, supports DOS and Windows networks, unlimited non-dedicated servers and more...  
**£157**

**FaxWorks 2**  
Send, receive, view and print faxes from DOS  
FaxWorks DOS 3.0 £30  
FaxWorks Pro 3.0 Windows £56  
FaxWorks 3.0 Windows Lite £30  
FaxWorks Pro LAN 2 User £157  
FaxWorks Pro LAN 10 User £471  
FaxWorks Pro LAN 25 User £772  
FaxWorks Pro LAN 50 User £1390  
FaxWorks Pro LAN Addit. User/Server £38  
FaxWorks Pro for OS/2 Single User v2.0 £118  
FaxWorks OS/2 Pro Upgrade from bundled OS/2 Warp Version £45

GRAPHICS continued			
Powerpoint 4 Win	224	Premiere 4 Win	349
Toolbook 3 Win	110	Visio 3 Win	86
Visio Express	39	Visio 4 Win 95 FD CD	95
Visio 4 Win 95 VU	58		

INTEGRATED PACKAGES			
ClarisWorks 3 Win	75	Corel Office Companion	69
Harvard Portfolio	205	MS Works 3	82
Office 4.2	325	Office Pro 4.3	417
Office 4.2 CCP	160	Office Pro 4.3 CCP	245
Office 4.2 Trade Up	229	Office Pro 4.3 T Up	265
Perfect Office 3	155	Perfect Office Pro	330
Perfect Office Pro	125	Perfect Off Pro Upg	189
SmartSuite 3.1	319		

NETWORKING			
CorelSCSI NetManager	244	Personal Netware	43
Netware 4.1 5u	415	Netware 4.1 10u	1025
Netware 4.1 25u	1350	Netware 4.1 50u	1780

DCR			
Catchword Pro Win	65	Omnipage Pro	325
Omniimage Direct	62	TextBridge Pro	75
TextBridge Pro	270	WordScan Plus 3	319

OPERATING SYSTEMS			
OS/2 3 Warp CD	44	OS/2 3 Warp FD	49
WFWG 3.11 Upg	39	Win NT 3.51 Server	505
Win NT 3.51 Workst	199		

PROGRAMMING			
Assembler 6.1	194	Borland C++ 4	229
Delphi Win	155	Delphi Win CU	Call
Turbo Pascal Win v4.5	54	Turbo Pascal Win v2.1	78
Visual C++ Win	53	Visual C++	285
Visual Basic Std Win	70	Visual Basic Pro	155

PROJECT MANAGEMENT			
Project 4 DOS	205	Project 4 Win	260
Superproject DOS	450	Superproject Win	460

ROUTING			
ARoute Upg UK+ire FD	34	ARouteUpg UK+ire CD	47
ARoute Upg Europe FD	35	ARouteUpg Europe CD	47

SPREADSHEETS			
1-2-3 v5 Win	215	Excel 5	219
Quattro Pro 6 Win	149	Supercalc Win	59

UTILITIES			
AfterDark	20	ArcSolo Win	69
ArcServe 50u	785	ACT1 2 Win	135
CCMail DOS	150	CheckIt Pro	58
Corner Backup	29	CleanSweep	27
CP Ant/Virus	58	CP Backup 2 Win	62
Corel SCSI 2	36	Dashboard Win	35
Desioview 386	106	Dr Sol AntiVirus DOS/5	18
Dr Sol AntiVirus Win	70	Fingers Win	16
InfoCentral	45	Norton Anti-Virus 4	85
Norton Anti-Virus Win95	53	Norton Backup 6.0	60
Norton Navigator Win95	69	Norton Utilities 8	84
Norton Utilities Win 95	85	Norton SpeedDrive 4.32	37
Lotus Organizer	79	PC Tents 9 DOS	739C
Tools 2 Win	47	PFS Cal Creator	19
PFS Power Album	19	ProKey	20
QEMM 7.5	44	Ringline	14
Sidebar	29	Stacker 4 DOS/Win	54
Stacker OS/2 & DOS	80	SuperPrint for HP	66
Telemagic	175	XTree Gold DOS	90
XTree Gold Win	70	Xerox Rooms	36

WORD PROCESSING			
Ami Pro 3.1	82	DisplayWrite 5	230
Word 6.0 Win	221	Word 6.0 1u MLP	195
Word 6.0 Win CCP Upg	78	WordPerf 6.1 Win	159
Wordperfect 6 DOS	211	WordStar Win	29

**Ram Doubler for Windows**  
RAM Doubler for Windows doubles the effective capacity of the 64K GDI and User system resources.  
RAM Doubler cleans up the under 1Mb memory space, which can also cause the 'Insufficient Memory' message to appear.  
RAM Doubler uses patented memory management techniques to substantially reduce virtual memory hard drive access delays by compressing infrequently used parts of RAM memory.  
**£49**

**CONNECT**  
Datech LT Support Programmes  
PRD - Line LT £195pa  
Professional telephone support and more  
AutoCAD LT Essential Skills £300  
2 Day course  
AutoCAD LT Advanced Skills £195  
1 Day course

**DATECH**  
AutoCAD LT v2  
AMAZING VALUE  
**£353**  
LT Drafting Packs (Electrical, Architectural or Engineering) £99 each

**FILEMAKER PRO**  
• CompuServe introductory membership  
• Bachus Junior  
• FileMaker Pro Application CDROM  
• Claris T-Shirt  
**£80**

**Microsoft Windows 95**  
for users of Windows

MS DOS to Windows 95 Upgrade 3.5*	115
MS DOS to Windows 95 Upgrade 1u MLP	96
Windows 3x to Windows 95 Upgrade 3.5*	59
Windows 3x to Windows 95 Upgrade CD	57
Windows 3x to Windows 95 Upgrade 1u MLP	28
Plus! Pack add-on CD	28
Plus! Pack add-on 1u MLP	23

MS APPS FOR WINDOWS 95			
Works 4	57	Publisher 3	65
Access 7	232	Access 7 EV	125
Access 7 Version Upg	89	Access 7 Comp Upg 110	
Excel 7	232	Excel EV	125
Excel 7 Version Upg	89	Excel 7 Comp Upg 110	
Office 7	335	Office 7 EV	179
Office 7 Version Upg	145	Office 7 Comp Upg 169	
OfficePro 7	429	OfficePro 7 EV	219
OfficePro 7 Version Upg	209	OfficePro 7 C Upg	249
Powerpoint 7	232	Powerpoint 7 EV	125
Powerpoint 7 V Upg	89	Powerpoint 7 C Upg 110	
Word 7	232	Word 7 EV	125
Word 7 Version Upg	89	Word 7 Comp Upg 110	
Schedule+ 7	75		

**Corel New Corel DRAW 6**  
The world's premier 32-bit Windows 95 graphics application offering fully-featured applications for illustration, photo-editing and bitmap creation, business and multimedia presentations and 3D rendering.  
CorelDRAW6 full product **£280**  
CorelDRAW3/4 upgrade to DRAW6 **£230**  
CorelDRAW5 upgrade to DRAW6 **£140**

**Corel CD Office Companion**  
• CorelFLOW  
• Internet Browser  
• CorelFAX  
• Corel GALLERY 2  
• 15,000 Clip art images  
• 500 TrueType fonts  
• 100 photos in BMP format  
• 75 sound clips  
• Corel CAPTURE  
• Corel PLANNER  
and much more... **£69**

**NORTON UTILITIES**  
Data Protection and recovery for Windows 95  
**£85**

**NORTON ANTI-VIRUS**  
Complete virus protection for servers workstations - inc. PCs running Windows 95  
**£53**

**NORTON NAVIGATOR**  
Save countless steps navigating Windows 95  
**£69**

**CLARIS** **£80**  
FILEMAKER PRO  
• CompuServe introductory membership  
• Bachus Junior  
• FileMaker Pro Application CDROM  
• Claris T-Shirt

### ENTERTAINMENT

1944 Across the Rhine*	27	3D Atlas*	42
Air Warriors Plus	23	Alone in the Dark 3*	30
Basic Bridge*	24	BioForge*	35
BioForge Clue book	7	Bloodwings*	29
Bob Marley concert*	15	Cannon Fodder 2	29
Creature Shock*	23	Dark Forces*	32
Descent	24	Disc World*	35
Doom 2 - Hell on Earth*	33	Dreadnaughts Plus	22
Rugby World Cup	25	Elite First Encounters	25
Flight Unlimited*	32	Full Throttle*	31
Hi Octane*	29	Links Pro 385*	24
Little Big Adventure*	29	Machiaveli the Prince*	25
Man.Utd. The Double	25	Magic Carpet*	29
Magic Carpet Plus*	29	Pizza Tycoon	25
Nascar Racing	26	Premier Manager 3**	22
PuttPutt/Moon	24	Sim City 2000	26
Star Trek A Final Unity*	35	Theme Park*	26
Transport Tycoon	15	US Navy Fighters*	30
Wing Commander 3*	35	XCom	25

EA CLASSIC RANGE			
Kasparov/Grandslam Bge 10	M Jordan in Flight	10	
Populous II/Powermanger 10	Privatizer	10	
Sea Team	10	Shadowcaster	10
SSN Sea Wolf	10	Strike Commander	10
Syndicate Plus	10	Wing Commander II	10

MICROSOFT HOME TITLES			
500 Nations*	34	Ancient Lands*	28
Bookshelf '94*	55	Beethoven*	28
Best of Entertainment	10	Cinemania '95*	27
Composr Collection*	49	Cooking*	25
Creative Writer*	26	Dangerous Creatures*	32
Dinosaurs*	30	Dogs*	25
Encarta '95*	55	Europa/Delta Nature*	22
Fine Artist*	28	Flight Simulator 5.1*	25
Fl Sim Paris add-on	10	Frank Lloyd Wright*	34
G Wilson Haunted House	24	Golf 2*	26
Oceans*	34	Magic Bus-Human Body 24	
Magic Bus-Solar System	26	MoZart*	28
Musical Instruments*	28	Notional Art Gallery*	28
Schubert*	28	Sounds Bits (3 packs) 11	
Sound System 2	95	Strauss*	28
Stravinsky*	80	Space Simulator	24
Wine Guide*	30		

COREL HOME TITLES			
Adventures w/Edison*	20	All Movie Guides*	32
Arcade Mania*	20	Bernard of Hollywood*	32
Blue Tortoise*	20	Nikola's Trans*	20
Wild Board Games*	20	Wild Cards*	20
World's Greatest Books*	32		

LEISURE & ENTERTAINMENT TITLES			
Americas Greatest*	10	Beneath the Sky	29
ChessMasterMDC Pro	33	Corel CD Power Pack 2*	27
Corel Sampler Not*	11	Day of the Tentacle	27
Dracula Unleashed*	31	Duke & 7th Guest*	30
Estarcia*	25	Encyclopedia of Sound 12	
Eye of Beholder III	32	FI Grand Prix	11
FIFA Soccer	24	Gabriel Knight 3	11
Harporn Classics	17	Inca II	35
Indy & Fate of Atlantis	31	Jazz - A MM History	45
Kings Quest V 1	35	KIXX - CD Collection*	29
Larry 6	33	Legend of Kyandia	33
Legacy of Kyandia 3	10	Little Big Adventure*	29
Loom	13	Mad Dog McCrae 2*	29
Magic 8 Exp Solar Sys 29	29	Magic 8 Exp Solar Sys 29	29
One Stop CD Shop*	24	Peter Gabriel Explora 29	
Outpost	29	Photo Clips Win	28
PGA Tour Golf 486*	30	Prince Interactive*	34
Police Quest IV	34	Return to Zork*	28
Rebel Assault*	20	Secret Wesp Luftw*	13
Secrets of Stargate	44	Space Quest VI*	28
Space Shuttle*	29	Star Trek Int Manual*	17
Teddy's Hide & Seek	15	Tortoise & Hare	26
Ultim Haunted House	29	Under a Killing Moon*	39
Undersea Adventure	26	Vid Grid	27
Wings of Glory Enh*	26	Woodruff*	24
X-Wing Collectors*	29		

**RUGBY**  
Heart-Stopping speed and Hard-Hitting action in the only official Rugby World Cup 1995 simulation  
Includes all 16 Rugby World Cup Qualifiers and real player names, Littlele 3D-modelled player animations  
Amazingly realistic gameplay - Rucks - Mauls - Lineouts - Scrums, Video footage from the Rugby World Cup 1991  
Instant Replay editor, Super VGA Place

Excellent Quality • Superior Service • Unbeatable Value

# DABS DIRECT

freephone

# 0800 558866

PERSONAL COMPUTER SYSTEMS

**BOLTON 01942 794000 EDINBURGH 0131 556 4114 LONDON 0171 582 4777**

## CONSUMABLES

<b>DISCS UNBRANDED each</b>	<b>10</b>	<b>100</b>	<b>250</b>
360k DSDD	30p	20p	18p
720k DSDD	45p	35p	30p
1.2Mb DSHD	50p	40p	35p
1.44Mb DSHD	50p	40p	35p
<b>BRANDED Price includes labels</b>			
360k DSDD	40p	30p	25p
720k DSDD	55p	40p	35p
1.2Mb DSHD	60p	45p	40p
1.44Mb DSHD	50p	40p	35p

<b>CO RECORDABLE</b>	<b>1</b>	<b>10</b>	<b>100</b>
650Mb/74min	10	8	7
<b>CABLES</b>			
IBM Parallel Printer	2m	3m	5m
Macintosh Printer	4	6	7
IBM D25-D25 (M or F)	4	6	7
IBM D25-D25M Modem	5	5	7
Centronics C36M C36M	6	8	10
Ethernet Coax BNC-BNC	5	5	10

Twin IDE HD 140F-140F-140F Internal	3		
Twin FD 134F-134F-34F Internal	3		
IEC Mains or IEC-IEC Extension	5		
Twin SCSI 150F-150F-150F Internal	5		
SCSI C50M-C50M	8		
SCSI C50M-HC50 Micro D	19		
SCSI HC50 Micro D - HC50 Micro D	29		
SCSI C50M-H08B Wide SCSI	65		
SCSI D25M-C50M	6		
VGA Extension H015M-F	4		
Keyboard Extension DIN	5		

<b>ADAPTORS</b>			
BNC Twist-on	2	BNC T-Piece	2
BNC Terminator	5	SCSI C50 Terminator	10
D9-D25 Serial	5	PS/2-PC Keyboard	6
VGA-Macintosh	20	VGA-PS/2	8

<b>DATA CARTRIDGES</b>			
DC2120 120Mb oc-80	10	DC2120 Formatted	16
DC2120 170/340Mb	14	MC3000XL 340/680Mb Z1	21
200/420Mb oc-Wide	17	420/850Mb oc-Wide	22
DC6150 150Mb	10	DC6250 150Mb	13
DC6525 525Mb	17	DC9100 2Gb	23
2Gb/4Gb 90m DAT	9	4Gb/16Gb 120m DAT	15

<b>SYQUEST/OMEGA CARTRIDGES</b>			
44Mb	29	88Mb	34
105Mb	35	200Mb	52
270Mb	41	ZIP 100Mb	12

<b>DATA SWITCHES</b>			
2/1 Parallel Man	7	2/1 Parallel Auto	19
4/1 Parallel Man	10	4/1 Parallel Auto	29
2/1 Serial Man	7	2/1 Serial Auto	19
4/1 Serial Man	10	Others	Call

<b>MO DISCS</b>			
128Mb 3.5"	14	230Mb 3.5"	21
136b 5.25"	59	1.5Gb 5.25"	95

<b>ORIGINAL INKJET CARTRIDGES</b>			
Canon BJ106/ox/ax	14	Canon BJ200	15
Canon BJ300/330	11	Canon BJ30 Black	25
Canon BJ30 Ink Tank	10	Canon BJ30 Colour Tank	27
Canon BJ70 Bk Ink Tank 5	10	Canon BJ70 Col Tank 7	10
Canon BJ600 HiCap Bk	10	Canon BJ600 Colours 7	10
Canon BJ600 Black	14	Canon BJ600 Colours 18	18
Canon BJ64000 Black	20	Canon BJ64000 Col 31	31
Epson S01170/870	20	Epson Stylus 800/1000 9	9
Epson Stylus 800 HiCap	15	Epson Sty Col	12
Epson Stylus Col Col	23	HP DJ 310/320/Port 13	13
HP Deskjet HiCap Bk	16	HP Deskjet Colour 16	16
HP DJ 1200C Black	17	HP DJ 1200C Colours 22	22
HP DJ 850C/1600C Bk	20	HP DJ 850C Colour 25	25
HP DJ 850C Black	18	HP DJ 550C 20	20
HP Designjet 650 Black	20	HP Designjet Colours 20	20
HP Paintjet Colour	20	HP Paintjet Black 18	18
HP Paintjet XL Black	19	HP Paintjet XL Colours 19	19
Star SJ144 Black paper	6	Star SJ144 Col paper 6	6
Star SJ144 Col OHP	12	Star SJ144 Col OHP 14	14

<b>ORIGINAL RIBBONS</b>			
Citizen 120D/Swift 9	4	Citizen Swift 24/240	4
Citizen Swift 24x	6	Citizen Swift Colour 11	11
Epson LQ1100/150 Black	5	Epson LQ1100/150 Col 15	15
Epson 800xl 9pin	5	Epson 132col 24pin	6
Epson 132col 9pin	6	Epson LQ860 24pin	6
Epson LQ860 Black	6	Epson LQ860 Colour 18	18
Pen KK-P115 9pin	5	Pen KK-P145 24pin	6
Pen KK-P155 24pin	6	Pen KK-P155 9pin	6
Pen KK-P160P 9pin	7	Pen KK-P155P 9pin	13
Pen KK-P150	6	Pen KK-P150C	15
Star LC10/20/100 Black	4	Star LC10/100 Colour 8	8
Star LC24 24pin Mono	5	Star LC15 Black 5	5
Star LC200 Black	5	Star LC200 Colour 11	11
Star LC240C Black	6	Star LC240C Colour 10	10
Star LC240/300 Black	4	Star LC240/300 Colour 10	10
Star XB24 Black	8	Star XB24 Colour 11	11

<b>ORIGINAL TONERS</b>			
Brother HL630/631/650	23	Canon Copier	85
Epson EPL4x00	60	Epson EPL5600	105
Epson EPL5000/5200	82	HP Laserjet 4L/4P	43
HP IIS/AS/4SIMX	77	HP Laserjet 4M/AM/+	67
Laserjet II/III (EPS)	46	Laserjet II/III (EPL)	49
NEC SuperScript 610	69	NEC 560/2/P	105
Panasonic 4400/5400	10	Panasonic 4420	24
Panasonic 4410/30/40	28	Panasonic 4450/55	21

<b>PAPER</b>			
Listing 8.5"x11" x2000	15	Listing A4 70g x2000	20
Listing A4 90g x1500	20	Copier A4 Cut sheet x500	5
Canon Glossy x50	20	Canon A4 x200	21
Canon A3 x200	36	Canon A4 Trans x50	35
Epson 360dpi x200	18	Epson 720dpi A3 x200	28
Epson Trans x50	35	Epson 360dpi A3 x200	40
Epson 720dpi A3 x200	60	Epson UltraGloss x30	38
HP Designjet paper	Call	HP Premium Glossy x10 9	9
HP Premium Glossy 50	36	HP Premium Paper x20015	15
HP Premium Trans x20	18	HP Premium Trans x50 33	33
HP Variety Pack	12	Disc Labels 3.5" x1000 8	8

## DOT MATRIX PRINTERS

<b>BROTHER</b>			
M4318 136col 18pin col1845			
<b>CITIZEN</b>			
120D+ Parallel	95	ABC Mono	101
ABC Colour	123	Swift 90 Mono	113
Swift 200 Mono	136	Swift 240 Colour	178
Swift 240x	215	Swift 9x	169
<b>DEC</b>			
LA75S-AE	425	LA310-AE	480
LA70-AE	250	LA600-AE	2369

<b>EPSON</b>			
LX-300	88	LX-1050	179
FX-870	287	FX-1170	299
LQ-100	95	LQ-150	112
LQ-150 Colour kit	25	LQ-300	145
LQ-570+	289	LQ-870	265
LQ-1170+	589	LQ-1070+	392
LQ-1170+	425	DLQ-3000	780
DPX-8000	1939	DPX-5000	1169

<b>FUJITSU</b>			
DL-900	189	DL-4500 Mono	749
DL-900 colour	900	DL-1150 80col	240
DL-4600 colour	1110	DLQ1000 24pin	199
<b>MANNESMANN TALLY</b>			
T2016	89	MT83	159
MT84	199	MT136	299
MT150/9	262	MT150/9F	345
MT83 80col	159	MT83F 80col	164
MT84F 136col Col	225	MT130/9 80col	265
MT130/24 80col	390	MT131/9F 136col	300
MT131/24 136col	395	MT150/9 80col	275
MT151/9 136col	315	MT151/24 136col	389
MT151/9F 80c Colour	325	MT151/24F 80c Col	430
MT350F 136c	935	MT350/24 136col 1038	
MT360 136col	1199	MT360F 136col	1258
MT645	2615	MT691	5375

<b>NEC</b>			
97 P30	178		
<b>OKI</b>			
280 Parallel	190	320 Parallel	309
321 Parallel	365	380 Parallel	220
365 Parallel	310	520 Parallel	339
521 Parallel	395	395 Mono	636
395 Colour	715	590 Parallel	435
591 Parallel	499	3410	849

<b>OTC</b>			
850XL 9pin 136 col 850cps			
<b>PANASONIC</b>			
KX-P1150	88	KX-P2023	107
KX-P2124	191	KX-P2124 Colour	220
KX-P2135 Colour	123	KX-P1624	179
KX-P3626	252	KX-P3696	269

<b>SEIKOSHA</b>			
SP1900	88	SP2400	122
SP2415	185	MP1350	268
MP3530	295	SL90+	95
SL96	132	SL150	215
SL210	315	SL270	375
LT20DX	140	BP5/80 MkII	979
BP7800	1099	SBP10	1749

<b>STAR</b>			
LC90	79	LC100 Colour	89
LC240	88	LC240C	99
LC15	179	LC24-15 MkII	230
Z4200C + OSM	255	Z4250C + OSM	315
XB24/200C + OSM	309	XB24/250C + OSM	379

<b>DIGITISERS</b>			
<b>CALCOMP</b>			
Drawing Board II A5	275	Drawing Board II A4	339
<b>SUMMAGRAPHICS</b>			
III A4	215	III Pro A3	450
FX A4 4 btn cursor	275	FX A3 Pro	495
<b>SUMMAGRID TV RANGE</b>			
A2	359	A1	1174
A0	1655	A0+	1917

<b>MICROGRID EXTRA RANGE</b>			
24 x 36"	2896	20 x 20"	1945
36 x 48"	3296	17 x 24"	2391
44 x 60"	3791	17 x 24" 16 btn cursor	2494
<b>ROMBO</b>			
Video digitiser system	259		
<b>TRUST</b>			
12x12 digitiser tablet	125		

<b>WACOM TABLETS</b>			
ArtPad	129	ArtPad & Dabblor	170
ArtPad & Painter 3	375	A5 Menu Overlay	305
A4+ Menu Overlay	430	A3 Menu Overlay	597



**A range of digitising tablets and a stylus that feels, draws and acts just like a pen.**  
Tablets vary from A5 up to A0. Each tablet comes standard with a stylus which is cordless and batteryless, allowing total freedom to draw. The stylus is pressure sensitive, so applied pressure will alter line thickness, colour intensity and transparency in real time.  
A2, A3 and A4 tablets also come with a four button cursor, which is ideal for CAD applications.  
**Prices from £129**

## LASERS

<b>BROTHER</b>			
HL 630 GDI	319	HL 631 GDI	339
HL 660 GDI	415	HL 1260	899
<b>CANON</b>			
LBP-4u	365	LBP-430	355
LBP-1260	899	LBP-8 IIR	1520
<b>EPSON</b>			
EPL-3000	365	EPL-5200+	449
EPL-5600	576	EPL-9000	1159
EPL-9000PS	1359		

<b>HEWLETT PACKARD</b>			
Laserjet 4L	349	Laserjet 5P	569
Laserjet 5MP	710	Laserjet 4+	965
Laserjet 4M+	1290	Laserjet 4V	1365
Laserjet 4MV	1965	Laserjet 4Si	2054
Laserjet 4SiMX	2925	Laserjet Colour	4179

<b>ORIGINAL HP LASER MEMORY UPGRADES</b>			
Printer	1Mb	2Mb	4Mb
LJ III/IIIp/IIIp	89	139	239
4 (+S.P./P.C.) RJ, 1500	69	119	167
4L	59		

<b>AMP uses same as HP etc.</b>			
4/4+ Postscript level 2	225	4P Postscript 2	190
4+ Duplex Unit	497	4Si Duplex Unit	389
Pacific Page P/ PS Cart	79	Pacific Page XL	179

<b>KYOCERA</b>			
FS400	399	FS1550	875
FS1600	1069	FS3400	1369
FS3600	1749	FS3500	2120
FS5500	3339	FS6500	1585

<b>LEKMARK</b>			
----------------	--	--	--

# DABS DIRECT

PERSONAL COMPUTER SYSTEMS

**PRICE WATCHING**  
Please call for details

THE BEST IN AN INDUSTRY FULL OF PRODUCTS AVAILABLE  
HIGHLY TRAINED SPECIALIST STAFF  
EXPERIENCED AMBULANCE DRIVERS  
EASY FOR YOU TO WORK  
SATISFIED CUSTOMERS OVER 60,000

**HASSLE FREE - ORDER NOW OVER THE INTERNET**

**Woking 01483 797474 INTERNET sales@dabs.co.uk**

## HP Support Pack Guide

Part No.	Products Covered	Standard Warranty	HP Support Pack	Price
61A	HP DeskJet/Writer Mono (540)	3 Year Unit Exchange 1 Year Return	3 Year on-site - next day/exchange 3 Year on-site - next day/exchange	£40 £40
63A	HP DeskJet Portable (320)	1 Year Return	3 Year on-site - next day/exchange	£40
64A	HP Displays, Monitors, Terminals, HP200LX	1 Year Return	3 Year on-site - next day/exchange	£65
65A	HP DeskJets/Writers (Colour)	3 Year Unit Exchange 1 Year Return	3 Year on-site - next day/exchange 3 Year on-site - next day/exchange	£70 £85
67A	HP Fax-900, HP Fax-950	1 Year Return	3 Year on-site - next day/exchange	£100
68A	HP ScanJets (Mono)	1 Year Unit Exchange or 1 Year Return	3 Year on-site - next day/exchange 3 Year on-site - next day/exchange	£135 £135
73A	HP LaserJet 4L, HP DeskJet 200C/PS, 1600C/CM	1 Year Return	3 Year on-site - next day/exchange	£210
75A	HP ScanJets (Colour)	1 Year Return	3 Year on-site - next day/exchange	£170
76A	HP LaserJet 5P, SMP	1 Year Return	3 Year on-site - next day/exchange	£115
78A	HP JetStore, HP SureStore	3 Year on-site - next day/exchange	3 Year on-site - next day/exchange	£270
79A	HP LaserJet 4 Plus, 4M Plus	1 Year Return	3 Year on-site - next day/exchange	£220
80A	HP VLZ, N2/N21, M2/M21, XM2, XP/60, XU	1 Year on-site, 2 Year Return	3 Year on-site - next day/exchange	£280
91A	HP NetServer LC	3 Year on-site - next day/exchange	3 Year on-site - next day/exchange	£300
92A	HP LaserJet 4V/MV	1 Year Return	3 Year on-site - next day/exchange	£375
95A	HP Disk Arrays/Storage Systems	3 Year on-site	3 Year on-site - next day/exchange	£400
96A	HP DesignJets	1 Year on-site - next day/exchange	3 Year on-site - next day/exchange	£505
97A	HP NetServer LF	3 Year on-site - next day/exchange	3 Year on-site - next day/exchange	£1280
98A	HP NetServer LM	3 Year on-site - next day/exchange	3 Year on-site - next day/exchange	
99A	HP LaserJet 4Si/4SiMX	1 Year on-site - next day/exchange	3 Year on-site - next day/exchange	
05A	HP Colour LaserJet	1 Year on-site	3 Year on-site - next day/exchange	

## OKI People to People Technology

### OL400ex £275

- Fast RISC processor
- Data Compression
- 1Mb memory, upgradeable to 5Mb
- 300 x 300 dpi resolution
- OKi's Microfine Spherical Toner
- OKi LED technology
- 42 resident bit mapped fonts
- Dimensions, 160x320x360mm

### OL410ex £379

- Fast RISC processor
- Data Compression
- 1Mb memory, upgradeable to 5Mb
- 300 x 300 dpi resolution
- MicroRes 600
- OKi LED technology
- 12 scalable resident fonts
- Dimensions, 160x320x360mm

### OL810ex £739

- Fast MIPS R3000 RISC processor
- Data Compression
- 2Mb memory, upgradeable to 34Mb
- 600 x 600 dpi resolution
- Microfine Spherical Toner
- OKi LED technology
- 45 scalable resident fonts
- Dimensions, 200x363x377mm

### OkiJet 300c £269

- Reliable straight paper path
- Toolkit disk for easy PC setup
- WYSIWYG printing
- 300 x 300 dpi resolution
- 12 scalable fonts for Windows
- Weight 5kg
- Dimensions, 269x363x282mm

- Paper tray - A4, 100 sheet
- Optional 250 sheet tray
- HP PCL 4.5 compatible
- LED 4ppm page printer
- 27 seconds to first print
- Energy Star approved
- Power saving mode
- Printer life, 180,000 pages

- Paper tray - A4, 100 sheet
- Optional 250 sheet tray
- HP PCL 5 compatible
- LED 4ppm page printer
- 25 seconds to first print
- Energy Star approved
- Power saving mode
- Extended toner & drum life

- Paper tray - A4, 100 sheet
- Optional 250 sheet tray
- HP PCL 5e emulation
- LED 8ppm page printer
- 14 seconds to first print
- Energy Star approved
- Power saving mode
- Extended toner & drum life

- Paper input - A4, 140 sheet
- Feeds labels
- HP PCL 3 compatible
- 167 cps letter quality
- Quiet operation
- Energy Star approved
- Life 24,000 pages per year

**THE IDEAL PERSONAL PRINTER FOR USE AT HOME, IN SMALL BUSINESSES AND LARGE CORPORATIONS.**

1YEAR OSM/5YEAR LED HEAD WARRANTY ON ALL OKI LASERS

### 383 HP DeskJet 850c Printer

- High quality 600x600 dpi black with new pigment ink
- New colour inks for more brilliant colours
- HP's Resolution Enhancement technology
- 26 built in scalable typefaces
- Single, manual and automatic sheet feed
- Multiple paper types and sizes, envelopes, labels
- Dual I/O (PC or Macintosh)
- 1 year warranty

### £569 HP LaserJet 5P Printer

Make your business look its best

- True 600 dpi laser printing
- HP's Microfine toner and Resolution Enhancement technology
- Different levels of greyscale and halftones
- 6 page-per-minute engine, 20MHz processor, instant-on fuser and HP's enhanced PCL 5
- 2 Paper trays and EconoMode draft printing and Power-save mode

### DeskSCAN Flatbed

Unique motorised scanning  
Connects to Parallel printer port  
ImagePals Go! Photostyling software  
ReadIRIS DCR software  
PresentIT presentation software  
TWAIN software compatible  
88W, greyscale and 24 bit True Colour  
Windows 3.1 and Windows 95 compatible  
ColourMobile Office (feeder included) £169  
ColourMobile Direct £125

Scanning area 8.5" x 13.5"  
Resolution 600dpi vertical x 300dpi horizontal  
Max resolution 1200dpi x 1200dpi  
True Colour, Greyscale and Black & White scanning  
24 bit Colour mode, 8 bit Greyscale mode  
Three pass RGB scanning, TWAIN compliant  
FinishTOUCH image editing software  
ReadIRIS OCR software  
DeskSCAN Flatbed scanner A4 £299

### Rainbow Mice

Deluxe design, glossy surface  
Cursor enhancement software  
3 button serial mouse  
400 dpi resolution  
3 button mouse £10  
2 button mouse £11

TWAIN software compatible  
FinishingTouch photo processing software  
ReadIRIS intelligent DCR software  
100/200/300/400 dpi  
105mm scan width  
256 grey scales by hardware  
Handscanner 256 £54  
Handscanner 32 £42

## free mobile phone

all NEC monitors are mac compatible

offer ends 31st Oct '95

For a limited period, when you buy any NEC monitor receive a FREE NEC mobile phone + FREE connection\*

### Multisync XV15 £275

- 15" diagonal FST CRT, 13.8" viewable image size, 0.29mm dot pitch, non-glare silica coated, anti-static screen.
- 640x480, VGA 60, 72, 75, and up to 100Hz vertical refresh.
- 800x600 56 to 100Hz vertical refresh.
- 1024x768 non-interlaced: up to 80Hz
- 1280x1024 at 60Hz vertical refresh
- Frequencies: 31 to 65kHz horizontal, 55 to 100Hz vertical
- Plug and play compatibility
- 2 years CRT parts and labour

### Multisync XV17 £549

- 17" diagonal FST CRT, 15.6" viewable image size, 0.29mm dot pitch, OptiClear surface, anti-static screen.
- 640x480, VGA 60, 72, 75, and up to 100Hz vertical refresh.
- 800x600 56 to 100Hz vertical refresh.
- 1024x768 non-interlaced: up to 80Hz
- 1280x1024 at 60Hz vertical refresh
- Frequencies: 31 to 65kHz horizontal, 55 to 100Hz vertical
- Plug and play compatibility
- 2 years CRT parts and labour

### Multisync XV21 £1139

- 21" diagonal FST CRT, 15.6" viewable image size, 0.28mm dot pitch, OptiClear surface, anti-static screen.
- 640x480, VGA 60, 72, 75, and up to 120Hz vertical refresh.
- 800x600 56 to 100Hz vertical refresh.
- 1024x768 non-interlaced: up to 80Hz
- 1280x1024 at 60Hz vertical refresh
- Frequencies: 31 to 69kHz horizontal, 55 to 120Hz vertical
- Plug and play compatibility
- 2 years CRT parts and labour

### IMPORTANT NUMBERS

EDINBURGH Sales 0131-556 4114  
LONDON Sales 0171-582 4777  
BOLTON Sales 01942 794000  
Woking Sales 01483 797474  
Fax 01483 799510

All Customer Services 01942 794020

### CARRIAGE

**HARDWARE/SOFTWARE (PER ORDER)**  
Standard GB 1-3 working day Delivery £8.00  
Next working day Delivery £15.00  
N Ireland/Highlands/CI/DM 1-3 Days Call  
Saturday Delivery (Mainland GB) £30.00

**CONSUMABLES**  
Standard UK 1-3 working day Delivery £4.00  
Next working day Delivery £6.50  
Call for quotes on other areas/times

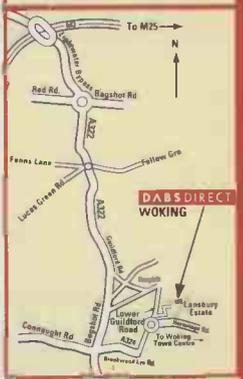
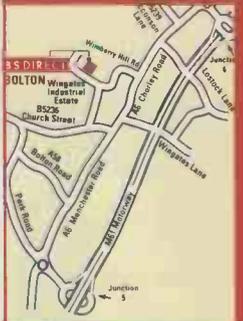
**PRICES ARE PER ORDER NOT PER BOX**  
ALL DELIVERY TIMES SUBJECT TO CLEARED FUNDS.  
BEING IN STOCK AND UNSOLD. PLEASE ADD VAT TO ALL PRICES

### HOW TO FIND US

DABS DIRECT  
DIRECT HOUSE  
30 WINGATES INDUSTRIAL PARK  
WESTHOUGHTON  
BOLTON BL5 3XU



DABS DIRECT  
THE LANSBURY ESTATE  
102 LOWER GUILDFORD ROAD  
KNAPHILL  
WOKING  
SURREY GU21 2EW



### TERMS

EU residents add 17.5% VAT to all prices except books

We also supply many products not listed here. Export orders welcome. Carriage charged at cost. Official orders accepted only from public sector/education/listed PLCs. Prices listed are CWO (cheques, cash, credit/debit card, postal order, bank transfer, bankers draft). Surcharge applicable on business cheques using Transax.

Leading finance to businesses available subject to status. Minimum order value £750, please call for details. Written details on request.

14 day credit terms available to public sector & quoted PLC's only. Add 2% to prices listed for credit. Personal cheques over £1000 or without cheque card and business cheques which do not include Transax surcharge may take up to 14 days to clear.

Prices and manufacturers specifications subject to change without notification. Goods offered subject to being unsold. Goods not offered on a trial basis. All returns must have prior authorisation. All orders are subject to our terms & conditions, available upon request. Proprietor: D. Atherton. E&OE (6.6.95)

RESTOCKING FEE CHARGED ON NON-DEFECTIVE RETURNS. DUE TO CURRENCY FLUCTUATIONS ALL PRICES MAY CHANGE

Excellent Quality • Superior Service • Unbeatable Value

# PENTIUM 90 MHz HIGHEST SPEC LOWEST PRICE

every  
y ever  
y ever



- P90 Pentium® Processor Based
- Supports EDO RAM
- 8MB RAM Upgradeable
- 1GB Fast IDE HDD with 256K Cache

- 15" SVGA Colour Monitor
- Fast 64 bit PCI 1Mb Windows Accelerator Graphics Card
- Quad Speed CD Rom
- PCI Enhanced IDE Controller
- 3.5" 1.44MB FDD
- Plug 'n' play
- 7 Spare PCI/ISA slots
- 256K Cache
- 102 Key Keyboard
- 2 x Serial Ports
- 1 x Parallel Port ● 1 x Game Port
- High Quality Steel Desktop case



THIS SOFTWARE AVAILABLE CALL!



Pentium is a registered trademark of Intel corporation

**PENTIUM 75 DX4 100  
OPTIONS CALLNOW!**



# £1089

## WHY SPEND MORE AND GET LESS?

Tiny Computers Ltd is one of the leading computer companies in the U.K. Our range of PC's have been installed to tens of thousands of satisfied customers, including many councils, universities, colleges and blue chip companies, who are now realising the incredible value, performance and quality of these machines. They are fully upgradeable and are IBM compatible\*.

\*IBM is the registered trademark of International Business Machines



**NEXT DAY  
DELIVERY**

**EDUCATION/GOVERNMENT  
DEPT TRADE & DEALER  
DISCOUNTS**

**IBM COMPATIBLE  
PRICES REVIEWED DAILY!  
CALL NOW FOR OTHER  
OPTIONS!**

**CALL THE HOTLINE NOW!  
01737-779511**

Prices exclude VAT & Delivery

FAX: 01737- 779541

**GUARANTEED LOWEST  
PRICES IN UK**

NORMAL NEXT DAY DELIVERY

## SHOWROOMS NOW OPEN

**LONDON SHOWROOM**  
THE SONIC FOTO CENTER  
256 TOTTENHAM COURT ROAD  
LONDON W1A 9AD  
TEL: 0171-636 7613  
OPEN MON-SAT 9.30am-6.30pm

**GLASGOW SHOWROOM**  
220 ARGYLE STREET  
GLASGOW G2 7HA  
TEL: 0141-204 2300  
OPEN MON-SAT 9.00am-5.30pm

**NEWCASTLE SHOWROOM**  
7 HIGH FRIARS ELDON SQUARE  
NEWCASTLE NE1 7JB  
TEL: 0191-261 5252  
OPEN MON-SAT 9.00am-5.30pm

**MANCHESTER SHOWROOM**  
VOYAGERS WALK (Opp. SPOILS)  
ARNDALE CENTRE  
MANCHESTER M4 3AT  
TEL: 0161-835 1611  
OPEN MON-SAT 9.00am-6.00pm

**NOTTINGHAM SHOWROOM**  
(OPENS 5TH AUGUST 1995)  
UNIT 57, UPPER MALL (next to Boots)  
THE VICTORIA CENTRE  
NOTTINGHAM NG1 3QJ  
TEL: 0115-941 9461  
OPEN MON-SAT 9.00am-6.00pm

**TINY COMPUTERS LTD**  
53 ORMSIDE WAY HOLMETHORPE IND. ESTATE  
REDHILL SURREY RH1 2LW  
TEL: 01737-779511  
OPEN MON-FRI 9.30am-5.00pm

NO SURCHARGE ON CREDIT CARDS

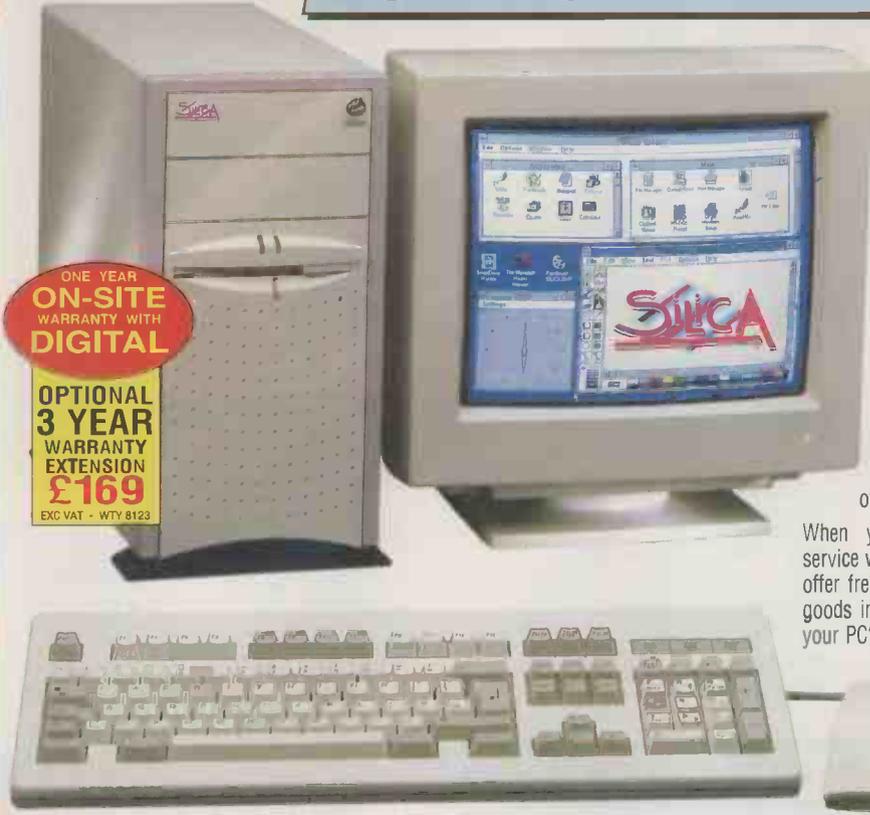


All trademarks acknowledged.  
All prices and manufacturers specifications are subject to change without prior notice. Please check availability before ordering. Goods are offered for sale subject to our standard conditions of sale available on request. E&OE.

**tiny**  
direct to you!

# BUY NOW - PAY LATER

In addition to our standard finance terms below we have a 'Buy Now - Pay Later' option on selected systems. Call 0181-309 1111 for written details



ONE YEAR ON-SITE WARRANTY WITH DIGITAL

OPTIONAL 3 YEAR WARRANTY EXTENSION £169 EXC VAT - WTY 8123

## PENTIUM™ 75

PROCESSOR BASED SYSTEMS

- Intel Pentium™ 75MHz Processor
- 540Mb Hard Drive
- 8Mb RAM Expandable to 128Mb
- 14" .28mm S-VGA Colour Monitor
- MS-DOS 6.22 & Windows For W/G 3.11

**£999**  
+VAT = £1,173.83 - OPC 1424

Now you can buy a Silica PC from one of the UK's longest established computer suppliers, either by mail order or from one of 22\* Silica stores nationwide.

When you compare our prices and service with other PC advertisers, remember to check the small print. Do they offer free next day delivery to anywhere in mainland UK? Do they have the goods in stock, or are they waiting for your order before they build or buy your PC? And will their PC have a mouse, manuals and other basic items, or will these be charged as extras? Check 'Multimedia Upgrades' too - do they include a sound card and speakers, or just a CD-ROM Drive - and is that dual or quad speed?

At Silica, we try to make things clear - a fast and free delivery on all PCs, no hidden extras and multimedia features that will blow your mind!

\*The Silica PC is not stocked by our Harrods store.

**FREE DELIVERY**  
PC'S TO ANYWHERE IN THE UK MAINLAND

**OVERNIGHT COURIER**  
NEXT DAY DELIVERY IS OUR AIM

**36 MONTHS TO PAY 19.9% APR**

**IMMEDIATE DESPATCH**  
STOCK IS NORMALLY AVAILABLE - NOT MADE TO ORDER

**MAIL ORDER LINES OPEN UNTIL 7PM**  
MON-FRI: 9AM-7PM SAT: 9AM-5.30PM

### SYSTEM SPECIFICATIONS



**FREE** Windows '95 Upgrade with High-end Models

### FREE WINDOWS '95 UPGRADE VOUCHER

#### PROCESSOR

- 4 models: DX4 100, Intel Pentium™ 75MHz, 90MHz, 120MHz
- Type 5 ZIF socket on all Pentium™ processor based models
- P24T upgradeable - DX4 100 model

#### MEMORY

- 4Mb and 8Mb RAM
- Accepts 72-pin SIMMS - single or double sided
- 256K external write-back cache Pentium™ systems upgrade to 1Mb - DX4 100 to 512K

#### DRIVES

- 540Mb or 850Mb lightning fast hard drive
- 3.5" 1.44Mb floppy disk drive
- PCI EIDE hard and floppy drive controller
- Customisable settings for 4 drives
- 1 x 3.5" and 2 x 5.25" storage bays

#### DISPLAY

- 14" .28mm NI S-VGA colour monitor
- Low radiation MPRII compliant
- EPA energy star compliant
- 15" monitor upgrade available (extra £69+VAT)
- 1Mb MicroCrystal 12SD Trio 32 PCI video accelerator 2mb upgrade £50+VAT - 2 x MEM 1316

#### ARCHITECTURE

- Mini-tower case
- 102-key UK keyboard and Microsoft mouse
- Plug and play PCI motherboard
- SIS chipset - energy star compliant (75, 90 models)
- Integrated motherboard with flash BIOS
- 2 x PCI, 1 x PCI (ISA) and 3 x ISA slots
- EPP & ECP capable printer ports
- Fast 16550 compatible UART driven ports
- Powerful 230w switchable PSU with whisper quiet fan
- Power saving mode
- CPU cooling fan

#### SOFTWARE

- MS DOS 6.22
- Windows For Work Groups 3.11
- PC Utility Software
- Tutorial Software
- All software includes disks and manuals where appropriate (not OPC 1424)
- Pre-configured, optimised and ready to run
- Multimedia Option

#### WARRANTY

- 1 year on-site maintenance - with DIGITAL
- Next working day response
- Lifetime technical support hotline

#### UPGRADES

- 15" S-VGA NI Monitor Upgrade **£69+VAT** MON 1351
- 3 Year On-site Wty Upgrade **£169+VAT** WTY 8123
- 4Mb RAM Upgrade **£118.30+VAT** 1 x MEM 1312
- 8Mb RAM Upgrade **£236.60+VAT** 2 x MEM 1312

#### MULTIMEDIA OPTION ON ALL MODELS EXCEPT OPC 1432

PROFESSIONALLY INSTALLED & TESTED BY TRAINED ENGINEERS

QUAD SPEED SOUND CARD

CD-ROM DRIVE 16-BIT STEREO

STEREO SPEAKERS

MICROSOFT DINOSAURS

MICROSOFT MONEY & WORKS

MICROSOFT ENCARTA '95

	PROCESSOR 486DX4 100MHz OPC 1404 + MON 1514	PROCESSOR PENTIUM™ 75MHz OPC 1424 + MON 1514	PROCESSOR PENTIUM™ 75MHz OPC 1427 + MON 1514	PROCESSOR PENTIUM™ 90MHz OPC 1449 + MON 1514	PROCESSOR PENTIUM™ 120MHz OPC 1480 + MON 1514
MEMORY (RAM)	4Mb	8Mb	8Mb	8Mb	8Mb
MAX (RAM)	64Mb	128Mb	128Mb	128Mb	128Mb
HARD DISK DRIVE	540Mb	540Mb	850Mb	850Mb	850Mb
14" .28MM MONITOR	S-VGA COLOUR NON-INTERLACED	S-VGA COLOUR NON-INTERLACED	S-VGA COLOUR NON-INTERLACED	S-VGA COLOUR NON-INTERLACED	S-VGA COLOUR NON-INTERLACED
15" MONITOR UPGRADE	Add £69+VAT	Add £69+VAT	Add £69+VAT	Add £69+VAT	Add £69+VAT
PCI VIDEO/ACCELERATOR	✓	✓	✓	✓	✓
3.5" 1.4MB FLOPPY DRIVE	✓	✓	✓	✓	✓
ZIF SOCKET	-	Type 5	Type 5	Type 5	Type 5
PCI ENHANCED IDE	✓	✓	✓	✓	✓
WRITE BACK CACHE	256K	256K	256K	256K	256K
ENERGY STAR COMPLIANT	✓	✓	✓	✓	✓
DOS 6.22 & Windows 3.11	PRE-INSTALLED	PRE-INSTALLED	PRE-INSTALLED	PRE-INSTALLED	PRE-INSTALLED
DOS & WINDOWS MANUALS	✓	-	✓	✓	✓
1 Yr ON-SITE WARRANTY	WITH DEC (DIGITAL)	WITH DEC (DIGITAL)	WITH DEC (DIGITAL)	WITH DEC (DIGITAL)	WITH DEC (DIGITAL)
MULTIMEDIA OPTION	SEE BELOW	SEE BELOW	SEE BELOW	SEE BELOW	SEE BELOW
CASH PRICE +VAT	<b>£799</b>	<b>£999</b>	<b>£1099</b>	<b>£1199</b>	<b>£1499</b>
CREDIT TERMS	<b>£29</b> INC VAT PER MONTH	<b>£39</b> INC VAT PER MONTH	<b>£43</b> INC VAT PER MONTH	<b>£49</b> INC VAT PER MONTH	<b>£59</b> INC VAT PER MONTH
36 MONTHS TO PAY 19% APR	£140.32 deposit and 36 monthly payments of £29 Cash price £338.83 inc VAT Credit price £158.32 inc VAT APR 19.9%	£39.97 deposit and 36 monthly payments of £39 Cash price £173.83 inc VAT Credit price £150.97 inc VAT APR 19.9%	£107.33 deposit and 36 monthly payments of £43 Cash price £1291.33 inc VAT Credit price £1655.33 inc VAT APR 19.9%	£59.63 deposit and 36 monthly payments of £49 Cash price £1408.83 inc VAT Credit price £1183.83 inc VAT APR 19.9%	£136.78 deposit and 36 monthly payments of £59 Cash price £1761.33 inc VAT Credit price £2263.78 inc VAT APR 19.9%

### PLUS! WITH MULTIMEDIA OPTION FITTED - SEE LEFT

	OPC 1414 + MON 1514	OPC 1432 + MON 1514	OPC 1437 + MON 1514	OPC 1459 + MON 1514	OPC 1485 + MON 1514
CASH PRICE +VAT	<b>£999</b>	<b>£1099</b>	<b>£1299</b>	<b>£1399</b>	<b>£1699</b>
CREDIT TERMS	<b>£36</b> INC VAT PER MONTH	<b>£42</b> INC VAT PER MONTH	<b>£49</b> INC VAT PER MONTH	<b>£55</b> INC VAT PER MONTH	<b>£65</b> INC VAT PER MONTH
36 MONTHS TO PAY 19% APR	£182.58 deposit and 36 monthly payments of £36 Cash price £1173.83 inc VAT Credit price £1478.58 inc VAT APR 19.9%	£134.87 deposit and 36 monthly payments of £42 Cash price £1291.33 inc VAT Credit price £1646.87 inc VAT APR 19.9%	£177.13 deposit and 36 monthly payments of £49 Cash price £1941.33 inc VAT Credit price £1941.33 inc VAT APR 19.9%	£129.42 deposit and 36 monthly payments of £55 Cash price £1942.83 inc VAT Credit price £2109.42 inc VAT APR 19.9%	£208.57 deposit and 36 monthly payments of £65 Cash price £2596.33 inc VAT Credit price £2546.57 inc VAT APR 19.9%

WRITTEN QUOTATIONS AVAILABLE ON REQUEST - SUBJECT TO STATUS

**FREE UK DELIVERY**  
ON ORDERS OVER £40+VAT



All prices exclude VAT @ 17.5%  
VISA  
AMERICAN EXPRESS

MAIL ORDER HOTLINE:  
**0181-309 1111**  
23 STORES NATIONWIDE



# IBM APTIVA PCs

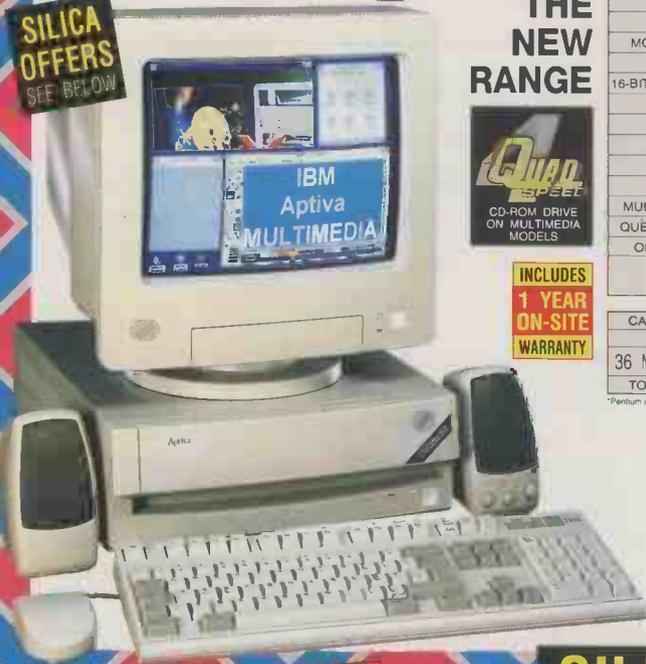
# IBM Aptiva™

**SILICA OFFERS SEE BELOW**

**THE NEW RANGE**



**INCLUDES 1 YEAR ON-SITE WARRANTY**



APTIVA RANGE	MULTIMEDIA				MULTIMEDIA			
	DESKTOP 910 486DX2 66MHz	DESKTOP 914 486DX2 66MHz	DESKTOP 921 486DX4 100MHz	DESKTOP 930 PENTIUM 75	DESKTOP 941 PENTIUM 100	TOWER 931 PENTIUM 75	TOWER 932 PENTIUM 75	TOWER 951 PENTIUM 120
HARD DISK DRIVE	540Mb	540Mb	540Mb	540Mb	850Mb	540Mb	540Mb	1Gb
3 1/2" FLOPPY DRIVE	✓	✓	✓	✓	✓	✓	✓	✓
MEMORY (RAM)	4Mb	8Mb	8Mb	8Mb	8Mb	8Mb	8Mb	8Mb
S-VGA MONITOR	14"	14"	14"	14"	15"	14" DIGITAL	15"	15"
MONITOR DOT PITCH	.28MM	.28MM	.28MM	.28MM	.28MM	.28MM	.28MM	.28MM
CD-ROM DRIVE	-	QUAD	QUAD	-	QUAD	QUAD	QUAD	QUAD
16-BIT WAVETABLE S/CARD	-	✓	✓	-	✓	✓	✓	✓
SPEAKERS	-	4 Watt	4 Watt	-	30 Watt	30 Watt	30 Watt	30 Watt
VIDEO RAM	512K	1Mb	1Mb	1Mb	1Mb	1Mb	1Mb	1Mb
FAX/MODEM	-	-	-	-	-	-	28.8	-
OS/2 WARP	-	✓	✓	✓	✓	✓	✓	✓
IBM HELPWARE	✓	✓	✓	✓	✓	✓	✓	✓
MULTIMEDIA FEATURES	✓	✓	✓	✓	✓	✓	✓	✓
QUEST/PRINTER OPTION	✓	✓	✓	✓	✓	✓	✓	✓
ON-SITE WARRANTY	1 YEAR	1 YEAR	1 YEAR	1 YEAR	1 YEAR	1 YEAR	1 YEAR	1 YEAR
<b>SILICA EXC VAT</b>	<b>£850.21</b>	<b>£1105.53</b>	<b>£1190.94</b>	<b>£1148.99</b>	<b>£1871.49</b>	<b>£1360.85</b>	<b>£1531.06</b>	<b>£2126.01</b>
<b>CREDIT TERMS - 36 MONTHLY REPAYMENTS - 19.9% APR</b>								
CASH PRICE INC VAT	£999	£1299	£1399	£1349	£2199	£1599	£1799	£2499
DEPOSIT	£200.49	£225.14	£159.93	£275.14	£299.10	£249.80	£174.45	£323.75
36 MTHS APR 19.9%	£29	£39	£45	£39	£69	£49	£59	£79
TOTAL CREDIT PRICE	£1244.49	£1629.14	£1779.93	£1679.14	£2783.10	£2013.80	£2298.45	£3167.75

### SPECIFICATIONS INCLUDE:

- 14" S-VGA Colour Monitor
- Quad Speed CD-ROM Drive (Multimedia Models)
- IBM Helpware Support
- Full Range
- Pentium Overdrive Upgradeable
- 1 Year On-Site Warranty

### SOFTWARE INCLUDES:

- Rapid Resume Manager
- MS-Windows 3.1
- PC DOS 6.3
- Custom Tools
- Learning Library
- MS-Works for Windows 3
- Index
- Scheduler
- Personal Desktop
- Aptiaware
- First Steps

Written quotations available on request - Offers subject to status

**FREE CDs**

**SILICA OFFERS**

**SAVE £50**

**QUEST SOFTWARE PACK**

**OR**



**11 TITLES ON 10 CDs**



ON A CANON BJC4000 PRINTER

OR ON A LEXMARK COLOUR PRINTER

SEE PAGE 4 OF THIS AD FOR PRINTER SPEC + PRICING

**WITH IBM & COMPAQ MULTIMEDIA PC SYSTEMS FROM SILICA**

## COMPAQ PRESARIO MULTIMEDIA PCs

# COMPAQ

## Presario

### PRESARIO RANGE

	CDS 522	CDS 524	CDT 528	DESKTOP	DESKTOP	CDS 942	CDS 962	CDS 972
	INTEGRATED 486SX2 66MHz	INTEGRATED 486DX2 66MHz	INTEGRATED 486DX2 66MHz	486DX4 90MHz	PENTIUM P75	MINI-TOWER 486DX4 90MHz	MINI-TOWER P60	MINI-TOWER P75
HARD DISK DRIVE	270Mb	420Mb	420Mb	420Mb	535Mb	420Mb	535Mb	725Mb
3 1/2" FLOPPY DRIVE	✓	✓	✓	✓	✓	✓	✓	✓
MEMORY (RAM)	4Mb	8Mb	8Mb	8Mb	8Mb	8Mb	8Mb	8Mb
MAXIMUM RAM	64Mb	64Mb	64Mb	100Mb	136Mb	100Mb	136Mb	136Mb
14" S-VGA MONITOR	I/GRATED 28mm	I/GRATED 28mm	I/GRATED 28mm	.28mm	.28mm	28mm	28mm	.28mm
FAST VESA BUS	✓	✓	✓	✓	✓	✓	✓	✓
ISA EXPN SLOTS	2	2	2	3	2 + 2 PCI	5	3 + 2 PCI	3 + 2 PCI
DRIVE BAYS	3	3	3	3	4	5	5	5
PLUG & PLAY	✓	✓	✓	✓	✓	✓	✓	✓
HOME COMMUNICATIONS ANSWERPHONE/FAX/MODEM	-	✓	✓	✓	-	✓	✓	✓
SOFTWARE	✓	✓	✓	✓	✓	✓	✓	✓
CD DRIVE + S CARD + SPEAKERS	✓	✓	✓	✓	✓	✓	✓	✓
QUEST/PRINTER OPTION	✓	✓	✓	✓	✓	✓	✓	✓
<b>SILICA EXC VAT</b>	<b>£1020.43</b>	<b>£1190.64</b>	<b>£1403.40</b>	<b>£1318.29</b>	<b>£1531.06</b>	<b>£1360.85</b>	<b>£1445.95</b>	<b>£1616.17</b>
<b>CREDIT TERMS - 36 MONTHLY REPAYMENTS - 19.9% APR</b>								
CASH PRICE INC VAT	£1199	£1399	£1649	£1549	£1799	£1599	£1699	£1899
DEPOSIT	£125.14	£159.93	£134.59	£199.80	£174.45	£167.19	£184.59	£191.84
36 MTHS APR 19.9%	£39	£45	£55	£49	£59	£52	£55	£62
TOTAL CREDIT PRICE	£1529.14	£1779.93	£2114.59	£1963.80	£2298.45	£2039.19	£2164.59	£2423.84

### SPECIFICATIONS INCLUDE:

- 14" S-VGA Colour Monitor
- Quad Speed CD-ROM Drive
- 16-Bit Stereo Sound Card & Stereo Speakers
- Answerphone, Fax & Modem (not in CDS 522, 772, 962, 972)
- 3 Year Warranty - 1st Year On-site

### SOFTWARE INCLUDES:

- MS-DOS 6
- MS-Money 3
- MS-Encarta
- MS-Windows 3.1
- MS-Entertainment IV
- Compaq Welcome
- MS-Works for Windows 3
- Ultimate Human Body
- Tabworks

Written quotations available on request - Offers subject to status

**SILICA OFFERS SEE ABOVE**



**3 YEAR WITH 1 YEAR ON-SITE WARRANTY**



2420  
**2**  
03085

# SILICA

**MAIL ORDER HOTLINE:**  
**0181-309 1111**  
**23 STORES NATIONWIDE**

CREDIT FACILITIES AVAILABLE Subject to status see page 5 for details

All prices exclude VAT @ 17.5%



**FREE UK DELIVERY**



ON ORDERS OVER £40.VAT

# MULTIMEDIA PERIPHERALS & VIDEO CARDS

## CD-ROM DRIVES AND PACKS

### AZTECH

Dual Speed IDE Zeta lite ..... £67.23  
300K Data Transfer Rate, 256K Buffer,  
300ms Average Access Time - CDR 1101

### QUAD SPEED STANDALONE DRIVE CDA468-011



- 600K Data Transfer Rate
- 350ms Average Access
- 256K Buffer
- CD-Play Button on Front Panel
- Kodak PhotoCD/CDi compatible for MPEG with RealMagic

**£118.30**  
EXC VAT CDR 1121

SG Stellar CD-ROM Pack ..... £135.32

Dual Speed CD-ROM Drive  
16-Bit Sound Galaxy Sound Card,  
13 Multimedia Applications - CDR 1151

Home/Office M'edia Kit ..... £279.02

Quad Speed IDE CD-ROM Drive  
16-Bit Sound Sound Card (Soundblaster compatible)  
Stereo Amplified Speakers  
11 Multimedia Applications - CDR 1191

### Panasonic PD SYSTEM

READ/WRITE OPTICAL DRIVE

- Quad speed CD-ROM Drive with 600K Data Transfer and 195ms access
- 650Mb re-writable optical disk drive with removable cartridges

ALL-IN-ONE

**NEW £499.00**  
EXC VAT CDR 4300

### MEDIA VISION

MV 1200 Dual Speed ..... £143.33

Includes: Dual Speed Internal CD-ROM Drive,  
Pro Sonic 16 - 16-bit Sound Card with Interface,  
Passive Speakers, Installation Kit, Cables and  
Software - CDR 2152

### QUAD SPEED CD-ROM PACK MV-2200IE



- Toshiba Internal CD-ROM
- 600K Data Transfer Rate
- 190ms Average Access
- Pro-Audio Wavetable Soundcard
- IDE CD-ROM Interface

**£254.47**  
EXC VAT CDR 2170

MV6200SE Hex Speed ..... £382.13

Includes: Six Speed Internal CD-ROM Drive,  
900K DTR & Fast 150ms Average Access Time,  
PhotoCD Multi-Session ready, CDI Movie ready,  
Pro-Audio Wavetable Soundcard,  
16-bit PCM recording & playback,  
512Kb Wavetable, IDE CD-ROM I/F  
Powered Magnetic Shielded Speakers  
5 CD Titles including Compton's Multimedia  
Encyclopedia - CDR 2184

### MITSUMI

FX400 Quad Speed IDE ..... £135.32

600K Data Transfer Rate, 256K Buffer,  
250ms Average Access Time - CDR 3400

### NEC

### ENCARTA QUARTET PACK 2

WITH NEC CDR 272 QUAD SPEED DRIVE



- Quad Speed CD-ROM Drive
- 600K Sustained Data Transfer Rate
- 250ms Average Access Time
- 128K Cache
- MPC1 & MPC2 Compliant
- Software: Encarta '95, Elite, Lemmings, Civilization

**£135.00**  
EXC VAT CDR 3570

### QUAD SPEED QUEST PACK

WITH NEC CDR 272 QUAD SPEED DRIVE



- Quad Speed IDE CD-ROM Drive
- 600K Sustained DTR Transfer Rate
- 250ms Average Access Time
- 128K Cache
- MPC1 & MPC2 Compliant
- 11 Software Titles on 10 CDs

**£185.00**  
EXC VAT CDR 4505

11 Software Titles:

- Anecdote • Animator • Compton's Interactive Encyclopedia
- Day Of The Tentacle • Graphics Works • Humans 1 & 2
- Indiana Jones & Fate of Atlantis • Return To Zork
- Sneak Peeks • Ultima Underworld & Wing Commander II

### Panasonic

562B Dual Speed Standalone ..... £58.72  
300K Data Transfer Rate, 64K Buffer,  
320ms - CDR 4120

562B Dual Speed External ..... £126.81  
300K Data Transfer Rate, 64K Buffer,  
320ms. External case & interface - CDR 4113

### DUAL SPEED ENCARTA PACK

WITH PANASONIC 562B DUAL SPEED DRIVE



- Dual Speed CD-ROM Drive
- 300K Data Transfer Rate
- Drivers Disk
- Data & Audio Cables
- Instruction/User Manuals
- 4 Software Titles: Encarta '95, Lemmings, Civilization, Elite Frontier

**£75.74**  
EXC VAT CDR 4108

### MPEG/VIDEO

Video Galaxy Gamma ..... £160.85  
TV Tuner & capture card with optional  
addons (featured below) - VID 0905

VG Gamma Teletext Upg. .... £29.74  
Teletext upgrade for the VG GAMMA - VID 0901

VG Gamma MPEG Upg. .... £126.81  
MPEG1 decoding allows the playback  
of decompressed video for Gamma - VID 0903

Oscar MPEG Playback ..... £160.85  
Plays back full-screen, full motion video  
at 25 frames per second (PAL) - VID 0910

RealMagic Lite MPEG Card ..... £199.00  
Full motion video playback card -  
Req. sound card for sound output - VID 1020

RealMagic MPEG Card ..... £259.00  
Built-in soundcard with orchestrated  
soundtracks running simultaneously  
with full motion video images - VID 1024

RealMagic Rave ..... £269.00  
64-bit Windows accelerator + MPEG  
in one card - VID 1042

MiroVideo DC1 Card ..... £509.79  
Allows you to capture, compress  
and output graphics - VID 6994

### SPEAKERS

ScreenBeat 3 Stereo ..... £12.76  
External Stereo Speakers shielded  
against monitor interference - SPK 7260

ScreenBeat 5 ..... £11.06  
Built-in Base Boost, Volume Control,  
Power On/Off - SPK 7267

ScreenBeat Pro 50 ..... £33.19  
Built-in Base Reflex Amplifier,  
Volume Control, Power On/Off - SPK 7275

ZYFI 2 Multimedia System ..... £25.52  
3" Full Range Cone, Integral Amplifier,  
10 Watt RMS power output - SPK 9363

ZYFI 2 Pro Multimedia System ..... £46.80  
4" Woofer & 2.5" Tweeter, Integral Amplifier,  
36 Watt RMS power output - SPK 9374

Reveal Active Speakers 20W ..... £34.00  
Quality external speakers with built-in amplifier -  
SPK 6720

Reveal Active Speakers 80W ..... £42.51  
Powerful external shaped speakers - high quality  
output - built-in amplifier - SPK 6788

## 16-BIT SOUND CARDS

### MEDIA VISION PRO SONIC 16

WITH PANASONIC INTERFACE

- 16-Bit Stereo Sound Card
- 3 Sound Standards
- Panasonic CD-ROM Interface
- 16-Bit & 8-Bit Digital Recording & Playback
- 20 Voice Stereo Synthesiser
- MPC Level 2 Compatible
- Joystick/MIDI Port



**£58.72**  
EXC VAT SOU 3001

Aztech Pro 16 II ..... £58.72  
OPL3, 20 Voice, 16-bit Stereo and  
4 CD Interfaces - SOU 1053

Aztech Nova 16 Extra FP ..... £72.34  
OPL3, 20 Voice, 16-bit Stereo and  
4 CD Interfaces - SOU 1074

Aztech WaveRider 32+ ..... £92.77  
Wavetable Synthesis, 4 CD Interfaces,  
48KHz Sample Rate - SOU 1082

Sound Galaxy Wave Tide ..... £49.00  
Wavetable add-on board for Stella & PRO16 -  
SOU 1092

Orchid GameWave 32 Plus ..... £75.74  
16-Bit Stereo, 2 Sound Standards,  
2Mb Wavetable ROM - SOU 4006

Orchid SoundWave 32 ..... £109.79  
16-Bit Stereo, 3 Sound Standards,  
Stereo Speakers & Microphone - SOU 4011

Orchid SoundWave 32 Pro ..... £143.83  
16-Bit Stereo, 3 Sound Standards,  
Stereo Speakers & Microphone - SOU 4017

Orchid SoundWave 32 Pro SCSI ..... £157.45  
16-Bit Stereo, 3 Sound Standards,  
Stereo Speakers & Microphone - SOU 4019

Orchid SoundDrive 16EZ ..... £55.32  
OPL3, 16-Bit Stereo, 3 Sound Standards,  
5 Channel Stereo Audio Mixer - SOU 4021

Orchid SoundDrive 16EZ SCSI ..... £67.23  
OPL3, 16-Bit Stereo, 3 Sound Standards,  
5 Channel Stereo Audio Mixer - SOU 4025

Orchid WaveBooster FX ..... £101.28  
4Mb FX version contains some  
very special effects - SOU 4031

Orchid WaveBooster ..... £84.26  
4Mb FX version adds more incredible  
sounds. Includes Cubase Lite - SOU 4034

Orchid WaveBooster ..... £63.83  
2Mb FX version adds more incredible  
sounds. Includes Cubase Lite - SOU 4037

Philips Sound Card ..... £51.02  
16-bit stereo, 3 sound standards, includes IDE  
interface - SOU 5181

Reveal Tuner Card ..... £29.74  
Stereo FM tuner card - SOU 9019

## 14,400 & 28,800 MODEMS

Zoom 14.4XE External ..... £99.00  
14.4K fax/data modem, V32bis & V42bis  
BAPT approved - MOD 9315

Zoom V34IE Internal ..... £149.00  
28.8K fax/data modem, V34  
BAPT approved - MOD 9388

Zoom V34XE External ..... £169.00  
28.8K fax/data modem, V34  
BAPT approved - MOD 9394

Sportster 14,400 Internal ..... £115.00  
Data/Fax, auto dial/answer, V42bis &  
MNP5 data compression - MOD 8664

Sportster 14,400 External ..... £115.00  
External model of above - MOD 8714

Sportster 28,800 Internal ..... £169.00  
Fastest approved modem in the UK Data/Fax,  
Autodial/answer, V42bis and MNP5 data  
compression - MOD 8808

Sportster 28,800 External ..... £169.00  
External model of model to the left - MOD 8814

Philips 14,400 Internal ..... £109.79  
Fax/data modem, V42bis and MNP5  
compression - BT approved - MOD 7705

### ZOOM 14,400 MODEM



- Internal modem and fax card
- BAPT approved & fully compatible
- Includes Winfax Lite for DOS & Windows
- 5 year warranty

**£89.00**  
EXC VAT MOD 9300

Philips 14,400 External ..... £114.89  
Fax/data modem, V42bis and MNP5  
compression - BT approved - MOD 7716

Philips 28,800 Internal ..... £169.36  
Fax/data modem, V42bis and MNP5  
compression - BT approved - MOD 7743

Philips 28,800 External ..... £177.87  
Fax/data modem, V42bis and MNP5  
compression - BT approved - MOD 7757

## VIDEO ACCELERATOR CARDS

### ORCHID 64-BIT GRAPHICS ACCELERATOR/MPEG



KELVIN MPEG 2Mb

- 16.7 Million Colours
- Gives true colour photo-realistic images
- Resolutions up to 1280 x 1024 non-interlaced
- Cirrus Logic 5434 Processor
- Full Screen MPEG Playback

**£299.00**  
EXC VAT PDC 1240

### ORCHID

Fahrenheit VA ISA 1Mb DRAM ..... £109.79  
16.7 Million Colours, 1280 x 1024,  
S3C801 Processor, Inc Mic - PDC 1103

Fahrenheit 64 VLB 1Mb DRAM ..... £101.28  
16.7 Million Colours, 1280x1024 Resolution,  
Cirrus S3 Vision 964 Processor - PDC 1110

Fahrenheit 64 VLB 1Mb DRAM ..... £101.28  
As above with PCI Bus - PDC 1115

Fahrenheit 64 VLB 2Mb DRAM ..... £143.83  
2Mb version of the above card offering more  
colours at higher resolutions - PDC 1112

Fahrenheit 64 PCI 2Mb DRAM ..... £143.83  
As above with PCI Bus - PDC 1117

Fahrenheit Pro 64 VLB 2Mb DRAM ..... £228.94  
16.7 Million Colours, 1600x1200 Resolution,  
Cirrus S3 Vision 964 Processor - PDC 1121

Fahrenheit Pro 64 PCI 2Mb DRAM ..... £228.94  
As above with PCI Bus - PDC 1126

Fahrenheit Pro 64 VLB 4Mb DRAM ..... £322.55  
4Mb version of the above card offering more  
colours at higher resolutions - PDC 1123

Fahrenheit Pro 64 PCI 4Mb DRAM ..... £322.55  
As above with PCI Bus - PDC 1128

Kelvin 64 ISA 1Mb DRAM ..... £92.77  
16.7 Million Colours, 1280x1024 Resolution,  
Cirrus Logic 5434 Processor - PDC 1201

Kelvin 64 VLB 1Mb DRAM ..... £92.77  
As the previous card with PCI Bus - PDC 1212

Kelvin 64 PCI 1Mb DRAM ..... £92.77  
As above with PCI Bus - PDC 1221

Kelvin 64 ISA 2Mb DRAM ..... £126.81  
2Mb version of the above card offering more  
colours at higher resolutions - PDC 1205

Kelvin 64 VLB 2Mb DRAM ..... £126.81  
As above with VESA Bus - PDC 1217

Kelvin 64 PCI 2Mb DRAM ..... £126.81  
As above with PCI Bus - PDC 1224

Kelvin EZ VLB 1Mb DRAM ..... £55.32  
16.7 Million Colours, 1600x1200 Resolution,  
Cirrus Logic 5430 Processor - PDC 1232

Kelvin EZ PCI 1Mb DRAM ..... £55.32  
As above with PCI Bus - PDC 1236

Kelvin MPEG 1Mb ..... £254.47  
16.7 Million Col's, 1280x1024 Resn, Cirrus Logic CL-  
GD5434 Processor & MPEG controller. PDC 1238

Philips TV Card ..... £97.87  
Full screen VGA TV card with 9 screen  
display menu - VID 0861

**FREE UK  
DELIVERY**

ON ORDERS OVER £40+VAT



All prices exclude  
VAT @ 17.5%  
VISA AMERICAN EXPRESS

MAIL ORDER HOTLINE:  
**0181-309 1111**  
23 STORES NATIONWIDE

CREDIT FACILITIES AVAILABLE Subject to status - see page 5 for details



249D  
**3**  
02055

# PRINTERS

## CANON

### A4 MONO BUBBLEJET

BJ200EX

- 3 Pages/Minute - 204cps & 248cps (for NLQ & draft) 10cpi
- 80 Column - A4
- Resolution: 360x360dpi 720x360dpi with Smoothing Function
- 8 Built-in and 20 Scalable Fonts Supplied on Disk
- IBM, Canon & Epson LQ510 Emulations
- Parallel Interface
- 62K Input Buffer
- Built-in Sheet Feeder

**£194.89**

BJ-30 Mono B/Jet ..... £169.36

Portable A4, 277cps, 360 x 720dpi, parallel interface, inc A/S/F - PRI 1630

BJC-70 Colour B/Jet ..... £254.47

Portable A4, 173cps, 360 x 720dpi (mono), parallel interface, inc A/S/F - PRI 1645

BJC-600e Colour B/Jet ..... £382.13

80 column, 240cps, 360 x 360dpi, parallel interface - PRI 1767

BJC-4000 Colour B/Jet ..... £271.49

80 column, 248cps, 360 x 360dpi, parallel interface - PRI 1734

### A4 COLOUR BUBBLEJET

BJC4000

- 4 Pages/Minute - 248cps High Speed & 173cps High Quality 10cpi
- 80 Column - A4
- 5 Typefaces
- Resolution: 360x360dpi 720x360dpi with Smoothing Function
- LQ2550, X23E & Canon Enhanced
- Parallel Interface
- 64K Input Buffer
- Auto & Manual Feeder

**£271.49**

## CITIZEN

### A4 COLOUR INKJET ProJet IIC



- 180cps Draft & 120cps NLQ @ 12cpi
- 50 Nozzle Print Head
- 50K Printer Buffer
- Parallel Interface
- 3 Built-in Fonts
- Graphics Res: 300x300dpi
- Auto Sheet Feeder
- Inc Free Starter Pack
- 2 Year Warranty

**£237.45**

120D+ Mono 9-Pin ..... £115.00

80 column, 120cps, 4K Buffer, parallel interface - PRI 2120

120D+ Mono 9-Pin ..... £115.00

80 column, 120cps, 4K Buffer, serial interface - PRI 2120

Swift 90 Mono 9-Pin ..... £129.00

80 column, 240cps, 8K Buffer, parallel interface - PRI 2290

Swift 90C Colour 9-Pin ..... £135.32

80 column, 240cps, 8K Buffer, parallel interface - PRI 2297

Citizen Swift 90X ..... £203.40

132 column, 180cps, 300 x 300dpi, parallel interface - PRI 2321

Citizen Swift 9X ..... £209.00

132 column, 180cps, 300 x 300dpi, parallel interface - PRI 2309

Citizen ABC Mono ..... £118.30

80 column, 192cps, 8K Buffer parallel interface - PRI 2411

Citizen Swift 240X ..... £254.47

132 column, 180cps, 300 x 300dpi, parallel interface - PRI 2586

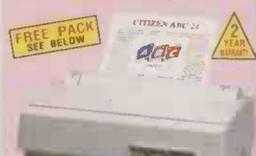
Swift 200 Mono 24-Pin ..... £143.83

80 column, 216cps, 360 x 360dpi, parallel interface - PRI 2490

Swift 200 Colour 24-Pin ..... £152.34

80 column, 216cps, 360 x 360dpi, parallel interface - PRI 2495

### A4 COLOUR 24-PIN ABC 24



- 24-Pin Print Quality
- 192cps Draft & 64cps LQ @ 12cpi
- Works with any PC or Amiga
- 5 Built-in Fonts
- Parallel Interface (Optional Serial)
- Citizen EasyStart Software
- Includes Colour & B/W Ribbons
- Res: 360x360dpi
- Built-in Automatic Sheet Feeder
- 2 Year Warranty

**£126.81**

Notebook II Col Thermal ..... £211.91

Portable A4, 105cps, 360 x 360dpi, parallel interface - PRI 2104

Includes FREE CABLE

PN60 "PDA" Mono ..... £254.47

Portable A4, 157cps, 360 x 360dpi, parallel interface - PRI 2041

Includes FREE CABLE

### FREE STARTER PACK NORMAL RRP: £29 WITH THE CITIZEN ABC 24 & SWIFT 200C

- 200 Sheets of Continuous Paper
- 1.8M Parallel Cable
- 50 Address Labels
- 50 Disk Labels

## HEWLETT PACKARD

### A4 MONO INKJET

DeskJet 540

- 3 Pages Per Minute in Econofast Mode
- Res: 600x300dpi Black Printing 300x300dpi Colour Printing (Optional)
- Smooth Crisp Characters
- 256 Levels of Greyscales
- 6 Built-in Fonts
- Parallel Interface
- 14 TrueType Scalable Fonts
- 3 Year Warranty - Return to Hewlett Packard

**£254.47**

DeskJet 320 Inkjet ..... £228.94

A4, 3ppm, 600 x 300dpi, parallel interface inc sheet feeder - PRI 5143

DeskJet 660c Col Inkjet ..... £359.00

A4, 4ppm, 600 x 600dpi, parallel interface - PRI 5391

DeskJet 850c Col Inkjet ..... £449.00

A4, 6ppm, 600 x 600dpi, parallel interface - PRI 5394

LaserJet 4L Laser ..... £385.00

A4, 4ppm, 300 x 300dpi, parallel interface - LAS 4110

LaserJet 4PLUS Laser ..... £995.00

A4, 12ppm, 600 x 600dpi, parallel interface - LAS 4144

## LEXMARK

### A4 COLOUR INKJET ExecJet IIC



- Latest Technology Thermal Inkjet
- >3 Pages/Min - 300cps Black Only 2.7 Pages/Min - Colour Printing
- 21K Printer Buffer
- 12 Resident Scalable Fonts 2 Bitmap Fonts
- Parallel Interface (Optional Serial)
- IBM X24E & Deskjet 500 Emulations
- Res: 600x300dpi Black Only 300x300dpi Colour
- Built-in Automatic Sheet Feeder
- 3 Year Return for Replacement Warranty

**£254.47**

### A4 COLOUR INKJET WinWriter 150C



- Includes Coral Draw 4
- 3 ppm Black Draft Speed
- 600 x 300dpi
- High Speed Parallel Interface

**£297.02**

## FREE! PRINTER PACK

WITH SELECTED PRINTERS - LOOK FOR THE FREE PACK SEE TOP RIGHT FLASH FOR USE WITH LASER • INKJET • DOT MATRIX

- PACK INCLUDES:
- 100 COLOUR LETTERHEADS - 4 ASSORTED STYLES
  - 50 SHEETS OF WHITE PAPER
  - 50 WHITE 3.5" DISK LABELS
  - 3M PARALLEL PRINTER CABLE

NORMAL RRP **£35** INC VAT

## NEC

### 6PPM WINDOWS LASER PRINTER SUPERSCRIPT 610 PLUS

The NEC SuperScript™ 610plus is a personal laser printer that has been specially designed for use with the MS-Windows™ operating system. Using NEC developed technology in a simple, compact design, it is the first laser printer to be driven by your PC's processor rather than its own.

- 6 Pages Per Minute
- Res: 300x300dpi Virtual 600x600dpi with Sharp Edge Technology
- Windows GDI Emulation - 100% DOS Compatible
- 50 Page Hopper
- Power Saving Mode
- Toner Unit Supplied
- 1 Year On-site Warranty



**£299.00**

EXC VAT LAS 4615

SuperScript 660 Laser ..... £399.00

80 column, 6ppm, 600 x 600dpi, virtual 1200dpi, GDI & PCL, parallel interface - LAS 4620

Pinwriter P20 24-Pin ..... £101.28

80 column, 192cps, 360 x 360dpi, parallel interface - PRI 6002

### COLOUR THERMAL, DYE/SUB

#### SUPERSCRIPT COLOUR 3000

- High-end Professional Colour Printer
- 300x300dpi Resolution
- Near Continuous Tone for Photographic Quality
- 1 Page Per Minute Full Colour Output
- Up to 16.7 Million Colours

**£699.00**

EXC VAT PRI 5702

## RICOH

### LASER PRINTER LP1200

- 6 Pages Per Minute
- 2M RAM Exp. to 4M
- Cassette: 100 A4 Sheets
- 1 Year/12,000 Pages On-Site via MSM

**£499.00**

EXC VAT LAS 5200

## SEIKOSHA

SP-1900Ai Plus 9-Pin ..... £97.87

80 column, 192cps, 144 x 72dpi, parallel interface - PRI 8195

Includes FREE CABLE

SP-2400 Mono 9-Pin ..... £139.00

80 column, 200cps, 360 x 720dpi, parallel interface - PRI 8204

Includes FREE CABLE

SpeedJet 200 Mono Inkjet ..... £152.34

80 column, 180cps, 300 x 300dpi, parallel interface, 128K Printer Buffer, 2.67 pages per minute - PRI8022

SL-96 Colour 24-Pin ..... £126.81

80 column, 240cps, 360 x 360dpi, parallel interface, 42K Printer Buffer, Epson LQ870 Emulation - PRI 8311

### A4 COLOUR INKJET SpeedJet 360

- 51 Nozzle Head
- 80 Column Width
- 80cps Draft @ 10cpi
- Parallel Interface
- Resolution: 300x300dpi
- 6 Resident Fonts
- 128K Printer Buffer
- Parallel Interface
- Built-in Cut Sheet Feeder

**£211.91**

EXC VAT PRI 8066



## RIBBONS, CARTRIDGES AND TONER

Canon BCJ600 Black Ink - rib 1634	£8.47	Canon BJ-200 Black Ink - rib 1622	£18.68	Chiten Notebook II Full Colour Rib - rib 3416	£5.00	NEC 3000 Black Ribbon - rib 6301	£24.68	S/Jet 200/Project II Black Ink x 2 - rib 1193	£5.69
Canon BCJ600 Cyan Ink - rib 1645	£7.62	Canon BJC4000 Black Ink - rib 1555	£6.80	HP Deskjet 500C Black Ink - rib 1121	£21.23	NEC 3000 4 Colour Thermal - rib 6314	£35.74	Seiksha SP Range Black Fabric - rib 8016	£4.65
Canon BCJ600 Magenta Ink - rib 1656	£7.62	Canon BJC4000 Colour Ink - rib 1566	£14.46	HP 310/320 Black Ink - rib 1126	£16.13	NEC 3000 3 Colour Dye-Sub - rib 6323	£37.45	SP Range Multistrike Bk Carbon - rib 8025	£7.35
Canon BCJ600 Yellow Ink - rib 1667	£7.62	Canon BJC4000 Black Ink Hi-Speed - rib 1532	£25.49	HP Deskjet 500 3 Colour Ink - rib 1132	£23.79	Ricoh OPC Cart(Drum) LP1200 - LAA 5218	£75.74	SL-90/92/95/96 Bk Carbon - rib 8292	£7.65
Canon BC-10 Black Cart & Print Head - rib 1400	£27.66	Citizen 1200/Swift 9/90 Black Fabric - rib 3520	£2.48	HP 850 Black Ink - rib 1134	£23.83	Ricoh Universal Feeder LP1200 - LAA 5225	£104.58	SL-90/92/95/96 Black Fabric - rib 8294	£5.47
Canon BC110K Black Ink Tank - rib 1423	£11.87	Citizen ABC/Swift 200 Black Ribbon - rib 3924	£3.57	Lexmark Execjet I/C Black Ink - rib 1906	£22.94	Ricoh 2Mb RAM Module LP1200 - LAA 5238	£85.00	SL-95/96 4 Colour Fabric - rib 8298	£9.57
Canon BC111C Colour Ink Tank - rib 1443	£14.43	Citizen Swift 200/240 Black Film - rib 3927	£6.00	Lexmark Execjet I/C Colour Ink - rib 1837	£29.74	NEC 610 & 660 Toner Cartridge - LAA 4002	£39.00		
Canon BC111BK Black Ink Tank - rib 1434	£11.87	Citizen Swift 200/90/ABC Colour Rib - rib 3936	£10.64	NEC P20 Black Fabric Ribbon - rib 6003	£4.95				
Canon BC11 Col Cart & Print Head - rib 1411	£33.19	Citizen Notebook II Spot Colour Rib - rib 3427	£4.00						

If you don't see what you require call one of our sales team on 0181 309 1111



MAIL ORDER HOTLINE:  
**0181-309 1111**  
23 STORES NATIONWIDE

CREDIT FACILITIES AVAILABLE Subject to status see page 5 for details

All prices exclude VAT @ 17.5%



**FREE UK DELIVERY**

ON ORDERS OVER £40.00



# ACCESSORIES & PERIPHERALS

## HARD DRIVES



- Seagate 545Mb 3.5" IDE ..... £118.00  
ST36601A, Mode 3, 14ms - HAR 2966
- Seagate 850Mb 3.5" EIDE ..... £159.00  
ST5850A, Mode 4, 14ms - HAR 2980
- Seagate 1.08Gb 3.5" EIDE ..... £200.00  
ST31220A, Mode 4, 12ms - HAR 2990

## Panasonic PD SYSTEM READ/WRITE OPTICAL DRIVE

- Quad speed CD-ROM Drive
  - 650Mb re-writable optical drive
- ALL-IN-ONE**  
**NEW £499.00**  
EXC VAT COR 4300

Panasonic PD System with SCSI Int. £549.00  
As above plus Adaptec 1520A SCSI controller/interface - CDR 4310  
Panasonic Optical Disk for PD ..... £38.30  
650Mb re-writable optical disk for the PD system - DIS 1500

## I/O CARDS

- CMC6210 VL BUS ..... £29.79  
Enhanced IDE controller mode 3/4/5 with 2 serial 1 parallel - PMU 0621
- CMC6400 PCI BUS ..... £29.79  
Enhanced IDE controller mode 3 & 4 (No serial or parallel ports) - PMU 0640

## FLOPPY DISKS

- Kao box 10 3.5" 2S/HD ..... £4.21  
10 quality 2Mb 3.5" disks with labels - DIS 3386
- 50 Unbranded 3.5" 2S/DD ..... £14.04  
50 quality 1Mb 3.5" disks - DIS 4200
- 50 Unbranded 3.5" 2S/HD ..... £19.50  
50 quality 1Mb 3.5" disks - DIS 4450
- Kao box 10 5.25" OS/HD ..... £9.32  
10 quality 1.2Mb 5.25" disks with labels - DIS 5715
- Verbatim box 10 3.5" DS/HD ..... £5.06  
10 quality 1.44Mb 3.5" formatted disks with labels - DIS 6110
- Verbatim 10 3.5" DS/HD Microsoft Pk ..... £5.06  
10 quality 1.44Mb 3.5" formatted disks and 1 Windows 95 demo disk - DIS 6124
- Verbatim box 10 3.5" DS/HD ..... £5.06  
10 quality 1.44Mb 3.5" coloured disks - DIS 6136
- Verbatim box 22 3.5" DS/HD ..... £8.47  
22 quality 1.44Mb 3.5" disks with labels - DIS 6147
- DC-2120 Formatted Tape ..... £8.51  
For TAP3600 Colorado 250Mb Drive - DIS 8100
- Verbatim DC-2120 120Mb Twin Formatted Tape - DIS 8112 ..... £16.98
- DC-2120XL 340Mb Tape ..... £17.02  
340Mb pre-formatted tape - DIS 8130
- QIC-3010-MC Tape ..... £17.28  
Tape for 340Mb tape drive - DIS 8145

## TAPESTREAMERS

- Colorado Jumbo TapeStreamer ..... £90.21  
Internal 340Mb Tape drive, fits into 5.25" slot - TAP 3620
- Colorado Tracker TapeStreamer ..... £170.20  
External 340Mb Tape drive, (reads & writes 250Mb tapes), plugs into parallel port - TAP 3640
- DE-2120XL Formatted ..... £17.02  
Tapes for 340Mb Colorado Drives - DIS 8130
- Colorado Jumbo TapeStreamer ..... £136.00  
Internal 680Mb Tape drive, fits into 3.5" slot - TAP 3680
- Colorado Tracker TapeStreamer ..... £232.00  
External 680Mb Tape drive, plugs into parallel port - TAP 3685
- MC3000XL Tapes ..... £17.28  
For 680Mb Colorado Tape drive, (TAP 3680 & TAP 3685) - DIS 8145

## JOYSTICKS



- CyberMan 3D Interactive ..... £58.72  
All in one control replaces keyboard, mouse and joystick - PCJ 1133
- Dexxa Control Pad - PC ..... £11.06  
Turbo buttons for continuous rapid fire, contoured grip for hand support - PCJ 2137
- Dexxa MAXstick - PC ..... £11.06  
Efficient, precisely designed joystick, pressure sensitive trigger switch - PCJ 2151
- Dexxa Joystick - PC ..... £12.76  
Centering adjustments on both axes for accurate cursor control - PCJ 2155
- Logipad - PC ..... £12.76  
Fully microswitched control pad 6 fire buttons, 8 direction control - PCJ 3260
- Megagrip VII - PC ..... £14.46  
Redesigned pistol grip, analogue joystick horizontal/vertical trim adjustment - PCJ 3921
- Megagrip VIII - PC ..... £17.01  
Fast reaction analogue joystick that gives you the edge when needed - PCJ 3931
- Kraft Thunderstick - JS200 ..... £16.98  
Cursor centering adjustments, lightning fast trigger, optional suction feet - PCJ 5826
- Kraft OTC Thunderstick - JS900 ..... £42.51  
Programmable joystick with 8 function buttons to take over keyboard commands - PCJ 5834
- Autoset Joystick Game Card ..... £12.72  
Plug in and play joystick card with 2 ports and control software - PCJ 5853
- Autoset Pro Joystick Game Card ..... £18.68  
The best game joystick on the market. Plug in and play - 2 ports - PCJ 5861

## FLOPPY DRIVES

- Panasonic 5.25" PC 1.2Mb ..... £34.89  
Internal floppy drive for PCs that fits 99% of all makes - DRI 9752
- Sony 3.5" PC 1.44Mb ..... £21.28  
Internal drive intended for use in PC compatibles - DRI 9732
- Fitting Kit 3.5" Hard Drive ..... £8.51  
Fitting kit allowing 3.5" drive to be fitted into a 5.25" bay - DIA 8510

## MICE & T'BALLS



- MICROSPEED**  
MicroTRAC Handheld Trackball ..... £42.51  
Fits in the palm of your hand and is left or right handed - MOU 5619
- PC-TRAC Serial Trackball ..... £46.77  
Large 3 button trackball giving finger-tip control over all your applications - MOU 5626
- PC-TRAC PS/2 Trackball ..... £51.02  
Large 3 button trackball giving finger-tip control over all your applications - MOU 5631
- WinTRAC Trackball PD930 ..... £63.79  
Large 3-button quality trackball with "drag lock" function - MOU 5639
- Replacement Mouse 250DPI ..... £13.57  
Can switch between 2 or 3 buttons Plug and play 250DPI tracking - MOU 5825
- Mouse Deluxe 500DPI ..... £25.49  
Easy to install, most users can keep existing drivers, 500DPI tracking - MOU 5839

## LOGITECH

- Logitech Pilot Serial Mouse ..... £17.87  
Easy to use with 3 buttons and MouseWare Software - MOU 5026
- Logitech Pilot Mouse (PS/2) ..... £17.87  
The world's most popular mouse. Mouseport version includes MouseWare Software - MOU 5037
- Logitech Pilot Chroma ..... £21.23  
3 button higher performance mouse - green Supplied with mouse pad - MOU 5059
- Logitech Pilot Trackball ..... £25.49  
Serial 9-pin to 25-pin adaptor includes MouseWare software - MOU 5094
- Logitech My Mouse ..... £18.72  
Mouse in the shape of a small rodent ideal for children of all ages - MOU 5101
- Logitech MouseMan "Combo" ..... £33.19  
PS/2 Serial mouse with casing sloped 45° Plug and play ready - MOU 5120
- Logitech MouseMan ..... £29.74  
PS/2 mouse and software - MOU 5147
- Logitech MouseMan Upgrade ..... £29.74  
Serial mouse and software - MOU 5148
- Logitech MouseMan Sensa ..... £33.19  
Black Chess Finish - MOU 5231
- Logitech TrackMan Marble ..... £58.72  
Designer trackball - MOU 5432
- Logitech MouseMan Cordless ..... £50.21  
Radio-linked mouse gets around obstacles that stops an infrared mouse - MOU 5156
- Logitech TrackMan Live ..... £118.30  
This is a cordless PC pointing device, sends up to 30ft without pointing - MOU 5426
- Logitech TrackMan II ..... £41.70  
Designed for even the most cluttered desks - Mouse remains stationary - MOU 5411
- Logitech TrackMan Portable ..... £33.19  
Shaped to fit the palm of either hand Includes easy-to-use software - MOU 5438
- Logitech TrackMan Voyager ..... £50.21  
Includes 6 - 9-pin Serial adaptor, case and user guides - MOU 5455
- Logitech Vista ..... £41.70  
Attractive and ergonomic trackball Provides hand and wrist support - MOU 5469

## MONITORS



## SILICA 14" S-VGA COLOUR



- Res. up to 1024 x 768 - 60Hz
  - Non-Interfaced
  - MPR-II
  - 28mm
- £149.00**  
EXC VAT MON 1514

- Silica 14" NI S-VGA ..... £149.00  
1280 x 1024 resolution non-interfaced 35-64KHz, 28mm dot pitch, - MON 1514
- Silica 15" NI S-VGA ..... £209.00  
1280 x 1024 resolution non-interfaced 35-64KHz, 28mm dot pitch, - MON 1551
- 17" NI S-VGA ..... £499.00  
1280 x 1024 resolution non-interfaced 35-64KHz, 28mm dot pitch, - MON 1571

## PROCESSORS



- Texas Inst. 486DX4 33MHz CPU ..... £39.99  
486 compatible CPU running at 33MHz Turns a plug-in 386DX into a 486 compatible - CPU 3533
- Intel 486DX4 100MHz Overdrive ..... £135.32  
For 486 5 volt based motherboards Fits into a 486 overdrive slot - CPU 1505
- Intel 486DX4 100MHz CPU ..... £135.32  
For 486 5 volt based motherboards Fits in original 486 PGA slot - CPU 1510
- Intel Pentium 75MHz CPU ..... £143.83  
Fits in socket 5, 296 Pin, PGA (Plug-in), for 3.3v operation - CPU 4075
- Intel Pentium P24T Overdrive ..... £249.00  
Fits into 486SX25 or DX2-50 slot For 5 volt motherboard - upgrades board to run at speed of Pentium 60MHz - CPU 1524
- Intel Pentium 90MHz CPU ..... £228.94  
Multi-tasking P54C 3.3v - CPU 4090
- Intel Pentium 100MHz CPU ..... £314.04  
Fits in socket 5, 296 Pin, PGA, for 3.3v operation - CPU 4100
- Intel Pentium 120MHz CPU ..... £458.72  
Fits in socket 5, 296 Pin, PGA, for 3.3v operation - CPU 4120
- Intel Pentium 133MHz CPU ..... £569.36  
Fits in socket 5, 296 Pin, PGA, for 3.3v operation - CPU 4133

## MOTHERBOARDS

- Single Pentium P90 ..... £139.00  
Supports 3.3v Pentium 75/90/100MHz CPUs comes with 256K cache (expandable to 1Mb), 4 PCI slots and 4 ISA slot, supports 4 72pin Simm's and 4 enhanced IDE devices, inc 2 buffered serial ports & FDD port - PMO 2050
- PAIO Single Pentium P90 ..... £170.17  
Supports 3.3v Pentium 75/90/100/120/150MHz CPUs comes with 256K cache (exp. to 1Mb), 4 PCI slots and 4 ISA slot, supports 4 72pin Simm's and 4 enhanced IDE devices, inc 2 buffered serial ports & FDD port - PMO 2055

## RAM CHIPS



- 32K x 8-Bit SRAM ..... £9.00  
20ns Cache RAM - MEM 1828
  - 32K x 8-Bit SRAM ..... £15.00  
15ns Cache RAM TAG - MEM 1928
  - 1Mb x 9-Bit SIMM (3 Chip) ..... £29.79  
70ns - MEM 3639
  - 4Mb x 9-Bit SIMM (9 Chip) ..... £114.00  
36 Pin, 70ns - MEM 3849
  - 512K x 32-Bit SIMM ..... £59.00  
72 Pin, 2Mb - MEM 4052
  - 512K x 36-Bit SIMM ..... £69.00  
72 Pin, 2Mb, Parity - MEM 4056
  - 1Mb x 32-Bit SIMM ..... £118.30  
72 Pin, 4Mb - MEM 4132
  - 2Mb x 32-Bit SIMM ..... £254.47  
72 Pin, 8Mb - MEM 4232
  - 1Mb x 36-Bit SIMM ..... £125.11  
72 Pin, 4Mb, Parity - MEM 4136
  - 8Mb x 36-Bit SIMM ..... £799.00  
72 Pin, 32Mb, Parity - MEM 4836
- All RAM prices are subject to price fluctuations. Call for latest prices

## SCANNERS



- Dexxa Scanner 32 OCR ..... £58.72  
Black & white scanner for DOS with Optical Character Recognition - SCA 1132
- Logitech ScanMan 256 ..... £92.77  
Black & white scanner for Windows with Optical Character Recognition - SCA 6178
- Logitech ScanMan Easy Touch ..... £135.32  
Portable black & white scanner Includes Software - SCA 6202
- Logitech ScanMan Colour ..... £186.38  
Portable hand colour scanner with Optical Character Recognition - SCA 6237
- Logitech ScanMan PowerPage ..... £322.55  
Black & white scanner - 256 grey scales Scans up to A4 - SCA 6355



## MAIL ORDER • FREE DELIVERY

**0181-309 1111**

## THE SILICA SERVICE

Before you decide WHEN to buy, we suggest you consider WHERE to buy and protect your investment with a purchase from Silica. With our unrivalled experience and expertise, we will provide all the extra help, advice and new product information you may need both now and in the future. Buy direct, visit one of our stores, or return the coupon now and begin to experience the "Silica Service".

**17 YEARS EXPERIENCE**  
Silica has been established for over 17 years, longer than most other computer suppliers, and has a proven track record in professional computer sales.

**OPEN UNTIL 7PM**  
Mail order lines are open Mon-Fri 9am to 7pm and Sat 9am to 5.30pm. Call your local store for shop opening times.

**HOW TO PAY**  
We accept most major credit cards, cash, cheque or monthly terms (APR 19.9% - written quotes on request).

**CREDIT TERMS AVAILABLE**  
10% deposit & 12, 24 or 36 monthly payments (APR 19.9%) or 0% interest available on selected products over £1000 - Subject to status - Call for details.

**WE PRICE MATCH**  
If before you make your purchase from a Silica store, you see the same goods offered at a lower price by a local competitor, we will match them on a Same Product - Same Price basis. For customers who order by telephone, we will match other mail order companies prices (including their delivery charge). All price matches are subject to our competitor having the goods in stock.

**WE OFFER DISCOUNTS**  
To Business, Education and Government purchasers who place volume orders. Call 0181-308 0888.

**WE SUPPORT YOU**  
Free Technical Helpline - 0181-309 1111 and Free brochures available on request.

MAIL ORDER & HEAD OFFICE: Silica House, Hatherley Road, Sidcup, Kent, DA14 4DX

## 23 STORES NATIONWIDE

CITY	ADDRESS	PHONE
BRISTOL	Debenhams - (1st Floor), St James Barton	0117-929 1021
CARDIFF	Debenhams - (1st Floor), St. David's Way	01222 341576
CHELMSFORD	Debenhams - (2nd Floor), 27 High St.	01245 355511
CROYDON	Debenhams - (2nd Floor), 11-31 North End	0181-688 4455
GLASGOW	Debenhams - (1st Floor), 97 Argyle St.	0141-221 0688
GLOUCESTER	Debenhams - (1st Floor), Kings Square	0145-252 2121
GULDFORD	Debenhams - (1st Floor), Millbrook	01483 301300
HARROW	Debenhams - (2nd Floor), Station Rd.	0181-427 4300
MULL	Debenhams - (2nd Floor), Prospect St.	01482 325151
IPSWICH	Debenhams - (2nd Floor), Westgate St.	01473 221313
LONDON	Silica - 52 Tottenham Court Rd.	0171-580 4000
LONDON	Debenhams - (1st Floor), 334 Oxford St.	0171-580 3080
LONDON	Harrods - (1st Floor), Knightsbridge	0171-730 1234
LUTON	Debenhams - (1st Floor), Arundale Centre	01582 21201
MANCHESTER	Debenhams - (1st Floor), Market St.	0161-832 8666
PLYMOUTH	Debenhams - (1st Floor), Royal Parade	01752 266666
ROMFORD	Debenhams - (1st Floor), Market Place	01708 766066
SHEFFIELD	Debenhams - (1st Floor), The Moor	0114-276 8611
SHEFFIELD	Debenhams - (1st Floor), Meadowhall Centre	0114-256 9779
SIDCUP	Silica - Silica House, Hatherley Rd.	0181-302 8811
SOUTHAMPTON	Debenhams - (1st Floor), Queensway	01703 223888
SOUTHEND	Keddies - (2nd Floor), High Street	01702 462426
THURROCK	Debenhams - (1st Floor), Lakeside Centre	01708 863587

These stores carry a selected range only but products can be ordered in the stores via Mail Order

## FREE BROCHURES

CALL 0181-309 1111 OR RETURN THE COUPON  
To: Silica, PCW-1095-240, Silica House, Hatherley Rd, Sidcup, Kent, DA14 4DX

Please send me a general PC brochure - free of charge

Please send detailed information on the following products:

Mr/Mrs/Miss/Ms: ..... Initials: .....

Surname: .....

Company (if applicable): .....

Address: .....

Postcode: .....

Tel (Home): .....

Tel (Work): .....

Which computer(s), if any, do you own? .....

2450  
**5**  
01065

EOC - Advertised prices and specifications may change - Please return the coupon for the latest information.

# Lowest Computer Prices in the UK Guaranteed Showrooms Now Open at...

**GLASGOW**  
220 ARGYLE STREET  
GLASGOW G2 7HA  
Tel: 0141-204 2300

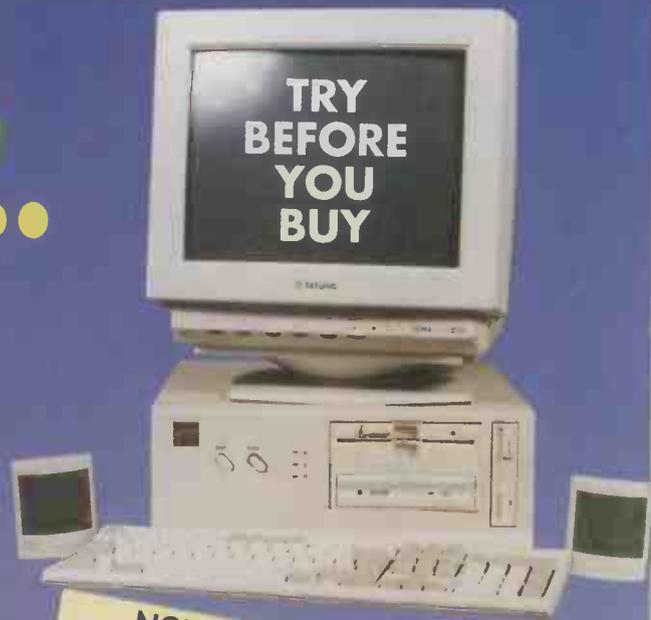
**NEWCASTLE**  
7 HIGH FRIARS  
ELDON SQUARE  
NEWCASTLE NE1 7JB  
Tel: 0191-261 5252

**MANCHESTER**  
VOYAGERS WALK (Opp. SPOILS)  
ARNDALE CENTRE  
MANCHESTER M4 3AT  
Tel: 0161-835 1611

**NOTTINGHAM**  
UNIT 57 UPPER MALL (next to Boots)  
THE VICTORIA CENTRE  
NOTTINGHAM NG1 3QJ  
Tel: 0115-941 9461

**LONDON**  
SONIC FOTO CENTER  
256 TOTTENHAM COURT RD  
LONDON W1A 9AD  
Tel: 0171-636 7613

**SEEING  
IS  
BELIEVING**



**OPENING SOON  
BRISTOL....**

## COME AND SEE US FOR EXPERT ADVICE

Pop into any of our showrooms and meet our qualified, friendly staff.

All our sales team are fully conversant with computers and will gladly advise you on the best system for your needs, whether you're a first time computer buyer or you need to upgrade your existing computers.

**JUST ONE OF OUR AMAZING OFFERS!**

**486DX2-66MHz  
WITH CD SOFTWARE**

- 4MB RAM Upgradeable
- Supports EDO RAM
- 360MB HDD Cache
- PCI Local Bus 1MB Windows Accelerator Graphics Card
- 14" SVGA Colour Monitor
- PCI Enhanced IDE Controller
- Maths Co-Processor
- Pentium P24T Upgradeable
- 3.5" 1.44MB FDD
- 6 Spare PCI/ISA Slots
- 102 Key Keyboard
- IBM Compatible\*
- 2 x Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop case

- Multimedia Kit with Dual Speed Multi Session CD ROM Drive & 16 bit Stereo Soundcard with Speakers

**£599**  
ABSOLUTELY UNBEATABLE TINY PRICE!!

\*IBM is a registered trademark of International Business Machines

**12 MONTHS UK BACK TO BASE WARRANTY**

CALL NOW

**01737-779511**

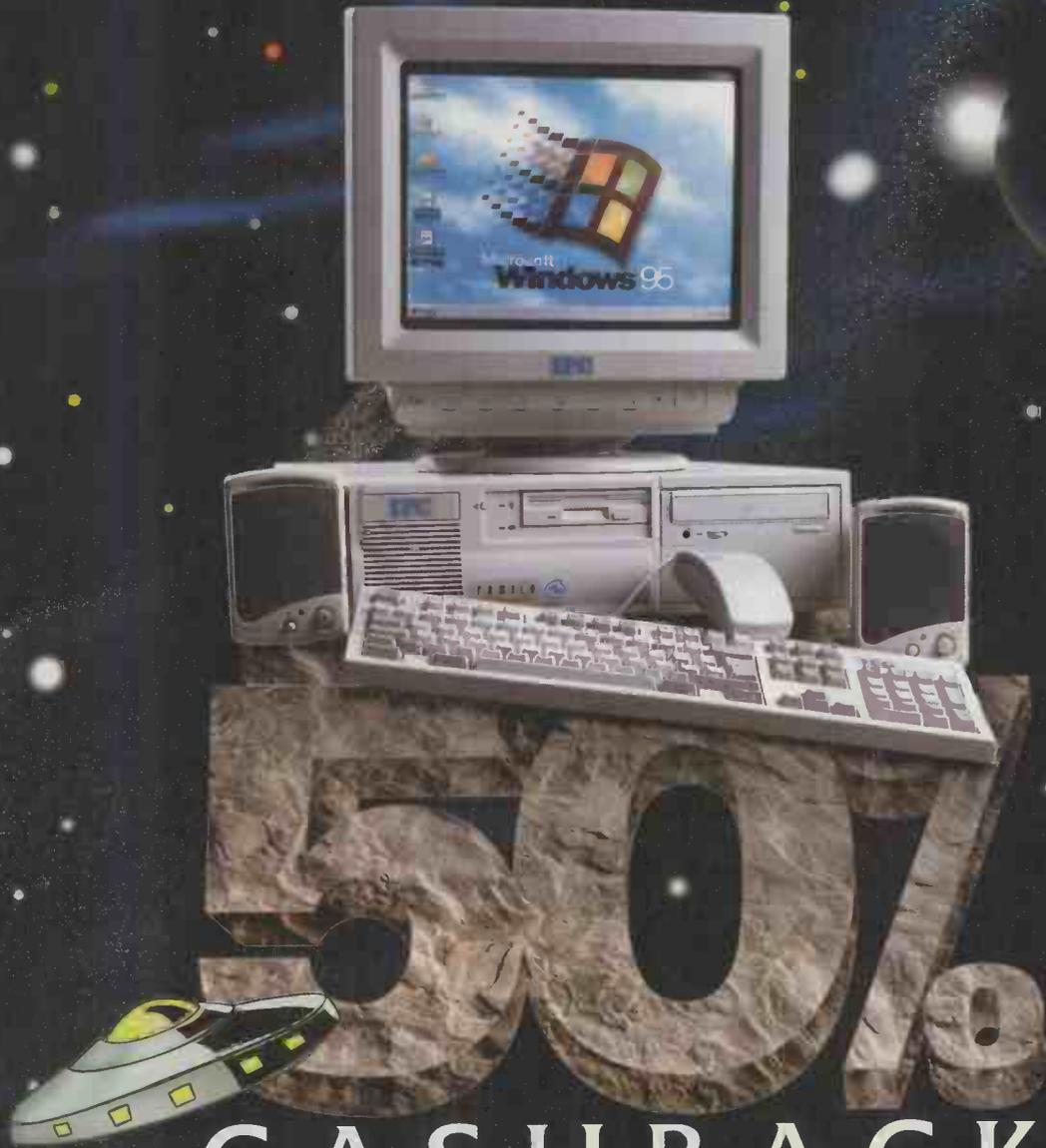
PRICES EXCLUDE VAT & DELIVERY FAX: 01737-779541

NO SURCHARGE ON CREDIT CARDS

All prices and manufacturers specifications are subject to change without prior notice. Please check availability before ordering. Goods are offered for sale subject to our standard conditions of sale available on request. E&OE.

**tiny**  
direct to you!

# IPCing is believing



## CASHBACK

IPC personal computers have always been regarded as a good investment, but we've just put the finishing touches to a deal that'll really ensure you get your money's worth. Buy one of our featured IPC computers now, and you'll be eligible to claim back an amazing 50% of its purchase price in just five years' time - that's money you're sure to find useful when the time comes, for new equipment, or even a system upgrade.

VISIT YOUR LOCAL



CENTRE

*Talk to the experts*



# We're light years ahead

# IPCing is

# 50%

## CASHBACK

IPC's FamilyMagic PCs offer superior processing power, and come complete with a fascinating bundle of CD-ROM titles compiled to give you a taste of the machines' impressive multimedia capabilities, and designed to appeal to all the family. Among the five CD-ROM titles you'll find a really appealing selection of games, education, work tools and reference materials - the only problem you'll have is

deciding who

gets to go first!

And now, for a limited period\*, we're giving you an extra reason to choose IPC - the opportunity to claim back an unbelievable 50% of the

purchase price. Simply buy any of the

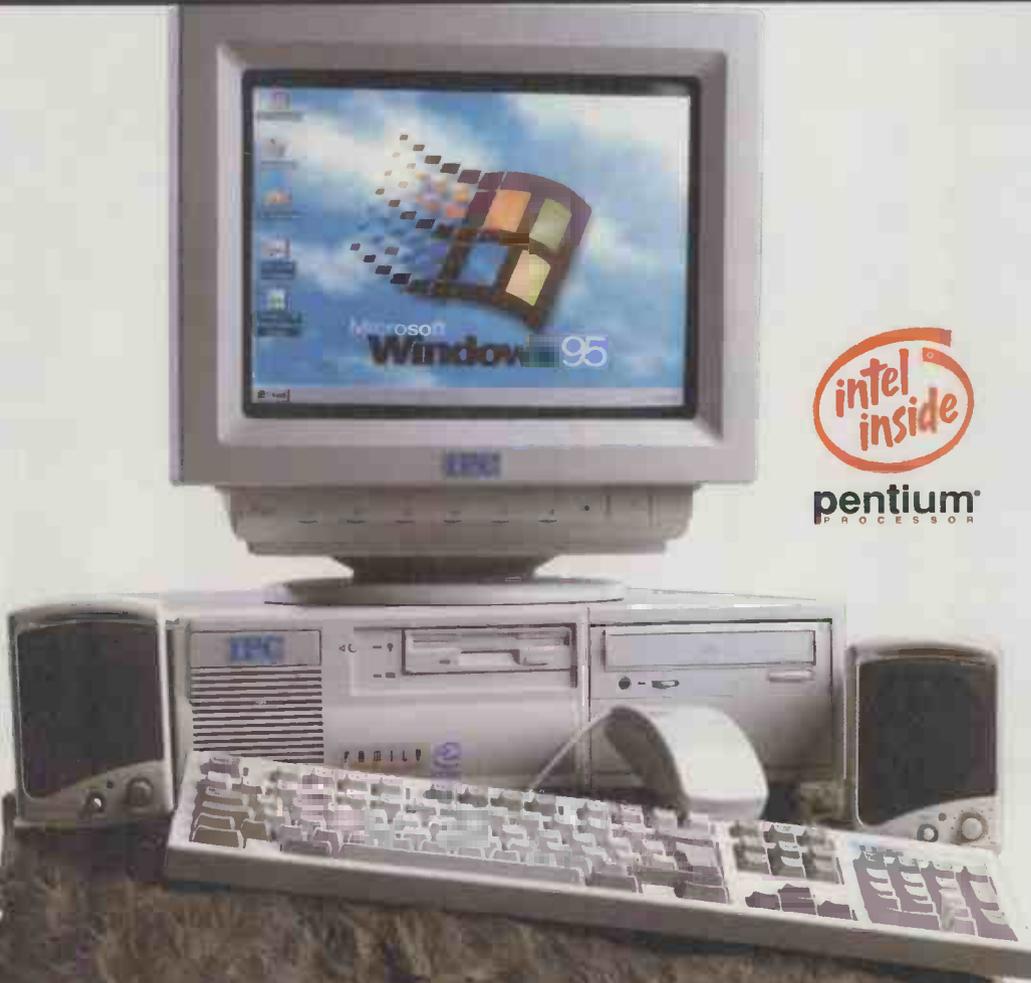
FamilyMagic PCs featured in the CASHBACK range and claim 50% of your money back in 5 years using the special CASHBACK cheque issued free of charge with your purchase by the participating IPC Centre. It's our best deal ever, and there's never been a better time to buy. Contact your local IPC Centre - listed opposite - for more details on the CASHBACK promotion (and expert guidance), and we guarantee you'll get more than you bargained for!

\* Offer valid until end of Dec 1995

# ... a galaxy

# believing...

**50% CASHBACK**



# IPC

## CENTRE

*Talk to the experts*

Barnstaple	01271 222 55
Beckenham	0181 676 8488
Belfast	01232 240 798
Blackburn	01254 665 860
Blackpool	01253 202 39
Boston	01205 365 102
Bournemouth	01202 290 200
Braintree	01376 348 321
Bristol	01179 491164
Burnley	01282 418899
Bury St Edmunds	01284 702 305
Cheshunt	01992 625 323
Darlington	01325 361 670
Derby	01332 204 077
Durham	0191 378 2618
Edinburgh	0131 557 4546
Exeter	01392 410027
Falkirk	01324 636 147
Fareham	01329 239 953
Hull	01482 328 706
Ipswich	01473 214 868
London WIP 5LA	0171 387 4455
London MIDDX	0181 751 3351
Macclesfield	01625 423 170
Manchester	0161 224 8117
Middlesborough	01642 242 668
Norwich	01603 425 209
Nottingham	01159 270 280
Oxford	01865 204 794
Reading RG3	01734 508 099
Stamford	01780 55888
St Annes	01253 782 890
Stevenage	01438 354 449
Trowbridge	01225 762 759
West Bromwich	0121 580 0880
West Hampstead	0171 624 7174

### FamilyMagic Slimline P90

<i>Processor</i>	Intel Pentium® 90Mhz Processor
<i>Memory</i>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller, 256Kb Cache
<i>Display</i>	14" SVGA 0.28 MPRII Colour
<i>Drives</i>	540Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Dual Speed CD ROM Drive
<i>Accessories</i>	102 Keyboard & Mouse ISP16 Stereo Sound Card Twin Active Speakers Slimline Case only
<i>Software</i>	MS DOS 6.22 Windows 3.11 5 Microsoft CD Titles (limited offer)
<i>Warranty</i>	12 months

**£1349** exc VAT  
£1585.08 inc VAT

### FamilyMagic Slimline P100

<i>Processor</i>	Intel Pentium® 100Mhz Processor
<i>Memory</i>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller 256Kb Cache
<i>Display</i>	14" SVGA 0.28 MPRII Colour
<i>Drives</i>	540Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Dual Speed CD ROM Drive
<i>Accessories</i>	102 Keyboard & Mouse ISP16 Stereo Sound Card Twin Active Speakers Slimline Case only
<i>Software</i>	MS DOS 6.22 Windows 3.11 5 Microsoft CD Titles (limited offer)
<i>Warranty</i>	12 months

**£1499** exc VAT  
£1761.33 inc VAT

Cashback promotion available from above centres only



# of choice

# IP C i n g i s



and you'll go a long way to

# believing

50%  
CASHBACK

When a PC has to work hard for its keep, it's comforting to know you have power to spare, and room for expansion, as well as unrivalled communications features.

So for families with a heavy schedule, we are offering two FamilyMagic Minitower options. Both machines conceal powerful Pentium® processor 90Mhz inside fully expandable minitower casings, and both offer impressive multimedia capabilities. The FamilyMagic Minitower SmartSuite has a generous 8Mb RAM on board, expandable to 128Mb, and carries a roomy 850Mb hard drive. Shipped complete with the award-winning Lotus SmartSuite CD-ROM software bundle, you'll find everything you need to give you the best start possible.

For users seeking the very latest in communications technology though, the FamilyMagic Minitower Telemetry model is the choice of the professional.

IPC's ground-breaking T-32 multimedia card lies at the heart of multimedia operations, combining telephony, fax, data communications and audio functions on a single card. With integrated Voice Management you'll enjoy advanced telecommunication features-from a convenient digital answering machine to the autosensing of incoming fax, Voice and data signals - converting your home PC into a complete telecommunication and multimedia manager, at a stroke!

## FamilyMagic SmartSuite P90

<i>Processor</i>	Intel Pentium® 90Mhz Processor
<i>Memory</i>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller 256Kb Cache
<i>Display</i>	15" SVGA 0.28 MPRII Colour
<i>Drives</i>	850Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Quad Speed CD ROM Drive
<i>Accessories</i>	102 Keyboard & Mouse ISP16 Stereo Sound Card Twin Active Speakers MiniTower Case only
<i>Software</i>	MS DOS 6.22 Windows 3.11 Lotus SmartSuite Multilingual CD
<i>Warranty</i>	12 months

**£1599** exc VAT

£1878.83 inc VAT

## FamilyMagic Telemetry P90

<i>Processor</i>	Intel Pentium® 90Mhz Processor
<i>Memory</i>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller 256Kb Cache
<i>Display</i>	15" SVGA 0.28 MPRII Colour
<i>Drives</i>	850Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Quad Speed CD ROM Drive
<i>Accessories</i>	102 Keyboard & Mouse Twin Active Speakers MiniTower Case only T-32 Telemetry card (data, fax, telephone and sound capabilities).
<i>Software</i>	MS DOS 6.22 Windows 3.11 1 months Free connection to CompuServe
<i>Warranty</i>	12 months

**£1699** exc VAT

£1996.33 inc VAT

# IPC

## CENTRE

*Talk to the experts*

Barnstaple	01271 222 55
Beckenham	0181 676 8488
Belfast	01232 240 798
Blackburn	01254 665 860
Blackpool	01253 202 39
Boston	01205 365 102
Bournemouth	01202 290 200
Braintree	01376 348 321
Bristol	01179 491164
Burnley	01282 418899
Bury St Edmunds	01284 702 305
Cheshunt	01992 625 323
Darlington	01325 361 670
Derby	01332 204 077
Durham	0191 378 2618
Edinburgh	0131 557 4546
Exeter	01392 410027
Falkirk	01324 636 147
Fareham	01329 239 953
Hull	01482 328 706
Ipswich	01473 214 868
London WIP 5LA	0171 387 4455
London MIDDX	0181 751 3351
Macclesfield	01625 423 170
Manchester	0161 224 8117
Middlesborough	01642 242 668
Norwich	01603 425 209
Nottingham	01159 270 280
Oxford	01865 204 794
Reading RG3	01734 508 099
Stamford	01780 55888
St Annes	01253 782 890
Stevenage	01438 354 449
Trowbridge	01225 762 759
West Bromwich	0121 580 0880
West Hampstead	0171 624 7174

Cashback promotion available from above centres only



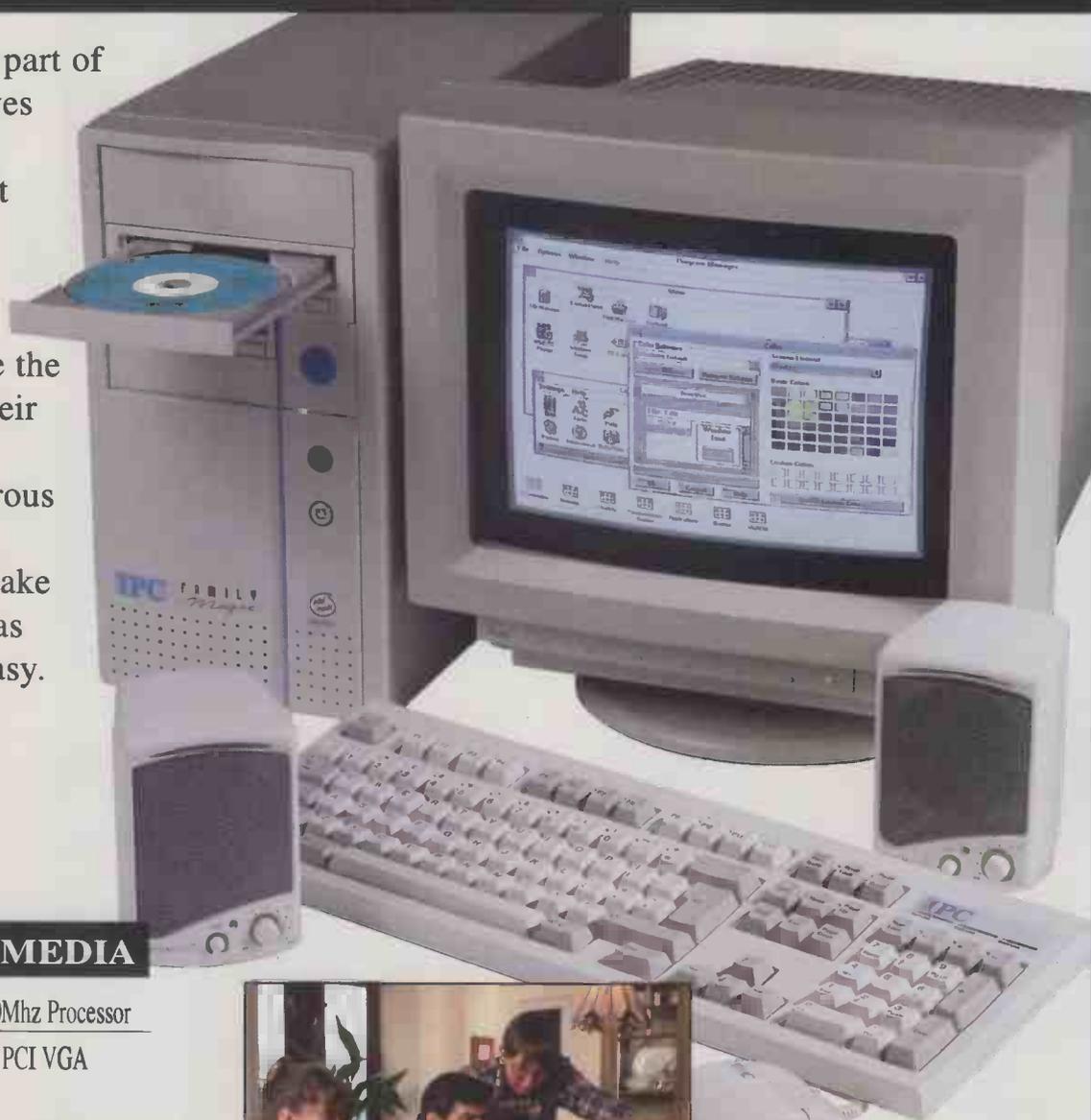
# get a better deal

# With an IPC computer

Computers are now part of our lives and the lives of our children, by visiting your nearest IPC Centre, new computer buyers can touch, try, examine and choose the right package for their requirements, and thanks to our numerous personal finance schemes, we also make buying a computer as affordable as it is easy.



pentium  
PROCESSOR



## P5-90 MULTIMEDIA

<i>Processor</i>	Intel Pentium® 90Mhz Processor
<i>Memory</i>	8Mb RAM, 1Mb PCI VGA 256Kb Cache
<i>Display</i>	14" SVGA 0.28 MPRII Colour
<i>Drives</i>	540Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Dual Speed CD ROM Drive
<i>Accessories</i>	102 Keyboard & Mouse ISP16 Stereo Sound Card Twin Active Speakers Mini Tower Case only
<i>Software</i>	MS DOS 6.22 Windows 3.11 5 Microsoft CD Titles (limited offer)
<i>Warranty</i>	12 Months

**£1299** exc VAT  
£1526.33 inc VAT



## DX4-75 MULTIMEDIA

*Processor:* Intel 486DX4-75 CPU *Memory:* 4Mb RAM, 1Mb VESA VGA, 16Kb Cache *Display:* 14" SVGA 0.28 MPRII Colour  
*Drives:* 540Mb Hard Disk Drive, 3.5" 1.44Mb Floppy Drive, Dual Speed CD ROM Drive *Accessories:* 102 Keyboard & Mouse, ISP16 Stereo Sound Card, Twin Active Speakers, Mini Tower Case only *Software:* MS DOS 6.22 Windows 3.11, 5 Microsoft CD Titles *Warranty:* 12 Months. *Price:* £949 exc VAT, £1115.08 inc VAT

## DX4-100 MULTIMEDIA

*Processor:* Intel 486DX4-100 CPU *Price:* £999 exc VAT, £1173.83 inc VAT

# ....plain sailing but

# system it's.....



## IPC CENTRE

Talk to the experts

Ballymena	01266 496 16
Barnstaple	01271 222 55
Beckenham	0181 676 8488
Belfast	01232 240 798
Birmingham	0121 622 4420
Blackburn	01254 665 860
Blackpool	01253 202 39
Bolton	01204 399 355
Boston	01205 365 102
Bournemouth	01202 290 200
Braintree	01376 348 321
Bristol	01179 491164
Burnley	01282 418899
Bury St Edmunds	01284 702 305
Cannock	01543 466 577
Cheshunt	01992 625 323
Cleethorpes	01472 362 672
Colchester	01206 764 888
Darlington	01325 361 670
Derby	01332 204 077
Doncaster	01302 768500
Douglas IOM	01624 676 767
Dumfries	01387 269 951
Durham	0191 378 2618
East Barnet	0181 361 5111
Eastbourne	01323 520 252
Edinburgh	0131 557 4546
Exeter	01392 410027
Falkirk	01324 636 147
Fareham	01329 239 953
Hull	01482 328 706
Ipswich	01473 214 868
Lancaster	01524 61133
Leighton Buzzard	01525 371 709
Liverpool	0151 260 6000
London	0171 405 2157
London WIP 5LA	0171 387 4455
London MIDDX	0181 751 3351
London N22 OAA	0181 889 9412
Macclesfield	01625 423 170
Manchester	0161 224 8117
Mansfield	01623 421 777
Middlesborough	01642 242 668
Neston	0151 336 6905
North Finchley	0181 446 7170
Norwich	01603 425 209
Nottingham	01159 270 280
Oswestry	01691 650 584
Oxford	01865 204 794
Oxford INTERNET	01865 295 066
Reading RG1	01734 591 816
Sheffield	01142 754 141
Southampton	01703 333 958
Stamford	01780 55888
St Annes	01253 782 890
Stevenage	01438 354 449
Sunderland	0191 567 4963
Trowbridge	01225 762 759
Warrington	01925 234 300
West Bromwich	0121 580 0880
West Hampstead	0171 624 7174
Woking	01483 756 601

**NO  
DEPOSIT  
REQUIRED**

**BUY  
NOW  
PAY NOTHING  
FOR 6 MONTHS**

A TYPICAL EXAMPLE - Cash price  
£1232.58 inc VAT then the balance over  
36 months of £53.10 per month.  
Total amount payable £1911.60  
Written quotations on request. Payable by  
direct debit only. Credit subject to status.

**APR 26.8%\***

\*Variable by Avco Trust at any time by  
notice as required by law.

### Budget Slimline P90

<i>Processor</i>	Intel Pentium®90Mhz Processor
<i>Memory</i>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller 256Kb Cache
<i>Display</i>	14" SVGA 0.28 MPRII Colour
<i>Drives</i>	540Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive
<i>Accessories</i>	102 Keyboard & Mouse
<i>Software</i>	MS DOS 6.22 Windows 3.11
<i>Warranty</i>	12 months

**£1049** exc VAT

£1232.58 inc VAT

**with no mailing**



# COMPLETE BUSINESS SOLUTION

# IPC

## CENTRE

*Talk to the experts*

Ballymena	01266 496 16
Barnstaple	01271 222 55
Beckenham	0181 676 8488
Belfast	01232 240 798
Birmingham	0121 622 4420
Blackburn	01254 665 860
Blackpool	01253 202 39
Bolton	01204 399 355
Boston	01205 365 102
Bournemouth	01202 290 200
Braintree	01376 348 321
Bristol	01179 491164
Burnley	01282 418899
Bury St Edmunds	01284 702 305
Cannock	01543 466 577
Cheshunt	01992 625 323
Cleethorpes	01472 362 672
Colchester	01206 764 888
Darlington	01325 361 670
Derby	01332 204 077
Doncaster	01302 768500
Douglas IOM	01624 676 767
Dumfries	01387 269 951
Durham	0191 378 2618
East Barnet	0181 361 5111
Eastbourne	01323 520 252
Edinburgh	0131 557 4546
Exeter	01392 410027
Falkirk	01324 636 147
Fareham	01329 239 953
Hull	01482 328 706
Ipswich	01473 214 868
Lancaster	01524 61133
Leighton Buzzard	01525 371 709
Liverpool	0151 260 6000
London	0171 405 2157
London WIP 5LA	0171 387 4455
London MIDDX	0181 751 3351
London N22 0AA	0181 889 9412
Macclesfield	01625 423 170
Manchester	0161 224 8117
Mansfield	01623 421 777
Neston	0151 336 6905
North Finchley	0181 446 7170
Middlesborough	01642 242 668
Norwich	01603 425 209
Nottingham	01159 270 280
Oswestry	01691 650 584
Oxford	01865 204 794
Oxford INTERNET	01865 295 066
Reading RG1	01734 591 816
Sheffield	01142 754 141
Southampton	01703 333 958
Stamford	01780 55888
St Annes	01253 782 890
Stevenage	01438 354 449
Sunderland	0191 567 4963
Trowbridge	01225 762 759
Warrington	01925 234 300
West Bromwich	0121 580 0880
West Hampstead	0171 624 7174
Woking	01483 756 601



With the small business user firmly in mind IPC offers a complete computing solution. A powerful 90Mhz Pentium® processor-based multimedia desktop computer complete with software, DSP Wave table sound capability and including fully integrated telephone, voice mail and fax facilities. The solution is completed with the market leading ExecJet IIc full colour inkjet printer from Lexmark.



### FamilyMagic Office P90

<b>Processor</b>	Intel Pentium® 90Mhz Processor
<b>Memory</b>	8Mb RAM, up to 128Mb 1Mb PCI VGA Controller, 256Kb Cache
<b>Display</b>	15" SVGA 0.28 MPRII Colour
<b>Drives</b>	850Mb Hard Disk Drive 3.5" 1.44Mb Floppy Drive Quad Speed CD ROM Drive
<b>Accessories</b>	102 Keyboard & Mouse Twin Active Speakers T-32 Telemetry card (data, fax, telephone and sound capabilities).
<b>Software</b>	MS DOS 6.22 Windows 3.11 Lotus SmartSuite CD 1 months Free connection to CompuServe
<b>Warranty</b>	12 months on-site
<b>Printer</b>	Lexmark ExecJet IIc colour

**£1799** exc VAT

£2113.83 inc VAT

Prices, specifications and offers are subject to change without notice. Screen shots for illustration only. Software packages may alter depending on availability. Most major credit cards accepted. Finance available on request at participating centres. APR 26.8%. Subject to status. Written details on request. E&OE

**IPC Corporation (UK) Ltd.,**  
Glenfield Park, Lomeshaye Business Village, Nelson, Lancashire BB9 7DR.  
Telephone 01282 618866

The Intel Inside and Pentium Processor Logos are trademarks of Intel Corporation





If you want best prices on best-of-breed PCs and notebooks, there's only one place to go. P&P plc are one of the UK's leading computer resellers, with over 35,000 product lines, friendly, professional staff and a delivery service that can get your order to you by this time tomorrow. Call us now on 01706 832832 or 0171 265 4570 to put together a package that's right for you on price and quality.



# VALUEPLUS

FROM  
FUJITSU ICL



## VALUEPLUS VL/33d

**33 MHz**

The entry-level ICL ValuePlus VL/33 gives you all the power you need for now PLUS four free expansion slots and two free drive bays to serve you into the future.

- Intel 486DX 33MHz Processor • 210Mb Hard Disk
- 4Mb RAM (expandable to 64Mb) • ICL 14" SVGA MPRII Colour Monitor • MS-DOS 6.2 & Windows 3.1 pre-loaded\*
- ICL Keyboard • ICL Mouse

**3 Year Fujitsu ICL Warranty 1st Year On-Site**

\*Disks and manuals not included

**P&P PRICE £699**

(£821.33 inc VAT) quote order no **ICL015/PP871F**

## VALUEPLUS VL/66d

**66 MHz**

**DX 2**

Step up to super fast DX2 66MHz power complete with 210Mb of hard disk storage, and you don't have to stop there. Pentium upgrade and four expansion slots means the future is yours.

- Intel 486DX2 66MHz Processor • 210Mb Hard Disk • 4Mb RAM (expandable to 64Mb) • ICL 14" SVGA MPRII Colour Monitor
- MS-DOS 6.2 & Windows 3.1 pre-loaded\* • ICL Keyboard • ICL Mouse

**3 Year Fujitsu ICL Warranty 1st Year On-Site**

\*Disks and manuals not included

**P&P PRICE £799**

(£938.83 inc VAT) quote order no **ICL020/PP871F**



## TATUNG TM4401VP

Tatung, in 1980, established its European manufacturing and marketing headquarters in Telford. This site now specialises in manufacturing PC monitors for the European market, and is the foundation for Tatung's UK market leadership in monitors and a top 10 position worldwide. The prestigious ISO9001 award has been achieved by Tatung (UK) Ltd, and the company is equipped to meet the latest BEAB and TUV approved technical manufacturing standards.

- 14" colour monitor • 0.28mm dot pitch • 31-50KHz horizontal scanning, 55-87Hz vertical scanning frequency • 1024x768 resolution (non-interlaced) at 60MHz and 640x480, 720x400, 800x600 @ 72MHz resolutions • EPA Energy Star compliant, maximum power consumption 95W, 30W in sleep mode • Anti-glare screen with low radiation MPRII
- Supports VGA, SVGA, XGA • Dimensions 351x384x327mm • Weight 12kg

**1 Year Tatung On-Site Warranty**

**P&P PRICE £159**

(£186.83 inc VAT) quote order no **TAT033/PP871F**

**ORDER NOW**   
CALL **P&P SOUTH**  
**0171 265 4570**  
CALL **P&P NORTH**  
**01706 832832**  
**FOR PUBLIC SECTOR ORDERS**  
RING YOUR ACCOUNT MANAGER ON  
**01706 832081**  
OR FAX YOUR ORDER ON  
**01706 832189**





**digital**<sup>TM</sup>  
**PC**

# DIGITAL QUALITY EXCLUSIVELY FROM P&P



## **PENTIUM** DIGITAL VENTURIS 560 **PENTIUM**

- 60MHz Intel Pentium Processor • 540Mb Hard Disk
- 8Mb RAM (expandable to 128Mb) • 14" SVGA Monitor • 3.5" 1.44Mb Floppy Drive
- One PCI, one ISA, one PCI/ISA interleaved • 2 free Drive Bays
- Intel Pentium OverDrive® Upgrade Socket • 256Kb Secondary Cache • Plug & Play Compatible • MS-DOS 6.22 and MS Windows for WorkGroups 3.11 pre-loaded\*.



3 Year Digital Warranty, 1st Year On-Site (CPU ONLY)

ONE YEAR WARRANTY ON MONITOR

\*Disks and manuals not included.

**P&P PRICE £1099**

(£1291.33 inc VAT) quote order no **DKP655/PP871F**

## EXCLUSIVE P&P OFFER **COMPAQ**

### ELITE 4/40C

**40**  
MHz

*With so much for so little, we really do think our Compaq Elite Colour Notebook package is unbeatable.*

- Intel 486DX2 40MHz SL-Enhanced processor • 170Mb Hard Disk
- 4Mb RAM (expandable to 20Mb) • 256 Sharp Colours on the 9.5" Compaq Advanced Dual Scan Passive Matrix Colour VGA Screen
- Fast screen response without ghosting using the Local Bus Graphics Accelerator • Secure storage of important data with the removable Hard Disk • Internal AC Adapter - just plug in and go
- PCMCIA Type III slot - for a host of connectivity options
- MS DOS 6.2 • MS Windows 3.1\*



3 Year Compaq World-Wide Warranty

\*Disks and manuals not included.

**P&P PRICE £1299**

(£1526.33 inc VAT) quote order no **CDP252/PP871F**

**PLUS WE CAN ALSO OFFER YOU THE FULL RANGE OF COMPAQ ELITE OPTIONS.**

**CALL OUR SALES TEAM NOW TO FIND OUT MORE.**



**ORDER NOW**  
**CALL** **P&P SOUTH**  
**0171 265 4570**

**CALL** **P&P NORTH**  
**01706 832832**

**FOR PUBLIC SECTOR ORDERS**

RING YOUR ACCOUNT MANAGER ON

**01706 832081**

OR FAX YOUR ORDER ON

**01706 832189**

P&P Direct, Todd Hall Road, Carrs Industrial Estate, Haslingden, Rossendale, Lancashire BB4 5HU Reg. No. 2380230



\*All offers are made subject to availability \* 24 hour delivery (£15 excluding VAT) subject to credit and availability \*All prices are subject to change without notice, E&OE etc \*Goods are not sold on a trial basis \* Subject to our standard terms and conditions (available on request) \*While stocks last \* P&P Direct is a trading division of P&P Corporate Systems Limited which is part of the P&P plc group of companies.



**P&P**

# MULTIMEDIA PRICE BARRIER SMASHED!



THIS SOFTWARE AVAILABLE CALL!

## FULLY CONFIGURED UNBEATABLE SUPERDEALS 486DX2-66MHz

- 4Mb RAM Upgradeable
- Supports EDO RAM
- 540Mb Fast HDD with 128K Cache
- 14" SGVA Colour Monitor
- PCI Local Bus 1Mb Windows Accelerator Graphics Card
- PCI Enhanced IDE Controller
- Maths Co-processor
- Pentium P24T Upgradeable
- 3.5" 1.44Mb FDD

Multimedia Kit with Dual Speed Multisession  
CD ROM Drive & 16 bit Stereo Soundcard with  
Speakers

- 6 Spare PCI/ISA Slots
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop Case



**ABSOLUTELY  
UNBEATABLE  
TINY PRICE!!**

# £629



**SHOWROOMS  
NOW OPEN**

## 486DX4-100MHz

- 8Mb RAM Upgradeable
- Supports EDO RAM
- 1Gb Fast IDE HDD with 256K Cache
- 14" SGVA Colour Monitor
- PCI Local Bus 1Mb Windows Accelerator Graphics Card
- PCI Enhanced IDE Controller
- Maths Co-processor
- Pentium P24T Upgradeable
- 3.5" 1.44Mb FDD
- 6 Spare PCI/ISA Slots

Multimedia Kit with Dual Speed Multisession  
CD ROM Drive & 16 bit Stereo Soundcard with  
Speakers

- 128K Cache
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop Case



**ABSOLUTELY  
UNBEATABLE  
TINY PRICE!!**

# £829

## 586P-75MHz

- P75 Pentium® Processor Based
- Supports EDO RAM
- 8Mb RAM Upgradeable
- 1Gb Fast IDE HDD with 256K Cache
- 14" SGVA Colour Monitor
- PCI Local Bus 1Mb Windows Accelerator Graphics Card
- 256K Cache
- 3.5" 1.44Mb FDD
- 7 Spare PCI/ISA Slots
- Plug 'n' Play

Multimedia Kit with Dual Speed Multisession  
CD ROM Drive & 16 bit Stereo Soundcard with  
Speakers

- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop Case



**ABSOLUTELY  
UNBEATABLE  
TINY PRICE!!**

# £949

CALL THE HOTLINE NOW!

# 01737-779511

**GUARANTEED LOWEST  
PRICES IN THE UK**

Prices exclude VAT & Delivery FAX: 01737-779541

NORMAL NEXT DAY DELIVERY

TINY COMPUTERS LTD, 53 ORMSIDE WAY, HOLMETHORPE IND. ESTATE, REDHILL, SURREY RH1 2LW

**LONDON SHOWROOM**  
THE SONIC FOTO CENTRE  
256 TOTTENHAM COURT ROAD  
LONDON W1A 9AD  
TELEPHONE: 0171-636 7613  
OPEN MON - SAT 9.30am - 6.30pm

**GLASGOW SHOWROOM**  
220 ARGYLE STREET  
GLASGOW G2 7HA  
TELEPHONE: 0141-204 2300  
OPEN MON - SAT 9.00am - 5.30pm

**NEWCASTLE SHOWROOM**  
7 HIGH FRIARS ELDON SQUARE  
NEWCASTLE NE1 7JB  
TELEPHONE: 0191-261 5252  
OPEN MON - SAT 9.00am - 5.30pm

**MANCHESTER SHOWROOM**  
VOYAGERS WALK (Opp. SPOILS)  
ARNDALE CENTRE  
MANCHESTER M4 3AT  
TELEPHONE: 0161-835 1611  
OPEN MON - SAT 9.00am - 6.00pm

**NOTTINGHAM SHOWROOM**  
(OPENS 5th AUGUST 1995)  
UNIT 57, UPPER MALL (next to Boots)  
THE VICTORIA CENTRE  
NOTTINGHAM NG1 3QJ  
TELEPHONE: 0115-941 9461  
OPEN MON - SAT 9.00am - 6.00pm

**TINY COMPUTERS LTD**  
53 ORMSIDE WAY HOLMETHORPE IND. ESTATE  
REDHILL SURREY RH1 2LW  
TELEPHONE: 01737-779511  
OPEN MON - FRI 9.30am - 5.00pm

NO SURCHARGE ON CREDIT CARDS



All trademarks acknowledged.  
All prices and manufacturers specifications are  
subject to change without notice. Please check  
availability before ordering. Goods are offered for  
sale subject to our standard conditions of sale  
available on request. E&OE.

**tiny**  
direct to you!

# Jazz Studio

 Digital Video

 S-Video

 Composite 1

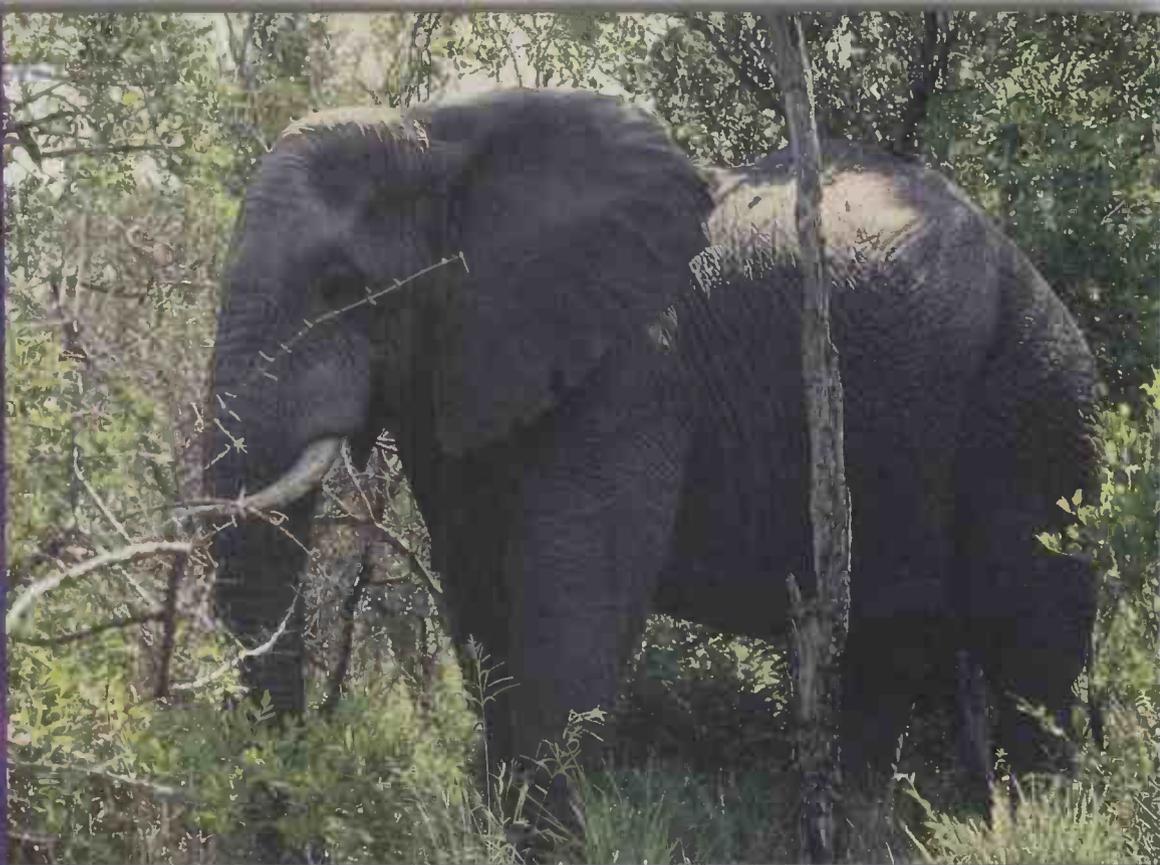
 Tuner

 Composite 2

Help



Setup



## At £299\* the Jazz 24-bit Video Accelerator/ MPEG Decoder is a treat for your eyes & ears

The new Jazz Jakarta is a 24-bit/16.7m colour Video Accelerator (with 2MB RAM) and integral MPEG-1 Decoder, (all on a single ISA or PCI card with a single IRQ). With Jakarta you can enhance your PC (486 or higher) with stunning graphics & transform it into a jumbo-sized full-screen (and scaleable) full-motion MPEG-1 (and VideoCD) video/ stereo audio playback multimedia PC.

The optional Jazz Projector daughter card provides PC screen output to your television, and the soon to be available optional Jazz Port of Entry card provides PC screen input from it's integral television tuner and input from your television. (Port of Entry may require a TV licence).

As part of the new MPC-3 standard, MPEG-1 is set to be

the de facto standard for digital television. We are specialists in MPEG technology (as well as CD recording) and can supply a wide range of products including MPEG-1/ MPEG-2 Encoders & Decoders, MPEG/ VideoCD authoring software and MPEG network servers for live real-time MPEG distribution on Ethernet LANs & WANs. Put your PC in the MPEG picture & give us a call today!

 **CD Revolution Ltd**

CDR House, Gogmore Lane, Chertsey, Surrey KT16 9AP

Tel: 01932 562000 Fax: 01932 571999

also available in South Africa from CD Revolution (Pty) Ltd

Tel: 021 880 1497/ 1710 Fax: 021 880 0305



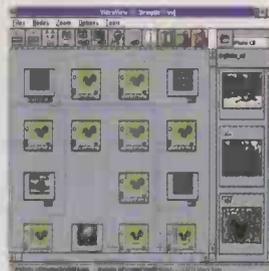
**Jakarta - Video Accelerator & MPEG Decoder - £299 +VAT**  
**Jakarta+Authoring Kit - £379 +VAT** (complete with Media Styler Special Edition on CD-ROM, Video-CLIP Sampler & 30 min. of MPEG Encoding from VHS/Betacam tape)  
**Projector - £99 +VAT** (uses "cine" button as in above Window)  
**Jazz Port of Entry - £POA** (uses S-Video, Tuner, Composite 1 & 2 buttons as in above Window (available Dec 95))



**Media Styler (Special Edition)** Easy-to-use Multimedia authoring software. You can easily manipulate and connect, video (.MPG, .AVI, .MOV), animation (.FLI, .FLC), sound (.WAV, .MID); photos, text & graphics and combine them into powerful presentations. **Media Styler (Special Edition) - £49 +VAT**  
**Media Styler - £399 +VAT**  
**Run Time Module - £1,099 +VAT**



**OPTIVision Real-Time MPEG Encoder** - Add-in ISA board that captures, digitises and compresses standard PAL or NTSC analog video & stereo. **Encoder - £7,499 +VAT (pictured)**  
**OPTIVision MPEG Decoder** - Add-in ISA board decodes MPEG data & generates PAL or NTSC video & stereo. Includes genlock & preview facility. **Decoder - £1,099 +VAT**



**CeQuadrat VideoPack** - Windows software, takes MPEG video/stereo audio bitstreams & in real-time multiplexes them into a VideoCD (White Book) format ready for CD recording. **VideoPack - £699 +VAT**  
**CeQuadrat WinOnCD** - Windows recording software records VideoCD, CD-ROM, CD-ROM XA, CD-Audio, CD-I. **WinOnCD - £399 +VAT**



**CD Revolution CDR P-90 MPEG-1 Encoder PC** - Ready-to-go fully featured Intel 90Mhz Pentium® based PC, OPTIVision MPEG Encoder, Jakarta MPEG Decoder, internal Quad Speed CD Recorder, 8MB RAM, 2GB SCSI Hard Drive, Quad Speed CD-ROM drive, 16-bit soundcard & speakers, Windows 95, **CDR P-90 MPEG-1 Encoder PC - £10,999 +VAT (call for full spec)**

# Discover the hottest prices since the dawning of the age of the computer

*IF YOU'RE BUYING A NEW PC, YOU CAN'T AFFORD TO CLOSE YOUR EYES TO THE MIND-BLOWING VALUE THAT ONLY TINY COMPUTERS CAN NOW OFFER YOU!*

586P - 75 MHz  
75MHz Pentium® Processor Based  
Supports EDO RAM  
8mb RAM 540Mb Hard Disk

**15" SVGA Colour Monitor**

Fast 64 bit PCI 1Mb Windows  
Accelerator GraphicsCard  
Plug 'n' Play  
Quad Speed CD Rom

**£999** + VAT  
*Limited Offer*

**tiny**  
direct to you!

*Turn over  
and be even  
more  
amazed!*

**GUARANTEED  
LOWEST  
PRICES IN  
THE UK!**

**NEW TERM  
STUDENT  
EDUCATION  
DISCOUNTS**

**TINY Computers**

**Lowest Prices Guaranteed**

**VISIT OUR  
LOCAL  
SHOWROOMS**  
see back page

**486DX2-50MHz Cache**

**FULLY CONFIGURED SYSTEM**

- 1MB RAM Upgradeable
- Supports EDO RAM
- 210MB HDD
- 14" SVGA Colour Monitor
- 16 bit VGA Adapter Card
- 3.5" 1.44MB FDD
- Pentium P24T Upgradeable
- 6 spare PCI/ISA slots
- 102 Key Keyboard
- 8K Cache
- 2 x Fast Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop/Tower case



**4MB  
OPTION  
£459**

**FINANCE OPTION**

£464.12 incl. VAT & Del.  
(less 10% deposit)

= £21.58 per month

Over 24 months APR 23.9%

Total repayment  
£564.33

**£379**

**486DX2-66MHz Cache**

**FULLY CONFIGURED SYSTEM**

- 4MB RAM Upgradeable
- Supports EDO RAM
- 540MB Fast HDD with 128K Cache
- 14" SVGA Colour Monitor
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- Maths Co-Processor
- 6 spare PCI/ISA slots
- 3.5" 1.44MB FDD
- Pentium P24T Upgradeable
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop/Tower case



**FOR SPECIAL  
OFFER ON  
8Mb OPTIC  
CALL**

**£549**

**Choice of CD  
software!**



**STUDENT &  
EDUCATIONAL  
DISCOUNTS**

**UPGRADE  
TO 1Gb  
CALL!**

**MODEM WITH  
INTERNET SOFTWARE  
CALL!**

**UPGRADE  
15" & 17"  
MONITORS  
CALL!**

IBM  
COMPATIBLE



**MULTIMEDIA OPTION**

- 4MB RAM Upgradeable
- Supports EDO RAM
- 210MB HDD
- 14" SVGA Colour Monitor
- Multimedia Kit with Dual Speed Multisession CD ROM Drive & 16 bit Stereo Soundcard with Speakers
- 512K SVGA Adapter Card
- 3.5" 1.44MB FDD
- 6 spare PCI/ISA slots
- Pentium P24T Upgradeable
- 102 Key Keyboard
- 8K Cache
- 2 x Fast Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop case



**FOR  
SPECIAL  
OFFER ON  
QUAD SPEED  
CALL**

**£539**

**Choice of CD  
software!**



**CALL FOR THIS  
MONTHS  
SPECIAL  
OFFERS**

**UPGRADE  
TO 1Gb  
CALL!**

**UPGRADE  
15" & 17"  
MONITORS  
CALL!**

IBM  
COMPATIBLE



**MULTIMEDIA OPTION**

- 8MB RAM Upgradeable
- Supports EDO RAM
- 540MB Fast HDD with 128K Cache
- 14" SVGA Colour Monitor
- Multimedia Kit with Dual Speed Multisession CD ROM Drive & 16 bit Stereo Soundcard with Speakers
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- 6 spare PCI/ISA slots
- Maths Co-Processor
- 3.5" 1.44MB FDD
- Pentium P24T Upgradeable
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop case



**FOR  
SPECIAL  
OFFER ON  
QUAD SPEED  
CALL**

**FINANCE OPTION**

£875.37 incl. VAT & Del.  
(less 10% deposit)

= £40.71 per month

Over 24 months APR 23.9%

Total repayment  
£1064.57

**£729**

PLEASE RUSH ME MORE INFORMATION ON TINY COMPUTERS

NAME .....

ADDRESS .....

POSTCODE .....

TEL ..... FAX .....

SEND TO: TINY COMPUTERS LTD, 53 ORMSIDE WAY,  
HOLMETHORPE IND. ESTATE, REDHILL, SURREY RH1 2LW

**CALL 01737-779511  
FOR INSTANT ACTION**

**TINY EXTRAS**

- Choice of 14", 15" & 17" SVGA Monitors
- Choice of Hard Disks 210Mb, 540Mb, 1Gb IDE, 2Gb SCSI,
- Graphics - 64 bit PCI
- Soundcard Wave Table 32 SB compatible
- Modem
- Dual and Quad Speed CD Roms
- PCI Network Card
- Mouse, Dos and Windows
- Tape Streamer
- Lots more available!



**SPECIAL OFFER  
on Encarta '95  
when bought with  
multi-media  
machines**

**NEXT DAY DELIVERY!**

**“Staggering Value”**

*PC Direct*

**Fastest Delivery, Best Service.**

**486DX4-100MHz Cache**

**FULLY CONFIGURED SYSTEM**

- 8MB RAM Upgradeable
- Supports EDO RAM
- 540MB Fast HDD with 128K Cache
- 14" SVGA Colour Monitor
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- 3.5" 1.44MB FDD
- 6 spare PCI/ISA slots
- Maths Co-Processor
- 128K Cache
- Pentium P24T Upgradeable
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop/Tower case



**£699**

**586P-75MHz Cache**

**FULLY CONFIGURED SYSTEM**

- P75 Pentium® Processor Based
- Supports EDO RAM
- 8MB RAM Upgradeable
- 540 MB Fast HDD with 128K Cache
- 14" SVGA Colour Monitor
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- 3.5" 1.44MB FDD
- 7 spare PCI/ISA slots
- Plug 'n' Play
- 256K Cache
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop/Tower case



**£819**



**SPECIAL DEALER DISCOUNTS AND TERMS AVAILABLE**

**CALL FOR THIS MONTHS SPECIAL OFFERS**

**EDUCATION SPECIALS. CALL FOR OUR SPECIAL PRICES**



**FINANCE & LEASING AVAILABLE ON ALL MACHINES**

**12 MONTH UK BACK TO BASE WARRANTY**

**ALL OUR PC's ARE GUARANTEED TO RUN ALL SOFTWARE THAT OPERATES ON EQUIVALENT IBM**

**FREE LIFETIME TELEPHONE SUPPORT**

**TAILOR MADE SYSTEMS**

**BULK ORDER DEALER DISCOUNTS**

**Choice of CD software!**



**17" MONITOR UPGRADE ADD £229**

**MODEM WITH INTERNET SOFTWARE CALL!**

**UPGRADE TO 1Gb CALL!**

**UPGRADE 15" & 17" MONITORS CALL!**

**MULTIMEDIA OPTION**

- P75 Pentium® Processor Based
- Supports EDO RAM
- 8MB RAM Upgradeable
- 540 MB Fast HDD with 128K Cache
- Multimedia Kit with Dual Speed Multisession CD ROM Drive & 16 bit Stereo Sound-card with Speakers
- Plug 'n' Play

**FOR SPECIAL OFFER ON QUAD SPEED CALL**

**Choice of CD software!**

**£899**

Pentium is a registered trademark of Intel corporation

**586P-90MHz Cache**

**FULLY CONFIGURED SYSTEM**

- P90 Pentium® Processor Based
- Supports EDO RAM
- 8MB RAM Upgradeable
- 1GB Fast IDE HDD with 256K Cache
- 14" SVGA Colour Monitor
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- 3.5" 1.44MB FDD
- 7 spare PCI/ISA slots
- Plug 'n' Play
- 256K Cache
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- 1 x Game Port
- High Quality Steel Desktop/Tower case



**£939**

**MULTIMEDIA OPTION**

- P90 Pentium® Processor Based
- Supports EDO RAM
- 8MB RAM Upgradeable
- 1GB Fast IDE HDD with 256K Cache
- Multimedia Kit with Dual Speed Multisession CD ROM Drive & 16 bit Stereo Sound-card with Speakers
- Plug 'n' Play

**FOR SPECIAL OFFER ON QUAD SPEED CALL**

**Choice of CD software!**

**£1019**

**MULTIMEDIA OPTION**

- 8MB RAM Upgradeable
- Supports EDO RAM
- 540MB Fast HDD with 128K Cache
- 14" SVGA Colour Monitor
- Multimedia Kit with Dual Speed Multisession CD ROM Drive & 16 bit Stereo Sound-card with Speakers
- PCI Local Bus 1MB Graphics Windows Accelerator Card
- PCI Enhanced IDE Controller
- 3.5" 1.44MB FDD
- 6 spare PCI/ISA slots
- Maths Co-Processor
- 128K Cache
- Pentium P24T Upgradeable
- 102 Key Keyboard
- 2 x Fast Serial Ports
- 1 x Parallel Port
- High Quality Steel Desktop case



**FOR SPECIAL OFFER ON QUAD SPEED CALL**

**£779**

*"We honestly can't understand how they have done it for the price"* **PC DIRECT**

*"Unbeatable value for money"* **PC TODAY**

**MULTI £MILLION SALES PRICES REVIEWED DAILY!**



**PRICES EXCLUDE VAT & DELIVERY**

**CALL 01737-779511 FOR INSTANT ACTION**

**HOW TO BOOK - PLEASE TURN OVER PAGE**

# TINY COMPUTERS.....

Established 5 years with a turnover of £31 million in 1994. We have sustained growth and a strong financial status. All our computers are ready to run and

subject to a vigorous 24 hour burn in. Every computer sold has a FREE telephone lifetime warranty.

## YOUR GUARANTEE OF SATISFACTION

- Each machine is fully assembled and subject to a rigorous 24 hour burning-in Quality Control Test
- Upgradeable and reliable, with plenty of room for extra disc drives and add-on cards
- IBM\* Compatible
- FREE LIFETIME Technical Support
- 12 month UK back to base warranty
- Fastest ever stock delivery
- Service and care

\*IBM is the registered trademark of International Business Machines

**BLUE CHIP CLIENTS INCLUDE:** SUZUKI • MINISTRY OF DEFENCE • BBC • AGFA  
• CUSTOM & EXCISE • HOME OFFICE • AND MANY MORE!

## PHONE OR FAX YOUR ORDER TODAY!

Have your Credit/Debit card ready and call the number below.

**FINANCE & LEASING AVAILABLE**



*TINY COMPUTERS LTD is a Licensed Credit Broker, written quotations available*

Beware of companies who charge your credit card and take weeks to deliver. We promise not to charge your credit card until the day your order is despatched.

**BY POST** - Enclose a cheque for the full amount made payable to TINY COMPUTERS LTD and write your cheque guarantee card number and the expiry date on the reverse.

**BY CREDIT CARD** - Provide your credit card details including expiry date.

**BY FAX** - Send a list of the products you require together with credit card details including expiry date, your name, address and telephone number to the number below.

**CALL NOW FOR THIS MONTH'S SPECIAL OFFERS!**

# 01737-779511

OR FAX: 01737-779541

### SHOWROOMS NOW OPEN

**LONDON SHOWROOM**  
SONIC FOTO CENTER,  
256 TOTTENHAM COURT RD  
LONDON W1A 9AD,  
Tel: 0171-636 7613

**NEWCASTLE SHOWROOM**  
7 HIGH FRIARS,  
ELDON SQUARE  
NEWCASTLE NE1 7JB  
Tel: 0191-261 5252

**GLASGOW SHOWROOM**  
220 ARGYLE STREET  
GLASGOW G2 7HA  
Tel: 0141-204 2300

**MANCHESTER SHOWROOM**  
VOYAGERS WALK (OPP. SPOILS),  
ARNDALE CENTRE, MANCHESTER M4 3AT  
Tel: 0161-835 1611

**NOTTINGHAM SHOWROOM OPENS 5th AUGUST 1995**  
UNIT 57, UPPER MALL (next to boots), THE VICTORIA CENTRE, NOTTINGHAM NG1 3QJ  
Tel: 0115-941 9461

All trademarks acknowledged.

All prices and manufacturers specifications are subject to change without notice.

Please check availability before ordering. Goods are offered for sale subject to our standard conditions of sale available on request. E&OE.

**TINY COMPUTERS LTD**

53 ORMSIDE WAY, HOLMETHORPE IND. ESTATE, REDHILL, SURREY. RH1 2LW

484

**GUARANTEED  
LOWEST PRICE  
IN THE UK**

**NEXT DAY  
DELIVERY!**

**tiny**  
direct to you!

## CorelDRAW Version 6

If you are buying Windows 95 and are into graphics then this latest version of CorelDRAW is a must!

**£145<sup>45</sup>**

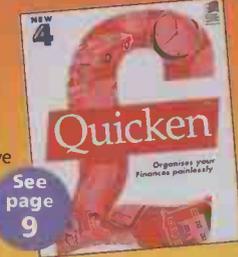


See page 4

## Quicken V4 & Windows 95

The UK's best-selling personal finance program is available in an unbeatable bundle, exclusive from Software Warehouse.

**£69**



See page 9

## MS Office 95

Microsoft Office is now available for Windows 95. It includes a host of new features, turn to page four to find out how to get the most out of your PC.

**£142<sup>95</sup>**



See page 4

NEW Offer!

# SOFTWARE WAREHOUSE



Software Warehouse - 'Everything for your PC - Nextday!'



Confused by Windows 95? I was! Lucky the Software Warehouse Win 95 team helped make the move painless.

# 32 Pages of great deals on software, memory, storage and peripherals!

## Windows 95

Order your copy of Windows 95 from Software Warehouse now and if you buy any other Windows 95 product get it for just £54.95!



FROM **£54<sup>95</sup>**

See page 2

**Microsoft**

For 16 More pages of offers read our supplement in the new PC Advisor magazine!

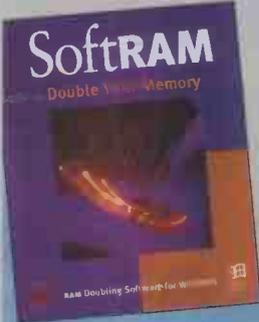


IN SHOPS FROM SEP 7<sup>TH</sup>

OR call the sales team and we'll be happy to send you a free copy of our 16 page supplement.

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Fonts	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32



## SoftRAM

Double your PC's memory for under £50! If your PC needs more memory to run Windows 95 / Windows 3.1 applications then SoftRAM is the safe, cost-effective answer. And it really does work!

See page 26

ONLY **£48<sup>95</sup>**



SEE P.6 **£48<sup>95</sup>**



SEE P.8 **£99**

- Always the lowest prices guaranteed!**  
See page 2 for details
- Massive software & peripherals stocks**
- Free software with EVERY order**
- Next-day delivery for only £6.95!**
- Order it before 3pm & use it tomorrow!**
- Credit card charged on day of shipment**
- Buy mailorder or at our retail stores**

Page 1

A massive 25,000 items in stock across 3000 different product lines. Nobody delivers faster!



To Order By Telephone Call

**01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



# What happens when you place an order with Software Warehouse?

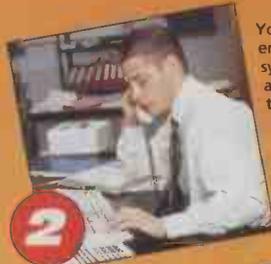
We are often asked how we fulfil so many orders every day. If you have ever wondered what happens after your order is placed - read on...

Your call is answered by one of our trained sales people. Each one can tell you instantly whether the item you want is in stock (currently over 85%), and if not when it is expected.



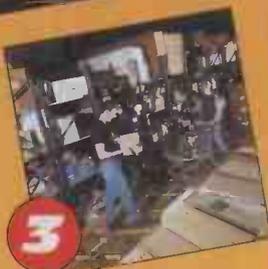
1

Your order is entered onto our system while you are on the telephone and your credit card authorised instantly (only for goods being shipped that day).



2

A picking note is then printed in Dispatch. One of our warehouse team then check the note and pick your order, ready for packing and dispatch.



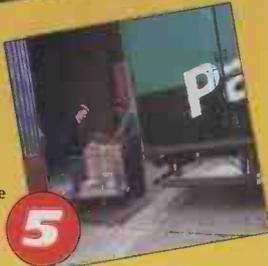
3

As your order enters packing, it is checked again (we are currently seeking ISO9000 accreditation) to ensure you receive exactly what you ordered.



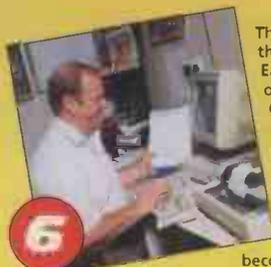
4

Your order then moves to goods out and is ready for next-day delivery direct to your door. Thanks to this efficient system we can take your order up to 3pm and still deliver next-day!



5

This isn't the end of the line though. Each order includes our Customer Charter Card where YOU get a say in how we run our business. Your comments have enabled us to get this far. We aim to become even better!



6

# SOFTWARE WAREHOUSE plc

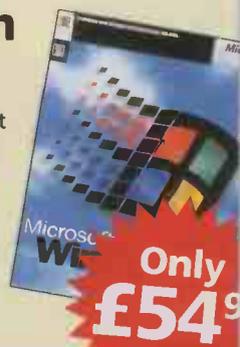
## INTRODUCTION

### A Very Special Offer from Software Warehouse

You will recently have noticed there has been the largest software launch of the last ten years! If you haven't got your copy of Windows 95 yet then we have a very special offer just for you. If you order any product from pages 3 through 7 of this catalogue, then you can buy Windows 95 from Software Warehouse for just £54.95 plus VAT and delivery. But hurry, this offer is limited and must end 31st of October.



Steve Bennett



Only £54.95

## Windows '95!

The new ground-breaking upgrade to Microsoft Windows will replace Windows 3.1, Windows for Workgroups 3.11 and all versions of MS-DOS. It's robust, fast and features integrated multimedia, networking and a fantastic new interface!

#### ✓ New Interface

Smarter, easier to use interface features longer file names (up to 250 characters!), one click access to all programs and documents with the 'Start' button. Simpler file and document management.

#### ✓ Bigger, Smoother Video

Windows '95 is a powerful 32 bit operating system and lets your computer process more data effectively making the quality of the video you see vastly better.

#### ✓ Plug-and-Play Upgrades

Upgrading your PC is easier! With new Plug-and-Play technology Windows automatically recognises compatible sound cards, drives and more! No more complicated installation routines and struggling with AUTOEXEC.BAT and CONFIG.SYS.

#### ✓ Plays all Your Music

Windows '95 plays all of the music CDs you currently own. When you place a CD in your computer, Windows automatically detects the disc so you can easily play music in the background as you work.

#### ✓ True 32 bit Multitasking

Windows '95 allows you to run multiple 32 bit applications concurrently. Printing, faxing, communicating, redrawing,

rendering and much more can all be done while you work in another application!

#### ✓ Integrated Access to e-mail, Faxes and the Internet

Windows '95 features built-in access to the kinds of services that have been difficult to access before. Simply point and click your way to the information superhighway!

#### CD-ROM Version

£59

STOCK CODE: WIN072

#### Floppy disk Version £59

STOCK CODE: WIN071

### Do you need to upgrade to Windows '95?

It is almost certain that all future upgrades of your favourite applications and games will be written specifically to take advantage of Windows '95's unique features. Not upgrading could leave you out in the cold when it comes to the latest software releases. Don't forget that Windows '95 will run all your existing applications. However, new 32-bit applications written for Windows '95 will NOT run on previous versions of Windows.



Call our dedicated Win '95 hotline  
**01675 46 59 95**

## Free Software!

Choose any one of the following products when you place your order. Please note that Free gifts will not be shipped unless requested.

with EVERY order!



#### MasterClips Lite Vol. II

The professional collection of 150 colour clip-art images. Each vector picture is fully editable and scalable without loss of image quality.



#### Wired for Sound Lite

This Lite version of Wired for Sound includes 5 fun programs to add sound to your Windows environment.

Please note that all free gifts and bonus offers may be supplied in promotional packaging.

Choose one of the two 3.5" free gifts (left), or call us and choose from a selection of FREE CDs.

### Software Warehouse Terms & Conditions

**Ordering** All orders are subject to our full terms and conditions of sale which are available on request. Sales lines open Mon to Fri 8.30am-6.00pm, Saturday 9.00am-5.00pm. Mainland UK insured delivery charges are £6.95 (+ VAT @ 17.5%) for the first item, 50p (+VAT @ 17.5%) per additional item. We do not charge credit cards before despatch. Goods paid for by cheque are dispatched on receipt if Transax service is requested. Alternatively allow seven working days to clear. Orders by Purchase Order are accepted by fax or post for Govt.Depts, Education, MOD, Health Authorities, all Subject to Status.

**Delivery** Place your order for 'in-stock' items up to 3.00pm and we will ship same day via next-day delivery service (barring system failure). This service is part of the £6.95 (+ VAT @ 17.5%) plus 50 pence per each additional item freight charge for UK mainland deliveries that is associated with your order.

**Warranty and Returns** Only UK sourced goods are supplied. Goods are not sold on a trial basis, please check specs and compatibilities before buying. We will accept goods back within 30 days of purchase if the shrink wrap seal is not

broken. In the case of faulty goods, please contact our customer service department, who will help arrange replacements. Your statutory rights are not affected.

**Price Pledge** Refers to UK products available ex-stock. We will beat the advertised total cost (including delivery) subject to not selling below our cost price. We reserve the right not to beat prices of liquidated stock or OEM software (OEM software is intended to be sold with a computer, and is not supported by the manufacturer when sold on its own).

**Money Back Guarantee** If, after purchase (but before damaging the shrink wrap), you realise that the product is unsuitable, please call for a returns number. Returns are subject to a small handling charge. Due to copyright law we cannot accept opened software for return.

**Special Offers** All special offers are subject to availability and may be in promotional packaging (packaging may refer to boxes, documentation etc.) pictures of special offers are for identification purposes only.

A massive 32,000 items in stock. Nobody delivers faster!

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



Next-day  
Delivery  
£6<sup>95</sup>

# SOFTWARE WAREHOUSE

WINDOWS '95 UTILITIES



Only  
**£54<sup>95</sup>**  
(See Page 2)

## Get Your PC Ready For Windows 95!

### Memory

Windows 95 requires more memory (RAM) to operate to its full potential. You'll need at least 8MB to take full advantage of Windows 95, whereas most PCs are supplied with 4MB.

30-PIN SIMMS		
4MB x 9, 70ns.....	SIM022.....	£102
72-PIN SIMMS		
1MB x 32 (4MB).....	SIM023.....	£99
1MB x 36 (4MB).....	SIM026.....	£101
2MB x 32 (8MB).....	SIM024.....	£191
2MB x 36 (8MB).....	SIM027.....	£219
4MB x 32 (16MB).....	SIM025.....	£328
4MB x 36 (16MB).....	SIM028.....	£381

For More Memory  
please see page 26

P26

### Diamond Stealth 64 DRAM

The world's fastest DRAM graphics accelerator! Featuring amazing Windows performance, and super fast DOS performance.

Diamond Stealth 64 DRAM gives you 1280 x 1024 with 256 colours, up to 120MHz refresh rates. Diamond Stealth Video Cards feature on the Microsoft Windows 95 compatible list.

DIAD12	D/Stealth 1MB DRAM VLB.....	£119 <sup>95</sup>
DIAD13	D/Stealth 1MB DRAM PCI.....	£149 <sup>95</sup>



Call for the full range of Diamond Cards

### Storage

Windows 95 requires more free hard disk space than Windows 3.x. A fast, reliable hard drive is essential to take advantage of Windows 95 and all subsequent applications. Seagate Hard Drives feature on the Microsoft Windows 95 compatible list.

SEA002	Seagate ST3660A 545MB.....	£139 <sup>95</sup>
SEA003	Seagate ST5850A 850MB.....	£179 <sup>95</sup>
SEA004	Seagate ST1220A 1.08GB.....	£239 <sup>95</sup>
SEA007	Seagate ST32430N 2.1GB SCSI.....	£679 <sup>95</sup>

For More Storage  
please see page 29

P29

### Microsoft Natural Keyboard (P&P)

Its unique contoured design encourages a balanced, more natural hand and wrist position. It also features extra function keys that work only with Windows 95.

MIC05	MS Natural Keyboard.....	£68 <sup>95</sup>
-------	--------------------------	-------------------



### Pace Linnet

Pace Linnet is an integrated voice, fax and data modem. This V32bis, desktop modem supports all data speeds up to 28,800bps and full send and receive fax facilities. They have full error correction and data compression, and MNP10 for cellular connections. The Pace Linnet features on the Microsoft Windows 95 compatible list.



PAC003	PACE Linnet V32+ Fax.....	£164 <sup>95</sup>
PAC004	PACE Linnet V34 Fax.....	£179 <sup>95</sup>

### WHAT DOES WINDOWS 95 PLUG AND PLAY ACTUALLY MEAN?

Plug and Play is the name given to peripherals and hardware that, when attached to a PC running Windows 95, are instantly recognised by the operating system. This means that you'll not need to install device drivers, alter config.sys or autoexec.bat, or change your system BIOS. With Plug and Play technology users can easily add new upgrades to their PCs.

Even if the component that you're buying doesn't conform to true Plug and Play standards, installation is still easier under Windows 95 than with previous operating systems.

### Turbo Chip

Turbo Chip will convert any 486 SX or DX chip to either a DX 75MHz or 100MHz. If your processor is removable, Turbo Chip will replace it, if not it fits in your OverDrive socket. It also comes with a maths co-processor, 8Kb of internal cache memory (most chips only have 1Kb), and it has a built-in fan.

Turbo Chip features on the Microsoft Windows 95 compatible list.

TUR065	Up to 75MHz DX Chip.....	£199 <sup>95</sup>
TUR066	Up to 100MHz DX Chip.....	£219 <sup>95</sup>



### NEC Six Speed CD-ROM Drives

These drives represent a huge step forward in CD-ROM drive technology. Six-spin SCSI-2, massive 900KB/sec. data transfer, 150ms access time, MPC, XA, DA, caddy-loading, and with one-year warranty. The NEC Six Speeds feature on the Microsoft Windows 95 compatible list.

NEC045	NEC 6X Internal.....	£269 <sup>95</sup>
NEC046	NEC 6X External.....	£445 <sup>95</sup>



Call for the full range of NEC CD-ROM Drives

For More CD-ROM  
Drives, see page 24

P24

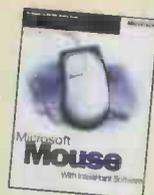
### Microsoft Mouse 2.0 (P&P)

Extensive ergonomic research and new IntelliPoint software makes the Microsoft Mouse the perfect pointing tool for use with Windows 95. Choose from more than 125 cursors, and with its true Plug and Play simply connect it to your PC and start pointing to the future!

MIC031	MS Mouse 2.0.....	£41 <sup>95</sup>
--------	-------------------	-------------------

For More Mice,  
please see page 24

P24



Page 3

New Windows 95 Releases • New Windows 95 Releases

Next-day delivery only £6<sup>95</sup> E&OE. All prices are plus delivery and VAT and are subject to change and availability.



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.





# SOFTWARE WAREHOUSE



## TRUE 32BIT WINDOWS 95 APPLICATIONS

### WHAT IS A 'TRUE' 32BIT WINDOWS APPLICATION?

Although your current Windows 3.1 applications will still run on Windows 95 (some utilities might not) they will not be able to take full advantage of this new 32-bit architecture. By buying a true Windows 95 application you will be able to utilise longer file names, easy uninstall, true multi-tasking and much more. If you're upgrading to Windows 95 take advantage of our £54.95 price when you buy any 32-bit software.

Everything for your PC - Next-day!

# New! Microsoft Office for Windows 95

## 4 Windows 95-Ready Office Applications in 1 Package



**Microsoft Word:** Everyday tasks are automatic and complex tasks are made easier by use of Windows 95's exclusive 32-bit technology. Word offers IntelliSense innovations, such as AutoCorrect, which automatically corrects mis-spelled and typos. Also write and send formatted e-mail within Word using the WordMail editor.

**Microsoft Excel:** Whether you're working on a simple summary, charting sales trends, or performing advanced analysis, Microsoft Excel helps you to get your job done easily.

- Enhanced IntelliSense technology, plus more intuitive help and integration
- Significant performance improvements help you get your work done faster
- Powerful new analysis tools simplify a variety of complex tasks

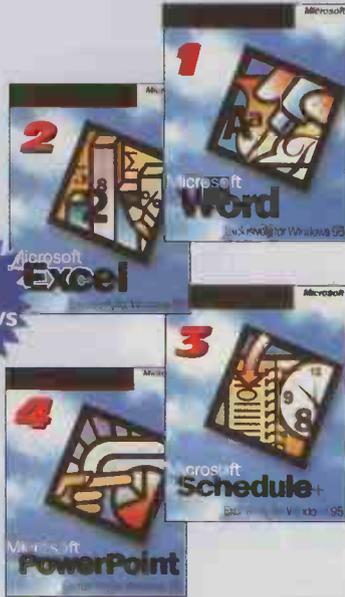
**Microsoft Schedule+:** Manage calendars, tasks and contacts for yourself with the time manager that puts time on your side.

- Store and retrieve names, addresses and phone numbers easily
- Import and export contacts data from applications and insert it into Word documents
- Plan meetings quickly with the meeting Wizard

**Microsoft PowerPoint:** Create professional-looking presentations that deliver your message in any situation.

- Bring your presentation to life with extended animated builds and sounds
- Take meeting notes and assign action items on the spot with the Meeting Minder
- Type a help request in your own words and the Answer Wizard finds the answer

New For Windows 95!



### MICROSOFT OFFICE PROFESSIONAL INCLUDES:



- MS Word
  - MS Excel
  - MS PowerPoint
  - MS Schedule +
- Plus:
- MS Access - Lets you choose or create one relational database for all levels of users.

Microsoft	Full Version	Upgrade	Competitive Upgrade
<b>Office Standard</b>	3.5" MIC276 <b>£331<sup>95</sup></b> CD MIC277 <b>£329<sup>95</sup></b>	3.5" MIC280 <b>£143<sup>95</sup></b> CD MIC281 <b>£142<sup>95</sup></b>	3.5" MIC278 <b>£168<sup>95</sup></b> CD MIC279 <b>£166<sup>95</sup></b>
<b>Office Professional</b>	3.5" MIC289 <b>£428<sup>95</sup></b> CD MIC290 <b>£427<sup>95</sup></b>	3.5" MIC293 <b>£208<sup>95</sup></b> CD MIC294 <b>£207<sup>95</sup></b>	3.5" MIC291 <b>£248<sup>95</sup></b> CD MIC292 <b>£247<sup>95</sup></b>

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forns	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

# CorelDRAW! V6 for Windows 95

For other versions of CorelDRAW! See Page 21

Upgrade from **£145<sup>95</sup>**



## CorelDRAW! V6 - The World's Premier 32bit Windows 95 Drawing Software!

CorelDRAW 6 is THE essential drawing package for Windows. If you need to illustrate, photo-edit, 3D-render, present or chart absolutely anything then CorelDRAW! 6 for Windows 95 is the software to choose.

New for Version 6 is increased speed and power, a Multiple Document Interface (MDI, which allows many documents to be open at once or many different views of the same document, and fully customisable hot keys and a status bar. There is greater ease of use with Wizards and Tutor notes as well as increased precision to an amazing 0.1 micron.

To make designing posters or large scale graphics easier, page size support has been increased to over 150 feet by 150 feet! OLE 2.0 support enables in-place editing and OLE automation. There is also OPI (Open Press Interface) support.

CorelDraw! Version 6 includes CorelDRAW! 6, Corel PhotoPaint 6, Corel Presents, CorelDream 3D PLUS 9 Powerful Utilities! And now there's 90 days FREE technical support from Corel - You can't go wrong!

COR122	CorelDraw! 6 - Full Version on CD	£259 <sup>95</sup>
COR123	CorelDraw! 6 - U/G from V3 or 4 on CD	£224 <sup>95</sup>
COR124	CorelDraw! 6 - Upgrade from V5 on CD	£145 <sup>95</sup>



## NEW TRAINING VIDEOS FOR WINDOWS 95!

PC0168	Updating to Windows 95	£18 <sup>95</sup>
PC0169	Introduction to Windows 95	£18 <sup>95</sup>
PC0199	Advanced Guide to Win 95	£18 <sup>95</sup>
PC0200	Windows 95 - Hints and tips	£18 <sup>95</sup>
PC0201	Using the Internet with Win 95	£18 <sup>95</sup>
PC0202	MS Networks with Windows 95	£18 <sup>95</sup>

A massive 33,000 items in stock across 3200 different product lines. Nobody delivers faster!

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.





# SOFTWARE WAREHOUSE

## TRUE WINDOWS '95 SOFTWARE



Only **£54.95**  
(See Page 2)

## ABC Graphics Suite for Windows 95

ABC Graphics Suite is the complete graphics package for the Microsoft Windows 95 and Office 95 user.

Micrografx has merged ABC FlowCharter, Designer, Picture Publisher and the revolutionary new ABC Media Manager into the ABC Graphics Suite. It combines superior diagramming, flowcharting, drawing, image editing, painting and clipart whilst using the familiar Microsoft Office for Windows 95 interface.

Because ABC Graphics Suite uses the familiarity of an industry-standard interface, you and/or your colleagues can get up and running more easily. ...And because it's a true 32-bit Windows 95 application, its performance is up to four times that of 16-bit applications.

ABC Graphics Suite features award-winning diagramming, imaging, and illustration tools to let you work with greater productivity and let your ideas gain shape speedily. The Drag-and-Drop Clipart Manager allows you to easily incorporate clipart into your work.

ABC Graphics Suite includes:

- ABC FlowCharter
- Micrografx Designer
- Micrografx Picture Publisher
- Micrografx Media Manager
- Visual Clipart Libraries and Fonts



### Features:

- Superior diagramming, flowcharting, drawing, image editing features and more
- True 32-Bit with multithreading
- Over 20,000 pieces of ClipArt
- Over 7,500 photographs
- Over 2,000 diagramming symbols
- More than 250 fonts
- Compatible with over 50 file formats including TIFF, BMP, DXF and CorelDraw!
- Comes on two CD-ROMs

ABC006 ABC Graphics Suite .. **£239.95**

ABC007 Comp. Upgrade ..... **£99.95**

## Timex DataLink

The smart way to organise With the Timex DataLink watch and Windows 95, you can transfer data from a PC onto your wrist!

Using Timex and Microsoft's personal time manager software (included), you enter and store information on your PC. Then elect the entries you want to send your watch. You can also directly link to Microsoft Schedule Plus for Windows.

In addition to telling the time and offering a programmable link to your PC, the Timex Data Link watch features day/date, three year battery life, Indiglo™ night light and it is water resistant at up to 100 metres.

No wires, no cables - Just point the watch at your screen!

Downloading information with the Timex Data Link comms technology is as easy as pointing your wrist at the screen. The watch sensor reads the flashing bars of light - that's the data. In seconds, the watch loads up to 70 different entries, then update as often as you like.

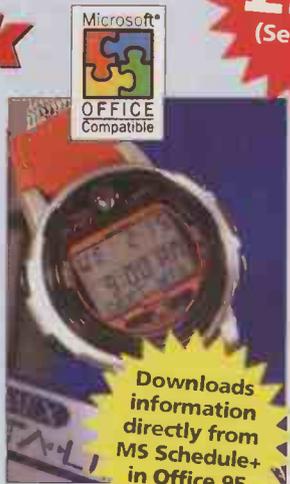
A little black book on your wrist!

Think of your Timex Data Link watch as a little black book on your wrist. It can hold:

- Your telephone numbers - Need a number, just bring it up on your watch.
- Appointments - The watch will beep to let you know that it's time to leave for an appointment or an event. It will even show you who you're meeting with and where.
- Never forget another birthday or anniversary again! A friendly reminder icon appears a week before an event, and them flashes on the day.
- To-Do-Lists - A great memo log that prioritises tasks.
- Alarms - Pre-set up to five alarms a day.

# £89.95

STOCK CODE: TIM014



Downloads information directly from MS Schedule+ in Office 95

## XaraStudio for Windows 95

Xara Studio is a new class of graphics program combining the best features from traditional drawing programs with some amazing new technology and performance!

Xara Studio is more than just a drawing or illustration program, it's a new type of graphics program. Xara Studio combines all the best features of object-oriented drawing programs, with some new, unique and outstanding capabilities.

Add this to the fact that it has been designed from the start as a 32-bit application - ie. it carries none of the outdated baggage that 16-bit applications are lumbered with. However, with the addition of a special piece of code from Microsoft known as Win 32s, which we include in the package, Xara Studio can run perfectly well under Windows 3.11.

Unrivalled speed and performance

Graphics programs are usually one of the most computer intensive applications around, and so there most most to gain in optimising this type of software. On anything but the simplest drawings large amounts of time are wasted waiting for the screen to redraw after you've performed an edit or a zoom.

With Xara Studio you waste less time watching the screen redraw, and spend more time working on your designs and layouts, making you more productive and less frustrated.

Next-day delivery only £6.95



### Key Features:

- Speed and performance
- Anti-Aliasing
- Zero memory blends
- Smooth graduated fills
- Optimised screen dither
- Infinite Undo levels
- Ultra-high precision
- File compatibility • Bitmap support
- Multimedia graphics

XAR001 XaraStudio CD ..... **£179.95**

XAR002 Comp. Upgrade CD ..... **£99.95**

XAR003 5-User Pack CD ..... **£579.75**

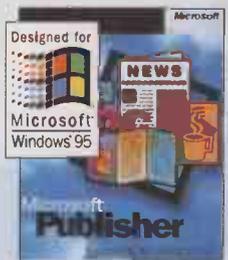
## MS Publisher for Windows 95

Create distinctive newsletters, brochures and flyers without any design experience!

Publisher for Windows 95 is a major upgrade that focuses on bringing the ease-of-use and efficiency of the Windows 95 operating system and the power and flexibility of an award-winning desktop publishing application together to allow its users to create professional publications quickly, easily and cost-effectively.

Creating professional publications is easy - PageWizards design assistants are the faster and easiest way to make customised publications because they guide you through the design process. Publisher's Office 95 compatibility means that it works just the same - the toolbars, icons, rulers, text, tables etc. all look and work the same. If you need inspiration, just look in the Design Gallery, there are hundreds of professionally designed options!

PUB100 MS Publisher for Windows 95 ..... **£Call**



## MS Works for Windows 95

Create professional documents easily and quickly with the essential tools in Microsoft Works.

Contains the essential tools for easier everyday computing, Microsoft Works for Windows 95 is the one software package you need no matter what kind of work you want to do. It combines a word processor, a spreadsheet with charting, a database, communication tools, and drawing tools. It does so much for so many, so it's no wonder Microsoft Works is the all-time best-selling integrated application for Windows. It runs only in Windows 95.

MS Works 95 also includes Microsoft Bookshelf 95, a collection of seven easy-to-search reference volumes. Works and Bookshelf contain everything the small or home business needs to create professional documents.

WOR127 MS Works for Windows 95 ..... **£59.95**



FREE Microsoft Bookshelf

Page 5

**Next-day delivery only £6.95 E&OE. All prices are plus VAT and delivery and are subject to change and availability.**



# To Order By Telephone Call 01675 466 467

Order before 3pm, stocked goods shipped for next-day delivery.



New Windows 95 Releases • New Windows 95 Releases



# SOFTWARE WAREHOUSE plc



This month 1000s of great offers and over 450 new products!

## TRUE WINDOWS 95 UTILITIES

Everything for your PC - Next-day!

### ABOUT WINDOWS 95 UTILITIES

The new Windows 95 32-bit architecture means that your operating system is more powerful than ever before. However, most utilities designed for the old Windows 3.x operating system will not run on Windows 95. The new utilities are all designed to maximise the performance of your Windows 95 system. You can be assured of complete protection, prevention and productivity with Windows 95 utilities.

## Norton AntiVirus

The right cure, right now!

Norton AntiVirus provides complete virus protection for Windows 95 in one simple, easy to use package that detects, destroys and prevents virus infections. It works automatically in the background, watching for suspicious disk activity and detecting viruses before they can damage your files.



NOR034 Norton AntiVirus.....**£64<sup>95</sup>** NOR035 AntiVirus Trade-Up.....**£28<sup>95</sup>**

## Norton Navigator

One click to go anywhere!

Norton Navigator puts file management at your fingertips, making Windows 95 significantly faster and easier. You can zip or unzip any file in one third of the time that it would take to use a separate application, simply by dragging and dropping. You can access Navigator's file management tools from the Open/Save dialog box of almost any app or from the Windows 95 explorer. You can even access Internet FTP sites directly from the file manager.



NOR036 Norton Navigator .....**£79<sup>95</sup>** NOR037 Navigator Trade-Up.....**£34<sup>95</sup>**

## Norton Utilities for Windows 95

Automatically protect your data with the most comprehensive Windows 95 utilities

Norton Utilities includes new features specifically designed to prepare your system for the transition to Windows 95. It includes the most advanced, comprehensive tools available for system protection and data recovery - true 32-bit utilities with proven award winning technology that recovers data when others can't. Norton Utilities optimises and defragments your disks to improve access times and enhance the chance of full recovery in the event of a crash.

Norton System Doctor runs in the background, constantly monitoring vital system resources and data integrity to ensure stability and reliability, and automatically taking corrective action when needed. If a crash occurs, a rescue disk gets you up and running quickly, automatically repairing and restoring damaged resources.

### Pre-installation tune-up

Norton Utilities provides an easy, systematic way of diagnosing, repairing and fine-tuning your Windows 3.x system to prepare it for the installation of Windows 95 or any new application.

### Space Wizard

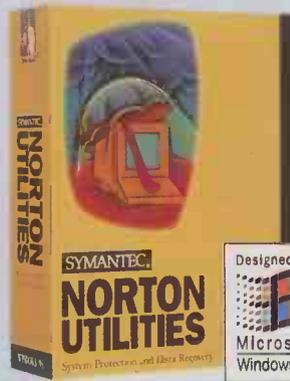
Locates duplicate, outdated, and unnecessary files, freeing disk space before and after Windows 95 installation.

### New! Norton System Doctor

Runs in the background monitoring resources and makes your Windows 95 system self-tune.

### Exclusive! Emergency Rescue Disk

Includes a ready-made bootable disk that will restart and repair your system even when Windows 95 won't load.



### Norton Disk Doctor

Provides diagnosis and repair of standard or compressed files.

NOR031 Norton Utilities 3.5" .....**£99<sup>95</sup>**

NOR033 Norton Utilities CD.....**£99<sup>95</sup>**

NOR032 Utilities Trade-Up.....**£48<sup>95</sup>**

# First Aid 95 for Windows 95

Fixes Windows crashes, automatically fixes over 1,000 known problems in Windows 3.11 and Windows 95 and cleans your Windows system to remove clutter and improve performance.

It can take hours to track down even a simple problem in your Windows system. With Technical Support you hold for ages and when you get to speak to someone, it's difficult to explain the problem, let alone implement a solution.

To create First Aid we analysed thousands of Windows problems and then built the exclusive "AutoFix" technology to automatically sense and actually fix thousands of problems in your Windows system. Running in the background, First Aid pops up when it senses a problem and tells you what the problem is in plain English. Then, a click on "AutoFix" corrects the problem. No other product available can do this!

Works with Windows 3.11 and 95  
First Aid V2 works with both Windows 3.11 and Windows 95! So, before you upgrade to Windows 95, make sure your system is ready with First Aid. Once you've installed Windows 95, First Aid will continue to monitor your system to assure optimal performance.

**Fixes Windows crashes**  
When a program on your PC crashes it means frustration and a complete loss of work. With First Aid, you won't see cryptic messages or lose all work since the last time you saved it. First Aid actually intercepts most crashes and lets you save your work in all open apps!

**Automatically fixes over 1,000 problems in Windows 3.11 & 95**  
It's maddening when you can't get the spell checker to work or the multimedia system to play. There are so many configuration files,

drivers and settings to mess around with that it's virtually impossible to try and fix the problem. With First Aid, you won't have to because it uses a built-in extensive knowledge base to fix problems.

**Cleans your Windows system to improve performance**  
It's easy for your Windows system to become cluttered with unwanted applications, icons and fonts. These not only take up disk space, they also slow down your PC. First Aid can: Uninstall applications, Clean Up configuration files, Tune Up the PC for optimal performance, and FIX problems.

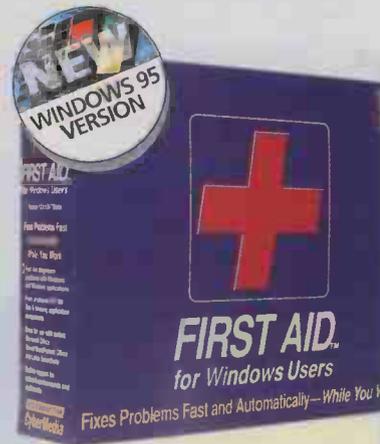
**FREE On-Line Updates!**  
First Aid uses an extensive knowledge base to diagnose and fix problems. As newer applications are released and more problems and remedies are identified, CyberMedia continually enhances the knowledge base to support these.

**Now includes uninstaller!**  
First Aid now comes complemented by a powerful uninstaller application to keep your system uncluttered.

FIR006 First Aid for Win 3.11 .....**£36<sup>95</sup>**

**FIRST AID 95 ONLY**  
**£38<sup>95</sup>**

STOCK CODE: FIR007



### WHAT THE PRESS ARE SAYING ABOUT FIRST AID 95

"...takes the headaches out of installing multimedia peripherals."

Eric Schroeder, PC Week  
"I put First Aid to the test by hiding a common DLL file... Predictably, Windows balked. But First Aid came to the rescue, searching my hard disk, finding the misplaced DLL, and copying it to where it belonged. Pretty amazing."

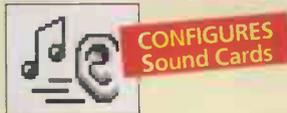
Steve Bass, PC World  
"Spectacular... A necessity... Just click on FIX and let the program do the repair. This is so much easier than waiting on line for tech support."

Al Creighton, Syndicated Columnist  
"...easy to use, comprehensive, and efficient... First Aid would be an excellent addition to any PC system."

Daniel Brown, Info World

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CA	16
3D Graphics	17
Comms	18
Comms	19
DTP & Fonts	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Edu.	30
Utilities	31
Order Form	32



A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.





# SOFTWARE WAREHOUSE

## WINDOWS '95 UTILITIES



Only **£54.95**  
(See Page 2)

# Sidekick 95 for Windows 95

### It's The Simplest Way to Stay Organised!

Simple to use, easy to learn and incredibly powerful - Sidekick is already the best-selling personal organiser ever. The new 32-bit Sidekick 95 uses the power and flexibility of Windows 95 to get you organised quicker. It takes up a fraction of the memory other PIMs use, so you can keep it running all the time without affecting your system's performance.

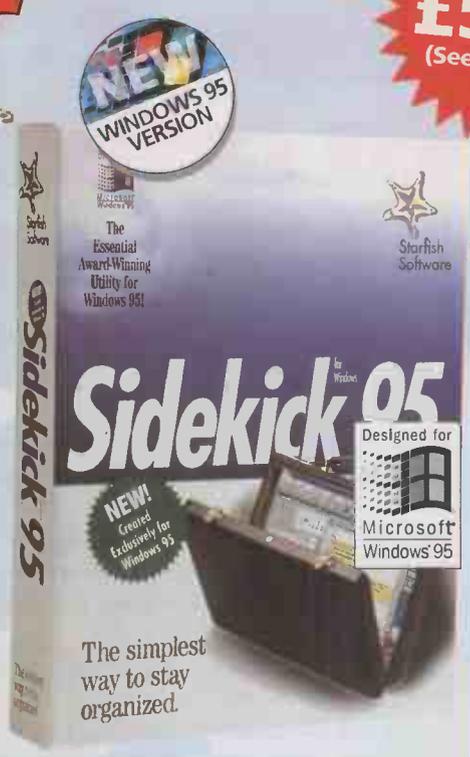
Sidekick 95 helps you simplify your life - not complicate it. With the improved drag-and-drop interface, there's no need to enter information twice or complete complicated import/export procedures. Sharing information between the Calendar, Cardfile, Wordprocessor, Expenses Tracker and Contact Manager is as easy as moving your mouse across the desktop. Sidekick 95 will even dial your phone! Using Windows 95's new "Plug-and-Play" technology, Sidekick automatically looks for and configures any installed modem.

New for Sidekick 95 is an integrated word processor with all the features you need for day-to-day letter writing and document production. What's more it's linked directly to the Cardfile database, so writing properly addressed letters or even mail merging is just a mouse click away. To make life easy, Sidekick will automatically print letters, schedules, notes, names and addresses in over 70 different formats including labels, envelopes and popular paper organiser formats like Filofax™.

**STOCK CODE: SID004**  
**SIDEKICK 95 ONLY**  
**£28.95** RRP £49.00

SID002 Sidekick 2.0 for Windows 3.11 ..... **£27**

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price.  
(Subject to terms on p2)



### SIDEKICK 95 FEATURES

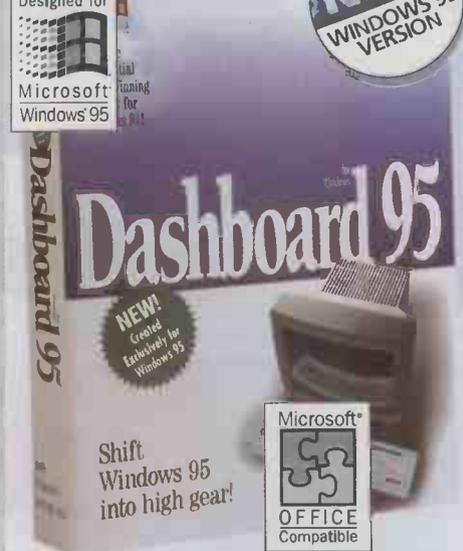
- NEW! Windows 95 Plug and Play compatibility
- NEW! Integrated, full function word processor.
- NEW! Worldwide clock
- NEW! TAPI standard phone support for incoming calls.
- NEW! Now you can move your appointments, notes, and to-do items from one time to another with drag-and-drop simplicity.
- NEW! Track your expenses and create complete summaries in seconds.
- Drag-and drop to move, copy, or merge information between cardfiles and the word processor.
- Daily, weekly, monthly or yearly views.
- Calendar lets you overlap appointments.
- New label, address book and envelope printing features gets you started with over 70 templates.
- Alarms with snooze feature.
- Alarms work all the time - even when Sidekick isn't running.
- Find and replace feature.
- Password protection keeps private information safe.
- If you get stuck, just position your mouse over an item for quick balloon help.
- Multiple, customisable cardfiles.

### WHO USES SIDEKICK 95?

- ✓ The business & home office professional  
Friendly and flexible, Sidekick 95 offers all the calendar, address book and word processing features every overloaded professional needs.
- ✓ The mobile professional  
Sidekick 95 is the perfect portable companion - It instantly updates your files from your desktop PC to your portable and then back again.

- ✓ The home PC and family PC  
Sidekick 95 can keep track of everyone in the family. From the kid's activities to personal errands, you'll always be in the right place at the right time. It can even organise your household inventory, car maintenance records - even your CDs!
- ✓ You!  
If you've ever used a paper-based organiser or address book, you already know how to use Sidekick 95. Imagine your current personal organiser, but with the timesaving power of your PC. Let Sidekick 95 forward unfinished tasks to the next day, sound alarms to remind you of critical appointments.

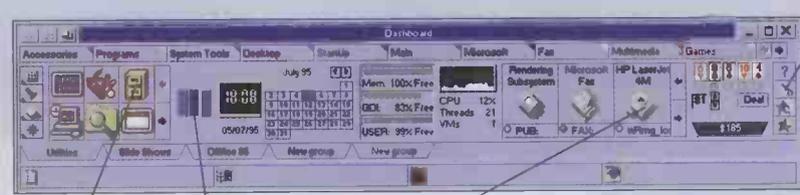
# Dashboard 95 for Windows 95



### The Simplest Way to Organise Windows 95!

Like the dashboard in your car, the new native 32bit Dashboard 95 for Windows 95 helps you to get to where you want to go by keeping everything close at hand. Launch applications, check your system's memory usage, disk space and resources and at last - Windows printing made easy! Dashboard 95 makes choosing and using a new printer simple, just click on an icon of the new printer and Dashboard does the rest.

New for 95 are Dashboard's Virtual Screens. This innovative and useful feature allows you to open applications on up to 9 virtual screens and then switch between them with a simple mouse click. No more cluttered screens!



- Launch Applications  
No need to search for programs - just use Dashboard 95's Launcher!
- Virtual Screens  
Switch between up to 9 virtual screens on your PC!
- Easy Printing  
Just choose the printer you need by clicking an icon - easy!

**STOCK CODE: DAS004**  
**DASHBOARD 95 ONLY**  
**£28.95** RRP £49.00

DAS002 Dashboard for Windows 3.11 ..... **£27**

Next-day delivery only £6.95 E&OE. All prices are plus delivery and VAT and are subject to change and availability.

New Windows 95 Releases • New Windows 95 Releases





# SOFTWARE WAREHOUSE

Next-day Delivery  
**£6<sup>95</sup>**

## WINDOWS 95 - GRAPHICS

Everything for your PC - Next-day!

# Visio 4 - The smart way to create all your business diagrams!

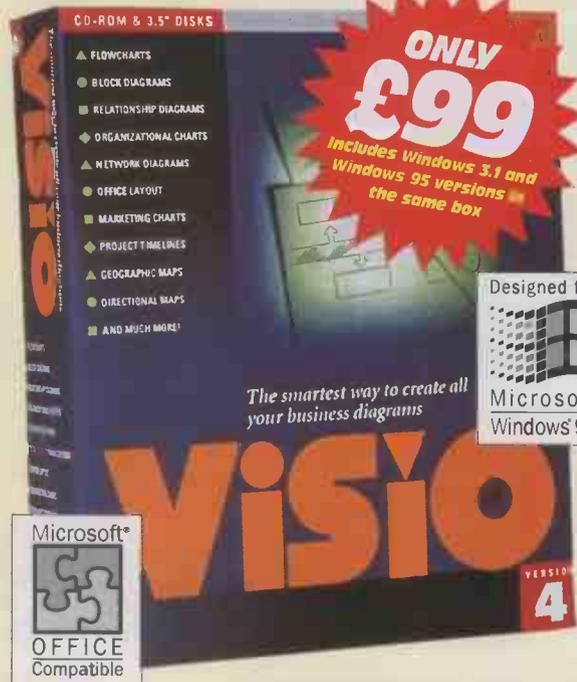
Now more than ever, Visio is the smartest way to create all your business diagrams. Version 4 has been enhanced in virtually every area, and boasts new productivity features, such as Wizards that help you create diagrams and charts automatically. And, with both 16 and 32bit versions in one box Visio 4 is optimised for both Windows 3.1 and Windows 95.

The new optimised 32-bit Visio exploits the advanced capabilities of Windows 95 and will also run on Windows NT 3.51 systems. It offers you significant productivity gains, including these great new features:

- Faster 32bit performance
- Descriptive, long file names makes locating files easy
- 'QuickView' lets you preview diagrams before opening them
- Drag work from a diagram to the desktop to create a Scrap file, then easily incorporate it into different documents by simply dragging and dropping
- Stencils float or can be locked to any side of the Visio window
- Work more efficiently with mouse button menus and actions, including a new pop-up help
- Use Windows 95's new multitasking to continue working on a diagram while other tasks are being done simultaneously in the background

Visio's new Wizards make creating new diagrams a snap. They set up pages, numbering, headers and any number of document features. An 'Organisational' Wizard automatically generates a chart from your data - either a text file or Excel spreadsheet. You can even generate a project timetable with the 'Timeline' Wizard.

Thanks to new smart data management Visio will automatically connect to MS Office and Lotus Notes. Compatibility with Office toolbars means you are familiar with Visio from the start.



**only £99<sup>00</sup>** STOCK CODE: VIS060

### Extra Visio Shapes & Ideas

In addition to the SmartShapes™ included in Visio, you can select one or more of 15 Add-On SmartShape products for your own particular diagramming tasks or projects. Visio SmartShapes™ are more than static clip art or symbol libraries, because they anticipate how you'll use them and then behave in a useful way. SmartShapes™ resize without distorting, connecting lines stay glued and reroute automatically, and text goes where it should in a format that makes sense. There are more than 3,000 shapes to choose from. Simply add the shapes you need, when you need them!

- Advanced Flowcharts ..... **£39**  
More than 260 shapes for flowcharting
- Network Diagrams ..... **£39**  
Design and model detailed data networks
- Electrical Engineering ..... **£39**  
Create electrical and electronic diagrams
- Marketing ..... **£39**  
Illustrate business, sales and marketing concepts
- Software Diagrams ..... **£39**  
Produce data flows, processes & logic structures
- Space Planning ..... **£39**  
240 shapes for planning office layouts
- Chemistry ..... **£39**  
Draw complex chemical structures & functions
- Chemical Engineering ..... **£39**  
Accurately display plant equipment & facilities
- Biotechnology/Medicine ..... **£39**  
Illustrate experimental & physiological processes
- Mechanical Engineering ..... **£39**  
For creating detailed design documents
- Insurance/Law ..... **£39**  
Graphics for insurance claims & legal briefs
- Home Planning ..... **£39**  
Plan your dream home or your next remodel
- Kids ..... **£39**  
A wealth of fun illustrations & shapes for kids
- Landscape Planning ..... **£39**  
Landscape your garden & create planting charts

- Visio Technical Productivity Packs enable you to produce technical drawings and schematics with the ease of Visio.
- Visio Technical Productivity Pack Upgrade for existing Visio Users .. **£99**
- Visio Technical Productivity Pack Bundled with Visio... **£199**

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Storage	30
Training/Ed.	31
Utilities	31
Order Form	32

# ChartXL v2 for Windows 95

The best graphing program available for your PC - now takes advantage of Windows 95!

If you want to create graphs frequently with Microsoft Excel, Lotus 1-2-3 or any other Windows spreadsheet, then you need Harvard Chart XL v2.0. It offers you more flexibility, more ease-of-use, more options and more speed. Harvard ChartXL v2.0 is the powerful graphing package for Microsoft Windows 95, Windows NT and Windows 3.11. It's as easy to use as graph paper, with more graph types than you could possibly imagine!

Over 300 graph types - right at your fingertips!

Harvard ChartXL v2.0 features an amazing range of impressive graph styles. There are options for business, statistical and technical charting - including 3D Pyramid/Pie, 3D graphs, one-touch business statistics and many more.

Key new features!

Automatic formatting lets our pre-designed templates format your raw data, and linking gives you drag and drop ease of use. There's also enhanced spreadsheet compatibility, one-touch statistics and a 3D rotate function.

HAR023 Harvard ChartXL v2.0..... **£148<sup>95</sup>**

**A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!**



To Order, By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert

# SOFTWARE WAREHOUSE

**Business**

## ACCOUNTS

### Pegasus Solo

Fully integrated accounting software, ideally suited to the small business.

Pegasus Solo is ideally suited for every small business, incorporating Sales, Purchase and Nominal ledgers along with invoicing and stock control, allowing you to keep track of customer's and supplier's transactions. Produce statements and debtors' reports, as well as handling all of your VAT requirements.

PEG001 Pegasus Solo (DOS) ..... **£67<sup>20</sup>**



### Quicken V4.0 for Windows

This new version of Quicken is the fastest, easiest way to organise all your personal and small business finances.



QUI025 Quicken V4.0 ..... **£28<sup>95</sup>**

Quicken Deluxe UK Home Pack includes Quicken for Windows Version 4, Quicken Home Inventory which allows you to check on your home contents insurance, & QuickTAX Planner '95.  
QUI022 Deluxe UK HomePack ..... **£46<sup>95</sup>**

Quicken Deluxe UK Business Pack includes Quicken for Windows V4, Quicken Invoice UK for Windows and QuickTAX Planner '95.  
QUI021 Deluxe UK Business Pack..... **£46<sup>95</sup>**

SAG025	WIN Sage Instant Accounting	£87
SAG032	WIN Sage Instant Payroll	£88
SAG028	DOS Sage Accountant v7	£176
SAG027	DOS Sage Accountant Plus v7	£252
SAG037	WIN Sage Accountant Plus v3 Network	£529
SAG035	DOS Sage +2 Accountant v3	£229
SAG035	WIN Sage +2 Accountant v3	£329
SAG034	WIN Sage +2 Bookkeeper	£109
SAG029	DOS Sage +2 Bookkeeper	£62
SAG026	DOS Sage Financial Controller v7	£329
SAG038	WIN Sage Fin. Controller +3	£425
SAG039	WIN Sage Fin. Controller +3 Multi User	£659
SAG013	DOS Sage Fin. Controller Multi User	£507
SAG012	DOS Sage Job Costing	£106
TAS001	DOS Tas Books	£82
TAS002	DOS Tas Books Multi User	£182
TAS004	DOS Tas Payroll v1.4	£85
MIC134	WIN MS Money	£26
QUI016	WIN QuickBooks v3	£85
QUI012	WIN Quicken v4	£29
QUI020	WIN Quicken Home Inventory	£19
QUI004	DOS Quicken	£29
QUI026	WIN QuickTax 95	£29
SAG023	WIN Sage Moneywise	£24
SAG015	WIN Sage Invoicing	£24
SAG018	WIN Sage Payroll	£135
SAG017	DOS Sage Payroll II LAN	£166

### Pegasus Solo Payroll

Fully-integrated accounting software for small businesses, covering all aspects of NIC and PAYE.

Pegasus Solo Payroll is ideally suited for every small business. It is a perfect companion for all accounts packages or can be used standalone. It also fits neatly into Pegasus Accounts Solo.

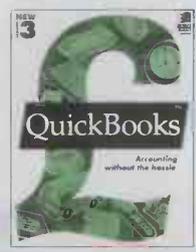
This great, comprehensive package combines ease-of-use with a friendly interface.

PEG002 Pegasus Solo Payroll (DOS) ..... **£42<sup>95</sup>**

### QuickBooks 3.0

Quickbooks 3.0 now includes full stock control - it's the no-hassle accounting package.

The UK's best-selling accounting package for small businesses. Designed for business people, not accounting experts, Quickbooks is a robust industrial-strength system - the beauty is, that you never get to see the double entry. There's no debits and credits, just simple forms that you already know how to use. This new version adds fully integrated stock control, modifiable invoice formats and audit trails.

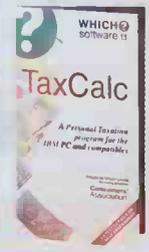


QUI016 QuickBooks 3.0 ..... **£84<sup>95</sup>**

### TaxCalc for Windows

Are you due for a tax refund? Find out with TaxCalc.

Produced by the Consumers' Association, TaxCalc for Windows helps you to understand and complete your current tax return. TaxCalc quickly and accurately checks the tax you paid last year - you may be due a rebate - and advises you how to optimise your income and allowances for the current tax year. You can print out your Inland Revenue approved tax form and benefit from the extensive on-line help specially written by the Consumers' Association as well as relevant Inland Revenue leaflets and advice on how to deal with the revenue. You will require a 386, with four megabytes and Windows 3.x.



TAX001 TaxCalc for Windows ..... **£29<sup>95</sup>**

## LANGUAGES

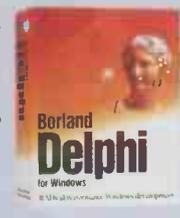
### Borland Delphi

RADical performance Windows development

Delphi - winner of BYTE's Best Technology of Comdex 1994 - facilitates Rapid Application Development (RAD), allowing programmers to smoothly progress from prototype to production. Delphi is the only Windows development tool that combines a high-performance optimising native code compiler with a visual design environment and integrated database access. Object-oriented design provides unlimited extensibility, allowing users to reuse custom components and those from the Visual Component Library.

DEL006 Borland Delphi CD ..... **£157<sup>95</sup>**

DEL006 Delphi RAD Pack CD ..... **£128<sup>95</sup>**

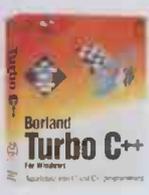


### Turbo C++ V4.5 for Windows

C++ is the ideal way to learn how to program in C and it's great fun too!

Looking for a fast, easy and cost-effective way to get into C and C++ programming? You've found it in award winning Turbo C++. Only Turbo C++ makes learning fun with great sample games and a multimedia Introduction. Play the games, and look at the code to see how they work then write your own. Turbo C++ is packed with visual experts that will write much of your applications for you. What used to take weeks to do and months to learn now takes minutes! Use the same tools that the professionals use. Turbo C++ is now available at an all time low price from Software Warehouse.

TUR064 Turbo C++ V4.5 Win CD ..... **£73<sup>95</sup>**



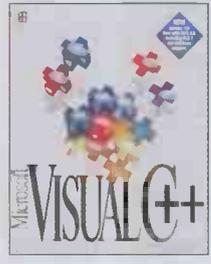
### Microsoft Visual C++

Powerful 16-bit and 32-bit development from Microsoft.

Microsoft Visual C++ gives you access to state-of-the-art 16- and 32-bit development tools. It supports MFC 3.0 and also Wizard support for OLE, OLE Custom Controls and ODBC.

Visual C++ now also features a new project manager and Just-In-Time debugging.

MIC222 Visual C++ V2 CD ..... **£259<sup>95</sup>**



BOR017	CD Borland C++ v4.5 C/U	£129
BOR014	CD Borland C++ v4.5 U/G	£95
BOR101	CD C++ v4.5 + DBase C/U	£199
BOR099	CD C++ v4.5 + DBase V/U	£159
DELO06	WIN Borland Delphi CD	£157
DELO06	WIN Borland Delphi RAD Pack CD	£129
DELO07	WIN Borland Delphi Server	£749
TUR013	WIN Turbo C++ Vis. Ed. v3.1	£65
TUR005	DOS Borland Turbo C++ v3	£48
TUR003	WIN Borland Turbo Pascal v1.5	£78
TUR008	DOS Borland Turbo Pascal v7	£68
MIC146	DOS MS Macro Assembler v6.11	£89
VIS002	WIN MS Visual Basic v3 Std.	£78
VIS004	WIN MS Visual Basic v3 Prof.	£193
MIC071	DOS MS Visual Basic v1 Std.	£79
VIS003	DOS MS Visual Basic v1 Prof.	£196
MIC222	CD MS Visual C++ Prof v2	£259
PAR019	WIN Paradox	£119
PAR014	DOS Paradox Runtime	£139

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (See p2)

## DATABASES

### FileMaker Pro

The complete database that includes six ready-to-run applications.

FileMaker Pro from Claris is established as one of the easiest-to-use relational Windows databases. In this new version, Claris have added many hot new features and six full-blown pre-designed applications for you to use or modify in just about any database application.

Order before June 30th and get a FREE Claris T-shirt and a 100-template CD on registering your copy.

CLAO02 Claris FileMaker Pro ... **£84<sup>90</sup>**



### Alpha 5 Home & Business Edition

Fully-featured Windows database.

Alpha 5 goes much further than other Windows databases because it comes with common database functions already pre-built! With Alpha 5 you can create powerful database applications without the need for any programming knowledge. You can easily create forms, reports, mail labels and even stunning WYSIWYG letters with the ease of Alpha 5's drag and drop control.

ALP010 Home/Bus. Edn (Win) ... **£39<sup>95</sup>**



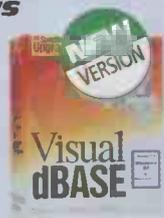
### Visual dBASE for Windows

Relational database for Windows.

Visual dBASE combines leading edge tools with a sophisticated, but easy to use, programming language. From interactive use of local data, to deployment of advanced client-server applications, its all done in one highly productive environment. This is the best database on the market for business professionals and application developers.

By using the unique Two-Way-Tools one can switch back and forth between visual design and programming. This is the best database on the market for business professionals and application developers.

BOR105 Visual dBASE (Win) ... **£219<sup>95</sup>**



ALP002	DOS Alpha 4	£69
ASK001	WIN AskSAM	£95
CLA002	WIN Claris Filemaker Pro v2.1	£85
DAT005	WIN DataEase Express for Windows	£199
DBA002	DOS DBase IV v2 + Compiler Upgrade	£149
DBA006	WIN DBase IV v5 for Windows	£205
DBA007	WIN DBase IV v5 for Windows C/U/G	£89
FOX011	WIN FoxPro 2.6 Standard Edition	£71
FOX012	WIN FoxPro 2.6 MLP	£68
FOX013	WIN FoxPro 2.6 Professional Edition	£276
FOX014	DOS FoxPro 2.6 Standard Edition	£71
FOX015	DOS FoxPro 2.6 MLP	£68
FOX016	DOS FoxPro 2.6 Professional Edition	£276
LOT062	WIN Lotus Approach	£84
MIC148	WIN MS Access v2	£218
MIC144	WIN MS Access v2 MLP	£197
MIC174	WIN MS Access v2 CCP Upgrade	£81
PAR010	DOS Paradox 4.5	£333
PAR019	WIN Paradox	£115
PAR007	WIN Paradox Engine	£99
PAR014	DOS Paradox Runtime	£139

**DON'T FORGET TO ASK CHOOSE YOUR FREE GIFT (SEE PAGE 2)**

Page 9



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.

The widest product range, best prices & fastest delivery!



**Everything for your PC - Next-day!**

OFF003 DOS CA Office .....	£99
SIM004 WIN CA Simply Business .....	£59
CLA006 WIN Claris Works v3 .....	£69
LOT WIN Lotus SmartSuite v4 .....	£169

**For More Lotus, please see pages 13**

**P13**

MIC129 WIN MS Office 4.2 .....	£318
MIC136 WIN MS Office 4.2 C/U .....	£229
MIC139 WIN MS Office 4.2 CCP U/G .....	£159
MIC168 WIN MS Office 4.3 Pro .....	£399
MIC178 MS Office 4.3 Pro CD .....	£399
MIC189 WIN MS Office 4.3 Pro C/U .....	£269
MIC173 WIN MS Office 4.3 Pro CCP .....	£249
MIC179 MS Office 4.3 Pro CCP CD .....	£249
WOR063 WIN MS Works v3 .....	£85
WOR064 WIN MS Works v3 CCP U/G .....	£44
MIC061 DOS MS Works v3 .....	£85

**For More Office and Works, see pages 4 & 5**

**P4/5**

PER013 WIN Novell PerfectOffice Std. U/G CD .....	£129
PER008 WIN Novell PerfectOffice Std. U/G 3.5" .....	£139
PER009 WIN Novell PerfectOffice Std. C/U/G 3.5" .....	£169
PER019 WIN Novell PerfectOffice Pro. U/G CD .....	£179
PER018 WIN Novell PerfectOffice Pro. U/G 3.5" .....	£189
PER017 WIN Novell PerfectOffice Pro. C/U/G 3.5" .....	£235

**For More PerfectOffice, please see page 12**

**P12**

PFS007 DOS PFS 1st Choice .....	£29
PFS003 WIN PFS Window Works .....	£29
COM004 WIN Toplevel Complete Works .....	£69

### Maximise Your Office Suite with Corel Office Companion!

Includes all the features and applications that should have been in your office suite.

Corel Web Mosaic gives you full-featured access to the powerful Internet Web, with built-in support for AIFF and AU audio formats, direct display of GIF and JPEG files, full printing capabilities, a hotlist and history box to keep a list of your favourite web sites. Corel Fax lets you communicate your ideas with broadcast faxing, while saving you money by scheduling faxes to off-peak hours. Send faxes directly from within any Windows app., send and receive in the background, organise, print lists and address labels, sort and search using the Phone Book feature and more.

Corel Planner is a PIM in an easy to use book format which makes tracking contracts, to do's, activities, appointments etc. easy. Corel Flow 2 provides the power to create business graphics quickly and easily. A fully-featured program with 90 Smart Symbol libraries, automatic shape connectors, direct text and line editing, OLE 2.0 support, a built-in spellchecker and automatic resizing of symbols to fit text. Use any of the 500 stylish TrueType fonts to make reports, presentations and documents look eye-catching. Add flair and originality to any report or presentation with Corel Gallery's 15,000 clipart images in CMX format.

Communicate your business ideas effectively with Corel Bookcase's invaluable references, authoritative information, and millions of useful and interesting facts. Included are: Webster's New Riverside Dictionary, the Concise Columbia Electronic Encyclopedia, Simpson's Contemporary Quotations, the 1995 Information Please Almanac, and the Information Please Business and Sports almanacs. Corel's Multimedia add-ons let you listen to your audio CDs or record and play soundclips. You can drag and drop these soundclips into other OLE applications for added impact. Plus you get Corel Screen Saver, Wallpaper Flipper and a WinTune 2.0 - a Windows diagnostics program.

COR063 Corel Office Companion ..... **£63<sup>95</sup>**



### Claris Works 4

Now with even more productivity features, plus Internet authoring.

While other Integrated packages require you to open and close separate applications, copying and pasting information from one to the other, Claris Works makes use of their uniquely developed total integration facilities. It is the 'all in one' answer for business users, home users and for people using their PC for educational uses.

Claris Works Version 4 includes new features to enhance productivity and improve presentation

- There are three new ClarisWorks Assistants (Mail Label, Home Finance and Certificate).
- ExpressStyle redefines the concept of stylesheets
- FastReport automates searching, sorting & reporting
- ReadyArt libraries let you store and organise hundreds of frequently used clip art images
- Internet Authoring with HTML allowing users to publish pages on the Internet.

CLA010 V4.0 (Win 95 ONLY) .....	<b>£128<sup>95</sup></b>
CLA011 V4.0 Upgrade .....	<b>£48<sup>95</sup></b>
CLA006 Claris Works V3.0 .....	<b>£68<sup>95</sup></b>

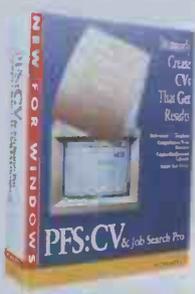


## BUSINESS SOFTWARE - PRESENTATION & ILLUSTRATION

### PFS Job Search

Successfully organise every step of your job search with PFS CV and Job Search.

Start tackling those job interviews with confidence. Use this great Windows application to create impressive CVs and



cover letters that stand out from the pack. Includes 10 professional CV templates and 70 pre-set layouts. Also included is a full WYSIWYG word processor and 12 sample cover letters. A built-in database and mail-merge allows you to quickly distribute your professional CV.

PFS009 PFS Job Search..... **£29**



### ASAP

One click is all it takes to create stunning presentations.

ASAP is the truly easy to use presentation software that lets you creatively express your ideas in professional presentations and reports in a matter of minutes. It uses common business idioms such as organisation charts and agendas as well as unique chart types such as cycle and orbit to allow you to discover ways to present your ideas in creative new ways. With ASAP there's no learning curve. If you can use a keyboard, you can use ASAP! Transform simple text into an impressive chart quickly and easily. One click and you're there!

HAR024 ASAP ..... **£98<sup>95</sup>**

**For More About ASAP, see our 16 page Supplement**

### Astound V2

The number one multimedia presentation package.

Astound V2 lets you create dynamic overheads, slides, and much more in just minutes. If you want to impress clients, competitors and colleagues with your presentations all you have to do is choose from Astound's 70 pre-designed templates and then add text, graphics, sound, video and more.

AST002 Astound V2 ..... **£169<sup>95</sup>**

AST004 Astound V2 U/G ..... **£99<sup>95</sup>**



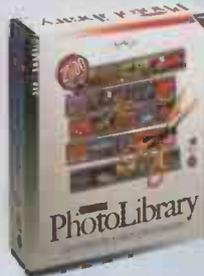
### Photo Library

An outstanding double CD collection of 2,500 images.

Photo Library contains a wide range of photo images in both TIFF and BMP formats. All the images contained are royalty free, 24-bit colour photos.

Photo Library also includes Power Library, a powerful picture organiser which builds up an album of all your pictures, allowing you to easily view and browse images before using them. It's an invaluable resource for users of CorelDRAW!, Photoshop and PhotoFinish.

PHO003 Photo Library..... **£28<sup>95</sup>**



### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

**Page 10**

## Macromedia Freehand - For Powerful Design & Illustration



Freehand 5.0 - More new features make it number one for designers, illustrators and artists.

Freehand is the most powerful and easiest-to-use software for design and illustration. Its comprehensive feature set, customisable work environment, and superior performance make it the tool of choice for graphic designers, creative directors, production artists and illustrators worldwide.

Freehand has everything you need to develop simple illustrations or complex designs with the minimum of hassle. Its open architecture allow you to take advantage of drop-in interactive tools and palettes in addition to Illustrator plug-ins. With extensive text handling capabilities, including style sheets, spelling checker, search and replace, text on a path, copyfitting, columns, and linked text blocks, Freehand's features surpass those found in any other design and illustration package. No other application has the features or the flexibility.

MAC010 Macromedia Freehand 5.0 ..... **£399<sup>95</sup>**

#### Freehand 5.0 Features include:

- Calligraphy Pen and Pressure-sensitive Pen let you create natural strokes.
- Draw Starbursts, Polygons and Spirals right on the screen without using dialog boxes!
- AutoTrace automatically turns any object into editable Bezier curves.
- Unique Eyedropper actually pulls colours from placed TIFFs for further use in the work.
- Report Generator gives you information about fonts, colours and linked graphics.
- Create 4-Colour Separations without having to switch to other applications. Plus a new Trapping for custom spreads and chokes.
- Import and Export EPS, PICT, PICT2, TIFF etc.



Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. VAT and delivery.

**To Order, By Telephone Call 01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.



# SOFTWARE WAREHOUSE



**Business**

## BUSINESS SOFTWARE

### DTP

ALD002 WIN Aldus Persuasion.....	£189
PAG003 WIN Aldus PageMaker v5.....	£429
PAG018 WIN Aldus PageMaker Classic.....	£58
COR009 WIN Core Ventura v4.2.....	£115
COR044 WIN Core Ventura v5 Comp. Upgrade CD.....	£60
COR045 WIN Core Ventura v5 Comp. Upgrade.....	£115
COR046 WIN Core Ventura v5 CD.....	£199
PRE001 WIN GST PressWorks.....	£35
GST001 WIN GST Publishing Partners.....	£79
MIC073 WIN MS Publisher v2.....	£62
MIC159 WIN MS Publisher MLP.....	£57
MIC147 WIN MS Publisher 20-MLP.....	£699
PF5005 WIN PF5 Publisher v2.....	£29
QUA014 WIN Quark XPress v3.3.....	£565

### OPERATING SYS.

WIN003 WIN MS Windows 3.11 Upgrade.....	£39
WIN023 WIN MS Win 3.11 for W/groups Add-on.....	£42
WIN021 WIN MS Win 3.11 for W/groups Base.....	£89
WIN016 WIN MS Win. NT Server Workstation.....	£245
WIN054 WIN MS Windows NT Server Upgrade.....	£499

### SPREADSHEETS

SUP004 DOS CA Supercalc.....	£69
LOT017 WIN Lotus Improv.....	£92
LOT061 WIN Lotus 1-2-3 V5.....	£219
LOT059 WIN Lotus 1-2-3 v5 CCP Upgrade.....	£89
LOT008 DOS Lotus 1-2-3 v3.4.....	£292
EXC004 WIN MS Excel v5 for Win 3.1.....	£222
MIC141 WIN MS Excel v5 CCP Upgrade.....	£89

### TRANSLATION

GLO019 DOS Globalink Chinese.....	£99
GLO013 WIN Globalink Pro French.....	£289
GLO014 WIN Globalink Pro German.....	£289
GLO012 DOS Globalink Pro Russian.....	£249
LAN001 WIN Language Assistant French.....	£49
LAN003 WIN Language Assistant German.....	£49
LAN004 WIN Language Assistant Italian.....	£49
LAN002 WIN Language Assistant Spanish.....	£49

### PIMS

For More PIMS Software, please see page 7

**P7**

ACT004 WIN ACT! v2.....	£149
ECC001 WIN ECCO Simplicity.....	£49
ECC003 WIN ECCO Professional 3-User.....	£399
ACT005 WIN First ACT!.....	£49
LOT043 WIN Lotus Organizer 1.1 WSL.....	£49
SID001 dos SideKick.....	£29

### MS Excel 7

Microsoft Excel for Windows 95 has been designed on your needs and requests. Whether you're working on a simple summary, charting sales trends or performing advanced analysis, Excel is the easy way to get the job done!



MS Excel V7 .....from £84<sup>95</sup>

Many more in stock. Call now!

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (See p2)



For More DTP Software, please see page 20

**P20**

## WORD PROCESSING

### Legal Letters

120 letter templates that get results!

Have you ever been frustrated by a garage owner-charging you? By a shop selling faulty goods? For these and many other kinds of problems, 120 Letters That Get Results contains a carefully-worded letter template written by Which? lawyers for you to adapt. A full word processing package is included, as is the text of the Which? book '350 Legal Problems Solved' in an easily accessible questions and answers format. All letters can be exported to your own word processor, then simply insert your details and print and post your professionally-written letters and see the difference it makes to the results

Legal Letters .....£24<sup>95</sup>



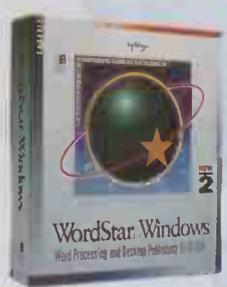
### WordStar 2.0

WordStar 2.0 is a full featured word processor, including many DTP features for only £27.99

WordStar 2.0 has recently won more accolades in the computer press than any other word processor. It has been highly praised for its extensive feature set and incredible value for money.

WordStar 2.0 includes English spell checker, grammar checker and thesaurus, in fact everything you'd expect to find in a word processor costing 10 times as much.

WordStar 2.0 .....£27<sup>99</sup>



LOT014 WIN Lotus WordPro.....	£89
MIC014 WIN MS Word v6 CU.....	£138
MIC135 WIN MS Word v6 CCP U/G.....	£89
TOP002 WIN TopLevel Fine Words.....	£25
WOR034 DOS WordPerfect v6.1.....	£212
WOR037 DOS WordPerfect v6.1 CU.....	£95
WOR035 DOS WordPerfect v6.1 U/G.....	£79

### MS Word 7

Microsoft Word 7 offers IntelliSense innovations such as AutoCorrect which automatically corrects mis-spelled words and typing errors. New e-mail features are now included, which will help in editing e-mail.

MS Word V7 .....from £84<sup>95</sup>



# Accent 2.0 - The Award-Winning Multilingual Word Processor

Accent is the advanced multi-lingual word processor for Windows. This new version means that it's even better!

If you need to work in more than one language, then you need Accent. Designed to give you quick access to the special features that are needed for multilingual word processing.

Accent makes it easy to use different alphabets and characters in the same document. Select the language you wish to write in and a keyboard template appears in the corner of your screen, to help you find the corresponding key on your UK keyboard. With your mouse, you can even click the template rather than depressing the actual key. Accent is full of all the standard word processing features, including style sheets, word count, auto save, import, export etc. All Accent word processors cover over 30 languages including all European languages, plus Russian, Polish, Serblan, Hebrew, Greek, Turkish and many more.

Accent is ideal for student writing projects and reports in foreign languages or for those who do business with clients from Europe and around the world. You can mix different languages within the same document and Accent intelligent enough to run spell checks on whole documents without any problems - most spell checkers will choke on the simple use of garçon or fräulein in an English text.

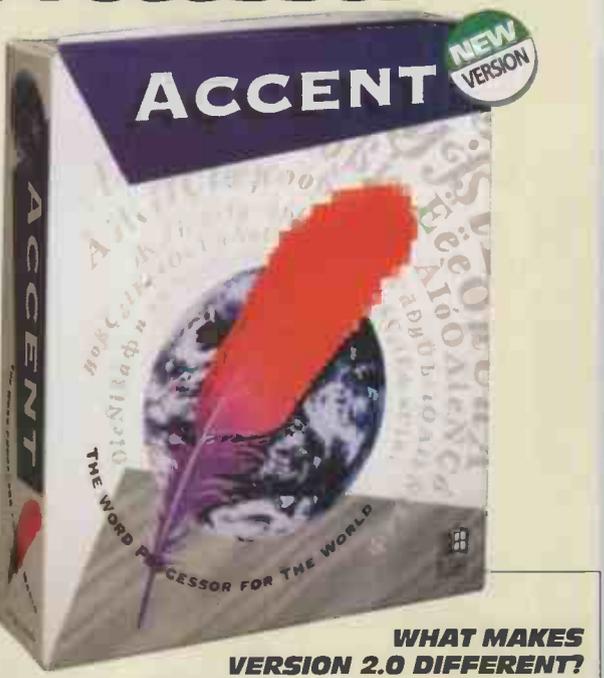
Accent even takes dialects into account - for example, Canadian French is not identical to Belgian or Parisian French, and Iberian Portuguese is not that which is used in Brazil. Accent asks you select both a language and a country when you switch languages.

Accent - The award-winning multilingual word processor

PC Magazine called Accent "the best multilingual word processor we've seen at PC Magazine..." Accent was praised for its configurable user interface which can be set to operate in eight different languages (French, English, German, Italian, Russian, Spanish, Portuguese and Finnish).

PC Computing called Accent "a unique tool for the international businessperson... If your company does business around the globe, Accent will be a boon to your productivity."

Accent Express	Over thirty languages supported. 30 Truetype fonts in 5 language groups: Western Europe, Eastern Europe, Cyrillic, Greek and Turkish.	£38 <sup>49</sup>
Accent Special Edition	Over thirty languages supported. Spellcheck and Thesaurus in all 8 popular European languages. Word-for-word translation with Berlitz Interpreter. 79 Truetype fonts in 5 language groups: Western Europe, Eastern Europe, Cyrillic, Greek and Turkish.	£98 <sup>99</sup>
Accent Pro	Over thirty languages supported. Spellcheck in 17 languages and Thesaurus in 11. Hyphenation in 14 languages.. Word-for-word translation with Berlitz Interpreter. FREE Lotus Organizer and Winfax Lite. 150 Truetype fonts in 5 language groups: Western Europe, Eastern Europe, Cyrillic, Greek and Turkish.	£189 <sup>49</sup>
Accent Pro Ed		



**ACCENT** NEW VERSION

THE WORD PROCESSOR FOR THE WORLD

**WHAT MAKES VERSION 2.0 DIFFERENT?**

- All products can now work with Hebrew and Arabic and can write from right to left, as well as from left to right.
- More fonts are included (Accent Professional includes 150 fonts).
- More menu languages.
- More features including tables and columns.
- More Import/Export filters.
- Free one-month subscription to CompuServe and £10 coupon for advance services.
- Accent Professional 2.0 includes Lotus Organizer and Delrina WinFax 3.1 FREE!

A massive 32,000 items in stock across 3200 different product lines. Nobody delivers faster!






**To Order By Telephone Call 01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



The widest product range, best prices & fastest delivery!



Integrated

# SOFTWARE WAREHOUSE

INTEGRATED

Next-day Delivery  
£6<sup>95</sup>



Everything for your PC - Next-day!

## Software Warehouse's latest outrageous deal on PerfectOffice!

Buy PerfectOffice from Software Warehouse and we will give you a FREE copy of Quicken Version 4. If you're looking to buy Windows 95, get it from Software Warehouse and Novell will refund £29.50 plus VAT when you send a copy of your invoice to them. See terms (below right).

PerfectOffice features new PerfectFit™ technology that takes you beyond common look-and-feel integration to a suite that offers complete inter-connection between programs. With a common user interface, pull-down menus and key dialogue boxes, each program looks and feels alike.

The Desktop Application Director (DAD) is a customisable toolbar that makes navigation around the PerfectOffice easy. It enables you to switch among apps, manage, locate and view files, and automate tasks with a mouse click. Perfect Office features PerfectSense™, a number of intelligent word and grammar correction features. PerfectSense will also help you write better English by automatically rewriting entire sentences for your consideration, correcting both spelling and grammatical errors. Proof reading your business letters just got a whole lot easier!



**Software Warehouse Exclusive!**  
Not only do you get Windows 95 at half price, but make your office complete with the latest version of Quicken!

### GET 8 GREAT APPLICATIONS IN PERFECT OFFICE!

#### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forns	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

<p><b>1</b></p> <p><b>ONLY IN OFFICE PROFESSIONAL</b></p> <p><b>Paradox 5.0</b></p> <p>Relational database with its own object language, PAL. Powerful features plus ease of use.</p>	<p><b>2</b></p> <p><b>GroupWise 4.1</b></p> <p>Share information with this powerful Integrated E-mail/work-group package (client only).</p>	<p><b>3</b></p> <p><b>InfoCentral 1.1</b></p> <p>The innovative PIM. The perfect way to organise people, places and things.</p>	<p><b>4</b></p> <p><b>Envoy 1.0a</b></p> <p>The perfect, versatile way to view any document and collaborate electronically.</p>
<p><b>5</b></p> <p><b>ONLY IN OFFICE PROFESSIONAL</b></p> <p><b>AppWare 1.0</b></p> <p>A fifth generation visual programming tool and application developer.</p>	<p><b>6</b></p> <p><b>Presentations 3.0</b></p> <p>The perfect way to sell your ideas with graphics-based information.</p>	<p><b>7</b></p> <p><b>WordPerfect 6.1</b></p> <p>The world's best-selling word processor - it's the Perfect way to create better documents.</p>	<p><b>8</b></p> <p><b>Quattro Pro</b></p> <p>The perfect way to make numbers work, with interactive tutors, experts, and more.</p>

PER013 PerfectOff. Std. U/G CD.....	<b>£129</b>
PER008 PerfectOff. Std. U/G 3.5".....	<b>£139</b>
PER009 PerfectOff. Std. C/U/G 3.5".....	<b>£169</b>
PER019 PerfectOff. Pro. U/G CD.....	<b>£179</b>
PER018 PerfectOff. Pro. U/G 3.5".....	<b>£189</b>
PER017 PerfectOff. Pro. C/U/G 3.5".....	<b>£235</b>
PER015 PerfectOffice Pro. CD.....	<b>£365</b>
PER016 PerfectOffice Pro. 3.5".....	<b>£375</b>

Novell WordPerfect Version 6.1 is also available separately:

WOR116 WP 6.1.....	<b>£169</b>
WOR117 WP 6.1 Comp. U/G.....	<b>£84</b>
WOR118 WP 6.1 Upgrade.....	<b>£69</b>

If you buy PerfectOffice before 30th September 1995 and buy Windows 95, Novell will refund half the cost of Windows 95!

Simply send both invoices, your PerfectOffice Registration card and voucher to Novell by 31st October to receive a cheque.

Conditions:

- All claims must be received by Novell no later than 31st October.
- PerfectOffice & Windows 95 must be purchased between specified dates.
- PerfectOffice & Windows 95 must be purchased from the same supplier.
- Maximum of five per postal address.
- Processing of claims and issuing of cheque will be handled by a third party on behalf of Novell.
- Offer does not include delivery charge.
- Purchases made under Novell's Volume Licensing Agreement do not qualify.

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.





# SOFTWARE WAREHOUSE



**INTEGRATED**

## Lotus SmartSuite 4.0 is now even better value at only £168<sup>95</sup>!

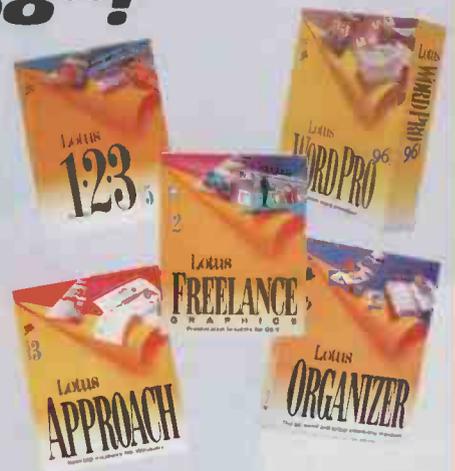
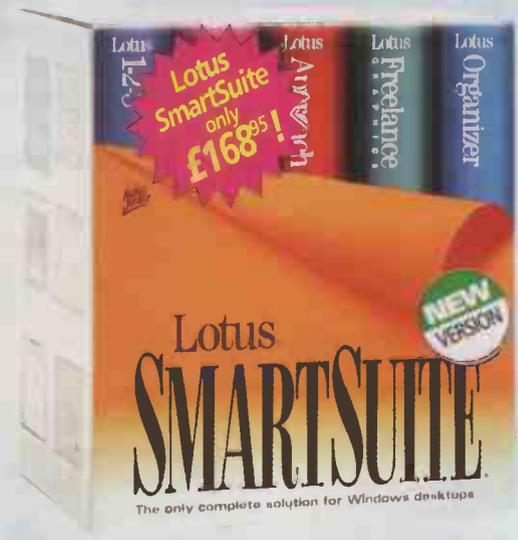
If you own ANY competing software suite, ANY competing spreadsheet, word processor, database, or graphics program, or ANY other Lotus product - Call us now, you qualify for the Lotus SmartSuite upgrade. No proof needed, we trust you!

Full boxed product inc. manuals and disks. No vouchers, etc.

All five leading applications from Lotus are available individually (see features) or in this new release of Lotus SmartSuite Version 4.

SmartSuite 4 includes the Lotus 1-2-3 Release 5 spreadsheet, the Approach 3.0 database, the Word Pro 96 word processor, Lotus Organiser V2 and the Freelance Graphics presentation package. All are specifically designed to take advantage of Notes/FX 1.1, the Lotus facility for exchanging data bi-directionally between desktop applications and Lotus Notes.

SmartSuite V4 now also includes Lotus' multimedia screen and sound-capture utility, ScreenCam 1.1. The SmartCenter Icon Palette is included and allows easy switching and drag-and-drop copying between applications.



LOT034 Lotus 1-2-3 V5: Universal Upgrade .....	<b>£84<sup>95</sup></b>
LOT Lotus Word Pro '96 .....	<b>£98<sup>95</sup></b>
LOT034 Lotus Freelance V2.1: Universal Upgrade ..	<b>£84<sup>95</sup></b>
LOT034 Lotus Organiser V2: Universal Upgrade .....	<b>£44<sup>95</sup></b>
LOT062 Lotus Approach V3.....	<b>£82<sup>95</sup></b>

LOT0XX SmartSuite V4 ..... **£168<sup>95</sup>**

**NEW PRODUCT**

**Lotus Word Pro '96 only £98<sup>95</sup>!**

**FREE Licence to Windows 95 or OS/2 Upgrade (when available)**

Lotus Word Pro '96

The team word processor

## Lotus Word Pro '96 - Productivity for Teams, Power for Individuals!

Formerly Lotus AmiPro

Lotus Word Pro 96 rethinks word processing, revolutionising the way people create, review and edit. It's the first Team Word Processor.

Lotus Word Pro 96 is a new breed of word processor - designed for the way you work today. The first and only Team Word Processor, it combines powerful writing and editing features with breakthrough ways to collaborate and share ideas.

Smart Word Processing innovations provide all the tools you need to create persuasive, professional-looking documents. TeamReview and TeamConsolidate features make it easy to gather and manage everyone's contributions to create the final draft.

With Lotus Word Pro 96, individuals and teams can Work Together faster, smarter and more productively. It features a streamlined "smart" interface that makes it easier for teams and individuals to accomplish everyday word processing tasks.

With Lotus Word Pro 96, individuals and teams of business people can work faster, smarter and more productively.

Key features:

- Easy to create, revise and edit shared documents with revolutionary Team Word Processing features.
- Breeze through everyday word processing tasks and get great-looking output with Smart Word Processing features
- Get the most out of Working Together with Lotus Word Pro 96 and its rich integration with Lotus SmartSuite and Lotus Notes. You can even share work over the Internet.
- Exceptional filters bring in all your current word processing files - without losing your formatting.
- Team Computing features bring in all the contributions of the team while providing the individual with control over documents.

LOT Lotus Word Pro '96 ..... **£98<sup>95</sup>**

### LOTUS OPTIONS FOR BUSINESSES

This is just a sample of Lotus' products.

<b>LOTUS LLPs</b>	
Word Pro Single LLP .....	<b>£POA</b>
Approach Single LLP .....	<b>£73</b>
Approach 20 User LLP .....	<b>£1386</b>
Lotus 123 Single LLP .....	<b>£201</b>
Lotus 123 20 User LLP .....	<b>£3890</b>
Lotus 123 Single LLP Upgrade.....	<b>£86</b>
SmartSuite Single LLP .....	<b>£POA</b>
SmartSuite 20 User LLP .....	<b>£POA</b>
SmartSuite Single LLP Upgrade.....	<b>£160</b>
Lotus Notes Single LLP .....	<b>£320</b>
Lotus Notes 20 User LLP.....	<b>£6039</b>
Lotus Notes Single LLP Upgrade.....	<b>£166</b>

<b>LOTUS Passport</b>	
SmartSuite 50+ Points .....	<b>£POA</b>
SmartSuite 500+ Points.....	<b>£POA</b>
SmartSuite 1000+ Points .....	<b>£POA</b>
Lotus Notes 50+ Points .....	<b>£265</b>
Lotus Notes 500+ Points .....	<b>£255</b>
Lotus Notes 1000+ Points .....	<b>£233</b>

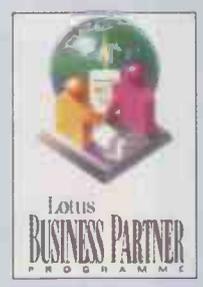
**If you need multiple copies of Lotus products call Software Warehouse. We're trained to help!**

#### Lotus License Pack (LLP)

If you want more than one copy of a Lotus application or comms package, then you must first buy one regular copy of the product which will include full documentation and master disks. For every other machine that you wish to install the product on, you can purchase a Lotus License for that machine (LLP). These licenses can be purchased as a single license or in 20 packs.

#### Lotus Passport

Lotus Passport has been designed for organisations that require larger numbers of copies of any Lotus products. To register as a Passport customer, your first order must be for 100 points (see below), thereafter you can order in 50 point blocks. The software may be installed in different sites, even in different countries and can be on DOS, Windows, UNIX or Macintosh. Passport is probably the most versatile license program available today. Example units: Organiser and CC Mail are worth half a point, Lotus 123, Word Pro, & Approach are one point each, SmartSuite is worth 2 points.



Over 32,000 items in stock across 3300 product lines and a friendly sales team always ready to take your call!



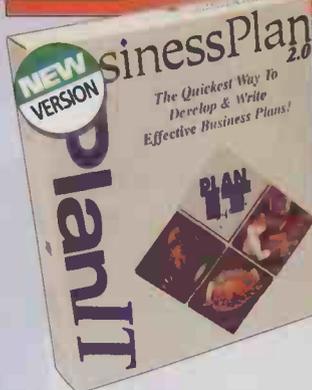
To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**The widest product range, best prices & fastest delivery!**

Everything for your PC - Next-day!



# PlanIT Business Plan - to build professional and more - or your

**W**riting business plans is a tedious and time consuming job at the best of times. Business Plan 2.0 has been designed to take users through the process of developing and writing effective business plans by providing the structure, automating repetitive tasks and providing all the information necessary to write a winning business plan.

### PlanIT Business Plan

Business Plan 2.0 is an easy to use package that creates structured business plans for any size of company. It provides users with relevant questions and sample answers from which to create a business plan. It automatically formats it with headlines and subheads, even inserting your company details

throughout. Simply answer the questions and fill in the blanks - Business Plan 2.0 does the rest!

**SAVE up to £100**  
When incorporating a business.

### Are you starting a business?

If you've had a great business idea, Business Plan 2.0 will help you to explore its feasibility and project your Cash Flows, Profit & Loss, Break-even analyses, and much more. It can help to shape your idea into a winning business plan and present it to financiers, banks or partners. PLUS it includes all the forms required by Companies House to incorporate a company - saving you up to £100!

You can preview your plan at any stage - Business Plan 2.0 files are compatible with practically all Windows Word Processor packages or you can print directly from within Business Plan 2.0.

### Market Analysis

Business Plan 2.0 helps you identify opportunities and threats to your business through an in-depth analysis of your company, products, competition and industry.

### Sales and Marketing

Business Plan 2.0 helps you to develop effective sales and marketing strategies and present them in a coherent manner, which both potential investors and employees will easily grasp. Business Plan 2.0

will provide the right marketing plan and information for you to cross check as your business starts to grow.

### On-Line Information

Much valuable time is wasted collecting and collating information when developing and writing business plans. Business Plan 2.0 has done this work for you, providing information in a number of ways, namely:

- On-Line Help & Advice
- Contact Database
- On-Line Business Forum

### Over 70 Sources of UK Funding

With over 70 sources and methods of gaining funding, Business Plan 2.0 is an invaluable source of

information, advising you on how to effectively secure vital funds necessary for any successful business. Sources include venture capital, factoring, private financing, government and EC grants, and many more.

### 3 Year Plans... Instantly!

Financials include:

- 1-3 Year Projected Balance Sheets
- 1-3 Year Projected Profit & Loss
- 1-3 Year Projected Cash Flows
- Break-even Analysis
- Ratios

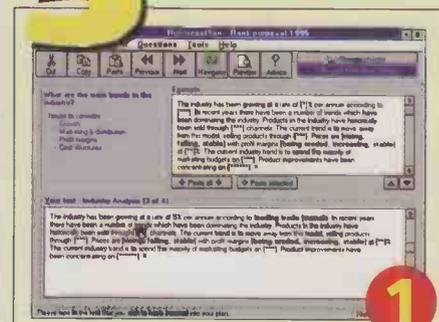
Business Plan 2.0 removes the drudgery of creating financials from scratch, endlessly copying the same information between spreadsheets. Business Plan 2.0 features pre-structured financial templates ready for use, simply type in your income and expenditure details and Business Plan 2.0 will

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price.  
(Subject to terms on p2)

### Index

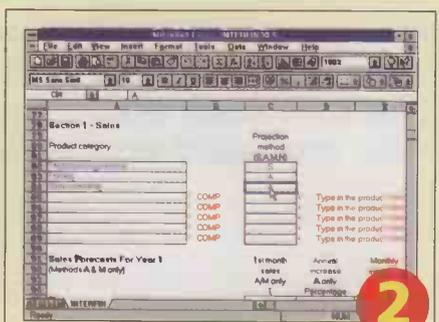
SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

## 5 EASY STEPS TO PRODUCING EFFECTIVE BUSINESS



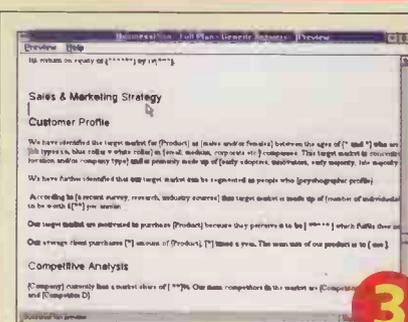
### PlanIT Business Plan

Provides relevant questions and sample answers from which to create a business plan. Automatically formats your business plan with headlines, subheadings, and company details. Plus, QuickText allows you to insert recurring phrases, names and dates.



### Projected Financials

Pre-structured financial templates are ready to use - simply type in your company income and expenditure details and Business Plan 2.0 will calculate totals, percentages and ratios, creating your projected financials for three years ahead.



### Print Preview

View your plan at any time in Print Preview mode. Your plan is automatically formatted with all the headers and sub-headers in place. You can print directly from Business Plan 2.0 or use your favourite Word Processing package.

Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. VAT and delivery.

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

# SOFTWARE WAREHOUSE



## BUSINESS PRODUCTIVITY

# The easy way business plans money back!

**NEW FEATURES IN V2 INCLUDE:**  
**MORE NAMES IN REFERENCE DATABASE**  
**NEW, IMPROVED INTEGRATED SPREADSHEET**  
**SPEED OPTIMISED**  
**ALL INFORMATION UPDATED**

**Business Plan 2.0**  
The Quickest Way To Develop & Write Effective Business Plans!

### Trying to grow your business?

If you own your own business, you'll have had plenty of ideas for expanding and diversifying your company. Business Plan 2.0 will enable you to find out how your ideas will do in a real-life context. You can test out the options available to you to help you decide which areas to expand into, plus you can prepare professional reports and charts to help you explain your idea to others in your business. Also included are over 70 sources of funding to help you get the backing to expand your business.

automatically calculate totals, percentages and ratios, creating your projected financials for 3 years. Numbers flow from one financial statement to another and you can use your spreadsheet to graph any item in your financials.

**Reference Database**  
Business Plan 2.0 features an on-line database containing thousands of useful names and addresses - including MPs,

ombudsmen, research institutes, trade and consumer associations, institutes and societies. These details can be copied and pasted into other packages.

**Business Information Forum (BIF)**  
Users of Business Plan 2.0 are entitled to 90 days to free access to Plan-IT's on-line business forum, B.I.F., which contains extensive information

on business subjects. It covers topics such as:

- Funding & Debt Collection
- Exporting
- Tax, Law & Accountancy
- Marketing Research & P.R.
- Direct Marketing & Advertising
- Employment and Health & Safety

**ONLY £88<sup>95</sup>** (RRP: £149)  
STOCK CODE: BU5003

### What the press are saying about PlanIT Business Plan

"...all the information necessary to write a winning business plan... extensive information on business subjects such as accountancy, more funding, tax, law, exporting, advertising, direct marketing, debt collection, health and safety, employment and PR..."  
*Computer Shopper, June '95*

"...excellent coaching and contacts list... a very effective package for putting together business plans... easy to use and can be applied to almost any type of business"  
*Home Run Magazine, May '95*

"...well worth the money... the package conducts an excellent interview covering business strategies and financial details which leads to an impressive looking plan, ready to be printed out..."  
*Sunday Times, May '95*

### What users say about PlanIT Business Plan

"This is an excellent example of business productivity software which will make the user's life easier as well as the intended recipient of the business plan, for example, bank managers like myself!"  
*Bank Manager, Small Business Loans Dept.*

"I found this an intuitive package that lead me through the process of writing a business plan in an easy to follow, step by step process."  
*Graham Love, MD, India Ocean Trading Co.*

"This package will save me hours of time when developing business plans for my clients!"  
*Richard Wall, Management Consultant*

## PlanIT Business Plan - 100% BRITISH BUSINESS INFORMATION

You can be sure of Business Plan 2.0's relevance to your business ideas because it is a 100% British development. All funding information is British and all the database information relates specifically to UK business needs. Over 2,500 names and addresses you need. Everything from the DTI, Health & Safety to MPs and Trade Unions!

## PLANS OR YOUR MONEY BACK!

**4 On-Line Help**  
Extensive on-line expert advice is available on the subject of writing business plans. Context-sensitive help ensures that all business reference information is available with a single mouse click, and comprehensive search options make it all easy.

**5 Reference Database**  
On-line database of thousands of useful names and addresses. Includes MPs, ombudsmen, research institutes, trade and consumer associations, institutes and societies, and health & safety organisations. All information can be copied into other packages.

Next-day delivery only £6<sup>95</sup> E&OE. All prices are plus VAT and delivery and are subject to change and availability.



To Order By Telephone Call **01675 466 467**  
Order before 3pm, stocked goods shipped for next day delivery



The widest product range, best prices & fastest delivery!



# SOFTWARE WAREHOUSE

Next-day Delivery  
**£6<sup>95</sup>**



CAD

Everything for your PC - Next-day!

THR005	WIN 3D Estimator Plus	£44
THR006	WIN 3D FloorPlan Plus + Estimator	£75
THR004	WIN 3D FloorPlan Plus + 3D Design	£109
THR003	WIN 3D Design Plus	£89
AUT019	DOS AutoSketch v3	£61
AUT013	WIN Autosketch Electrical Lib	£65
AUT014	WIN Autosketch Architectural Lib	£65
ORA005	WIN DraftCAD Professional	£169
FAS004	WIN FastCAD v6	£389
HOM003	DOS Kitchen Design by AutoDesk	£39
HOM006	DOS Landscape	£35
IMS001	WIN 10,000 Symbols on CD	£69
TUR018	WIN TurboCAD	£57
TUR019	DOS TurboCAD v3.2	£56
TUR017	WIN TurboCAD 10-user license	£169
TCL079	WIN TCL Architectural	£18
TCL001	DOS TCL Basic Home Design	£18
TCL039	WIN TCL Bathrooms	£18
TCL031	WIN TCL Business Flowcharting	£18
TCL033	WIN TCL CMOS Library	£18
TCL008	DOS TCL Electrical Wiring	£18
TCL072	WIN TCL Electric Motors	£18
TCL041	WIN TCL Landscaping	£18
TCL061	WIN TCL Local Area Networks	£18
VIS038	DOS VisualCAD	£189

## Animator Studio from Autodesk

NEW PRODUCT

Enter the world of animation with Autodesk Animator Studio.

Animator Studio is the ultimate Windows based creation tool for animated presentation, multimedia content or stand alone multimedia information delivery systems.

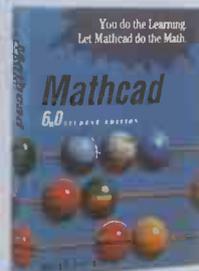
By reading, manipulating and creating industry standard multimedia file formats, Animator Studio allows creativity to blossom while making maximum use of existing multimedia files, digital video or computer graphics. Delivery of audio/visual output is in formats which can be used in all multimedia communication tools, giving a wide range of potential uses: business presentations, multimedia content creation, standalone PC-based information systems, digital video editing or integration with computer graphics, games content, CD-ROM content, training applications, and general 2D animations.

ANI006 Animator Studio ..... **£395**



## MathCAD V6 Student Edition

Probably the most friendly maths program around.



As you probably know, calculators are inflexible and limit you to tiny, hard-to-read screens, Spreadsheets box you in, and programming languages are too complex and hard to learn... MathCAD is different.

With MathCAD V6 Student Edition, you use real maths notation to design and solve problems in a live worksheet environment. The user-friendly environment provides instant feedback, recalculating formulae as you work. Analyse data, create models and test scenarios, create quality reports including text, graphics, equations and formulae, then print them out or share them via e-mail and the Internet.

MathCAD V6 Student Edition is easy-to-use with a standard user interface and Quicksheets that provide quick reference to common maths. If you use maths, you need MathCAD.

MAT007 MathCAD 6.0 Student ..... **£29**

MAT004 MathCAD 6.0 Standard... **£169**

MAT005 MathCAD 6.0 Prof. .... **£340**

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (See p2)

## XCAD 3.0 for Windows

The first and only CAD product for Windows and Windows NT to offer fully integrated advanced 2D and 3D for under £400

The latest version of XCAD features more drawing tools than ever before with several notable additions. 3D Cube allows you to create cubes with one command, Extrude Surface gives you a powerful method for transforming 2D shapes into 3D surfaces, plus Surface Fillet, Chamfer, Offset and more.



You can now use XCAD files with a much wider variety of third party products, including renderers, modellers and CAM systems. It supports the major file standards. Its Improved functionality and performance make it the

professionals' choice, whilst its user-friendliness is highly rated in the industry. The XCAD Development System adds a whole new level of flexibility. It allows you to create your own commands, add your commands to the pull-down menus, incorporate your C programs into XCAD.

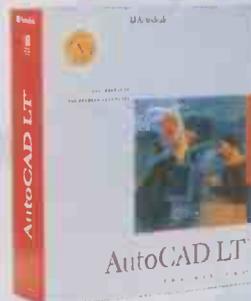
XCAD allows you to shade and view your 3D objects from any point. Its advanced rendering features allow you to see what your designs will look like in real life with Pan, Zoom and Hidden Line Removal features.

XCAD001 XCAD V3 ..... **£368<sup>95</sup>**

## AutoCAD LT Rel. 2 for Windows

Fully-featured and easy to use, it's ideal for architects, engineers, designers and contractors.

AutoCAD LT Release 2 for Windows is a 2D design and drafting package that offers extensive 2D drawing and editing tools, associative hatching, Aerial View, OLE and Clipboard support. Use 3D CAD tools such as 3D extrusions, hidden line removal and shading to create or view 3D drawings. OLE and Clipboard support lets you copy and paste drawings into other Windows programs for higher quality reports and presentations.



AUT025 AutoCAD LT Release 2 for Win... **£379**

## FloorPlan Plus 3D

Now you can design and plan your home, office or garden quickly and easily.

Everything you need is here: large libraries of furniture, fixtures, fittings, landscaping and so on, definable wall types that break when windows and doors are inserted, floor coverings, wiring, plumbing - the lot. With this 3D version, you can now see your design in 3D, walking around in 'virtual reality' style making it ideal for exhibition stands, kitchens, bathrooms, and even planning new building extensions!



THR002 FloorPlan Plus 3D 3.5" **£44<sup>95</sup>**

THR008 FloorPlan Plus 3D CD... **£44<sup>95</sup>**

## AutoSketch 2 for Windows

AutoSketch for Windows combines CAD precision, drawing flexibility and Windows simplicity in one value-packed program.

Produce concept sketches, technical diagrams, architectural layouts, electrical drawings, patterns, illustrations, presentations, and information graphics. Freehand curve tools and line options give you the versatility to meet any need.

Easy view features let you choose drawings, symbols and fonts with simple icons, allowing you to create professional illustrations quickly. Other features include: over 600 symbols, TrueType fonts support, DWG Write 4 upward compatibility with AutoCAD and DXF import/export.

AUT027 AutoSketch 2 Win ..... **£99**

AUT019 AutoSketch 3 DOS ..... **£87**

### AutoSketch Libraries

AutoDesk have introduced two specific libraries for AutoSketch for Windows to aid designers, architects and electrical engineers to produce high quality drawings and diagrams as quickly and accurately as possible. Both libraries contain Industry standard drawings and symbols.

AUT013 AutoSketch Electrical Library..... **£65**

AUT014 AutoSketch Architectural Library..... **£65**



## Index

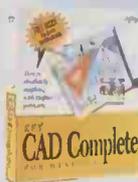
SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

## KeyCAD for Windows

High performance CAD at your fingertips.

You can produce drawings, plans and layouts to perfect scale and accuracy. But that's only the beginning, the only limit is your imagination.

Whether you're an inventor, hobbyist, craftsman, electrician, architect or contractor, KeyCAD Complete for Windows takes you step by step from concept to realisation. Plus, there are over 375 symbols included for Home, Mechanical, Electrical, and much more.



KEY002 KeyCAD Comp. **£29<sup>45</sup>**

## Graphics Converter Gold

Graphics Management made easy

Graphics Converter Gold is the most comprehensive graphics conversion software available today. Fast, easy and totally flexible, convert between over 70 different formats, including POSTSCRIPT, VECTOR, RASTER, PHOTO CD, FAX and many more... Add dazzling special effects and customise images in just minutes! OLE support makes editing and updating images in other Windows applications easy and fast!

No more problems with incorrect file formats - simply convert them! An absolute must for anyone who works with graphics.

Features Include:  
CROP, SCALE, COPY, VIEW, RESIZE, ROTATE, CONVERT, CENTRE, CAPTURE, RE-COLOUR and much more!

Formats include:  
BMP, CAL, CGM, CLP, CUT, DIB, DXF, EPS, FAX, GEM, GIF, IMG, JPG, PCD, PCT, PCX, PIX, TGA, TIF, TXT, WPG, WMF, and much more!



GCG001 Graphics Converter Gold... **£29**

## Drafix QuickCAD

A new concept in CAD.

It is designed to give any Windows user the ability to create precision technical drawings. QuickCAD is unlike other CAD packages, which require drafting skills. Based on the award-winning Drafix CAD Professional program, QuickCAD is not only easy for the new user, but grows as user experience and confidence increases to include a full set of professional features. Includes: FREE CD-ROM with over 500 symbols; background redraw for the fastest Windows CAD; three-level interface with customisable toolset that matches your experience; and, directly reads/writes to AutoCAD files, DWG, DXF or IGES formats.



DRA006 QuickCAD ..... **£49**

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

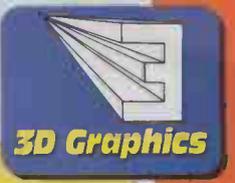
To Order By Telephone call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert

# SOFTWARE WAREHOUSE



## 3D GRAPHICS

# trueSpace V1 - The reality of affordable 3D!

Caligari trueSpace for Windows is an award-winning, revolutionary package that integrates professional 3D modelling, rendering and broadcast quality animation within an easy-to-use, "natural" interface. With trueSpace you can produce photo-realistic images as used on the front cover of Time magazine, or video animations, professional enough for the evening news. Shape objects in clay and use real-time preview to direct your 3D characters like actors on a film set.

Until now, 3D modelling, rendering and animation was really 2D, enhanced with orthogonal views. Unlike other programs using direct manipulation, trueSpace actually mirrors the real world. Working in full 3D perspective you can manipulate 3D objects directly and interactively in real time.

- **Model, Render and Animate!**  
3D design couldn't be easier, painting and drawing expand into 3D modelling. Draw 3D, paint on 3D, shape objects like clay and use real-time preview to direct your 3D characters like actors on a film set. Render final slides or video animation at workstation speed with the touch of a button.
- **Seamless Integration**  
Most 3D formats such as DWG, 3D Studio, Wavefront, Lightwave, Image and others are supported. Import standard image formats like BMP, TGA or TIF for texture and bump mapping. Output BMP, TGA or AVI/Video for Windows with alpha channel.
- **Welcome to the 3rd Dimension**  
trueSpace is the first PC-based animation package that makes adding materials to your objects enjoyable, rather than something to be dreaded! In other programs, painting an object with colours and textures is a stab-in-the-dark process. With trueSpace simply grab a paintbrush, touch the areas you want to colour and watch as they are instantly rendered with the combination of colour, bump and texture mapping you selected.
- **Simply The Best!**  
Whether you are a Graphic Artist, Multimedia Designer, Video Professional or simply want to expand into 3D, trueSpace will break barriers to free your expression without breaking your budget. It's the only 3D graphics package with a natural user interface, fully integrated modelling, broadcast-quality animation and photorealistic rendering that also won't blow a hole in your pocket!



### trueSpace - The award-winning 3D software!

"Excellent, a blueprint for other renderers to follow"  
PC Pro, Recommended Award, December 1994

"The most impressive piece of software we have seen in a long, long time. Buy it, use it, enjoy." PC Format

"This is a truly innovative and well-designed piece of software, its speed and impressive array of features should appeal to professional users and its excellent interface and ease of use should attract novices." PC User

"trueSpace's friendly interface goes a long way towards realising sophisticated yet useable PC-based graphics" PC Magazine

# 5 Great Products from Visual Software

## Simply 3D SuperPack!

Everything you need to explore the exciting world of 3D computer graphics.

The Simply 3D SuperPack consists of three programs and hundreds of megabytes of 3D worlds. Simply 3D is a complete multimedia 3D graphics program for enthusiasts, artists and business presenters. Use 2D drawing from popular drawing applications, make them 3D and use the 120 seamless textures and 100 3D objects to create photo-realistic images and animations. The Simply 3D SuperPack also includes three volumes of Simply Scenes 3D virtual worlds (Starter Pack, The Northern Castle and Jurassic Adventure) Plus, Double Vision which lets you create 3D images and animations, just like those old Hollywood movies, from scanned photographs and then view them with the 3D glasses (included). WinBlob makes 3D modelling easy and fun, using "meatballs" to create organic shapes which can then be rendered in Simply 3D.



vis057 Simply 3D SuperPack ..... **£69<sup>50</sup>**

## Amazing effects with Simply 3D!

Simply 3D enhances Core! Draw! and other 2D draw and paint applications so that you can quickly and easily add 3D effects to your work.

**£42<sup>50</sup>**

STOCK CODE: SIM008



## Double Vision

Create amazing full colour 3D images and 3D animations from photographs.

Designed for ease of use, Double Vision enables hobbyists and professionals to create full colour 3D images - similar to those viewed in Hollywood's "3D Movies" - from scanned photographs or computer generated images. Double Vision images can be viewed three-dimensionally on-screen or in print using the included 3D stereo 3D glasses. Double Vision comes with a CD containing sample images and 3D animations.

**£29<sup>95</sup>**

vis056 Double Vision.....



## Animate anything with new Visual Reality 2.0

The latest release of the leading 3D graphics and animation package.

Visual Reality 2.0 adds a new Universal Animation System which allows you to animate quite literally anything - cameras, objects, lights, materials and more - all with just a few mouse button clicks. Objects can be twisted, stretched and even morphed in 3D, videos can be played in the background or projected to create animations to broadcast quality and beyond. Visual Models new "munge" facilities allow you to deform any object - including morphing between shapes - and it has an essential unlimited undo feature. Visual Font is the most powerful 3D text building system yet created! It includes automatic 3D bevels, bending of text along a 3D path, and solid shaded preview. Data from popular drawing and CAD packages can also be imported, rendered and animated. All of this functionality is complemented by over 2Gb of 3D data including 500 3D objects for business use, 1500 textures, 9 3D virtual worlds - including The Northern Castle, Pacific Beaches, Orbit City and Jurassic Adventure, 10 3D scenic UniSpheres™, 100 AVI video clips from a Hollywood film library, and 100 high resolution still background images.

vis055 Visual Reality 2.0 (7 CD set)..... **£199**



### Features include:

- 2Gb data library
- 500 3D objects
- 800 textures
- 700 seamless textures
- 9 3D worlds
- 10 unispheres
- 100 time-lapse video clips
- 100 photographic backgrounds

## Pro 3D with Visual Reality v1.5!

The professional 3D graphics software with award-winning rendering and animation.

vis054 Visual Reality ..... **£99<sup>95</sup>**



Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. delivery and VAT.



To Order, By Telephone Call **01675 466 467**  
Order before 3pm, stocked goods shipped for next-day delivery.

The widest product range, best prices & fastest delivery!





COMMS

# SOFTWARE WAREHOUSE plc

## COMMUNICATIONS - SOFTWARE

Next-day Delivery  
**£6<sup>95</sup>**



Everything for your PC - Next-day!

### EZ Internet for Windows

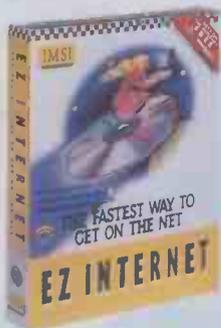
The fastest way to get on the Internet.

EZ Internet is not just another Internet product - it's the best on the market with full Multimedia tutorials and all the communications software you need to get connected - fast and painlessly. Designed for "non-techies" so there's no more guessing what to do next - EZ Internet will show you how, and then provide an easy path through all those complicated options.

Learn all about the new revolution of the Information Superhighway - all at your own pace. Simple!

Within minutes you can do everything from visiting World Wide Web sites, to downloading software - even send email to the President of the USA! It's like having a friend show and tell you everything you need, from how to install the communications software and get onto the Internet, to the etiquette for participating in newsgroups. There are even tutorials for promoting your business. Visit Kids Net, check out the latest breaking news or simply get an update on share prices. Log onto a new world, surf the Net and join millions of Internet users worldwide. Includes 80 hours of FREE access time on the Net via a local UK information provider.

EZ001 EZ Internet for Windows ..... **£29<sup>95</sup>**



### New! ReachOut Version 5.0

The fastest way to remotely access your office PC.

ReachOut 5.0 lets you work with your home or office PC - and even access your corporate network - from any other computer, across town or around the world! You can pull up any program and work with any file, from any remote PC. All you need is a computer, a modem and a phone line - ReachOut gives you everything else you need in one package.

The Perfect Productivity Tool

ReachOut 5.0 is the perfect productivity tool for telecommuters who need office resources, mobile executives who need instant access to data, and everyone who needs to take work home, move files from PC to PC, or access technical support from outside the office. With ReachOut 5.0, you can edit documents, update spreadsheets, access E-Mail and on-line services. Transfer files, chat with remote users, share CD-ROMs and print documents. You can even use applications that don't fit on your home PC or laptop - ReachOut 5.0 puts all the resources of your office PC at your fingertips. It gives you the power to be more productive - from any place that you choose.

The Number One For Speed

ReachOut Version 5.0 is the number one for both remote control speed and file transfer speed. ReachOut's Stac LZ5 compression technology lets you communicate up to 42% faster than PC AnyWhere (depending upon the application you use). The new SmartSend reduces file transfer times by up to 90% by sending only the parts of the file that have changed since the last transfer. Transferring files is as easy as a mouse click with drag and drop operation and installation is so easy that you'll be up and running in minutes.

More great features!

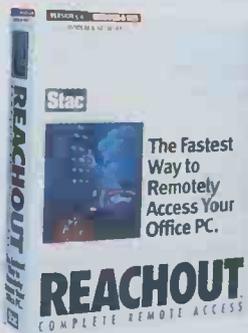
ReachOut 5.0 gives you extensive file synchronisation, automatically keeping copies of files up-to-date on all your PCs. IntruderGuard is the complete solution for data security, with features like password protection, call-back, keyboard disabling, screen blanking, and more. ReachOut now supports WinSock (TCP/IP), which means you can access another PC across the Internet or any TCP/IP network.

REAO02 ReachOut Remote Control Version 5.0 ..... **£79<sup>95</sup>**

#### Network Version

You can give support to any other user running DOS or Windows on the network. View and edit their Windows and System files, or diagnose workstation problems. No more time-consuming journeys to other offices! You can use ReachOut's built-in gateway to provide worldwide access to your LAN, providing a cost-effective modem sharing option.

REAO07 ReachOut Remote Control 5-User LAN ..... **£149<sup>85</sup>**



### Communications Suite from Delrina

Get Delrina's popular WinFax PRO 4.0 and WinComm PRO 1.1 in one package.

Delrina WinFax PRO 4.0 is the best way to send, receive and manage faxes in a Windows environment. Delrina WinComm PRO 1.1 is perfect for accessing on-line services and transferring files and it now features easy access to Internet e-mail. Together these packages set a new standard for ease of use and integration.

WN036 Delrina Communications Suite ..... **£78<sup>95</sup>**

### WinFax PRO 4.0

Delrina WinFax PRO 4.0 is the best way to send, receive and manage your faxes in Windows. Marking up faxes is simple using the on-screen text and graphic tools and, Optical Character Recognition (OCR) lets you convert your received faxes into editable text in your favourite word processing or spreadsheet software for printing or forwarding.

WN039 Delrina WinFax PRO 4.0 ..... **£59<sup>95</sup>**

### WinFax Scanner

The complete fax solution for PC users.

Introducing Delrina's most complete fax solution ever - the new Delrina WinFax Scanner. It turns your fax modem into a fax machine and your printer into a copier. Now you can scan it, fax it, and file it with a simplicity you never thought possible. You'll never have to retype articles, business correspondence or expense receipts again!

WN089 Upgrade for WinFax Users ..... **£219<sup>95</sup>**

WN090 New Users ..... **£249<sup>95</sup>**

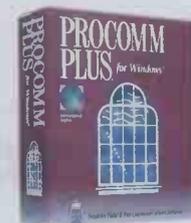


### Procomm Plus for Windows V2.1 I.E

Data comms and fax software in one value pack.

Procomm for Windows has long been the No.1 selling Comms. package. This latest edition now includes fax software and many new features. Full support for Prestel and other terminal emulations; Dialling directories including group support; Fax from within applications; Fax mode supports standard & fine resolution and includes host mode for 'fax on demand'. The new easy-to-use interface makes Procomm the ideal package for all PC users!

PRO003 Procomm Plus 2.1 ..... **£56<sup>95</sup>**



### Internet In A Box

The first and only Internet kit you'll ever need.

Internet In A Box V2 is the new version of the original, best-selling solution for Windows users who want to get on the Internet. From getting connected to navigating the information, Internet In A Box features easy Internet access, the easiest Windows interface, and the best-selling Whole Internet User's Guide. Plus, you get a complete set of software: the improved Mosaic browser, the Global Network Navigator on-line guide, Electronic Mail, News, File Transfer, the Gopher search tool and Telnet lets you log onto libraries, interactive games and other resources.

"For those who need the very best tools to connect to the Internet, Internet In A Box is the box to buy." (Best Products of 1994, PC Magazine, Jan '95). Also recommended by Byte, LAN Times and PC Computing.

INT011 Internet In A Box V2 .. **£98<sup>45</sup>**

INT017 Upgrade to V2 ..... **£48<sup>45</sup>**



### CompuServe Value Pack for Windows

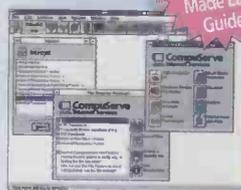
Get on the information superhighway with the world's premier on-line information service with over 3 million members worldwide and over 2000 services.

CompuServe is the world's premier online information service with over 3 million members worldwide and over 2000 services including Internet connections - offered online. CompuServe offers a full range of easy-to-use Internet services including e-mail, FTP, USENET Newsgroups, Telnet, and World Wide Web access.

Other services include online shopping, travel information, news, weather, sport information, company information, games, leisure and much more... Connection to CompuServe is usually no more than a local telephone call away via your modem. The CompuServe Value Pack, Windows Version, is the best way to connect to the Information Superhighway. Within each CompuServe Value Pack is everything a PC and modem owner needs to help them get started, understand and enjoy the new and existing world of online services, including the Internet.

With each pack you get:

- CompuServe Software
- Quick Start Guide
- Comprehensive guides to the CIM software and the CompuServe Information Service
- Comprehensive 'Internet Made Easy' Guide
- A complete directory of CompuServe services
- CompuServe CD
- UK product quick reference card
- FREE subscription to the monthly CompuServe member magazine



COM012 CompuServe Value Pack ..... **£22<sup>99</sup>**

All prices are plus delivery and VAT and are subject to change and availability.

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (see p2)

CAR001	DOS Carbon Copy Plus v6.1	£74
CRO002	DOS Cross Talk v3.1	£67
DEL001	DOS Delrina DosFax V2	£64
LOT055	WIN Lotus CC-Mail Mobile Release 2	£115
LOT051	WIN Lotus CC-Mail 10-User License	£259
NOR016	WIN Norton PC Anywhere v2	£94
NOR023	WIN Norton PC Anywhere Host v2	£58
NOR024	WIN Norton PC Anywhere Remote v2	£65
NOR026	DOS Norton PC Anywhere v5	£94
PCA001	DOS Norton PC Anywhere v5 Remote	£89
PRO004	DOS Procomm Plus EC v2.10	£54
PRO015	DOS Procomm Plus 5-User LAN	£269
REA004	WIN ReachOut View	£59
REA003	WIN ReachOut Host	£69
SMA001	WIN Smart Term 340 Emulator	£169
TER001	WIN Termite v3 Async	£159
DEL017	WIN WinComm Pro by Delrina	£54
WIN036	WIN Delrina Comms Suite	£79
WIN040	WIN Winfax v4 Upgrade	£33
WIN022	WIN Winfax Server v4	£99
WIN049	WIN Winfax LAN Starter Kit	£176
DEL005	WIN Winfax Pro 10-user license	£409
DEL004	WIN Winfax Pro 25-user license	£1199
WIN037	WIN Winfax Pro 50-user license	£1789

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 18



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

# SOFTWARE WAREHOUSE

## COMMUNICATIONS HARDWARE

**Comms**

### NEW Dataflex Modems

DataFlex, the leading UK modem manufacturer, has recently been acquired by one of Britain's largest electronics companies. This mix of quality British manufacturing, backed by full BT support and a five year warranty, make the DataFlex range of modems the best value in the market today.

### Dataflex 28,800bps HyperGem

A quality, British-built V.34 fax / modem with 5 year warranty at an unbelievable price of only £179!

DataFlex's new HyperGem is available in either Internal, portable or desktop versions. They conform to the new V34 standard, and using data compression transfer speeds of up to 115,200bps are achievable. As with all dataFlex products, the HyperGems work straight out of the box - power supplies, all telephone and computer cables, plus free Windows and DOS, comms and fax software are included.



DAT020 DataFlex HyperGem Internal ..... **£179**

### Dataflex Comms Office

The DataFlex SuperGem Comms Office is a 14,400bps voice / fax / data modem, bundled with SuperVoice. The ideal home/office modem!

This unique modem combines sophisticated answering machine technology, send and receive fax facilities and full Internet access and data transfer capabilities. The Comms Office comes with the user-friendly, Windows voice software, SuperVoice and Windows fax and data software. SuperVoice uniquely allows other comms software packages to be used concurrently so that switching between the different Comms Office function couldn't be easier. It allows you to save and remotely retrieve voice mail, screen calls, and even has Pager notification and voice broadcasting.



DAT023 DataFlex Comms Office ..... **£169**

### Hayes Accura 288 Fax/Modem

Why buy "Hayes compatible" when you can buy the real thing?



The Accura range gives you reliability and compatibility at a competitive price. They come complete with Hayes Data and FAX software, a serial/modem cable and a telephone adaptor - everything you need to go on-line right away. Recently awarded Wh@t Net's Award of Excellence (July 1995) and What PC's Best Buy (July 1995) and PC Power - Platinum (July 1995).

HAY008 Hayes 28.8 Fax Modem ..... **£188<sup>99</sup>**  
HAY009 Hayes 14.4 Fax Modem ..... **£148<sup>99</sup>**

### Andest Comms Add-Ons

High-speed serial cards and superior fax switches.

The Andest Rocket Board high-speed serial card allows you to take full advantage of high speed modems. If your modem works at over 14,400bps you may find that your older serial cards are unable to process data at higher speeds.

AND011 Andest Serial Card ..... **£39<sup>99</sup>**

The Andest Fax Switches allows you to connect your fax, answerphone, telephone and PC to one telephone line. The Fax Switch automatically detects what the nature of the call, passing it through to the right device.

AND006 Andest MSL 3-Port ..... **£98**      AND007 Andest MSL 8-Port ..... **£139**

### US Robotics Sportster

The best-selling V.34 modem with fast 28.8bps throughput

The Sportster 28,800 fax / modem provides connection speeds of up to 28,000bps, and with the use of data compression, a throughput of up to 115,000bps can be achieved. Features include fax speeds from 300bps to 14,000bps, Class 1, II and Group 3 fax compatibility. DOS and Windows Datafax software is also included free. As with all US Robotics modems, you will receive a five year warranty and free lifetime technical support with this BAVT approved modem.



USR012 US Robotics Sportster 28.8 External ..... **£189**

### ZOOM Fax/Modems

An award winning V34 modem for only £148!

Sporting advanced features like remote configuration and callback security the ZOOM fax / modem offers unbeatable value for money. No wonder Personal Computer World have awarded ZOOM Editor's Choice 2 years in a row. ZOOM offer either internal or external versions with a choice of either 14,400bps or 28,800bps speeds. Each modem comes with a five year manufacturers warranty, while the external versions' front panel has a 15 light monitoring display to help you understand the current communication status.



ZO0005 ZOOM 28.8 Internal Fax / Modem ..... **£148**

### PSION Dacom Gold Card Modems

Portable data communications solution.

The Psion Dacom Gold Cards let you add fax to your notebook, giving you high-speed file transfer, real remote LAN access and guaranteed compatibility. Available in a high-speed V34+ Fax version and a V32bis+ Fax version - Europe's leading PCMCIA Data+ Fax modem!



PS1001 V32 14.4 Gold Card ..... **£158<sup>95</sup>**  
PS1002 V34 28.8 Gold Card ..... **£189<sup>95</sup>**  
PS1003 V34 28.8 Gold Drive PCMCIA Reader ..... **£89<sup>50</sup>**

### MODEM COMPARISON CHART

Modem	V.21	V.22	V.22Bis	V.23	V.32	V.32Bis	V.34	V.42	V.42Bis	V.17	Stock Code	Price
Andest Roadrunner Rocket	●	●	●	●	●	●	●	●	●	●	AND008	<b>£119</b>
DataFlex HyperGem Internal	●	●	●	●	●	●	●	●	●	●	DAT020	<b>£179</b>
DataFlex HyperGem External	●	●	●	●	●	●	●	●	●	●	DAT021	<b>£179</b>
DataFlex HyperGem Pocket	●	●	●	●	●	●	●	●	●	●	DAT022	<b>£185</b>
DataFlex Comms Office External	●	●	●	●	●	●	●	●	●	●	DAT023	<b>£169</b>
Hayes 28.8 External	●	●	●	●	●	●	●	●	●	●	HAY008	<b>£189</b>
Motorola 3400 Pro External	●	●	●	●	●	●	●	●	●	●	MOT002	<b>£179</b>
US Robotics Sportster 14.4 Ext.	●	●	●	●	●	●	●	●	●	●	USR001	<b>£125</b>
US Robotics Sportster 28.8 Ext.	●	●	●	●	●	●	●	●	●	●	USR012	<b>£189</b>
US Robotics Sportster 28.8 Int.	●	●	●	●	●	●	●	●	●	●	USR014	<b>£196</b>
ZOOM 14.4 Internal	●	●	●	●	●	●	●	●	●	●	ZO0003	<b>£88</b>
ZOOM 28.8 External	●	●	●	●	●	●	●	●	●	●	ZO0006	<b>£168</b>
ZOOM 28.8 Internal	●	●	●	●	●	●	●	●	●	●	ZO0005	<b>£148</b>

## The NEW Motorola Internet Solution!

### Motorola 3400 28.8 Data / Fax Modem

Everything you need to connect to the Internet and other on-line services in one box.

Ready, Steady, GO! Motorola brings you the complete open-line access solution, using the latest in modem technology. This 28.8 Internet solution includes all the necessary hardware and software that you need to get your PC online to the Internet.

About the Motorola 3400 fax / modem

- The Motorola 3400 features: High speed data transfer • Fastest standard modulation protocol • Data error correction and data compression
- Fax error correction feature for clearer faxes • Motorola RISC technology • Automatically selects the fastest possible line speed
- A physical phone number directory for frequently called numbers • Robust performance over standard telephone lines
- Fully BAPT approved • Fax rates of 14,400bps to 2400bps with ITU-T Group 3 • Light weight of only 298 grams • Hayes™ AT compatible command set • Comes complete with 2 year warranty • Includes Delrina WinComm Lite communications software and Delrina Fax Lite software • Easy install animated instruction disk • One month free online access to CompuServe.

#### About the Motorola Online Bundle

- Internet software includes protocol software, file transfer software (FTP), Motorola's World Wide Web browser software • Electronic mail software • Newsgroup software • VOCALTEC Internet phone software license • One month free access to CompuServe including premium services usage credit • Special offer for CoSession Remote Control Software • Heretic online interactive game.

OH1001 Motorola 3400 Internet Solution (with On-line Bundle) ..... **£195**  
MOT002 Motorola 3400 (without On-line Bundle) ..... **£179**



A massive 32,000 items in stock across 3300 different product lines.

To Order By Telephone Call **01675 466 467**  
Order before 3pm, stocked goods shipped for next-day delivery.



The widest product range, best prices & fastest delivery!



Everything for your PC - Next-day!

## FormTool Gold V2.0

The Easiest Way to Create Forms and Automate Your Business.

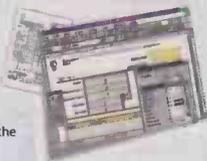
FormTool Gold for Windows from IMSI offers the easiest way to create, fill and print any type of form. With over 550,000 users worldwide, FormTool for Windows is now available in the UK for the first time. Version 2 brings an enhanced user interface that is Microsoft Office compatible, with powerful design and editing tools to create sophisticated and professional forms. With built-in database creation and support, users can extract data and merge databases quickly and easily. Forms can be filled automatically on-screen, making workflow quick and easy, and each form is automatically saved to the database for later retrieval - all in one simple process. Includes ODBC support for use with FoxPro, dBASE, Clipper, Paradox and more. Fields can be added to any form which allow for automatic filling, including things such as date, time, calculations etc.

Includes floating toolbars, drag-and-drop editing, radio buttons, check boxes, automatic word-wrap, OLE 2.0 support, draggable rulers, definable grids, fountain fills, zoom, preview and much more. New Wizards create reports and mailing labels after a few simple questions.

### 4 EASY STEPS TO FORMS AUTOMATION...

#### Step 1: Design and edit any form with ease

Whether you are modifying one of the pre-designed forms or creating one from scratch, FormTool Gold's powerful design and edit tools make it easy for you every step of the way. Import bitmap or vector images, insert text fields, create tables with the command duplicator and much more.



#### Step 2: Automate your data in one step

At your option, FormTool Gold will create a database associated with your form, which then becomes a "window" to your data. Sort, search, or query the data. Different forms can access the same data, letting you see exactly what you want in the form you want. Every time you complete a form, it is added to the database.



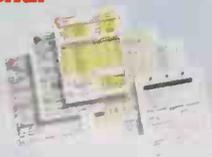
#### Step 3: Fill your form with speed and accuracy

Once your form is designed, filling it is a snap. You define the filling order most convenient for you. Fill it "on-the-fly" or directly from your database for sequential viewing and printing. Even password protect your confidential forms for complete privacy.



#### Step 4: Get professional results fast

Your printed forms have never looked so good. And that's not all. FormTool Gold's report and label Tutors give you database reports and industry standard labels at the click of a button. Even fax your form directly from your computer!



NEW PRODUCT

Includes 50 pre-designed forms and over 200 clipart images

FOR018 FormTool Gold ..... **£49<sup>95</sup>**

**FREE GIFT WITH EVERY ORDER!**  
SEE PAGE 2 OF THIS ADVERT.

## Corel Ventura V5

Power publishing for Windows.

Corel Ventura 5 extends the boundaries of DTP with an intuitive new Interface and powerful architecture that supports both structured and free-form documents. Included are over 650 fonts, 17,000 clip-art images, 100 photos and 75 style sheets and templates. Corel Ventura 5 is ideal for producing books, flyers, newspapers, journals, magazines, reports, manuals and brochures.



COR044 Corel Ventura CD ..... **£59<sup>85</sup>**

## Labels Unlimited

The easiest way to create great labels - any size or style.

Whether you're creating labels for addresses, file folders, audio/visual, or inventory stickers, Labels Unlimited has the label format that you need. Choose from over 80 A4 size labels for Avery, TENZA, Stampiton and others. Alternatively, you can custom design any format of your own.



LAB003 Labels Unlimited for Windows ..... **£26<sup>95</sup>**

LAB001 Labels Unlimited for DOS ..... **£26<sup>95</sup>**

## KeyForm Designer for Windows

Design any form using graphics and data.

This form design/fill system has the creativity of a desktop publisher, the number-crunching power of a spreadsheet and the advanced data interchange capabilities of a database package. With pre-designed templates, easy-to-use layout features and the ability to import graphics and logos, you can design any form in seconds. Also features: automatic date, time and page numbering; auto-prompt for data fields; and, you can text import from any word processor or spreadsheet.



KEY003 KeyForm Designer ..... **£28<sup>95</sup>**

## Serif PagePlus Version 3.0

The World's Best Value in Windows Desktop Publishing!

If you are looking for a really powerful Desktop Publisher look no further. PagePlus 3.0 has won hundreds of international awards and accolades for its high functionality, low price and ease of use. It has all the features of DTP packages costing over ten times the price.

Right out of the box you'll be designing and producing professional, graphics-packed newsletters, ads, catalogues, brochures, greeting cards and a thousand other designer publications. Print in colour or black and white to ANY Windows printer or get hi-res colour separations, ready for commercial printing.

WITH PAGEPLUS 3.0 YOU CAN:

- Create impressive flyers, newsletters, reports, invitations, business stationery and more
- Get started in minutes
- Tailor the Help screen for beginners, intermediates & advanced users, providing the right help every time
- Layout publications quickly and easily
- Add graphics, clip-art, photo images from scanners or any Windows graphics package

THE PUBLISHING SUITE INCLUDES

TablePlus - create tables, spreadsheets and equations  
TypePlus - create special text effects  
PhotoPlus - is Serif's award-winning imaging software  
DrawPlus - allows you to create vector drawings

PAG027 WIN PagePlus Suite CD ..... **£79**  
PAG021 WIN PagePlus 3.0 Suite ..... **£79**  
PAG013 WIN PagePlus 10-User Pack ..... **£299**

PAG019 PagePlus 3.0 ..... **£52<sup>95</sup>**

## "Forms look like being stormed by Toplevel" - PC Direct

Powerful, professional-looking form design and filling with contact database.

Invoices, orders, expenses, 855750, time sheets, quality control... your business needs professional-looking printed forms. Both Toplevel FastForms and Forms save money on printing costs and give you the flexibility to update form layouts as often as you like. Design your own attractive forms using logos, pictures, text, calculated fields, borders and shading. Great looking forms make small businesses look big and give big businesses control of big administration problems. Whether you're printing blank forms, filling out and printing or filling our pre-printed stationery, this software will make sure it all lines up perfectly, and help prevent staff filling it incorrectly.

What's the difference? Toplevel Forms contains a database to store addresses and other information ready to fill in forms electronically. It also offers power features like spreadsheet functions in calculations and standard phrase support.

Toplevel is a British company and is an international leader in forms software. The entry-level forms software, FastForms, is the market leader in the USA with a 40% market share, so you can be confident of a world-beating product backed by first class technical support.

TOP003 Toplevel Forms ..... **£68<sup>95</sup>**

TOP004 Toplevel FastForms ..... **£24<sup>95</sup>**

## Win your own Max Fox T-Shirt!

Max is celebrating the success of Toplevel's British software in the States - and so can you! Just use Forms or FastForms to design a useful, attractive form for Toplevel's forms library.

If Toplevel think your form is good enough, you win an exclusive Max Fox T-shirt. We will ship your competition entry form with your order.



250,000 sold in America

## Index

SUBJECT	PAGE
Introduction	
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 20

Next-day delivery only £6<sup>95</sup> E&OE. All prices are plus delivery and VAT and are subject to change and availability.

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

# SOFTWARE WAREHOUSE plc

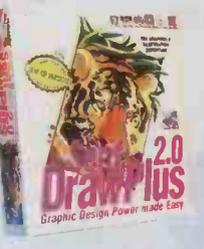


## GRAPHICS

### Serif Draw Plus 2.0

The easiest to use drawing package available!

Introducing new Serif DrawPlus 2.0, the complete drawing package for everyone. With over 7,000 clipart images and over 400 TrueType fonts included free, DrawPlus 2.0 is everything you need and more! For ease of use there are two user levels - Intro and Designer - a Hint Line, Tool Hints, and QuickHelp. Serif DrawPlus 2.0 also has QuickShapes for instant creativity and total flexibility to colour, stretch, slant, rotate, mask or envelope any object - including text! Don't be fooled by cheap offers on old fashioned, out-of-date products. You want super-friendly, modern software that you'll learn in minutes. Released in March 1995, DrawPlus 2.0 won the prestigious PC Direct Hits "Best Draw/Paint/Photo" award just two months after it's launch.



- DRA007 Serif Draw Plus V2.0 ..... **£38<sup>95</sup>**
- PAG029 Serif Monster CD ..... **£14<sup>95</sup>**

### Corel Gallery on CD

Add flair to your word processing and presentations with Corel Gallery clip art libraries.

Corel gallery is the easy to use visual clip-art manager on CD-ROM that allows Windows users to drag-and-drop images into any OLE 2.0-enabled application or export images into a number of industry standard formats. Version 1 includes over 10,000 professionally drawn clip art images (over 6000 in colour) with a full colour reference manual. Version 2 includes 15,000 clipart images (10,000 from Gallery 1), and also it includes all of the components required to create stunning multimedia presentations and documents: a state of the art visual multimedia file manager, 500 royalty free photos, 500 fonts, 75 sound clips, and 10 video clips.



- COR017 Corel Gallery V.1 ..... **£25<sup>95</sup>**
- COR056 Corel Gallery V.2 ..... **£44<sup>95</sup>**

### Wacom ArtPad

Professional graphics tablets for designers, illustrators and Graphic Artists.

Wacom electro-magnetic "give-and-take system" is the unique passive technology employed in all Wacom graphics tablets, eliminating the need for magnets and batteries and allowing for a cordless pen and cursor (puck). It is the realisation of an Input device, comfortable to use and sensitive to hand pressure, which can tackle every challenge in painting and drawing. Just as a conventional pen needs paper, Ultra-Pen needs a tablet. The Ultra-Pen is extremely rugged and has a lifetime of at least ten million cycles.



- All Tablets come complete with accessories, cables, handbook and software (available in several languages), plus you get are covered by a two-year warranty.
- WAC001 Wacom ArtPad ..... **£149<sup>95</sup>**
- WAC006 A4 Tablet ..... **£179<sup>95</sup>**
- WAC004 Wacom ArtPad + Dabblor ..... **£389<sup>95</sup>**
- WAC003 Wacom ArtPad + Painter 3.0 ..... **£499<sup>95</sup>**
- WAC002 A5 Tablet ..... **£349**
- WAC005 A5 Tablet + Painter 3 ..... **£499**
- WAC008 A4 Tablet ..... **£469**
- WAC007 A3 Tablet w/Menu Overlay ..... **£599**
- WAC008 A3 Tablet w/Electrostatic ..... **£689**

### Ultimate Image Bundle

Only we could offer you so many great products for less than the price of one!

Includes MasterClips 3000 (3000 clips, RRP £79), Corel ArtShow 3 (1000s of Images, RRP £39), KeyFonts Plus (1250 fonts, RRP £42) and SoftKey Photos (2100 photos, RRP £39). In promotional packaging.



### PC Clip Art Library

The ultimate colour clipart collection.

Introducing PC Paintbrush Clip Art Library - the ultimate collection of 12000 hand drawn colour clipart masterpieces. These stunning royalty-free images are ready-to-use in any Windows application. PowerAlbum is bundled absolutely free to help you organise and work with any existing clipart/images you may already have.

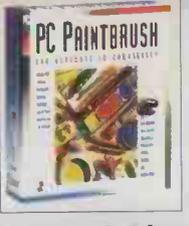


- SOF018 ClipArt Library (Floppy - 3003 images) ..... **£14<sup>99</sup>**
- CLU007 ClipArt Library (CD - 12000 images) ..... **£24<sup>99</sup>**

### PC Paintbrush

The popular drawing and painting package with simulation of natural painting techniques.

A fully featured drawing program that lets you export your artwork to most popular Windows programs. It also allows users to simulate natural painting techniques without being a professional artist, and lets users become instantly productive via its easy-to-use interface.



- PAI002 PC Paintbrush ..... **£26<sup>95</sup>**

### CorelDraw! 3

The ideal entry-level graphics package.

This award winning software offers excellent type manipulation and drawing features. In addition to CorelChart, Corel PhotoPaint and CorelSHOW all in one value-packed box. Also includes over 14,000 clip-art images / symbols, and 250 fonts.



**For V6 see page 4**

**CorelDraw! 4**  
The ideal Desktop Publishing Tool!

Features comprehensive page layout, type editing and illustration tools as well as CorelMOVE animation software. Also includes 18,000 clip art images and symbols, colour separation, OCR software, Corel PhotoPaint, CorelSHOW, CorelChart and hundreds of other features.

- COR038 CorelDRAW! 3 CD ..... **£42**
- COR012 CorelDRAW! 4 CD ..... **£85**

### CorelDraw! 5

Includes the all-new Corel VENTURA 5.

Includes all the packages available in CorelDraw! V.4 but with 825 fonts, 22,000 clip art Images, advanced 3D dimensioning, 100 royalty-free photos on CD-ROM, and internal PostScript interpreter, CorelTRACE, Corel MOSAIC 5, ARES Font Minder, Adobe Acrobat Reader, CorelQUERY, CorelCAPTURE and Zandar TagWrite. Unbeatable value for money!

- COR031 CorelDRAW! 5 (3-5) CD ... **£195**

125001 WIN	1250 Fonts on CD	£19
SOF018 WIN	3003 Clipart (3.5")	£15
MAS007 WIN	50 PostScript MonoType Fonts	£9
A00008 WIN	Adobe Illustrator	£389
A00006 WIN	Adobe Photoshop	£469
ANI001 WIN	Animation Works	£88
CR1001 WIN	CA-Cricket Graph	£58
CL0002 WIN	Calendar Creator	£29
CU018 WIN	Click Art Studio All 5 Titles	£39
CLU016 WIN	Click Art Cartoons Parties & Events	£14
CLU017 WIN	Click Art Cartoons On The Job	£14
COR011 CD	Corel ArtShow v3 CD & Book	£24
COR041 CD	Corel ArtShow v5 CD & Book	£24
COR002 WIN	CorelDraw 3	£87
COR038 CD	CorelDraw 3	£42
COR003 WIN	CorelDraw 4	£119
COR012 CD	CorelDraw 4	£85
COR018 WIN	CorelDraw 5	£399
COR030 CD	CorelDraw 5	£349
COR019 WIN	CorelDraw 3 to 5 Upgrade	£269
COR019 CD	CorelDraw 3 to 5 Upgrade	£195
COR032 WIN	CorelDraw 4 to 5 Upgrade	£159
COR033 CD	CorelDraw 4 to 5 Upgrade	£129
COR034 WIN	CorelFlow	£47
EXP009 WIN	Expert 2000 Fonts	£14
EXP010 WIN	Expert 3000 Photos	£14
HAR016 WIN	Harvard Chart XL	£89
HAR008 WIN	Harvard Clip Art Collection CD	£29
HAR009 WIN	Harvard Clip Art Cartoons	£10
HAR017 WIN	Harvard Clip Art Christmas	£19
HAR010 WIN	Harvard Clip Art Business	£19
LOT000 WIN	Lotus SmartPics for Freelance	£79
MAS001 WIN	MasterClips CD	£49
MIC023 WIN	Micrographix PhotoMagiC	£69
PAG029 WIN	Serif Monster CD	£15
SOF003 WIN	Softkey Photolibrary	£19

### Graphics: Presentations

ALP003 WIN	Alpha Bravo Presentations	£45
ASY001 WIN	Asymedia	£93
HAR013 WIN	Harvard Graphics v3 C/JU	£129
HAR000 WIN	Harvard Presenters' Pack	£189
HAR012 WIN	Harvard Spotlight	£49

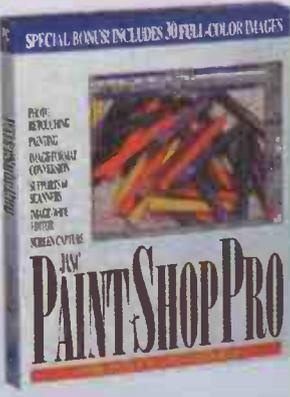
**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (See p2)

### Paintshop Pro V3

Fast and fully-featured photo-editing and graphics conversion in one program!

Paintshop Pro is a highly popular graphics conversion program that now includes full photo-editing facilities. New tools include clone brush, crayon, chalk and user-definable brushes. Special effects and filters include Contrast, Emboss, Wind, Perspective, plus support for Adobe plug-ins. Paintshop Pro offers the features of packages many times its price!

You can quickly convert between image formats either singly or in batches. Paintshop Pro supports all major graphics formats including PCX, IPI, TGA, PNG, PSD, PhotoCD, CDR and WMF-licensed to use patented GIF and TIF format images. You can capture Windows screens as a whole or as a selection. Supports TWAIN scanners, and includes free browser and sample photos.



- PAI003 Paintshop Pro V3.0 ..... **£49<sup>95</sup>**

### Paintshop Pro V3 & Kai's Power Tools SE Bundle

You can now get two great award-winning graphics programs in one amazing value package.

Paintshop Pro is now available with award-winning Kai's Power Tools plug-in filters. Your creativity will soar with these famous graphics effects tools which work within Paintshop Pro to offer fantastic effects for photoimages with amazing flair. Create your own Plug-In filters or use the ready made ones supplied. Ideal for beginners and professionals alike.



Includes KPT Gradient Designer and a useful range of ready-made effects (Pixel Storm, Glass Lens Normal, Find Edges Charcoal, Diffuse More etc.)

- PAI004 Paintshop Pro V3.0 & Kai's Power Tools Bundle ..... **£69<sup>95</sup>**

Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. VAT and delivery.



To Order By Telephone Call **01675 466 467**  
Order before 3pm, stocked goods shipped for next-day delivery.

The widest product range, best prices & fastest delivery!





Home

# SOFTWARE WAREHOUSE

Next-day Delivery  
£6<sup>95</sup>

## HOME ENTERTAINMENT - LEISURE

Everything for your PC - Next-day!

### New Low MS Home Prices

MIC265	MS 500 Nations	£33
MIC102	WIN MS Arcade	£15
MIC267	MS AutoRoute Express	£44
MIC266	WIN MS AutoRoute Express	£31
MIC176	MS Ancient Lands	£22
MIC123	MS Art Gallery	£27
MIC104	MS Beethoven	£22
MIC264	MS Bookshelf 95	£59
MIC245	MS Cinemania '95 MPC	£32
MIC245	MS Composers Collection	£34
MIC269	MS Cooking	£22
MIC126	WIN MS Creative Writer v1.0	£22
MIC208	MS Creative Writer v1.0	£22
MIC177	MS Dangerous Creatures	£22
MIC078	MS Dinosaurs	£22
MIC263	MS Dogs	£22
MIC115	MS Encarta 95	£55
MIC047	WIN MS Entertainment PK Vol 1,2,3,4	£15
MIC180	WIN MS Entertainment Pack Best	£15
MIC261	MS Explorapedia Nature	£22
MIC311	MS Explorapedia People	£22
MIC124	WIN MS Fine Artist	£22
MIC209	MS Fine Artist	£22
MIC270	DOS MS Flight Simulator v5.1 3.5"	£24
MIC271	MS Flight Simulator v5.1	£24
MIC142	DOS MS F/Sim New York or Paris	£15
MIC314	MS Fury 3 (32-bit)	£POA
MIC210	MS Gahan Wilson Haunted Hse	£29
MIC169	WIN MS Golf V2	£22
MIC109	MS Golf	£22
MIC171	WIN MS Golf Course Banff	£14
MIC312	MS How The Leopard Got Spots	£22
MIC103	MS Mozart	£22
MIC077	MS Musical Instruments	£22
MIC268	MS Oceans	£22
MIC200	MS Schubert The Trout Quintet	£22
MIC211	MS School Bus - Human Body	£29
MIC212	MS School Bus - Solar System	£29
MIC201	MS Space Simulator	£32
MIC105	MS Stravinsky	£22
MIC313	MS Ultimate Robot	£22
MIC262	MS Wine Guide	£22

**"We will not be beaten on Microsoft Home Software!"**

Cliff Bennett, Director

The Software Warehouse Price Pledge applies to everything we sell, but be aware that there are fraudulent copies of some Microsoft Leisure software currently being offered for sale in the UK. We have only seen MS Encarta 95, but if you see any other products at ridiculously low prices proceed with caution. Software Warehouse only sell genuine UK Microsoft products, and our margins are so low that it would be difficult for anybody to legitimately undercut our prices by a significant amount.



### Leisure & Games

ARM001	Armoured Fist	£24
DAR001	Dark Forces	£32
DAW001	Dawn Patrol	£24
DAY002	Day of The Tentacle	£29
DOO003	Doom v2	£34
DOO004	The Ultimate Doom	£24
DUN004	Dune & 7th Guest	£29
ELU001	Elite 2	£24
FAL002	Falcon Gold	£29
FUL001	Full Throttle	£29
RF002	FIFA International Soccer	£29
FLI007	Flight Unlimited	£32
HIG002	Hi-Octane	£32
INF005	Inferno	£24
LAS001	The Last Dynasty	£24
LOR002	Lords Of Midnight	£24
LEM002	WIN Lemmings 2	£24
MYSD01	Myst	£39
PGA002	PGA Golf 486	£29
PSY001	Psycho Pinball	£24
RIS359	Rise of the Triad	£24
RIS326	Rise of the Robots	£29
SIM005	WIN Sim City 2000	£24
SIM007	Sim City Enhanced	£29
SOF002	Softkey 11 CDs	£20
DIS003	Terry Pratchett's DiscWorld	£29
TFX002	TFX	£15
THE002	Theme Park	£26
TOR001	Tornado	£25
FUN011	DOS Fun School 5 Dreamland 4-7	£20
FUN012	DOS Fun School 5 In Space 6-7	£20
FUN013	DOS Fun School 5 In Time 8-11	£20
JAZ001	Jazz: A Multimedia History	£33
PRIO04	Prince Interactive	£30
SCIO01	Science Adventure	£29

### Education / Reference

THR001	3D Body Adventure	£29
DIAD01	3D Dinosaur Adventure	£29
CHE007	WIN Chemistry Works	£34
COM006	Computer Works	£29
DOR008	DK Bear's Birthday Party	£26
DOR004	DK The Way Things Work	£44
DOR003	DK The Ultimate Human Body	£44
FUN008	DOS Fun School Spelling	£17
FUN009	DOS Fun School Maths	£17

### Director's Lab

Direct and animate your very own videos

Create your own multimedia videos with Nickelodeon Director's Lab, an all-in-one full service production studio! Make anything you want - electronic greetings cards, cartoons, music videos, school projects, even your own TV production!

DIR001	Director's Lab	£29 <sup>95</sup>
SHE002	Sherlock Holmes Box Set (I, II, III)	£34 <sup>95</sup>
ARE001	Are You Afraid of the Dark?	£34 <sup>95</sup>



### 3D Garden Designer 2

Design your ideal gardens... in 3D!

BBC Gardeners' World 3D Garden Designer 2 gives you the freedom to experiment with different garden schemes and see how they look from any angle - as if you were actually there! It even lets you watch your garden maturing through the seasons and over the years. Featured are more than 800 trees, shrubs and flowers.

GAR002	BBC 3D Garden Designer 2 on CD	£22 <sup>95</sup>
GAR001	BBC Gardener's World (DOS)	£14 <sup>95</sup>



### Family Tree Maker

Trace your family tree history - quickly and easily.

Just enter information about parents, children and marriages to create a great-looking family tree in just minutes. Record birth dates, occupation, medical history and any other information that you wish to print. You can save up to 15 pages per person and also automatically create ancestor, descendant and photo trees, or view your tree in any one of the many different styles.

FAM001	Family Tree Maker	£39 <sup>55</sup>
--------	-------------------	-------------------



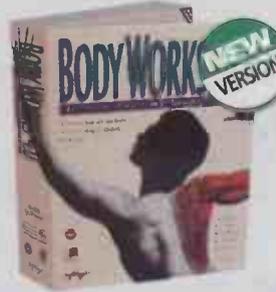
### BodyWorks V4

A colourful guide through the human body.

BodyWorks 4.0 shows you how and why the human body is the ultimate machine. Explore the body's systems, structures and functions in detail.

With a vast database, BodyWorks lets you study specific areas from head to toe, right down to the most elaborate cell level detail. State of the art animations bring the intricate functions of the body to life with 3D rotations of the body, video clips and much more.

BOD009	BodyWorks V4 CD	£32 <sup>95</sup>
--------	-----------------	-------------------



### Ten Top-Selling CD-ROMs for £25!

This selected pack represents the very best CD-ROM products chosen from literally hundreds of submissions, many of which are currently selling as individual packages in retail stores!

- Reunion - The greatest voyage of all has begun. (Ages 14+)
- Dune II - Inspired by the best-selling Science Fiction of all time. (For ages 9+)
- Fighter Wing - The ultimate modern combat jet flight experience. (Ages 16+)
- Wayne's World - Party time... Excellent!!! No-hurl guaranteed! (10+)
- Singalong Kids' Classics - Sing children's musical theatre. (Ages 3-9)
- The Internet For Everybody - An easy to understand 2-hour video. (12+)
- Tom Landry Strategy Football - All the excitement of Pro American Football. (12+)
- Grandmaster Chess - Unmatched skill levels, graphics, sound and 3D perspective. (11+)
- Lemmings & Oh No! More Lemmings - The award-winning, puzzle. (Ages 8+)

PUB010	Publishers' Pick 10 CDs	£24 <sup>95</sup>
--------	-------------------------	-------------------

Ten Top-Selling CDs for under £25



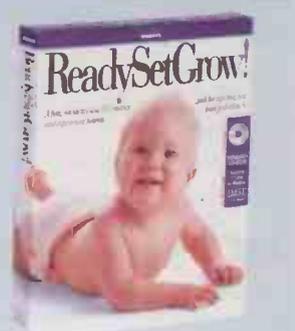
### Ready Set Grow

Parenting made easy(er)!

Ready Set Grow is a fun, interactive and informative guide to pregnancy, childbirth and the first five years of parenthood. Created by a highly successful physician who is also a veteran mother of four, Ready Set Grow is complete with detailed illustrations, animation, music, sound effects and knowledgeable text. It covers all development aspects of your child's early years, including age-appropriate toys and activities, and parents concerns for each of nine different development stages. Also includes information on topics such as Playing it Safe in Pregnancy, Pre and Post Natal Nutrition and Fitness, Safety and Travel Resources, CPR instructions and a glossary. Detailed illustrations shows your unborn baby's growth monthly and how it's development is proceeding. Ready Set Grow will even predict your due date!

Store vital dates, events and information in the address and information book, stores and maintains emergency numbers, babysitter details and much more. This is the ultimate "handbook" for any couple expecting, or who have young children.

RS010	Ready Set Grow	£28 <sup>95</sup>
-------	----------------	-------------------



## Dorling Kindersley

### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forns	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 22

### Nature Encyclopedia

Featuring over 250 species of plants and animals.

Watch the behaviour of animals in their natural habitat, hear bird calls and understand complex environmental systems as microscopic life, the effects of climate and the prehistoric world. Features over 50 stunning video sequences, 60 original animations, 700 photos and illustrations, and 2 hours of sound clips.

DOR005	DK Encyclopedia of Nature	£33 <sup>95</sup>
--------	---------------------------	-------------------



### History of the World

Uncover fascinating facts and stories through history.

Watch a medieval archer loading and firing his longbow, hear the passion in the actual spoken words of Martin Luther King, and share in the joy of German crowds as they tear down the Berlin Wall. Investigate historical stories, facts and artefacts from around the world with a simple mouse click.

DOR007	DK Eyewitness History of World CD	£33 <sup>95</sup>
--------	-----------------------------------	-------------------



### World Reference Atlas

A remarkable geographical reference for on-screen use.

Explore the world as never before with the ease and dexterity of computer-generated maps. Zoom in and out from world and continental overviews to close-up views of the regions of individual countries. The gazetteer includes more than 250,000 different place names and links them to the maps.

DOR006	DK World Reference Atlas CD	£44 <sup>95</sup>
--------	-----------------------------	-------------------



### Ultimate Sex Guide

Discover your full sexual potential.

Benefit from Anne Hooper's years of experience as a sex therapist and counsellor. She will help you to discover your potential in four different ways: through a series of questionnaires, by referring to case files, by following her prescribed programs for better sex, and by browsing through the Sexopedia.

DOR010	DK Anne Hooper's Ultimate Sex Disc CD	£29 <sup>95</sup>
--------	---------------------------------------	-------------------

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call 01675 466 467

Order before 3pm, stocked goods shipped for next-day delivery





# SOFTWARE WAREHOUSE plc



## HOME ENTERTAINMENT - LEISURE

# Educate and Entertain Your Family With VCI

## Lottery for Windows

Use your PC to play the National Lottery with this best selling title.

Here it is! The sophisticated program that enables you to play the UK National Lottery using your PC, and take part in the excitement of seeing winning numbers create instant millionaires every week.

The program is fully customisable for all lotteries, allowing choice between 3 number algorithms, 'hot', 'due' and 'lucky numbers'. Just input each week's winning numbers to build up a database through the program or use the advanced 'wheeling' system to give the best coverage through permutations.



VC1016 Lottery for Windows (on 3.5") ..... **£10<sup>95</sup>**

## LANGUAGE LEARNING

### Learning French or German

Enables students of all ages to harness the potential of their PC.

With programs linked to the National Curriculum Learning French / Learning German will enable individual students to progress at their own pace from the basic building blocks of the language through to GCSE standard. Both programs have a clear easy-to-follow Windows interface, as well as the facility to record the tutor and student's voices within a structured 20,000 word learning format.

VC1001 Learning French (Windows/3.5") ..... **£15<sup>99</sup>**

VC1002 Learning German (Windows/3.5") ..... **£15<sup>99</sup>**



## BUDGET CD ROMS

### Multimedia Monkeybars

Software to help make learning as stimulating and interesting as possible for 4-7 year olds.

It could not be easier to install and use and will enable your child to discover the alphabet, sharpen hand eye co-ordination as well as number build, count and read clocks. Stunning full colour animation that is alive with laughter, learning and fun. The best in stimulating children's computing!

VC1003 Multimedia Monkeybars (Windows/CD)..... **£10<sup>95</sup>**



### Professional CV Writer

Get ahead with the complete job search program.

More than just a first-class CV creation program, this package guides you through the job search process with maximum impact to ensure success. With preparation worksheets, easy-to-use layout styling and a 100,000 word spell checker, Professional CV Writer for Windows will kick start your career.

VC1004 Professional CV Writer (Windows/CD)..... **£10<sup>95</sup>**



## PREMIER COLLECTION

### Easy-to-Learn Computing

Step-by-step tutorial that makes learning MS-DOS fun!

An absolute must for the new computer user this tutorial is a fully interactive, step-by-step guide to the IBM PC and compatibles. No need for videos, Easy-to-Learn Computing has everything you need to know to use your PC confidently and independently!

VC1005 Easy-to-Learn Computing (DOS/3.5") ..... **£7<sup>95</sup>**



### Word Games for Windows

Absorbing entertainment for the first time in one package.

Word Games for Windows offers 4 sets of puzzle challenges designed especially for Windows. If you like any kind of word-puzzle game your sure to enjoy Cipher for Windows a truly absorbing code breaking game.

VC1006 Word Games for Windows (DOS/3.5") ..... **£7<sup>95</sup>**



## PREMIER COLLECTION PLUS

### Riverboat Solitaire

With over 1,000 challenges this is the best ever Solitaire!

Increase your playing enjoyment by choosing from the 5 musical selections available as well as many other possible combinations of different colourful backgrounds. Whether your a beginner or pro, you'll appreciate the playability features of Riverboat Solitaire.

VC1007 Riverboat Solitaire (Windows/3.5") ..... **£10<sup>95</sup>**

### Jackpot for Windows

Five classic casino games with great sound and graphic effects.

With Jackpot for Windows you can have all the fun of trying your luck at the casino without actually losing your shirt! It's easy to install in Windows and makes ideal entertainment during coffee breaks in the office or evenings at home.

VC1008 Jackpot for Windows (Windows/3.5") ..... **£10<sup>95</sup>**

## CREATE & LEARN

### Adventures in Storybookland

For pre-school children and early readers playing alone aged 3-8.

A fun puzzle adventure game, designed to stimulate observation, reaction and logic skills, as well as providing absorbing computer entertainment.

VC1013 Adventures in Storybookland (DOS/3.5") ..... **£15<sup>95</sup>**

### Playing with Shapes

Interactive learning program suitable for children aged 3-7.

Playing with Shapes is one of a series of attractively designed computerised learning kits. With the help of Cleo the Clown, the child is stimulated to recognise different shapes within layouts and pictures.

VC1011 Playing with Shapes (DOS/3.5") ..... **£15<sup>95</sup>**

### Playing with Colours

Interactive learning program suitable for children aged 3-7.

Playing with Colours is one of a series of computerised learning kits designed to offer children a different kind of learning experience, providing direct contact with important themes using entertaining and effective techniques.

VC1012 Playing with Colours (DOS/3.5") ..... **£15<sup>95</sup>**

### Wonderbrush

Graphic art and software kit that will appeal to all age groups.

Wonderbrush gives the younger user access to some of remarkable design tools, lines, circles as well as rectangles and a 256 colour palette to include text and numbers. The programs capabilities will appeal to older age groups and will provide the potential for hours of fun-filled and satisfying creative

VC1014 Wonderbrush (DOS/3.5") ..... **£15<sup>95</sup>**

### Cartoonin'

Amazing new animation program that's fun for all the family.

The TV and movie cartoon industry has been revolutionised by the terrific computer capability of computer animation, and as the power of domestic PC processors has increased, programs incorporating some of this capability has become available to home users. Cartoonin' is a fascinating and exciting program to use.

VC1015 Cartoonin' (DOS/3.5") ..... **£15<sup>95</sup>**

### Fairytail Puzzles

Absorbing and stimulating games for young people between the ages of 4 and 10.

Eighteen high quality puzzles, based on delightful illustrations from classic fairy tales, each from 6 to 120 rectangular or interlocking pieces, giving a total of 324 puzzle variations, and featuring timed scoring mechanisms for a number of different players.

VC1010 Cinderella & Puss in Boots (DOS/3.5") ..... **£15<sup>95</sup>**



Absorbing and stimulating games for young people aged 4-10.

Eighteen high quality puzzles, based on delightful illustrations from classic fairy tales, each from 6 to 120 rectangular or interlocking pieces, giving a total of 324 puzzle variations, and featuring timed scoring mechanisms for a number of different players. Each program is designed to give entertainment for all ages, including adults, by offering different levels of difficulty.

VC1009 Pinocchio (DOS/3.5") ..... **£15<sup>95</sup>**

Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex.delivery and VAT.

The widest product range, best prices & fastest delivery!



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



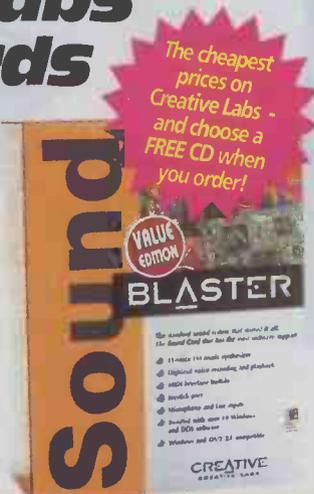
Everything for your PC - Next-day!

## Creative Labs Sound Cards

This month Creative Labs introduce five new sound cards and kits.

All SoundBlaster cards feature a built-in IDE interface, midi interface, enhanced stereo synthesiser and speech synthesis software. Plus Creative DOS Utilities: Creative Record, Mix & Play Utilities, Creative Mixer, Creative Quick CD, Creative FM Intelligent Organ. Includes microphone port, line-in & line-out jacks, speaker connectors, microphone and MIDI/joystick ports.

- 50U100 Multimedia Home CD Kit.....**£295**
- 50U014 SoundBlaster Pro Value.....**£52**
- 50U015 SoundBlaster 16 Value IDE.....**£66**
- 50U017 SoundBlaster 16 Pro AdSP.....**£134**
- 50U018 SoundBlaster AWE 32/IDE Full.....**£165**
- 50U027 SoundBlaster AWE 32/IDE Value.....**£114**
- 50U010 SoundBlaster CD16 Discovery 2X.....**£189**
- 50U019 GameBlaster CD Kit 4X.....**£299**



The cheapest prices on Creative Labs - and choose a FREE CD when you order!

VALUE EDITION

- 11 major 16-bit speakers
- Improved voice recording and playback
- 16-bit resolution
- 16-bit DAC
- Microphone and line inputs
- Includes software for Windows and DOS
- Windows and DOS 3.1 compatible

### CD-ROM DRIVES

- |  |  |
|--|--|
| MT001 Mitsumi Triple Speed CD..... <b>£149</b>             | NEC045 NEC 6X Internal CD..... <b>£269</b>             |
| MT008 Mitsumi PCMCIA Dual Speed CD..... <b>£199</b>        | NEC046 NEC 6X External CD..... <b>£445</b>             |
| CDR008 NEC 3XP SCSI Portable 3X CD..... <b>£255</b>        | PAN001 Panasonic CR562 Dual Speed CD..... <b>£95</b>   |
| COR009 NEC 4X Pro External Quad Spd. CD..... <b>£579</b>   | PAN006 Panasonic Interface Card..... <b>£15</b>        |
| NEC040 NEC 4X E-IDE Quad Speed CD..... <b>£139</b>         | CDR017 Toshiba Internal Quad Speed CD..... <b>£249</b> |
| NEC041 NEC 4X E-IDE 4X CD & MS Encarta 95..... <b>£159</b> | NEC005 Enhanced IDE Interface..... <b>£29</b>          |

### CD952 2X PCMCIA CD

The easiest solution for multimedia on your notebook!

The CD952 runs off your notebook's motherboard via the PCMCIA interface card you don't need an external power supply. Plus, because it runs off the PCMCIA interface, you enjoy faster access times and greater data transfer rates than with parallel port CD-ROM drives. The CD952 features everything you need in one package: CD-ROM drive, PCMCIA card and cable. Features include: Compliant with PCMCIA 2.1 standard; Easy to install device driver software; No external power supply required; Weight: 1.3kg; Double speed data transfer rate: 307.2KB/sec; Average access time: 350 ms (1/3 stroke); 64KB memory buffer



- PCM011 IC CD952.....**£259<sup>95</sup>**

### NEC Six Speed CD Drive!

These drives represent a huge step forward in CD-ROM Drive technology. Six-spin SCSI-2, massive 900KB/sec data transfer, 150ms access time, MPC, XA, DA, caddy-loading, 1-year warranty.

- NEC045 NEC 6X Internal.....**£269**
- NEC046 NEC 6X External.....**£445**



NEW PRODUCT

### GoldStar CD Drives

Lightning fast CD-ROM drives!

Full PhotoCD, MPC Level 2 support, CD-I, Video CD, CD-DA, CD-ROM/XZ, compatibility with Windows 3.1 and 95, making them probably the most compatible drives for today's and tomorrow's standards.

- GO1002 R520B 2X E-IDE.....**£86<sup>95</sup>**
- GO1003 R540B 4X E-IDE.....**£128<sup>95</sup>**



### Cyberman CD PCMCIA CD-ROM Drive

The portable CD-ROM drive for Windows 95

The Cyberman CD is a slick, slimline, dual speed CD-ROM drive that comes complete with Windows 95 drivers and is the first slimline CD-ROM drive with an optional built-in 16-bit sound card. It can be used anytime, anywhere - just plug in and play! The unit weighs 1.5 pounds, has an access time of 325 milliseconds and a transfer rate of 352KB/sec, has a 256KB buffer memory with a type II PCMCIA interface and comes with Labtec Headphones. The Cyberman Sound Version also functions as a stand alone CD-player. A quad speed version is also available (without sound).



NEW PRODUCT

- CY8002 Cyberman CD (Dual speed without sound).....**£279<sup>95</sup>**
- CY8003 Cyberman CD (Dual speed with 16-bit sound).....**£379<sup>95</sup>**
- CY8004 Cyberman CD (Quad speed without sound).....**£379<sup>95</sup>**
- CY8005 Cyberman Bundle (CY8002 + MS AutoRoute Express).....**£299<sup>95</sup>**

## Illuminatus v3

Illuminatus features everything you need to make multimedia work for you!

Illuminatus gives you everything you need to create your own edutainment programs for kids, electronic brochures, catalogues and newsletters on disk, computer-based training, special material for special needs, interactive curriculum vitae, multimedia encyclopaedias, audio visual greetings cards, multimedia scrapbooks and more without the need for any programming skills.

Quickly and easily combine text and graphics!

You can quickly and easily combine text, graphics, sound, animation, video and actions onto screen-sized pages. Publish interactive multimedia documents on all kinds of floppy disk and CD-ROM. It's as easy to use as a DTP program but as powerful as an authoring tool.

Supports industry standard multimedia formats

Illuminatus v3 supports industry-standard multimedia formats including PCX, BMP, TGA, TIFF, Kodak PhotoCD, WAV, Midi, AutoDesk Animator ELC/ELC files, Microsoft AVI Video and MPEG motion video.

Includes Free CD-ROM!

Illuminatus includes over 5,000 clipart images, sound files, animations, icons and buttons plus over 100 professional-quality multimedia publications for you to adapt for highest-quality interactive programs in moments. Full tutorials are included.

- ILL001 Illuminatus v3.....**£99<sup>95</sup>**



Digital Workshop's **ILLUMINATUS<sup>3</sup>**  
MAKE MULTIMEDIA IN MINUTES

Includes both Windows 3.1 and Windows 95 versions!

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price. (See p2)

### ACCESSORIES

#### Primax Game Pads

Primax - Putting you in control of your game-playing!

Primax Firestorm GamePads are ergonomic with a stylish design and finish, they put you in complete command of your game playing. They connect to a standard games port and are compatible with all PCs from XTs to Pentiums.

Two versions are available: the first comes with a 1.5m cable and the second is an infra-red version which is sensitive from up to 12m from your receiver, with a powerful PRO mode for experienced players with two extra fire buttons.



- PRIO50 One player Cable Version.....**£10<sup>95</sup>**
- PRIO51 One player Infra-red.....**£23<sup>95</sup>**
- PRIO52 Two player Infra-red.....**£33<sup>95</sup>**

#### Primax Speakers

High power speakers with superior sound - they're ideal for multimedia and games!

Primax SoundStorm Speakers are a range of high-Watt speakers producing superior stereo sound quality. They are full multi-purpose, and not only can you use them with your PC, but also with TV sets, CD-players, cassette players etc. They are all magnetically shielded and feature on-off switches, volume, bass and treble controls. They are fully plug and play and will work with any sound card.



- PRIO53 60-Watt PMPO Speakers.....**£29<sup>99</sup>**
- PRIO54 120-Watt PMPO Speakers.....**£39<sup>99</sup>**
- PRIO55 240-Watt PMPO Speakers.....**£49<sup>99</sup>**

**Index**

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Fonts	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Please see our terms and conditions on page 2 of this advert before ordering.

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.





**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

# SOFTWARE WAREHOUSE plc



## MULTIMEDIA CARDS

# Desktop Video Editing for Windows

### Miro Video DC1

The ultimate desktop video editing system for Windows!

The ideal video solution for real-time capture and playback of video sequences comes with Adobe Premier or VideoStudio software. Capture digital VHS video to your hard disk and add transitions, titles and special effects, then print to tape in full-size NTSC or PAL, with SVHS and VHS quality, and up to 16.7 million colours. Comes complete with MJPEG hardware compression. There are no jumpers or dip switches to set and you get a two year warranty.



- MIR005 DC1 + Video Studio ..... **£349<sup>95</sup>**
- MIR004 DC1 + Adobe Premiere ..... **£435<sup>95</sup>**

### Miro Video 20TD Live

Integrated graphics accelerator, video overlay and TV reception - all on one board!



Watch any TV or cable channel on your PC and then capture, store and edit any TV clip or edit video from any external sources. Playback AVI movies or TV images in full-screen size and at full speed. This card is also one of the fastest graphics cards available. There are no jumpers or dip switches to set and you get a two-year warranty.

- 20TD Live 2Mb VLB or PCI ..... **£314<sup>95</sup>**

### Miro Video 12PD

An incredibly low-cost graphics accelerator and AVI movie board!



The Miro Video 12PD is a unique graphics card and the only one of its kind on the market today. With full screen AVI and software MPEG playback, it can display up to 1280 x 1024 resolution and capable of 16.7 million colours, making it the ideal graphics card for CD-ROM users. This plug and play card is compatible with VLB or PCI buses and is the best value all-in-one graphics and multimedia accelerator.

- 12PD Live 1Mb VLB or PCI ..... **£94<sup>95</sup>**
- 12PD Live 2Mb VLB or PCI ..... **£134<sup>95</sup>**

### MiroCONNECT 34 Wave

The Miro 34 Wave is not only the most advanced sound card available, it also includes a V34 fax/modem, including voice mail features.



It features CD-quality stereo sound with true SoundBlaster compatibility and 32 voice WaveTable synthesis. You can even connect a CD-ROM to the MiroCONNECT 34 Wave. The communications feature brings complete telephone capabilities to your home or office in an easy one-slot solution. With no jumpers to set and a complete suite of communications and audio software, you'll be productive within minutes. This card is the ultimate in communications solutions for your PC, surf the Net, graze CompuServe, listen to your latest CD whilst it deals with your telephone calls... all in one card!

- MIR012 MiroCONNECT 34 Wave ..... **£POA**
- MIR013 Miro PCM10 Sound Card ..... **£79<sup>95</sup>**
- MIR014 Miro PCM1 Pro Sound Card ..... **£129<sup>95</sup>**

## STB - Award Winning Performance in Video Cards at Low Prices!

### STB Velocity 64V

MPEG playback, AVI acceleration and a massive 1600 x 1200 resolution.



The STB Velocity 64 Video is based around the S3 Vision 968 controller with 2MB or 4MB of ultra-fast EDO VRAM. It features the Xing MPEG Plus Player for CDi and CD Video playback, AVI acceleration, a massive 1600 x 1200 resolution (16.7m colours) at 1280 x 1024 to provide the ultimate in graphics quality and acceleration.

- STB012 Velocity 64V 2Mb EDO RAM PCI .. **£199<sup>95</sup>**
- STB013 Velocity 64V 2Mb EDO RAM VLB .. **£199<sup>95</sup>**
- STB014 Velocity 64V 4Mb EDO RAM PCI .. **£329<sup>95</sup>**
- STB015 Velocity 64V 4Mb EDO RAM VLB .. **£329<sup>95</sup>**

### Powergraph 64

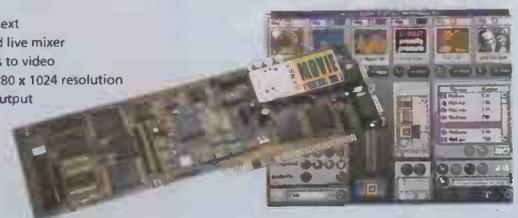
The unbeatable 64-bit price/performance accelerator.

The STB Powergraph features the S3 Trio 64 controller with 1MB or 2MB fast DRAM for the support of display of resolutions up to 1280 x 1024, colour depths up to 24-bit (up to 16.7m) and refresh rates up to 100Hz. Combine these features with STB's Vision Windows desktop control and a lifetime warranty, and you get unrivalled price/performance from a 64-bit graphics accelerator.

- STB010 Powergraph 64 2Mb PCI ..... **£139<sup>95</sup>**
- STB011 Powergraph 64 2Mb VLB ..... **£129<sup>95</sup>**
- STB016 Nitro Cirrus 5434 1Mb ISA ..... **£94<sup>95</sup>**
- STB017 Nitro Cirrus 5434 2Mb ISA ..... **£138<sup>95</sup>**
- STB018 Nitro Cirrus 5434 2Mb PCI ..... **£138<sup>95</sup>**

## Movie Machine II - The Complete Video Digital Centre

- On-board Tuner with Teletext
- Real-time video effects and live mixer
- Transfer titles and graphics to video
- Live video overlay up to 1280 x 1024 resolution
- SVHS and VHS input and output
- Studio quality digitization
- Optional MJPEG and MJPEG extensions for 1 slot solution



- MOV005 Movie Machine II (includes tuner) ..... **£489<sup>95</sup>**
- MOV006 MJPEG Extension Card for MM II ..... **£289<sup>95</sup>**
- MOV007 MPEG Extension Card for MM II ..... **£239<sup>95</sup>**
- MOV008 Movie Machine II Power Pack (includes MJPEG & MPEG) ..... **£989<sup>95</sup>**
- Fast FP/S 60 ..... **£489<sup>95</sup>**
- MOV009 MJPEG Extension Card for MM Pro ..... **£289<sup>95</sup>**

**Movie Machine Pro**  
**£289<sup>95</sup>**  
STOCK CODE: MOV011

### Movie Machine Pro

Editing with Movie Machine Pro is easier than anything you've ever done. Use Movie Studio to choose your video sources, mix or cut and then use the T-Bar to add real-time digital effects: fades, zooms, flips, colour reversals, mozaic, luma and chroma keying, strobascope, etc. Of course, you can also set the speed and direction of the effects.

## Advanced Acceleration Technology from Matrox

Whether you're working with 256, 65k or 16.7m colours, MGA Millennium delivers consistent Windows performance at all display resolutions.

MGA Millennium's superior image load speed makes it the fastest graphics board for accelerating word processing, spreadsheets and such demanding Windows applications as desktop publishing and photo retouching which require true colour acceleration at up to 1600 x 1200 resolution. MGA Millennium also greatly reduces eye strain and headaches caused by the annoying flicker found on most monitors. Its 220MHz DAC offers rock solid, flickerless displays at all resolutions for the ultimate in clarity and readability.

You can run full screen video clips at up to 30 frames per second for the smoothest playback of multimedia, games and education software. MGA Millennium provides superior video playback of Microsoft DCI files by accelerating colour - conversion and video upscaling directly in hardware. It is also supplied with a software MPEG Player that enables you to decode MPEG titles under Windows.

MGA Millennium Features include:

- MGA 64-bit processor
- High performance true colour
- Up to 8Mb WRAM
- Smooth AVI Video Play back
- Real time 3D rendering
- 16.7 million colours at resolutions up to 1600 x 1200
- Optimised PCI interface for 120MB/sec. Image load speed
- Hardware accelerated DCI playback
- Free MPEG Player for Windows
- 220MHz DAC for flicker-free screen refresh

**NEW PRODUCT**

**Matrox Accelerator from £249<sup>95</sup>**

## matrox

- MAT008 MGA Millennium/21 2Mb WRAM PCI ..... **£249<sup>95</sup>**
- MAT009 MGA Millennium/41 4Mb WRAM PCI ..... **£349<sup>95</sup>**

Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. VAT and delivery.



**To Order By Telephone Call 01675 466 467**  
Order before 3pm, stocked goods shipped for next-day delivery.

**The widest product range, best prices & fastest delivery!**



# SOFTWARE WAREHOUSE plc

## MEMORY



**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

Everything for your PC - Next-day!

## New! Warehouse Memory Kits

Low-cost and easy to install memory kits from Britain's favourite software and peripherals supplier.

Upgrading your memory couldn't be simpler, everything you need to upgrade your PC memory is all supplied in one cost-effective package. Our kits are all original manufacturer memory modules - all are 100% compatible with the PC specified. Each module is covered by a five year manufacturers warranty and has been tested for parity, voltage and speed compatibility with the intended PC. Each kit includes a 3M anti-static wrist strap, easy-to-follow fitting instructions, a 5 year warranty and full technical support.



Please note: We also stock Warehouse Memory Kits for DAN, Evesham, Zenith, Escom, Apricot and more.

## What makes buying SIMMs from Software Warehouse so different?

Our SIMM memory comes in the same form as our machine-specific kits. They include full fitting instructions and are individually boxed. We don't just pack your memory in a Jiffy Bag and hope for the best!



### 30-PIN SIMMS

1MB x 9, 70ns, 3-chip.....	SIM021	£29
4MB x 9, 70ns .....	SIM022	£102

### 72-PIN SIMMS

1MB x 32 (4MB).....	SIM023	£99
1MB x 36 (4MB).....	SIM026	£101
2MB x 32 (8MB).....	SIM024	£191
2MB x 36 (8MB).....	SIM027	£219
4MB x 32 (16MB).....	SIM025	£328
4MB x 36 (16MB).....	SIM028	£381

## Warehouse Memory Kits are available for...

### COMPAQ

LTE Lite 4/25C 33C 25E 255L Notebook 4Mb Card .....	COMP02	£189
LTE Lite 4/25C 33C 25E 255L Notebook 8Mb Card .....	COMP03	£349
LTE Lite 4/25C 33C 25E 255L Notebook 16Mb Card .....	COMP04	£699
Deskpro 486/33 8Mb Expansion Board .....	COMP13	£439
Deskpro 486/33 8Mb Module .....	COMP13	£359
Deskpro 486/50 8Mb Module .....	COMP13	£349
SystemPro 486/50XL 16Mb KR .....	MP174	£829
SystemPro 486x/25LT 8Mb Module .....	COMP16	£298
SystemPro XL/486/50 Pentium 16Mb .....	COMP17	£785
SystemPro XL/486/50 Pentium 32Mb .....	COMP19	£1290
Deskpro 386/4 4Mb Module .....	COMP09	£159
Deskpro 386/20 4Mb Module .....	COMP09	£159
Deskpro 486/25 64Mb Board with 8Mb .....	COMP21	£444
Proliant 1000, 2000, 4000 4Mb Module .....	COMP25	£165
Proliant 1000, 2000, 4000 8Mb Module .....	COMP25	£336
Proliant 1000, 2000, 4000 16Mb Module .....	COMP25	£635
Proliant 1000 486DX2/66 16Mb .....	COMP27	£479
LTE Lite 486C 4Mb Card .....	COMP02	£187
LTE Lite 486C 8Mb Card .....	COMP03	£349
LTE Lite 486C 16Mb Card .....	COMP04	£765
Centura 3/25/20/25C 4Mb Card .....	COMP33	£169
Centura 3/25/20/25C 8Mb Card .....	COMP33	£299
Presario 425, 633, 833, 850, 866 4Mb Card .....	COMP36	£149
Presario 425, 633, 833, 850, 866 8Mb Card .....	COMP24	£279
Presario 700/900 16Mb Card .....	COMP37	£492

### DELL

Powerline Workstation Series 4Mb Kit .....	LL0232	£189
Powerline Workstation Series 8Mb Kit .....	LL0232	£336
Powerline Workstation Series 16Mb Kit .....	LL0422	£459
Low Profile Power Desktop 4Mb .....	DELL01	£145
Dimension 1" 4Mb .....	DELL01	£159
Latitude Series/M 4Mb .....	DELL09	£197

### PACKARD BELL

Legend 600, 900 4Mb .....	2xPA01	£149
Legend 600, 900 8Mb .....	2xPA02	£279
486 Local Bus 4Mb Module .....	PACK02	£149
Force Range XL/410/416/186 16Mb KR .....	PACK04	£459

### SANYO

Sanyo 17NB, 18NB 4Mb Kit .....	2xCO01	£179
--------------------------------	--------	------

### HEWLETT PACKARD

Vectra 386/25PC 8Mb KR .....	HP01	£320
Vectra 486C, 486/20PC, 486/35T, 486/66ST .....	HP02	£169
Vectra 486C, 486/20PC, 486/35T, 486/66ST .....	HP03	£320

### OLIVETTI

PC386SX 1Mb to 8Mb .....	4xOLO1	£272
PC540 8Mb Kit .....	4xOLO1	£334
M300-30 4Mb .....	4xOLO1	£159

### TANON

Positive 386SX25, 386DX40, 486SX25, 486DX33 .....	4Mb Kit	CT/A02	£132
Positive 386SX25, 386DX40, 486SX25, 486DX33 .....	16Mb KR	CT/A02	£478

### TOSHIBA

T1000E/EX/LE, T1800, T1850C, T2000SX, T2200SX .....	4Mb	CT/T002	£179
T1000E/EX/LE, T1800, T1850C, T2000SX, T2200SX .....	8Mb	CT/T003	£299
T3300SL 8Mb Credit Card .....	CT/T005	£320	
T2400CS, CT 4Mb .....	CT/T009	£189	

### T4400, T6400 SX/C, DX/C 8Mb .....

T1950CT, T4600, T4700CT, T4800CT .....	8Mb Card (3.3V)	CT/T018	£325
T1950CT, T3400CT, T4500, T4800CT .....	16Mb Card (3.3V)	CT/T019	£625
T2100/C5, CT T2105 CDS, CS, CDT, T .....	8Mb Card (3.3V)	CT/T021	£333

### GATEWAY

PC45X-33 4Mb Module .....	C/GA01	£135
PC45X-33 16Mb Module .....	C/GA02	£472
PC 4DX-33V, PC 4DX-66V 4Mb Module .....	C/GA01	£135
PC 4DX-33V, PC 4DX-66V 16Mb Module .....	C/GA02	£475
PC 4DX-33V, PC 4DX-66V 32Mb Module .....	C/GA03	£950
PC 45X-66 16Mb Module .....	C/GA02	£475
PC 45X-66 32Mb Module .....	C/GA03	£950

### AMSTRAD

PC1286/PC1386/PC3286/PC3386/PC5286 1Mb 4Mb .....	CAMS01	£132
ALT286/386SX 1Mb 4Mb .....	CAMS01	£132
PC7286, 7386 4Mb .....	CAMS01	£132
PC7486 SLC 16Mb .....	2xCO1	£455
ANS386SX 4Mb Module .....	C/AM03	£179
386SX25 MEGA PC 16Mb Kit .....	2xCO1	£465
386SX25 MEGA PC 4Mb Kit .....	2xCO1	£139

### ELONEX

PC 386SX, 5X, 386/16, B/33 8Mb Module .....	C/ELO2	£249
PC 386V/E, 5X, 486 V/E 16Mb Module .....	C/ELO6	£465
WS Range 8Mb Kit .....	C/ELO2	£269
WS Range 16Mb Kit .....	C/ELO2	£489
LT386SX/4 4Mb Kit .....	C/ELO1	£135
PC300 Series 8Mb Module .....	C/ELO4	£281
PC 500 Series 16Mb Module .....	C/ELO5	£469

### IBM

PS/2 55SX, 60, 65SX, 575SX, M57 4Mb .....	C/IB01	£167
PS/2 70, Portable 70/75 4Mb .....	C/IB01	£179
PS/2 70, Portable 70/75 8Mb .....	2xCO1	£299
PS/2 80 4Mb .....	C/IB04	£238
PS/2 90X 8Mb .....	C/IB08	£279
Valuepoint 6381, 6382, 6384 4Mb .....	C/IB07	£138
Valuepoint 6381, 6382, 6384 8Mb .....	C/IB07	£254
Pentium Valuepoint Series 8Mb Kit .....	2xCO7	£279
Pentium Valuepoint Series 16Mb KR .....	2xCO7	£525
Thinkpad 700/720/750/755 8Mb Card .....	C/IB09	£339
Thinkpad 360,360C, 360DC, 360P 4Mb Module .....	C/IB12	£212
Thinkpad 360,360C, 360DC, 360P 8Mb Module .....	C/IB13	£389
Hurdia, Sprinta 4Mb Kit .....	C/IB16	£149
Hurdia, Sprinta 16Mb Kit .....	C/IB17	£569
Apitva 300 4Mb Module .....	C/IB18	£145
Apitva 300 8Mb Module .....	C/IB19	£289
Apitva 300 16Mb Module .....	C/IB20	£479
PC700 Series 8Mb Module .....	C/IB22	£289
PC700 Series 8Mb Module .....	C/IB08	£289
PC700 Series 32Mb Module .....	C/IB23	£884

...and this is just a sample! We carry the full range for each manufacturer listed, so if you don't see what you need, just call, we always try to help!

## Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 26

## Double your memory with SoftRAM

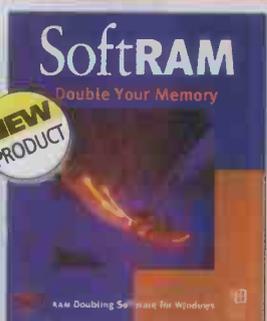
Now you can double your existing memory in software with the fastest and most inexpensive way to add RAM to your Windows 3.x or Windows 95 PC.

SoftRAM is an innovative Windows-Software-Only technology which approximately doubles the amount of RAM available to Windows applications.

And with SoftRAM's one-click, one-time installation you eliminate the hassle and expense of opening your PC to install hard RAM.

SoftRAM's unique RAM Analyst dynamically reviews the memory requirements of all your applications and pre-calculates the most effective compression method for each RAM page of memory. All of this is tracked and continuously updated in a knowledge database to optimise performance on the applications you use.

- One-click, one-time installation
- Use with as little as 4Mb
- Automatic, transparent and user configurable
- Works with Windows 3.0 and higher
- Compatible with all Windows applications
- Ideal for graphics programs and large data files



RMG002 SoftRAM for Windows ..... £48<sup>95</sup>

## RAM Doubler for Windows

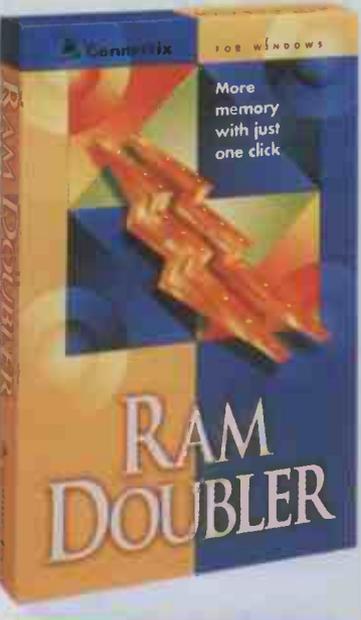
The safe and cost-effective way to increase and optimise your system's RAM.

RAM Doubler uses three primary methods to increase your memory. First, it increases System Resource space so that Windows has plenty of room to track your application's menus, icons, and other visual elements.

Next, RAM Doubler cleans up the under one megabyte space where DOS, network software, and hardware drivers reside and often waste space.

Finally, RAM Doubler takes memory that is in use but not likely to be used again and compresses it to keep Windows from triggering virtual (disk) page swaps that slow your system down. The result of these methods is a tremendous increase in the ability to run multiple applications simultaneously, usually with no appreciable effect on performance.

RAM020 RAM Doubler for Win ..... £59



**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertise price. (See p2)

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



Next-day Delivery  
£6<sup>95</sup>

# SOFTWARE WAREHOUSE

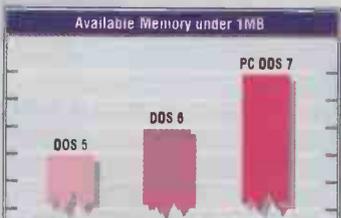


## OPERATING SYSTEMS

### PC DOS 7 - More memory and complete compatibility!

IBM PC DOS 7 gives you more memory for your DOS and Windows games and applications, plus a robust set of DOS and Windows utilities.

IBM's PC DOS is generally regarded as the best DOS in the computer industry. Version 7 provides more memory for your DOS and Windows games and applications, and upgrading all DOS/Windows systems is easy. It includes Stac Electronic's complete Stacker 4.0 disk compression technology - a dynamic



PC DOS gives you more free memory to run your applications!

memory optimiser to give you maximum memory. Plus, you can access on-line help for ease-of-use, a program scheduler so you can go to sleep while your PC does the work, REXX programming language, and the latest in PCMCIA and much more.

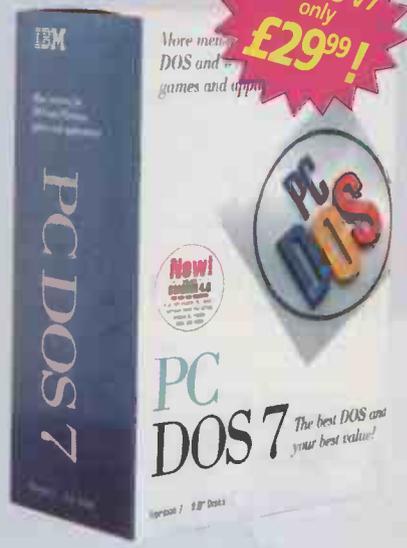
#### Why choose PC DOS 7?

- **Free-up more conventional memory!**  
Free up to 60KB more memory than PC DOS 6.x or MS-DOS 6.xx to improve your PC's performance with Windows, games etc.
- **More hard disk space!**  
Comes with integrated STACKER 4.0 compression software - the industry leader!
- **Protect your system or network!**  
PC DOS 7 includes Anti-Virus, the best integrated virus detection software available - it can detect over 2100 viruses!
- **More hardware support!**  
Take advantage of the latest hardware support for docking stations, PCMCIA, pen, CD-ROM and more.

• **FREE, fully-featured Windows and DOS utilities!**  
Save money with fully-featured, fully-functioning utilities available with both DOS and Windows interfaces. PC-DOS 7 comes with: Stacker compression, Anti-Virus, Central Point (PC Tools) Backup - diskette, tape, disk; Central Point Undelete; and much more.

• **Synchronise files and design powerful programs!**  
With PC DOS 7 you'll be able to automatically synchronise files between two computers and design powerful REXX programs that you can run with other operating systems - including IBM OS/2 Warp (see below).

• **Refined over 14 releases!**  
PC DOS 7 is IBM's 14th release of the classic DOS operating system. Each new release is tested and refined with users' feedback to make it work better for you.



IBM004 PC-DOS V7 Upgrade. **£29<sup>99</sup>**

## OPERATING SYSTEMS - OS/2

### Turn your PC into a true multi-tasking Windows PC with IBM's OS/2 Warp!

Turn your PC into a true multi-tasking Windows PC. Have all the power, flexibility and features of future versions of Windows today!

Your Windows desktop can look and work the same as it does now, or you can make use of the easy-to-use OS/2 Workplace Shell and discover the productivity of true drag-and-drop computing. Run multiple Windows applications right alongside your DOS favourites and the new ultra-fast 32-bit OS/2 programs. And don't forget OS/2's multitasking capabilities allow you to run many different applications at the same time and not just have them open simultaneously.

This new version of IBM OS/2 now works in only 4Mb of RAM and on any 386SX or above. OS/2 now supports Windows 3.1 or 3.11, so why settle for just Windows when you can use IBM OS/2 Warp to add extra power to your system.

#### FREE Bonus Pack!

OS/2 comes with a Bonus Pack of full 32-Bit applications which would collectively retail at over £1000. IBM Works, a mini-suite of 32-Bit applications including word processing, spreadsheet, charting, data filing and report writing. IBM's Internet Connection Package, lets you seamlessly navigate through the Internet with easy-to-use graphical interfaces. IBM CompuServe Access software is included as is Fax Works, which enables you to fax documents from within your existing programs.

- 052004 OS/2 Warp CD ..... **£47<sup>99</sup>**
- 052003 OS/2WarpFloppy ..... **£57<sup>99</sup>**



### OS/2 Warp Connect - on line access to resources and information, remotely or from the desktop?



OS/2 Warp Connect supports all the most popular network operating system as well as Personal Communications /70 for OS/2 - IEEE 80. Entry Level, IBM Database Manager/2, IBM TCP/IP, Lotus Notes, and CC Mail. OS/2 Warp Connect supports LAN applications that interface to the NetBIOS, Netbeui, variety of IBM and OEM communications adapters including asynchronous, ISDN (basic and primary rate), synchronous (switched and non-switched 56) and x.25 (direct and via asynchronous PAD).

OS/2 Warp Connect offers multiple security features to ensure that only authorised users gain access to the LAN via its remote services. Instead of passwords, OS/2 Warp Connect supports passphrases, which offer better security.

- Share local resources - such as files, applications and printers - with co-workers using the new IBM Peer for OS/2
- Combine industrial-strength LAN-based TCP/IP functions along with the ease of use features in the Internet Connection for OS/2

- Integrate easily with IBM or non-IBM LAN servers - locally or remotely
- Install locally or remotely from your CD-ROM on the LAN
- Run DOS, Windows, and OS/2 applications simultaneously on your desktop. True multitasking! Your applications can reside on your system, on your server, or on your peers computer.
- Work smarter with BonusPak - an integrated set of full-function applications.
- Communicate and collaborate with your co-workers.
- Includes Lotus Notes Express to let you track and share information.

- 052011 OS/2 Warp Connect V3 on CD ..... **£99<sup>95</sup>**
- 052013 Upgrade from OS/2 2.x - CD ..... **£79<sup>95</sup>**
- 052010 Upgrade from OS/2 3.0 - CD ..... **£54<sup>95</sup>**
- 052012 Upgrade from DOS or any other operating system ..... **£89<sup>95</sup>**

Please see our terms and conditions on page 2 of this advert before ordering. All prices are ex. delivery and VAT.



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



The widest product range, best prices & fastest delivery!



Scanning

# SOFTWARE WAREHOUSE

## SCANNING



This month 1000s of great offers and over 450 new products!

Everything for your PC - Next-day!

### MICROTEK ScanMaker II - The best value A4 flatbed around?

MICROTEK has spent 10 years investing in scanner research and development, resulting in a comprehensive range of high quality scanners for both beginners and professional users.

The economical ScanMaker II is an all-rounder that is probably the best value A4 flatbed scanner on the market today. It reproduces your hard copy in 16.7million colours at a maximum resolution of 1200 x 1200dpi. It can even be specially equipped to meet your specific needs. For instance, if most of your scanning is text-based just add an ADF-600 50-page document feeder; or for film scanning, choose the backlit TMA-II transparency attachment. All MICROTEK scanners include a TWAIN-Module for TWAIN-compliant Windows software plus an additional ASPI driver and a SCSI card.

SCA001 Microtek ScanMaker II ... £299



#### MICROTEK ScanMaker II Specifications

- Type: 24-bit colour flatbed scanner
- Maximum resolution: 1200 x 1200dpi (interpolated)
- Scanning area: 21.6 x 35.6cm (approx. A4) Optical resolution: 600 x 300dpi
- Scanning modes: 1-bit / 64 greyscales simulated  
8-bit / 256 greyscales; 24-bit / 16.7million cols.
- Scanning method: 3-pass with RGB filter

### FREE mobile phone with all Logitech products!

Purchase any Logitech product before the end of September 1995 and, on registration, receive a FREE mobile phone and connection to air time.

Until the end of the Summer, if you buy any Logitech product you'll receive a FREE Mitsubishi Mobile Phone. The terms and conditions are simple: Send a copy of your receipt and registration card to Logitech before 31st October; Only one mobile phone per person; Must be over 18; Call for full terms and conditions. (Not available with MouseMan Sensor.)

Last chance to get your FREE Mobile Phone!

### ScanMan Colour

Scan every colour the human eye can see.

Ideal for designers who want to scan large colour pages or odd-sized originals. It's the most versatile handscanner ever! Its 24-bit hardware captures 400dpi images in 16.8million colours with 256 greyscales or linearart. It is one of the few colour handheld scanners that require no warming-up time.

- LOG007 Logitech ScanMan Colour ..... £145<sup>95</sup>
- LOG013 Logitech EasyTouch ..... £108<sup>95</sup>
- LOG016 Logitech ScanMan PowerPage ..... £299<sup>99</sup>

£25 OFF!



### Visioneer PaperPort - The fastest way to get paper into your PC!

If you ever have trouble finding your keyboard under all your papers, faxes, reports, mail and clippings? PaperPort makes your paper work for you!

PaperPort is compact and it can scan an A4 page in as little as six seconds! It then instantly displays the digital image on your screen. Once you've got your scanned document you can fax it, file it, edit it, copy it, or send it via e-mail. You can scan at either 200 or 400 dpi. PaperPort comes with a range of software including desktop and drag-and-drop metaphors which help organise, manage, locate, fax, edit and print documents. Store your documents in familiar file folders using long file names and find them using keywords, titles and dates. It also includes WordScan OCR software which converts scanned documents into editable text.

You get all this in a compact package that only weighs 2.5 pounds, and sits easily on desk and fits easily into your briefcase. So whether you work at your desk or on the road, PaperPort puts a fax machine, office copier, filing cabinet and personal typist - literally - at your finger tips.

VIS061 Visioneer PaperPort ..... £299<sup>95</sup>



It's the compact desktop scanner!

#### What can you do with PaperPort?

• Fax it: Drag your document to the fax button, select a recipient, and PaperPort software uses your fax modem to transmit it.

• File it: Scan your papers and use PaperPort to organize and retrieve letters, reports, etc.

• Edit it: PaperPort comes with powerful WordScan (OCR) software that quickly turns your document into editable text and puts it in your word processor.

• Copy it: Copy pages without waiting to use the office copier.

• E-Mail it: Scan documents and send them via electronic mail.

### Vista T630 Colour Scanner

High performance budget colour scanners from the world's largest digital imaging manufacturer.

An outstanding specification at an incredible price! The UMAX T630 gives you 600x300dpi optical scan resolution for up to 4800dpi output, via a triple pass scanning mechanism.

Comes with Photoshop LE software, SCSI Interface and all cables.

The T-630 was awarded PCW Editor's Choice in July 1995 - "...don't let appearances put you off: this scanner is wonderful... Raw colour scans are accurate, bearing a great resemblance to the originals and easily corrected. This is our budget best buy, putting many more expensive scanners to shame."

VIS050 UMAX Vista T630 ..... £349



UMAX

### PageOffice

PageOffice provides a single solution for transforming piles of paper into useful information on your PC.

The PageOffice hardware/software combination is capable of importing printed documents whether text or graphics, into your computer - processing them and then delivering each to its appropriate location. This great value bundle comes complete with all the software you need for scanning text, graphics and all the utilities you need to file your documents, E-mail your documents, fax them, print them or even edit them. In addition, you can use your existing software to add that extra finishing touch.

The PageOffice is an easy to use input device that acts as the electronic equivalent of an in-tray for your personal computer. The PageOffice comes complete with SCSI interface and cable, a ten-sheet automatic document feeder and scans at 300dpi. This revolutionary scanner scans a full A4 page in just 6.4 seconds.

PAG030 UMAX PageOffice ..... £288<sup>95</sup>



NEW PRODUCT

### Vista S8

High image quality, single pass A4 colour scanner.

With an optical resolution of 400x800dpi (interpolated up to 6400x6400dpi) this high speed scanner brings out the richness and detail of originals. It captures 24-bit colour and comes with powerful scanning software that includes auto-density, descreening and network scanner sharing facilities.

VIS052 UMAX Vista S8 ..... £549<sup>95</sup>

### PRIMAX The leaders in scanners!

Primax are the largest mouse and scanner supplier that you've probably never heard of.

Primax have chosen Software Warehouse as its first business partner to market the Primax range in the UK. Primax are one of the world's leading manufacturers in mice, game pads, sound cards, speakers, flatbed scanners, cables, printer-share devices, and communications hardware. All Primax products are supplied with a two-year warranty and are backed by years of intensive research and development. Software Warehouse will be stocking the leading products from the Primax range in both our retail outlets and through our mail-order operation.

#### Primax Scanners

This exciting new range of Primax scanners are ALL supplied with Finishing Touch photo-styling software and ReadIRIS text recognition software (OCR). ALL are TWAIN compatible and come with UK support and warranty.

#### Primax Greyscale Hand Scanners

The Primax greyscale scanners scan at 100/200/300 and 400 dpi and have a wider than normal scan width of 105mm. The 32 greyscale scanner will actually scan up to 256 using software emulation. The 256 greyscale scanner scans at true 256 greyscales via its hardware.

PR1101 Primax 32 Greyscale ..... £44<sup>95</sup>

PR1102 Primax 256 Greyscale ..... £54<sup>95</sup>

#### Primax Colour Mobile Scanners

The mobile version includes all the features as above, but also includes motorised rollers. This unique feature allows a hand scanner to perform at the same accuracy as a flatbed scanner. You simply place the scanner on the image to be scanned and press the start button on-screen, and the scanner automatically moves itself across the image. It determines the speed of scanning with reference to computer speed and image complexity. This is absolutely essential for colour or greyscale images. It also connects to your parallel port, making it ideal for use with portables or in offices where more than one person needs to scan images and documents.

PR1104 Primax Colour Mobile ..... £149<sup>95</sup>

#### Primax DataPen

Simply the fastest way of entering text and, on average, 20-30 times faster than using the keyboard. Run the DataPen over the text and it will input text from where the cursor lies. The OmniFont OCR software runs in the background and allows it to recognise any font between 8pt and 22pt text size. It can be used in all applications running under Windows. There's even a spell checker in eleven languages. The DataPen is easy to install and connects to your standard parallel port.

PR1105 Primax DataPen (Win) ..... £199

#### Primax Colour Hand Scanners

The Primax Colour Hand Scanners scan at up to 400dpi resolution. They are able to scan black and white, greyscales and 24-bit true colour (16.8 million colours). They come with a high-speed, 16-bit interface card.

PR1103 Primax Colour ..... £99<sup>95</sup>



### Index

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forms	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 28

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call 01675 466 467

Order before 3pm, stocked goods shipped for next-day delivery.



Next-day Delivery  
**£6<sup>95</sup>**

# SOFTWARE WAREHOUSE

**STORAGE**



## ARCsolo and ARCserve - Complete Workstation Back-Up/Restore

ARCsolo is the first back-up solution for stand-alone PCs, workgroups and servers to take full advantage of the workgroup connectivity features found in Windows for Workgroups, Personal NetWare and LANtastic.

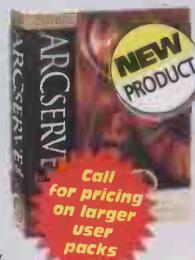
- Simple installation and interface. Novice Windows and NetWare users will find ARCsolo's menu-driven installation procedure straightforward. Once it's installed you will be guided through the back-up/restore process with ARCsolo's intuitive Microsoft Windows Graphical User Interface and its graphical tree views in Intelligent Restore.
- Flexible BackUp/Restore. ARCsolo can be customised to suit your individual needs. BackUps can take place immediately or can be scheduled for daily, monthly, hourly or any other increment. Select from several methods of full and incremental back-up operations. File servers with several partitions/volumes can be submitted as one job. You can also specify the number of times ARCsolo will retry busy files before continuing the backup.



ARCserve for NetWare is the automated back-up and restore solution for your entire Novell network.

This award-winning software backs up all file servers and attached PCs running DOS, OS/2 and Windows (included), as well as UNIX and Macintosh (offered as options). Maintaining the same innovative functions as ARCserve DOS Edition 4, the Windows edition provides enterprise-wide back-up for networks of all sizes.

- ARC002 ARCserve V5.0 for NetWare 5-User ..... **£164<sup>95</sup>**
- ARC003 ARCserve V5.0 for NetWare 10-User..... **£336<sup>95</sup>**



ARCserve for Windows NT is a comprehensive data management software solution for Microsoft Windows NT.

As part of Cheyenne's ARMS (Architecture for Reliable Managed Storage) strategy, ARCserve for Windows NT's 32-bit multi-threaded architecture provides native support for heterogeneous Windows NT networks, which include Windows NT workstations and servers, and Windows for Workgroups. ARCserve for Windows NT is ready "right out of the box" - simply install and go!

- ARC008 ARCserve for Windows NT..... **£595<sup>95</sup>**

## Adaptec SCSI Controllers



Adaptec Total CD - 16bit SCSI host adapter for CD connectivity.

A line of innovative SCSI host adapters specifically designed for the single user and small office environment. Total CD host adapter kit provides one of today's simplest, most effective connections to the expanding world of CD-ROM applications. Just plug in the board, connect the cable, and tune in to new dimensions of Information and entertainment. It's that simple!

- ADA001 Total CD Kit ..... **£34<sup>50</sup>**
- ADA002 Total Connect Kit ..... **£54<sup>50</sup>**

SCSI Master - Unmatched compatibility for high performance ISA systems.

SCSI Master Kit offers high-speed I/O and connectivity for demanding data and graphics-intensive applications, such as multimedia and desktop publishing. This kit also implements multi-threaded I/O for high performance transaction processing and fault-tolerant networking. The SCSI Master Kit provides true multitasking connectivity between your PC and SCSI-2 peripherals.

- ADA006 SCSI Master Kit ISA..... **£169<sup>95</sup>**
- ADA007 SCSI Master Kit EISA..... **£239<sup>95</sup>**
- ADA008 SCSI Master Kit PCI..... **£169<sup>95</sup>**



SlimSCSI - Instant connection for portables to powerful work peripherals using the PCMCIA slot.

The APA-1460 SlimSCSI host adapter delivers instant, high-performance peripheral connections to your PCMCIA portable PC. The SlimSCSI is perfect for quick connection of up to seven external SCSI-2 devices like CD-ROMs (including single- and multi-session PhotoCDs), hard disk drives, HP scanners, SyQuest, Bernoulli, Floptical, and SCSI tape drives.

- ADA003 SlimSCSI - SCSI to PCMCIA..... **£79<sup>95</sup>**
- ADA004 MiniSCSI - Parallel to SCSI ..... **£54<sup>95</sup>**

## WangDAT - For High Performance DAT Drives

The ultimate in DDS compatibility from WangDAT.

The WangDAT models 3100 and 3200 DAT drives offer the ultimate in DDS compatibility, featuring DDS and DDS-DC data compression formats. With their small, 3.5" form factor, these drives are the perfect choice for today's more compact systems, providing 2GB capacity in DDS mode, and 4GB up to 8GB with data compression. Both drives offer impressive performance with a fast, 30-second search capability and typical transfer rates from 183-366KB/sec.



DAT Drive shown with case open

WangDAT key features include:

- Precise tension control • Direct drive, real motors
- Reel brakes for gentle tape-handling under power loss
- A four-head, self-cleaning drum • An independent capstan motor

- WAN001 WangDAT 3100 SCSI 2GB Int. .... **£529<sup>95</sup>**
- WAN002 WangDAT 3200 SCSI 4GB Int. .... **£579<sup>95</sup>**
- WAN003 WangDAT 3400 SCSI 8GB Int. .... **£639<sup>95</sup>**
- WAN004 WangDAT 3100 SCSI 2GB Ext. .... **£649<sup>95</sup>**

- WangTek Tape Drives
- WAN005 WangTek 5150PK Int. 250-500MB. **£264<sup>95</sup>**
- WAN007 WangTek 5525es int. 525MB SCSI. **£289<sup>95</sup>**
- WAN008 WangTek 5525es Ext. 525MB SCSI **£396<sup>95</sup>**

## New! Maxtor Drive Kits

These drive kits are the simple solution for upgrading your PC.

Included in every Maxtor pack are full step-by-step instruction manuals, drive rails and screws, 5.25" mounting bracket, a dual hard drive interface ribbon cable and all software required. The MaxBlaster software provided will allow you to partition and prepare your hard drive, and allows the drive partitions to extend beyond the limitations set by DOS and your computer's CMOS BIOS.



- MAX018 540Mb (12ms) IDE Kit... **£159**
- MAX019 850Mb (12ms) IDE Kit... **£199**
- MAX020 1.2Gb (12ms) IDE Kit... **£289**

## Western Digital Drive Kits

The Western Digital range of hard drive kits offer, the highest level of quality backed by a three year warranty.

A major step forward in upgrading your PC - these drive kits contain everything you need to easily extend the storage capabilities of your PC: A Caviar 3.5" quick access time drive, rails, screws, 5 1/4" chassis, manuals and Installation disk. The Western Digital Installation disk will even get around the limitations on drive partition sizes, set by DOS, allowing your new drive to be configured as one large partition (no need for separate drive letters). The cost per megabyte of these new storage devices, is in fact now cheaper per megabyte than a floppy!



Please note: Before buying bare drives, please check you have the necessary cables and fixings, as they do not come with individual drives. You will also need a screwdriver and remember to power down your PC before removing the cover.

*Pictured above right are the Western Digital Caviar drives (without top cases!). These high quality drives come with a 3 year manufacturers warranty.*



- WES006 Western Digital 540MB IDE Kit..... **£169**
- WES0007 Western Digital 850MB IDE Kit..... **£199**
- WES008 Western Digital 1.2 GB IDE Kit..... **£269**
- WES010 Western Digital 1.6 GB IDE Kit..... **£375**

- WES001 IDE Western Digital AC2540A 540Mb..... **£154**
- WES002 IDE Western Digital AC2700A 730Mb..... **£159**
- WES003 IDE Western Digital AC2850A 850Mb..... **£175**
- WES005 IDE Western Digital AC3312 1280Mb..... **£275**
- WES009 IDE Western Digital 1.6Gb..... **£349**

Next-day delivery only **£6<sup>95</sup>** E&OE. All prices are plus VAT and delivery and are subject to change and availability.



To Order By Telephone call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



The widest product range, best prices & fastest delivery!

Everything for your PC - Next-day!



Training

# SOFTWARE WAREHOUSE

TRAINING

**Price Pledge!**  
We will beat any advertised price.  
Subject to terms on page 2 of advert.

## Training Videos

The no.1 selling range of videos from BVG make learning fun and easy!

Buy them individually for £17 each or buy 2 for only £29!

See Page 4 for more

VID021	WIN Corel Draw 3 Advanced	£17
VID022	WIN Corel Draw 4 Advanced	£17
VID016	WIN Lotus 123 Introduction	£17
VID037	WIN Lotus Approach Advanced	£17
VID015	WIN Learning Lotus Ami Pro	£17
VID019	WIN Quattro Pro Advanced	£17
VID024	WIN Viruses Explained	£17
VID020	WIN Programming in C++	£17
VID011	WIN Beginners Guide to DOS 6	£17
VID027	WIN Microsoft Publisher	£17
VID023	WIN Microsoft Works for Windows	£17
VID029	WIN Microsoft Word 6 for Beginners	£17
VID030	WIN Microsoft Word 6 Advanced	£17
VID031	WIN Microsoft Excel for Beginners	£17
VID032	WIN Microsoft Excel Advanced	£17
VID014	WIN WordPerfect for Windows	£17
VID025	WIN Beginners Guide to PCs	£17
VID013	WIN WordPerfect for Windows Beginners	£17
VID036	WIN PageMaker 5 Advanced	£17
VID035	WIN Visual Basic for Beginners	£17
VID039	WIN Paradox 5 for Beginners	£17

## BVG Interactive CD-ROM Tutorials

Learn software fast with these informative and interactive tutorials.

This is it! The definitive training package on a CD-ROM. Imagine a resident expert in your computer, when you get stuck, up pops a friendly face and demonstrates the task in hand! Always on-hand with friendly advice and expert tuition, it's like having your own personal trainer in your computer!

These innovative CD-ROMs make sense as a pop-up instructor or as part of a much more structured learning program. The complete training course lasts for around 6 hours and can be worked through topic by topic, from start to finish. Or, with intermediate topic selection, you can pick the topic you want to learn and go straight to it.

Each CD is packed with video and audio clips to steer you through the course and to help make learning quick and enjoyable. And because all BVG CD-ROM tutorials don't have to have the full application running, you can take the tutorial to any machine.



BUY TWO GET ONE FREE!

BVG001	WIN PowerPoint 4.0	£39
BVG002	WIN Access 2.0 Introduction	£39
BVG003	WIN Access 2.0 Advanced	£39
BVG004	WIN Excel 5.0 Introduction	£39
BVG005	WIN Excel 5.0 Formulas & Functions	£39
BVG006	WIN Visual Basic 3.0	£39
BVG007	WIN Getting Started with Windows 3.1	£39
BVG008	WIN Word 6.0 for Windows	£39
BVG009	WIN Programming In C Introduction	£39
BVG010	WIN Programming In C++	£39

## J.I.T. Corel Training

An exciting new approach to learning CorelDraw!

All of JIT's products are designed to run in a parallel window to CorelDraw or Corel PhotoPaint. In that way the learner is able to work right along with the instructions, using either the graphics provided on the CD, or directly within their own application. A complete set of 'VCR-type' controls to pause, repeat and skip forward or backward within the relevant training make this the easiest way to learn Corel Draw.



JIT CorelDraw 3,4 or 5.....£29<sup>95</sup>

## EZ Language

Popular vocabulary & pronunciation tutor in Spanish, French, German, Italian, Russian and Japanese.

This CD is the fun and easy vocabulary and pronunciation tutor. In just minutes, you'll be learning new words and phrases in six foreign languages. See pictures with the words and listen to native speakers' voices. It's like having your own personal language instructor available at your command. This full multimedia approach makes learning fun, fast and it's perfect for travellers, students and anyone else who wants to communicate in a new language.

Words and phrases appear in both English and the foreign language to help you learn quickly. You can even search for a specific word to find its translation. If you have a sound card you'll be able to hear a foreign speaker pronounce the words properly and if you have a microphone, you will even be able to record your own voice to monitor your improvements.



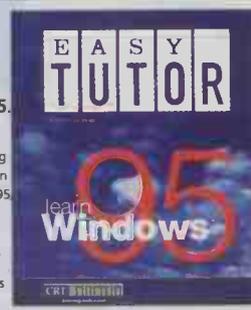
EZL001 EZ Language.....£33<sup>95</sup>

## EasyTutor - Learn Windows 95

The easiest way to get the most out of Windows 95.

EasyTutor gives you hands-on experience, animation, video and audio to help you learn Windows 95 quickly and easily. The new Intelligent Learning Technology™ (ILT) acts like your own personal tutor. EasyTutor includes ten separate modules addressing all of the features and benefits of Windows 95 plus a whole range of hints, tips and tricks. You can display your progress against features that you've chosen to learn with the Progress Map feature. Then you can test what you've learned with the Interactive quiz.

Included on the CD-ROM are both Windows 3.1 and Windows 95 versions so you can get to grips with Windows 95 before you've bought it.



EAS007 EasyTutor Learn Windows 95 CD .....£19<sup>95</sup>

## UTILITIES

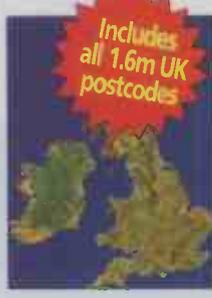
## Auto Addressing System

The Automatic Addressing System from Arc en Ciel is a database that holds all of the UK's 1.6million postcodes, covering all of Britain (including Northern Ireland).

With this unique Windows-based program you simply input a postcode and it will tell you the road name, town, city and county, which can then be directly pasted into most Windows applications, including Word, Excel, WordPerfect etc.

In the system are 24 million individual addresses across 1.6million postcodes. You can load the whole of the UK (taking up just 10Mb of hard disk space) or one of ten regions.

Additional features are the search facility, where you enter part of an address and find the postcodes; and a background operating mode where addresses can be referenced from a database system, including Access, FoxPro and Visual Basic.

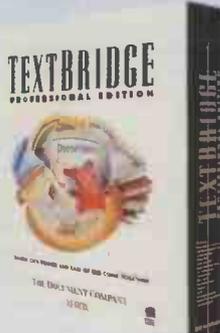


AOD004 Auto Addressing System.....£149<sup>95</sup>

## XEROX TextBridge

Windows-based OCR that redefines the industry standard. Buy now and receive a FREE upgrade to the Windows 95!

Textbridge lets you convert paper documents to electronic files on your PC. You can then edit, store and distribute the text within Windows applications. It features the highest level of accuracy, and at a fraction of the cost of other OCR. Requires scanner.



TEX002 TextBridge .....£67<sup>95</sup>  
TEX003 TextBridge Prof. ....£274<sup>95</sup>

## WinDelete V2

No other un-installer is safer or more thorough than WinDelete!

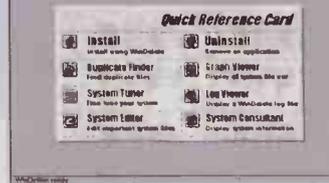
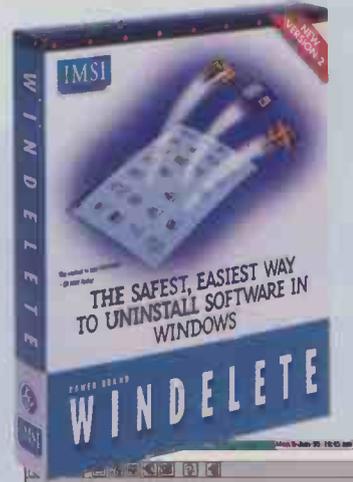
New WinDelete Version 2 is the latest version of this award winning Un-Installer program. This release offers new features and enhancements that it safer and safer to use, with a lot more power. Market research shows that today's users want a product that is safe and simple, without accidentally deleting files it shouldn't. WinDelete stands out in it's ability to meet these needs.

Application installations are monitored to enable better removal, covering every type of application and system support file. Comprehensive installation logs are maintained to ensure thorough removals. Changes are previewed before being executed, and the new range of tools facilitates better system management.

It's Green-Yellow-Red "traffic light" colour coding helps prevent accidental deletion of vital files, but allows all the dross to be removed, with an Undo/Restore option when you change your mind.

Features include:

- Intelligent un-installing of virtually every file type including Windows and DOS applications CD-ROM and display device drivers, unused system support files, fonts, temporary files, backup files, duplicate files, orphan files etc.
- Direct access to INI files with View, Edit, Backup, and Save;
- System Consultant that analyses your system and suggests changes to improve performance,
- System Tuner with hundreds of tips for optimising Windows performance and much more.



WIN050 WinDelete Version 2 .....£29<sup>95</sup>

A massive 32,000 items in stock across 3300 different product lines. Nobody delivers faster!

To Order By Telephone Call 01675 466 467

Order before 3pm, stocked goods shipped for next-day delivery.



**Index**

SUBJECT	PAGE
Introduction	2
Windows 95	3
Windows 95	4
Windows 95	5
Windows 95	6
Windows 95	7
Windows 95	8
Windows 95	9
Business S/W	10
Business S/W	11
Business S/W	12
Business S/W	13
Business S/W	14
Business S/W	15
CAD	16
3D Graphics	17
Comms	18
Comms	19
DTP & Forns	20
Graphics	21
Home/Leisure	22
Home/Leisure	23
Multimedia	24
Multimedia	25
Memory	26
Operating Sys.	27
Scanning	28
Storage	29
Training/Ed.	30
Utilities	31
Order Form	32

Page 30



Next-day Delivery  
£6<sup>95</sup>

# SOFTWARE WAREHOUSE

Utilities

## UTILITIES

### Dr Solomon's Anti-Virus Toolkits

Dr. Solomon's Anti-Virus Toolkits are the UK's Number One anti-virus utilities. They combat all known viruses in DOS, OS/2 Windows and Netware. systems.

Dr Solomon's range of Anti-Virus toolkits provide the best answer to the serious problem posed by viruses. Each toolkit is made up of four basic programs geared to locate, identify and destroy existing viruses and then protect your system.

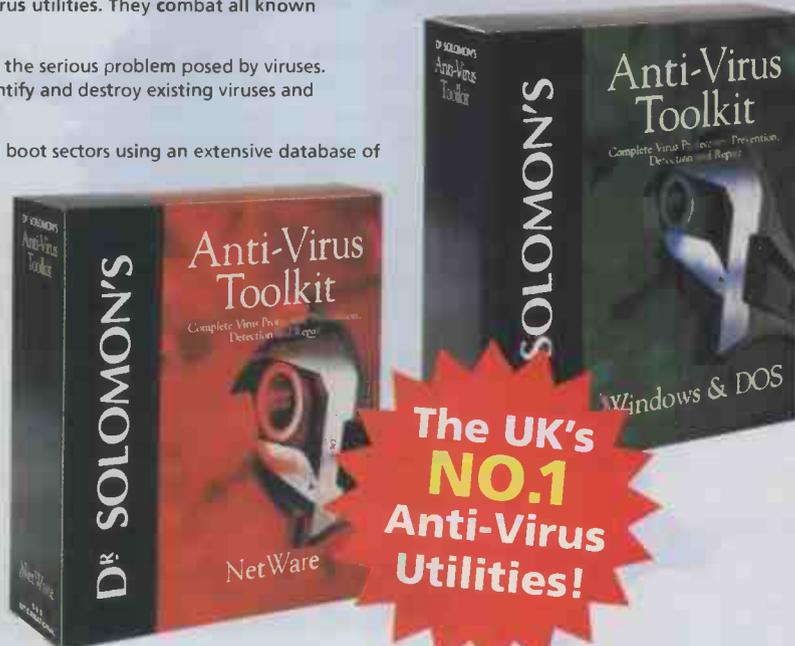
**FINDVIRUS** - Detects and identifies viruses in files, partition code and boot sectors using an extensive database of virus recognition information - a technology that won S&S the Queen's Award for Technology in 1993.

**GENERIC DECRYPTION ENGINE** - An amazing program that can actually detect those viruses that mutate, and avoid detection by looking different each time they infect a file.

**VIRUS GUARD** - This is the memory resident utility that is installed every time you restart your computer. It checks every program for viruses before it is opened or copied. A visual warning is displayed if there is any virus present.

Dr Solomon's range of Anti-Virus toolkits provide the best answer to the serious problem posed by viruses. Each toolkit is made up of four basic programs geared to locate, identify and destroy existing viruses and then protect your system.

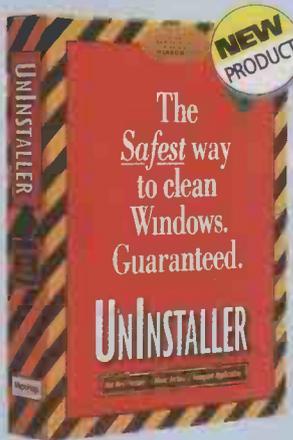
Dr Solomon's range of Anti-Virus toolkits provide the best answer to the serious problem posed by viruses. Each toolkit is made up of four basic programs geared to locate, identify and destroy existing viruses and then protect your system. Dr Solomon's range of Anti-Virus toolkits provide the best answer to the serious problem posed by viruses. Each toolkit is made up of four basic programs geared to locate, identify and destroy existing viruses and then protect your system.



The UK's  
**NO.1**  
Anti-Virus  
Utilities!

SOL002	Toolkit Win & DOS 1/4'ly .....	<b>£71</b>
SOL009	Toolkit Netware .....	<b>£299</b>

### Uninstaller V3



The No.1 selling Windows utility just got better!

Not only does Uninstaller 3 safely clean Windows, it goes beyond just deleting applications - Its unique technology allows you to:

Move applications and supporting data files to other drives while keeping all preferences and Windows settings intact.

Archive seldom-used applications and restore them with a single click.

Transport applications to other PCs with no re-install hassle.

Uninstaller 3 also includes two new modules, 'Disk Data' and 'Windows Cleanup'. Keep tabs on your hard drive space with Disk Data, a colour-coded graphical display that shows which files and applications are eating up disk space. And with Windows Cleanup you can remove Windows files, fonts, drivers, wallpaper, sounds and screen savers. Before deciding to delete or not, you can view or do a trial run.

UNI005 Uninstaller 3..... **£35<sup>95</sup>**

Next-day delivery only £6<sup>95</sup>

### GameRunner

The World's No.1 selling utility!

The most powerful memory manager for Windows, DOS and games! QEMM gets your programs more memory, so you get fewer out-of-memory errors and better performance. The gains are amazing: up to 634k of conventional memory.

The new version 7.5 includes special support for Dos, Windows, Stack and for DoubleSpace users. QEMM can add up to 40k of base memory.

QEM003 QEMM 7.5..... **£45<sup>90</sup>**



### QEMM v7.5

The World's No.1 selling utility!

The most powerful memory manager for Windows, DOS and games! QEMM gets your programs more memory, so you get fewer out-of-memory errors and better performance. The gains are amazing: up to 634k of conventional memory.

The new version 7.5 includes special support for Dos, Windows, Stack and for DoubleSpace users. QEMM can add up to 40k of base memory.

QEM003 QEMM 7.5..... **£45<sup>90</sup>**

### CleanSweep

Removes all unwanted or redundant files!

Windows applications create many files - both small and large - that end up scattered throughout the hard drive. When it's time to uninstall applications, these files need to be located, verified and removed to free up valuable hard drive space.

CleanSweep actively seeks out, cleans up and clears out duplicate, obsolete or unused files.

CLE009 CleanSweep..... **£31<sup>75</sup>**

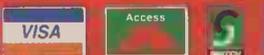


MAX004	DOS 386 MAX .....	<b>£29</b>
AFT004	WIN AfterDark V3 .....	<b>£26</b>
AFT002	WIN More AfterDark V3 .....	<b>£24</b>
CAL001	DOS Calendar Creator .....	<b>£19</b>
CEN004	WIN Central Point AntiVirus .....	<b>£69</b>
CEN003	DOS Central Point AntiVirus .....	<b>£59</b>
CHE005	DOS Checkit Pro .....	<b>£61</b>
COR005	DOS Corel SCSI .....	<b>£65</b>
DAS002	WIN Dashboard v2 .....	<b>£29</b>
DES005	WIN DesqView 386 V2.7 .....	<b>£69</b>
FAR002	WIN The Far Side Screen Saver .....	<b>£26</b>
FAS002	WIN Fast 5 Cache .....	<b>£19</b>
FRA006	WIN Franklin Ascend .....	<b>£145</b>
NEW001	WIN HP New Wave v4.1 .....	<b>£85</b>
ICOD01	WIN Icon Do It .....	<b>£23</b>
JUR001	WIN Jurassic Park Screen Saver .....	<b>£16</b>
LAB001	DOS Labels Unlimited .....	<b>£25</b>
LAP005	DOS LapLink .....	<b>£75</b>
LAP007	DOS LapLink for Windows .....	<b>£84</b>
MIC218	WIN MS Sound Bits Hanna Barbera .....	<b>£16</b>
MIC219	WIN MS Sound Bits MGM .....	<b>£16</b>
NOR021	WIN Norton Antivirus v3 .....	<b>£95</b>
NOR018	WIN Norton Backup v3 .....	<b>£69</b>
NOR003	DOS Norton Backup .....	<b>£69</b>
NOR020	WIN Norton Desktop v3 .....	<b>£89</b>
FRO15	DOS Norton First Aid .....	<b>£19</b>
NOR019	WIN Norton Speedrive .....	<b>£29</b>
NOR022	DOS Norton Utilities v8 .....	<b>£88</b>
NOR033	CD Norton Utilities for Windows 95 .....	<b>£99</b>
NOR031	WIN Norton Utilities for Win 95 on 3.5" .....	<b>£99</b>
NOR032	WIN Norton Utilities Trade-Up .....	<b>£49</b>
NOR034	WIN Norton AntiVirus for Windows 95 .....	<b>£65</b>
NOR036	WIN Norton Navigator for Windows 95 .....	<b>£80</b>
PIN004	CD Pink Panther Screen Saver .....	<b>£19</b>
OPU001	WIN Opus N' Bill Screen Saver .....	<b>£26</b>
T00008	WIN PC Tools v2 .....	<b>£49</b>
PCT001	WIN PC Tools v8 10-User .....	<b>£515</b>
PCT002	DOS PC Tools Pro .....	<b>£79</b>
QEM002	DOS QEMM 386 v7.5 .....	<b>£45</b>
RAM001	DOS RAM Exam .....	<b>£19</b>
SID003	WIN SideBar .....	<b>£29</b>
SST004	WIN Superstor Pro .....	<b>£29</b>
UNI005	WIN Uninstaller 3 .....	<b>£36</b>
XTR006	WIN XTree Gold v4 .....	<b>£59</b>
XTR004	DOS XTree Gold v3 .....	<b>£69</b>
XTR003	WIN XTree Gold for Networks v4 .....	<b>£139</b>

**PRICE PLEDGE**  
If you find it cheaper call us. We will beat ANY genuine advertised price.  
(See page 2 of this advert)

Page 31

**E&OE. All prices are plus VAT and delivery and are subject to change and availability.**



To Order By Telephone Call **01675 466 467**

Order before 3pm, stocked goods shipped for next-day delivery.



The widest product range, best prices & fastest delivery!



# HARD DISKS

UK's best combination of value, service and support from Allgem Ltd.

## 7 Day Money-Back Guarantee

On all hard drives for your complete peace of mind with...

## Unlimited Free Technical Support

Just a phone call away where you have...

## Mass Storage Experts

Who can solve any problems you may have. So why not ring Allgem's...

## Friendly & Helpful Sales Team

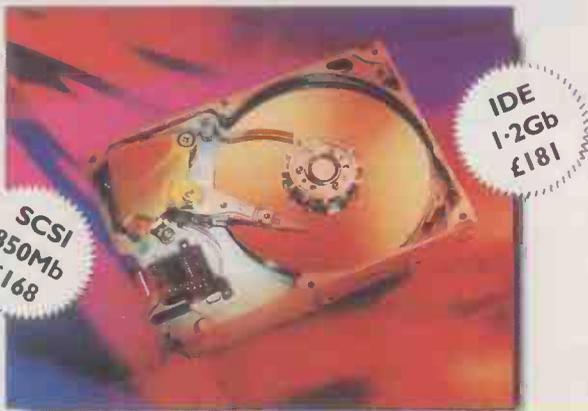
To discuss your requirements and with our...

## Fast Dispatch

You will have that extra capacity you need quickly from Allgem, an...

## Established Company

Which is committed to hard disks and your future with Allgem.



### IDE HARD DRIVES

IDE is the industry standard and is fast and easy to install. All drives listed below are mode 3 and capable of giving data transfer rates in bursts of up to 13.5 Mb/s.

#### 500 Mb and up

Make	Model	Capacity	Access	Cache	Size	Wrntly	Price/Mb	Price
Quantum	LT540AT	635.00Mb	11.0ms	128k	3.5" 1"	2yrs	0.22/Mb	£117
West. Digit.	WD2540	540.00Mb	12.0ms	64k	3.5" 1"	3yrs	0.21/Mb	£116
Quantum	MV540AT	540.00Mb	14.0ms	128k	3.5" 1"	2yrs	0.20/Mb	£109
Quantum	FB540AT	540.00Mb	12.0ms	128k	3.5" 1"	2yrs	0.21/Mb	£111
Maxtor	7540AV	540.00Mb	12.0ms	32k	3.5" 1"	2yrs	0.21/Mb	£111
Conner	CFS540A	540.00Mb	14.0ms	64k	3.5" 1"	2yrs	0.20/Mb	£109
Fujitsu	M1603AT	544.00Mb	10.0ms	256k	3.5" 1"	3yrs	0.19/Mb	£105
Seagate	ST3660A	545.00Mb	14.0ms	128k	3.5" 1"	3yrs	0.20/Mb	£111
IBM	85G3863	548.00Mb	12.0ms	96k	3.5" 1"	2yrs	0.21/Mb	£115

#### 600 Mb and up

These drives come with free software to overcome the 528Mb BIOS barrier (except quantum - add £33 for software if required).

Conner	CFS635A	635.00Mb	14.0ms	64k	3.5" 1"	2yrs	0.19/Mb	£118
West. Digit.	WD2635	635.00Mb	11.0ms	64k	3.5" 1"	3yrs	0.18/Mb	£113
Quantum	L1790AT	730.00Mb	11.0ms	128k	3.5" 1"	2yrs	0.17/Mb	£122
Quantum	TB850AT	850.00Mb	14.0ms	128k	3.5" 1"	2yrs	0.15/Mb	£124
West. Digit.	WD2850	850.00Mb	10.0ms	64k	3.5" 1"	3yrs	0.16/Mb	£136
Seagate	ST5850A	850.00Mb	12.0ms	256k	3.5" 1"	3yrs	0.15/Mb	£126
Conner	CFS850A	850.00Mb	14.0ms	128k	3.5" 1"	2yrs	0.15/Mb	£130
Maxtor	7850AV	853.00Mb	12.0ms	64k	3.5" 1"	2yrs	0.16/Mb	£134

#### 1 Gb and up

IBM	84G8998	1,000.00Mb	10.5ms	448k	3.5" 1"	3yrs	0.23/Mb	£229
Maxtor	71050A	1,000.00Mb	12.0ms	256k	3.5" 1"	2yrs	0.17/Mb	£173
Quantum	FB1800AT	1,080.00Mb	12.0ms	128k	3.5" 1"	2yrs	0.16/Mb	£172
West. Digit.	WD3100	1,083.00Mb	10.0ms	64k	3.5" 1"	3yrs	0.18/Mb	£196
Fujitsu	M1606AT	1,090.00Mb	11.0ms	512k	3.5" 1"	3yrs	0.16/Mb	£169
IBM	36G6850	1,200.00Mb	8.5ms	512k	3.5" 1"	5yrs	0.29/Mb	£347
Maxtor	71260A	1,260.00Mb	12.0ms	256k	3.5" 1"	2yrs	0.14/Mb	£181
Conner	CFS1275A	1,275.00Mb	14.0ms	64k	3.5" 1"	2yrs	0.14/Mb	£181
Conner	CFA1275A	1,275.00Mb	12.0ms	256k	3.5" 1"	2yrs	0.20/Mb	£261
West. Digit.	WD31200	1,281.90Mb	10.0ms	64k	3.5" 1"	3yrs	0.16/Mb	£199
West. Digit.	WD31600	1,600.00Mb	10.0ms	128k	3.5" 1"	3yrs	0.22/Mb	£352
Maxtor	71626AP	1,620.00Mb	12.0ms	256k	3.5" 1"	2yrs	0.19/Mb	£309

### SCSI HARD DRIVES

For larger and more powerful systems SCSI drives are more desirable. SCSI gives you the advantage of having devices externally as well as internally up to a total of seven on a chain. Also you have the option of not only hard disks but high performance scanners, tape backup, optical, CD Rom etc. N.B. you must have a SCSI interface to run SCSI devices.

#### 500 Mb and up

Fujitsu	M2684S	532.00Mb	12.0ms	256k	3.5" 1"	2yrs	0.23/Mb	£123
Quantum	FB540S	540.00Mb	12.0ms	128k	3.5" 1"	2yrs	0.23/Mb	£126
IBM	66G9743	548.00Mb	12.0ms	96k	3.5" 1"	2yrs	0.29/Mb	£160
Quantum	LT730S	730.00Mb	11.0ms	128k	3.5" 1"	2yrs	0.22/Mb	£157

#### 1Gb and up

Conner	CFP1080S	1,000.00Mb	11.0ms	256k	3.5" 1"	3yrs	0.27/Mb	£273
IBM	84G9001	1,000.00Mb	10.5ms	448k	3.5" 1"	3yrs	0.29/Mb	£289
IBM	74G7043	1,080.00Mb	8.0ms	512k	3.5" 1"	3yrs	0.30/Mb	£327
Quantum	FB1080S	1,080.00Mb	12.0ms	128k	3.5" 1"	2yrs	0.24/Mb	£258
Fujitsu	M1606S	1,090.00Mb	11.0ms	512k	3.5" 1"	5yrs	0.23/Mb	£247
HP	C3724S	1,200.00Mb	9.5ms	512k	3.5" 1"	5yrs	0.26/Mb	£316

#### 2Gb and up

IBM	86F0102	2,000.00Mb	9.2ms	512k	3.5" 1"	5yrs	0.35/Mb	£699
Micropolis	MIC4221	2,100.00Mb	8.5ms	512k	3.5" HH	5yrs	0.28/Mb	£594
Quantum	2100S	2,100.00Mb	9.5ms	512k	3.5" HH	5yrs	0.23/Mb	£493
Conner	CFP2105S	2,100.00Mb	8.5ms	512k	3.5" 1"	5yrs	0.25/Mb	£525
HP	C3725S	2,100.00Mb	9.5ms	512k	3.5" 1"	5yrs	0.26/Mb	£543
Fujitsu	M2903S	2,110.00Mb	11.0ms	512k	3.5" HH	5yrs	0.24/Mb	£499
Conner	CFP2107S	2,110.00Mb	8.5ms	512k	3.5" 1"	5yrs	0.27/Mb	£566
Quantum	XP32150	2,150.00Mb	8.0ms	1,024k	3.5" 1"	5yrs	0.27/Mb	£581
IBM	74G7044	2,160.00Mb	8.0ms	512k	3.5" 1"	5yrs	0.33/Mb	£707

#### 4Gb and up

Conner	CFP4207S	4,220.00Mb	9.0ms	512k	3.5" HH	5yrs	0.19/Mb	£793
Quantum	GP4280S	4,280.00Mb	8.6ms	512k	3.5" HH	5yrs	0.18/Mb	£757
Quantum	XP34300	4,300.00Mb	8.0ms	2,048k	3.5" HH	5yrs	0.22/Mb	£944
Micropolis	MIC3243	4,300.00Mb	8.5ms	512k	3.5" FH	5yrs	0.18/Mb	£759
IBM	74G7045	4,320.00Mb	8.6ms	512k	3.5" HH	5yrs	0.24/Mb	£1,056
Fujitsu	M2934S	4,350.00Mb	10.0ms	512k	3.5" 1"	5yrs	0.17/Mb	£726

#### 9Gb and up

Micropolis	MIC1991	9,100.00Mb	12.0ms	512k	5.25" FH	5yrs	0.16/Mb	£1,452
Audio Visual (A/V) Drives	MIC4221AV	2,100.00Mb	8.5ms	512k	3.5" HH	5yrs	0.30/Mb	£627
Micropolis	MIC3243AV	4,300.00Mb	8.5ms	512k	3.5" HH	5yrs	0.19/Mb	£825
Micropolis	MIC1991AV	9,100.00Mb	12.0ms	512k	5.25" FH	5yrs	0.17/Mb	£1,540

Please call for External SCSI and Wide SCSI

### ADAPTEC

SCSI Model	Name	Max Xfer Rate	Drivers	External connector type	Price
<b>ISA Bus</b>					
AHA1505 kit	Total CD	5Mb/s	1	25 pin apple	£69
AHA1522 kit	SCSI Direction	10Mb/s	1, 2, 3, 5	50 pin centronics	£100
AHA1542 kit	SCSI Master	10Mb/s	1, 2, 3, 5	50 pin centronics	£164
<b>EISA Bus</b>					
AHA2742 kit	EISA SCSI Master I	10Mb/s	1, 2, 3, 4, 5	50 pin micro D	£238
AHA2742W kit	EISA Wide SCSI Int	20Mb/s	1, 2, 3, 4, 5	68 pin wide	£357
<b>MCA Bus</b>					
AHA1640 kit	SCSI Channel	5Mb/s	1, 2, 3, 5	50 pin micro D	£190
<b>VL Bus</b>					
AHA2842VL kit	VL SCSI Master II	10Mb/s	1, 2, 3, 4, 5	50 pin micro D	£154
<b>PCI Bus</b>					
AHA2940 kit	PCI SCSI Master	10Mb/s	1, 2, 3, 4, 5	50 pin micro D	£199
AHA2940W kit	PCI Wide SCSI Int	20Mb/s	1, 2, 3, 4, 5	68 pin wide	£192

### TAPE BACKUP

Never have more not backed up than you can afford to lose. (Awkward sentence - frightening thought!)

#### SCSI DAT - DDS1

Make	Model	From Capacity	To Capacity	Int/Ext	Price
HP	C1520F	2Gb	—	Ext	£680
HP	C1525F	2Gb	—	Int	£573
HP	HP35470 ext	2Gb	—	Ext	£636
HP	C1521F	4Gb	8Gb	Ext	£766
HP	C1526F	4Gb	8Gb	Int	£650
HP	HP35480	4Gb	8Gb	Int	£622
HP	HP35480 Ext	4Gb	8Gb	Ext	£721

#### SCSI DAT - DDS2

Sony	SDT5200	4Gb	—	Int	£558
Sony	SDT5200 Ext	4Gb	—	Ext	£626
HP	C1528F	4Gb	16Gb	Int	£789
HP	C1529F	4Gb	16Gb	Ext	£913
HP	HPC1533	4Gb	16Gb	Int	£722
HP	HPC1533 Ext	4Gb	16Gb	Ext	£616
HP	SDT5000	4Gb	16Gb	Int	£672
Sony	SDT5000 Ext	4Gb	16Gb	Ext	£672
Sony	HPC1553	24Gb	96Gb	Int	£1,577
HP	HPC1553 Ext	24Gb	96Gb	Ext	£1,699

Hewlett Packard DATs can have warranty extended to 3 years On Site Maintenance.

### PANASONIC PD

This new device is a combined quad speed CD Rom and also a 650Mb rewritable optical. Yes, 650Mb disks to backup on or copy to. Think how many Gb's of easily accessible information you could carry in your pocket!

Model	Price
LF1004B	£493.00
LF1004BK	£544.00
LF1000E	£614.00
LF1004EK	£676.00
LMR650E	£43.00

### MICROPOLIS MICRODISKS

Model	Capacity	Price/Mb	Price
MDLT2100	2,100.00Mb	0.32/Mb	£675
MDLT4300	4,300.00Mb	0.20/Mb	£861
MDLS9100	9,100.00Mb	0.18/Mb	£1,666

#### A/V Audio Visual Drives

MDAV2100	2,100.00Mb	0.34/Mb	£715
MDAV4300	4,300.00Mb	0.21/Mb	£913
MDAV9100	9,100.00Mb	0.19/Mb	£1,727

### CD ROM

IDE Make	Model	Access	Cache	Xfer Rate	Int/Ext	Price
<b>Dual Speed</b>						
Aztec	CD A268-03i	315ms	256k	300.00 Kb/s	Int	£62
Goldstar	GCDR520B	230ms	64k	300.00 Kb/s	Int	£70
<b>Quad Speed</b>						
Aztec	CD A468-01i	235ms	256k	600.00 Kb/s	Int	£90
Goldstar	GCDR540B	190ms	128k	600.00 Kb/s	Int	£106
<b>Six Speed</b>						
Teac 'NEW'	CD56E	139ms	256k	900.00 Kb/s	Int	£209
<b>SCSI</b>						
<b>Dual Speed</b>						
Goldstar	GCDR320B	250ms	—	300.00 Kb/s	Int	£103
<b>Quad Speed</b>						
Sony	CDU76S	—	—	600.00 Kb/s	Int	£143
Plextor	PX43CS	125ms	256k	600.00 Kb/s	Int	£192
Plextor	PX44CS	125ms	256k	600.00 Kb/s	Ext	£278
Plextor	PX43C1	160ms	1,024k	600.00 Kb/s	Int	£247
Plextor	PX45CH	160ms</				

# Talk to the specialists in and ensure the right

## Why Sub Notebooks?

When you want portability but don't want to compromise on power.

- Windows loaded
- A5 size with full PC power
- Up to 9 hours working power
- Immediate use
- Mainstream performance
- Data security



### DIP Mobile Professional Pack

DIP's Mobile Professional Pack, a tailor made leather briefcase, complete with built-in removable computer power

supply and three pin, 13 amp power connector, gives you the ability to keep in touch with your e-mail, office computer system or commercial information services when you are out of the office, even when you are out of the country. The Nokia Cellular Data Card links your notebook to your Nokia digital phone enabling you to communicate as easily from across the continent as from across the street.

DIP's Mobile Professional leather briefcase has been made specifically for the mobile professional. But with flexibility in mind. The lid contains two spare PCMCIA card holders as well as an A4 paper pad or brochure department. Adjacent to this is the Nokia 2110 phone holder with the actual notebook computer being held firmly in place by a moulded tray. A power supply compartment

allows easy connection to the mains if required.

Mobile Professional Pack From **£2999**

The Mobile Professional Pack is available as a whole or components can be purchased separately

## Why HandHeld?

Have it with you at all times for extended use.

- 30-40 hrs. battery use
- Pocket sized
- Easy link to PC
- Built-in software
- PCMCIA Compatible
- Use straight out of box
- Fully expandable



### Psion Series 3a

- 80 Characters x 17 Lines
- Zoom into built-in applications

- 256KB **£199**
- 512KB **£209**
- 1MB **£249**
- 2MB **£299**

- Voice recording
- Graphic User Interface
- Link to your PC
- Built-in Time Management, Calendar, Database, Word Processor, Calculator, World Data, Programming Language, Spreadsheet
- Fax Modem **£154.95**

**Bundle Package**  
• Psion Series 3a  
• 512KB  
• PC Serial Link  
• Leather Case  
**£269**

AC Adaptor	£11.95	Series 3 Tools	£41.95
Series 3 256KB Model	£24.95	Paint and Compose	£49.95
PC Comms Link	£59.95	Agenda 3 Link	£42.95
Leather Wallet	£18.95	Aluminium Desk Stand	£14.95
Spreadsheet	£24.95	1MB RAM SSD	£188.95
Spellcheck Thesaurus	£28.95	128KB Flash	£26.95
Personal Accounts	£40.95	512KB Flash	£64.95
Games Pack 3	£24.95	1MB Flash	£88.95
Mac Comms Link	£59.95	2MB Flash	£138.95
Parallel Cable	£24.95	4MB Flash	£255.95
Fax Modem	£154.95	Timebase Solo	£94.95
Chess	£24.95	VT100 Emulator	£49.95
Prof Finance	£33.95	Data View	£48.95
Beritz Interpreter	£28.95	Wine Guide	£32.95
Finance Pack 3	£42.95	PSI W1A	£64.00

## Why do PICO guarantee the compatibility of all its PCMCIA products?

Pico has been involved in PCMCIA technology for over 5 years, sitting on the technical committee of the standards association. This has given us a unique insight into the companies and products involved in this technology. The result is that we have selected the best products in the marketplace offering you the user quality and performance at the most competitive prices. And we guarantee it!



**PCMCIA - Your Questions Answered**

### What are PCMCIA Cards?

Also called PC Cards, they are the size of a credit card. PC Cards enhance your computers capabilities. All PC Cards conform to the PCMCIA standard making it possible in theory to swap from one machine to another. In practice, as with any other evolving standard, there are some compatibility issues.

### What is Type I, II and III?

There are three types of PC Card with varying thicknesses, which determines its peripheral function.

**Type I Cards** - (3.5mm thick) are used for memory expansion (DRAM) to give your notebook extra memory to run programs. SRAM or Flash Cards give you additional data storage. These work in the same way as floppy disks.

**Type II Cards** - (5mm thick) are the most versatile.

Generally used for products such as modems, network connections, sound cards and SCSI connections for CD ROM and Multimedia.

**Type III Cards** - (10mm thick) are the newest introduction to the PC Card technology. The extra thickness of this card allows it to have rotating parts, and are thus used for mini hard disks.

### What are Card and Socket Services?

In the same way that attaching a network card or another peripheral to your PC requires software to operate the device, Card and Socket Services are the software drivers which control the PC Cards. There are three main vendors of this software: Phoenix, Systemssoft and Award. This software allows you to configure your card to suit your machine and system setup.

My PCMCIA Modem can be installed without Card and Socket services, I thought I always needed Card and Socket Services?

Some PC cards have software direct enablers which mean they do not need Card and Socket Services. This makes installation even easier and also saves on system memory.

### Can I use my PC Card on my PC?

Simply add a PCMCIA slot to your PC with a card reader, either internally through an interface adaptor or externally through the parallel port. The slots act as additional drives, so you can copy and fax to your PC Card. To run Type II products through your PC you need an internal PCMCIA reader.

### How do I link my mobile system to a CD ROM using my PCMCIA slot?

Use a PCMCIA SCSI card link to a CD ROM drive or other SCSI devices such as scanners, cameras and multimedia products.

### What is the difference between SRAM and Silicon disk?

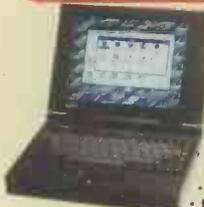
SRAM cards are battery backed storage cards with a battery life of over 2 years. Silicon disks have no battery and operate like mini hard disks.

### I have heard people mention 32 bit bus cards & Berlin. What's it all about?

The PCMCIA committee will soon issue the next release of specifications (Version 3, code-named BERLIN and now called the PC Card standard) and this will bring with it several new and exciting features. The most important of these are 32 bit bus capabilities and dual function cards. Basically 32 bit will give faster throughput than the current cards which are 16 bit. As is implied, dual function cards will be able to perform more than one task.

### I'm very confused about the whole issue of PCMCIA cards, Socket Services, enablers, SRAM, Flash. What happens if I need help?

Simply ring and speak with our Technical support department, who will be able to give both Pre & Post sales advice and support. And don't forget we guarantee that all the PC Cards listed and sold by Pico Direct will work with the appropriate card slot.



### HP Omnibook 4000

- 486, up to 100MHz DX4
- 4 or 8MB RAM
- Up to 32Mb
- Up to 520MB HDD
- Built-in stereo sound
- 10.3" DSTN or 10.4" TFT
- Centered Trackball
- Infra-red port, serial, parallel, audio
- PCMCIA Type II Slot
- Enhanced Port Replicator
- 3 year warranty

Omnibook 4000 From **£1639**

NEW OMNIBOOK 5000 P/90 1GB HARD DISK



1MB **£389.95**  
2MB **£429.95**

**Bundle Deal**  
200LX + 1MB Memory Card **£499**

### HP200LX Palmtop PC

- 1MB & 2MB versions available
- 11oz of PC Power in Your Pocket
- 80 columns by 25 lines
- MS DOS 5.0
- Complete suite of built in applications- CC Mail, Database, Lotus 1-2-3 & Pocket Quicken
- PCMCIA Version 2 Type II
- HP Financial Calculator
- 40 hours on 2 x AA alkaline batteries



600C 2/50 170MB **£1499**  
600C 4/75 170MB HD 8MB RAM **£1769**

### HP Omnibook 600

#### SUPERPORTABLE PC

Technology for freedom. No other PCs are as ready to go or as easy to use right out of the box.

- Desktop capability in your hand
- Intel DX2 50/DX4 75
- MS DOS 6.2, Windows 3.11
- 170MB PCMCIA Type III Hard disk
- Smallest notebook PC available (11.1x7.28x1.57")
- 4MB and 8MB RAM, Upgradeable
- VGA-Out Port
- Comes with external 3.5" Floppy disk drive
- Infra red data transfer
- 3 year warranty
- Up to 4 hours battery life
- 1.72kg (3.8lb) weight

#### MODELS & CONFIGURATIONS

MODEL	PROCESSOR	HARD DISK	RAM	SCREEN	PRICE
170	486 DX2/50	170MB	4MB	8.5 DSTN	£1499
260	486 DX2/50	260MB	4MB	8.5 DSTN	£1559
170	486 DX4/75	170MB	8MB	8.5 DSTN	£1769
260	486 DX4/75	260MB	8MB	8.5 DSTN	£1879



Nokia 2110 Phone **£199**  
INC. CONNECTION

### Nokia Cellular Data Card

Link your notebook to your Nokia digital handportable phone, enabling you to send and receive faxes and to check your e-mail as easily from across the continent as from across the street

- PC Fax to 9600bps
- Short message service
- Built-in error correction

**FREE Tel-Me Software Included**

Nokia Cellular Data Card with FREE SMS software **£479**

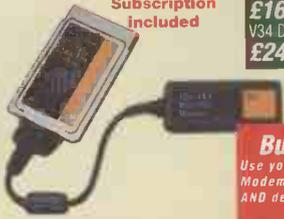
**NOW AVAILABLE**  
Cellular Data Card for Ericsson, Siemens & Sony Handsets **£469**



**To Order, Call 01483 202022**

# PCMCIA & Mobile Computers... solution for you.

• Internet Ready •  
**FREE** Introductory  
Subscription  
Included



IBM V32bis  
V34 Data/Fax  
Modem  
**£169**  
**£249**

**Bundle Deal**  
Use your PCMCIA IBM  
Modem on your notebook  
AND desktop.  
**PC Card Drive + IBM  
V32bis Data/Fax  
Modem**  
**£289**

## IBM 14.4/14.4 Fax/Data Modem

- Data Rate of 57.6kbps with v.42bis data compression
- Fax rates of 14.4Kbps
- Software support for multiple PCMCIA modems and any coms port
- Cellular ready capability - MNP10. External DAA for world-wide support capability
- Diagnostics software
- Operates with or without Card and Socket Services
- Feature upgrade flexibility
- 2,4/9.6 Data/Fax modem also available
- Durable stainless steel packaging

## IBM/PICO ETHERNET ADAPTOR CARDS

- 10Base-T and 10Base2 Ethernet, LAN cards for portable computing applications.
- PCMCIA Version 2.
  - MS Windows compatible.
  - Novell certified.
  - MS Windows for Work Group certified



**Only £139**

## PREMAX COMBO CARD

The PE-200C from Premax, a Netware compatible 10BASE-T Ethernet Local Area Network (LAN) adaptor card, provides PC Card network connectivity with Novell's Netware, IBM's LAN Server, Banyan's VINES, and Microsoft's Windows for Workgroups.

- Easy installation
- 10BASE-T, Model PE-200T
- 10BASE-T, 10BASE-2 connectors, PE-200C
- 16 bit bus
- 16KB data buffer
- No external power required for operation
- Card and socket services support
- Hot swap card insertion and removal
- Software configurable
- LED diagnostics and monitoring indicators
- Automatic polarity detection and correction for UTP cable
- 1 Year warranty

**Only £149**

## IBM/PICO TOKEN- RING I/O CARD

Provides attachment to Token-Ring LANs operating at either 16Mbps or 4Mbps.

- PCMCIA Version 2.
- Operates with DOS 5.0, PC LAN Program (PCLP) v.1.34 and Novell Netware v.3.11.
- Driver support includes NDIS and ODI.
- Complies with IEEE 802.5 and 802.2.

**Only £249**



## IBM/PICO RS-232 SERIAL CARD

Complete RS-232 connectivity in the hands of mobile business professionals. The card allows quick and easy expansion to add peripherals like modems, serial printers, scanners and mouse devices at rates of up to 115.2Kbaud.

- Operation with or without Card and Socket services.
- Support for multiple PCMCIA RS-232 cards.
- Query facility for card status.
- Complete with installation and diagnostic utilities.
- Compatible with virtually all of today's operating systems.

**Only £179**



## PCMCIA CD-ROM DRIVE

This PCMCIA unit requires NO EXTERNAL POWER, making it the ideal choice for taking multimedia on the road.

- Single 5V operation, Low power consumption; 120mA (sleep), 250mA (standby), 800mA (peak)
- Double speed data transfer rate; 307.2 Kbytes/sec
- Data capacity; 635MB
- Average access time; 350ms (1/3 stroke)
- 64KB memory buffer
- Motorized tray loading, no caddy required
- MSCDEX compatible
- Supports CD-DA, CD-ROM mode 1 and 2, CD-XA, Multi-session Photo CD and CD-I
- 16bit, 44.1kHz sampling Audio output with front volume control
- Data integrity 1 error in 10<sup>16</sup> bits

**Only £239**



## IBM/PICO 16-BIT AUDIO ADAPTOR

For high definition, 16-bit stereo sound for presentations, text to speech, Voice Command Navigation, videogames and MIDI applications.

- PCM recording and playback either standalone or through multi-media functions in Windows or OS/2.
- Basic Voice Command Navigation allowing the user to give verbal commands to Operating Systems or applications (Extended Audio Interface Module only).
- Text-to-speech translation.
- Sound Blaster emulation.

**Only £229**



## IBM/PICO SCSI ADAPTOR CARD

For medium speed, low power SCSI bus peripherals such as optical and tape drives.

- PCMCIA Version 2.
- Hot insertion and removal.
- MS Windows compatible.
- Multimedia PC (MPC) compatible.
- DMA emulation for high performance.
- 3MB/s average sustained transfer rate.
- Low power - 180mA active & 40mA standby

**Only £169**

## ACCURITE FLOPPY SUB-SYSTEM

Move data to and from disk through the PCMCIA slot.

- 3.5" 1.44MB floppy disk drive
- For palmtops and notebooks

**Only £299**



## CARD READERS

Allows you to operate all of your PC cards - LANs, Fax/Modems, type III ATA hard drives and memory cards on your desktop.

- Internal and external as well as one, two or four slots available.
- Package includes: driver software and CardTalk control panel GUI.
- No modifications needed to systems or application software.
- Card activity detection lights on front panel.
- Self-installing software,

**Only £149**



## PCMCIA DEVELOPERS GUIDE

450 pages of up-to-date information about PCMCIA topics.

- Design examples
- What software required?
- PCMCIA, EXCA or Quikswap?

**Only £109**



## PCMCIA MEMORY

128KB SRAM	£39.95
256KB SRAM	£54.95
512KB SRAM	£84.95
1MB SRAM	£95.95
2MB SRAM	£129.95
512KB PLUS (1MB Data Storage)	£110.95
1MB PLUS (2MB Data Storage)	£195.95
2MB PLUS (4MB Data Storage)	£295.95
5MB Silicon Disk	£269.95
10MB Silicon Disk	£301.00
20MB Silicon Disk	£659.95
30MB Silicon Disk	£849.95
40MB Silicon Disk	£959.95

## DRAM Memory

DRAM expansion cards allow you to increase the resident RAM storage in your mobile computer without physically modifying the computer. Increasing RAM greatly improves program operation and efficiency.

PRODUCT/MODEL	PRICE
<b>IBM</b>	
700/720/750/760/PS/755/760/340/360/Butterfly	
4MB	£154
8MB	£279
16MB	£589
32MB	£1090
<b>TOSHIBA</b>	
1900/1910/4500/4600/4700/4800/1950	
8MB	£279
16MB	£499
32MB	£1049
<b>COMPAQ</b>	
<b>LTE LITE</b>	
4MB	£139
8MB	£239

## Hewlett Packard

Omnibook 600 - 4MB £239 8MB £379  
Omnibook 4000 - 4MB £179 8MB £369 16MB £699

Pico Direct is part of the DIP Group of companies. The DIP Group designs, develops and markets pocket computers for the mobile business professional. DIP Research began the design and development of pocket computer technology in 1986 and has since licensed its technology to major manufacturers such as Atari, Infos and Sharp Electronics.

- Established 8 years. Multi million pound company.
  - Designers & developers of hand held computers.
  - Unequaled technical support.
  - Free expert advice.
  - Free PCMCIA and product catalogue.
  - Major suppliers to the corporate and public sectors.
  - Full manufacturer's warranty.
  - Credit cards not debited until despatch.
  - Low prices.
- WE WILL NOT BE BEATEN ON PRICE.

## How to Order 3 easy ways

- 1 Call us now on 01483 202022
- 2 Fax us your order on 01483 202023
- 3 Send cheque/postal order or Access/Visa/Switch/Amex card

details to:-

**PICO DIRECT**  
The Technology Centre  
Weston Farm, The Street  
Albury, Surrey, GU5 9BZ

Send or call for free Product and PCMCIA Directory for further listings. Prices exclude VAT. Delivery £8 next day, £6 2-3 day. Ask about extended warranty.

VISA ACCESS SWITCH AMEX

**pico**  
DIRECT



To Order, Call  
**01483 202022**

# ESL

**HEAD OFFICE & SHOWROOM:**  
342 Queenstown Road,  
Battersea, London SW8 4NE  
Tel: 0171 498 7816. Fax: 0171 498 3218

**NEWCASTLE OFFICE & SHOWROOM:**  
Image House  
Carloli Square  
Newcastle Upon Tyne NE1 6NQ  
Tel: 0191 222 0068. Fax: 0191 221 1011



## ESL 486 VLB

- Vesa Local Bus motherboard
- Upgrade with ZIF socket
- Latest AMI WIN BIOS
- 256K cache memory
- 8MB SIMM Memory upgradable to 64MB
- Western Digital Enhance IDE hard drive
- 1.44MB Mitsubishi floppy drive
- VLB ENHANCE IDE controller card
- 2 serial, 1 parallel and 1 game port
- VLB 1MB Cirrus Logic 5429 (New)
- Desktop or Minitower case with 200w PSU Minitower
- 14" Samsung SVGA Syncmaster 3 LR monitor MPR11
- 102 key enhance UK Keyboard

### Upgrade options:

Extra 8MB RAM	£209
15" Samsung 15GL monitor	£80
17" Samsung 17GLS monitor	£380
17" Idek Vision Master monitor	£360
Midi Tower case & 230W PSU	£23
Full Tower case & 230W PSU	£46
Cherry soft touch keyboard	£10
Fujitsu ergonomic keyboard click	£15
Microsoft natural keyboard	£49
Dos 6.22 & Windows 3.11 Workgroup	£59
MS Windows 95	£89
3 button mouse & mat	£10
Microsoft Mouse V2 2 button	£29
Fax modem US Robotics Sportster	£129
Quad speed CD Rom drive	£119



SYSTEM PRICE	540MB	650MB	850MB	1.2GB	1.6GB
486DX2/66MHZ INTEL	£709	£719	£739	£809	£979
486DX2/80MHZ AMD	£699	£709	£729	£799	£969
486DX4/100MHZ AMD	£709	£719	£739	£809	£979
486DX4/100MHZ INTEL	£739	£749	£769	£839	£1009

System with 8MB Simm RAM, 2 x fast serial and enhance parallel ports.  
MS Windows 95 pre load @ £89

### Multimedia Upgrade Options:

1. **Mitsumi Quad Speed package:** £209  
Sound Blaster 16; Mitsumi FX400 quad speed CD Drive; Speakers; MS Encarta 95.
2. **NEC/Toshiba package:** £289  
Sound Blaster AWE 32; NEC/Toshiba quad speed CD Drive' 25W Speakers.
3. **Sound Blaster Multimedia Home CD:** £319  
Sound Blaster 16 ASP Card; Quad speed CD Drive speakers; MS Works; MS Publisher; Encarta 95; Bookshelf 94; Ancient Lands; Dangerous Creatures; Scenes; Musical Instruments Cinemania 95; Golf; Syndicate; Ultima VIII Strike Commander; Wing Commander II.

### 486DX 4/100 PCI

#### AMD® PROCESSOR

#### INTEL® PROCESSOR

- 256K Cache memory
- Latest Phoenix BIOS
- Upgradeable to Pentium
- 8MB Simm memory
- Western Digital IDE enhance
- 1.44MB Floppy drive
- Built in enhance IDE & FDD
- 2 fast serial & parallel port
- 1MB Diamond stealth 64D
- Minitower & 200W PSU
- 14" Samsung monitor
- 102 key UK keyboard

### PENTIUM® PROCESSOR

#### 75 MHz ZAPPA

#### 90 MHz ZAPPA

- Intel Zappa Motherboard
- 256K Cache memory
- Plug & Play BIOS
- 8MB Simm memory
- Western Digital IDE enhance
- 1.44MB Floppy drive
- PCI enhance IDE
- 2 serial 1 parallel 1 game
- 1MB Diamond Stealth 64D
- Minitower & 200W PSU
- 14" Samsung monitor
- 102 key UK keyboard

### PENTIUM® PROCESSOR

#### 90 MHz ENDEAVOR

#### 133 MHz ENDEAVOR

- Intel Endeavour Motherboard
- 256K Cache memory
- Plug & Play BIOS
- 16MB EDO RAM
- Western Digital IDE
- 1.44MB Floppy drive
- Built in Enhance IDE controller
- 2 fast serial + parallel port
- 2MB Matrox Millennium W RAM
- Minitower & 200W PSU
- 15" Samsung monitor
- Cherry soft touch keyboard

### NT WORKSTATION

#### DUAL P90® PROCESSOR

#### DUAL P100® PROCESSOR

- Intel Naptune chipset
- 512K Cache memory
- Support flash BIOS
- 32MB Simm RAM
- Built in PCI SCSI Controller
- 1.44MB Floppy drive
- EISA 3 Com 3C579 card
- 2 x fast serial & parallel port
- 2MB Diamond stealth 64 VRAM
- Minitower & 200W PSU
- 15" Samsung 15GL monitor
- Cherry soft touch keyboard

650MB £769 / £799	650MB £929 / £1009	650MB £1549 / £1929	SCSI 520MB £2499 / £3109
850MB £789 / £819	850MB £949 / £1029	850MB £1569 / £1949	SCSI 1GB £2639 / £3249
1.2GB £859 / £889	1.2GB £1019 / £1099	1.2GB £1639 / £2019	SCSI 2 GB £2939 / £3549
1.6GB £1029 / £1059	1.6GB £1199 / £1279	1.6GB £1809 / £2189	SCSI 4GB £3139 / £3749

Warranty: All ESL systems are covered by 3 year Return to Base warranty; First year includes parts & labour; second and third years free labour. Optional on-site warranty available @ £35. 14 days money back guarantee. Free lifetime telephone support.

CALL ESL NOW ON 0171 498 7816

**MOTHERBOARDS**

**OTHERBOARDS**  
£40MHz £39

**LOCAL BUS MOTHERBOARD**  
WIN BIOS with password UMC  
Cache + 3x 16 bit & 1x 8 bit slots; CPU upgradeable; Max. 64MB;  
Socket 4 x 30pin + 2 x 72pin SIMM sockets; or 4 x 72pin SIMM sockets.  
K2/66MHz 256K Cache INTEL £149  
K2/66MHz 256K Cache INTEL £109  
K4/100MHz 256K Cache INTEL £189  
K2/80MHz 256K Cache AMD £159  
K4/100MHz 256K Cache AMD £159

**OTHERBOARD**  
nix BIOS 3 x PCI + 4 x ISA slots; 4 x 72 pin SIMM socket; Built in  
enhance IDE £199  
K4/100 256K Cache INTEL £499  
K4/100 256K Cache AMD £499  
+ Built in enhance IDE + FDD controller; Built in fast serial ports and  
+ port .....add £30

**PENTIUM ZAPPA MOTHERBOARD TRITON CHIPSET**  
m 75MHz 256K £299  
m 90MHz 256K £369

**PENTIUM ENDEAVOR MOTHERBOARD TRITON CHIPSET**  
ine Intel motherboard; AMI Flash Bios; 256K Cache upgradeable to  
pipeline cache; on board enhance IDE FDD & 2 x fast serial IPIG  
on board Sound Blaster 16; Windows 95 Plug & Play ready.  
ms socket 7 £429  
90MHz £429  
100MHz £469  
133MHz £819

**TRINTRON CHIPSET PENTIUM MOTHERBOARD. AMI Flash Bios,  
& play ready; Trintron chipset support burst pipeline cache, 3xPCI  
16 bit slots, built in fast serial + parallel ports**  
m 75MHz £299  
m 90MHz £429  
m 100MHz £469  
m 133MHz £819

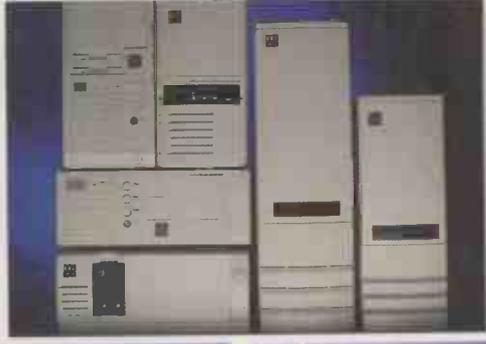
**DISPLAY CARDS**

Trident 8900 Chip with 256K £25  
Trident 8900D Chip with 1MB £47

**VEESA LOCAL BUS DISPLAY CARDS**  
All support 16 million true colours

Cirrus Logic 5429 1MB £49  
Cirrus Logic 5429 2MB £99  
Diamond Stealth 64D Vedio 1MB DRAM £89  
Diamond Stealth 64D Vedio 2MB DRAM £129  
Diamond Stealth 64 Vedio 2MB VRAM £229  
Diamond Stealth 64 Vedio 4MB VRAM £349  
MPEG daughter board for Diamond £189  
MATROX MGA Ultima Plus 2MB VRAM £289

**PCI Graphic Accelerator**  
Diamond Stealth 64D 1MB DRAM £89  
Diamond Stealth 64D 2MB DRAM £129  
Diamond Stealth 64 Vedio 2MB VRAM £149  
Diamond Stealth 64 Millennium 2MB VRAM £219  
MATROX MGA Millennium 4MB VRAM £439  
Orchid Fahrenheit 64 1MB £119  
Orchid Fahrenheit 64 2MB £249  
Orchid Fahrenheit Pro 64 4MB £349  
Vediologic Graphix Star 500 1MB £139  
Vediologic Graphix Star 500 2MB £189  
Vediologic Graphix Star 700 2MB £269  
Vediologic Graphix Star 700 4MB £389



**CASES & POWER SUPPLY UNITS**

Desktop & 200W PSU 2x5.25" 2x3.5" £39  
Deluxe Desktop & 230W PSU 2x5.25" 2x3.5" 1x3.5" 1x3" 2HD £49  
Slimline & 230W PSU 2x5.25" 2x3.5" £55  
Mini tower & 200W PSU 2x5.25" 2x3.5" 1x3.5" 1x3" 2HD £39  
Deluxe Mini tower & 200W PSU 2x5.4" 2x3.5" 1x3" 2HD £49  
Mini tower & 200W PSU 2x5.25" 2x3.5" 1x3.5" 1x3" £49  
Midi tower & 200W PSU 3x5.25" 2x3.5" 1x3.5" £59  
Midi tower & 230W PSU 3x5.25" 2x3.5" 1x3.5" 1x3" £69  
Full tower & 230W PSU 4x5.25" 2x3.5" 2x3" 2" 2HD £79  
Full tower & 230W PSU 4x5.25" 2x3.5" 2x3.5" 1x3" 2HD £89  
200W/230W/250W Power Supply Unit £29/£35/£44  
Multimedia case with 20W speakers 2x5.25" 1x3.5" £79

**SOFTWARE**

MS Windows 95 £89  
Microsoft DOS 6.2 £39  
Microsoft Windows NT 3.5 £229  
OS/2 Warp £39  
Microsoft DOS 6.2 & MS WINDOWS 3.11 £59  
MS Office WA3 PRO win £429  
MS Works win £69  
Lotus Smart Suite v3 for Win £329  
Lotus Smart Suite v3 for Win Upgrade £229

**MONITORS**

14" Mono VGA monitor £79

**Samsung Syncmaster with 2 Year on-site maintenance**  
14" Syncmaster 3 NI 800 x 600 £159  
14" Syncmaster 3NE NI 1024 x 768 £189  
15" Syncmaster 15GL NI 1024 x 768 £249  
15" Syncmaster 15GL 1280 x 1024 new plug & play £269  
17" Syncmaster 17GL 1280 x 1024 at 60Hz £519  
17" Syncmaster 17GLS 1600 x 1200 at 60Hz £569  
20 Syncmaster 20GLS 1280 x 1024 at 76Hz £899

**idek Monitor with 3 year return to manufacturers warranty & on site option**  
18" Vision Master MFB115 0.28mm 30-65Hz 1 year warranty £259  
17" Vision Master MFB17A 0.26mm 23-88KHz £529  
21" Vision Master MFB221 0.28mm 24.8-88KHz £1249  
21" M19121 0.30mm AG 24.8-92KHz £1299  
21" Vision Master MFB21 0.28mm 24.8-85KHz £1445  
3 year on-site warranty for 17" £60  
3 year on-site warranty for 21" £70

**Nokia with 1 year return to base warranty**  
17" 447V 1024 x 768 at 80Hz with 2W speakers £479  
17" 447X 1280 x 1024 at 76Hz £769

**Sony with 1 Year return to base warranty**  
15" SFT Trinitron £309  
17" SFI £599  
17" 17SE 1 Trinitron (New) £819  
20" 20SE 1 Trinitron £1399

Anti Glare Screen Filter for 14" £22  
Monitor extension cable £18  
Monitor splitter cable £18

**MEMORY MODULE**

1MBx9 70ns (3 chips) £29  
4MBx9 70ns £99  
4MB 72 pin 32 bit £95  
8MB 72pin 32 bit £189  
16MB 72pin 32 bit £309  
16MB 72pin 60ns 32 bit £319  
8MB 72pin 32 bit £239

**FLOPPY DRIVES**

3.5" 3.5" Mitsubishi Floppy Drive £22  
3.5" 3.5" Panasonic Floppy Drive £36  
3.5" 3.5" Canon/TEAC Dual Floppy Drive £89  
to 5.25" adaptor Frame & Power converter £5  
3.5" 3.5" heads £29  
Internal HDs, preformatted 50 £60  
radio Jumbo 250MB internal £149  
radio Jumbo 700MB internal £229

**HARD DRIVES**

Term Digital Caviar Series 3.5" IDE 3 Year Manufacturer Warranty  
enhance series are Enhance IDE Drives

AB AC2635 11ms 64K Cache £119  
AB 10ms AC2850 64K Cache £139  
AB AC31200 10ms 64K Cache £379  
AB AC31600 10ms 64K Cache £379

**Cache 3.5" IDE 3 Year Manufacturer Warranty**  
VB ST3660A 12ms 256K Cache £109  
VB ST5850 12ms 256K Cache £139  
ST31 220A 12ms 256K Cache £179

**Capacity 3.5" fast SCSI II 5 Year Manufacturer Warranty**  
M4221 8.5ms 512K Cache £599  
M3243 8.5ms 512K Cache £799  
M1991 12ms 512K Cache £649  
M4221 AV 8.5ms 512K Cache £849  
M3243 AV 8.5ms 512K Cache £849  
M1991 AV 12ms 512K Cache £1499

**su 3.5" fast SCSI II 2 Year Manufacturer Warranty**  
NB M2684S 12ms 256K Cache £139  
M16265 10ms 512K Cache £249  
M2932S 10ms 512K Cache £269  
M2934S 10ms 512K Cache £329  
GB SCSI £499

**Adaptors & Cables**  
HDD Adaptor £4  
Cable 3 Heads £9  
Cable 3 Heads £15  
Cable 6 Heads £19  
available Hard Drive Rack for SCSI £29  
available Hard Drive Rack for SCSI £29  
Internal SCSI Box 1x5.25" with 40w PSU £59  
Internal SCSI Box 2x3.5" with 40w PSU £79  
Internal SCSI Box 4x3.5" with 150w PSU £99

**SOUND CARDS**

Sound Blaster 16 value £65  
Sound Blaster 16 AWE 32 £169  
Sound Blaster AWE 32 value £129  
Vedio Blaster £39  
Sound Blaster compatible 16 bit £99  
4W speakers £12  
15W speakers with AC adaptor £16  
Grisos Ultrasound £269  
4W speakers £49  
20W speakers with AC adaptor £49  
80W speakers with adaptor £49  
Audio cable for CD Rom Drive £5

**CD-ROM DRIVES**

Panasonic CR5628 dual speed with cables £69  
Mitsumi FX4000 quad speed with cables IDE £105  
Toshiba XA53028 quad speed with cables IDE £129  
NEC quad speed with cables IDE £129  
Toshiba XA3601B quad speed internal SCSI £219  
NEC & PLEX 6 speed internal SCSI £279  
TEAC CD56 6 x speed IDE interface £199  
Pioneer DRU124X quad speed internal SCSI £259  
Nakamichi MBR-7 CD Changer £1599  
Philips CDD 522 CD Writer £499  
Panasonic PD Drive Quad CD & 650MB optical £549  
Panasonic PD Drive Internal Kit with SCSI controller £629  
Panasonic PD Drive External Kit with SCSI controller £45  
650MB Media £49

**MULTIMEDIA PACKAGE**

Sound Blaster Multimedia Home CD £279  
SB16 ASP, Quad Speed Drive; speakers; 14 CD's  
Sound 16 bundle £139  
16 bit sound card; Double speed CD; speakers, Grioler  
Quad Speed CD Bundle £199  
SB16, Mitsumi FX400, Encarta 95, Speakers 4W £29  
MS Encarta 95 £10  
Grioler Encyclopedia £20  
Corel Draw V3 £145  
CD Bundle: MS Encarta 95, MS Works, Golf, Dangerous Creatures £49

**CONTROLLER CARDS**

Card with 2 serial, 1 parallel, 1 game port £10  
Card control 2 HDD 2 FDD with 25/1PIG ports & cables £15  
bit IDE card control 2HDD 2FDD with 2 x 16550 UART IPIG ports £19  
Enhance IDE card control 4HDD 2FDD with 2 x 16550 UART IPIG ports  
Enhance IDE card control 4HDD 2FDD with 2 x 16550 UART IPIG ports  
Box support mode 3, 4, 5 £49  
IDE + FDD Controller with fast serial ports £49  
mice DC4030V VESA Local bus IDE Cache controller £95  
IDE controller £29

**FAX/MODEM**

Fax/Modem Int. 14400/14400 with Winfax Des Fax Kit £59  
Fax/Modem/Win 14400/14400 with software £69  
Fax/Modem card 14400/14400 with Winfax & DOS fax lite BAST app £79  
US Robotics Sportster 14.4 + Fax Int. £109  
US Robotics Sportster 14.4 + Fax Ext. £109  
US Robotics Sportster 28800 + Fax Ext. £169  
US Robotics Sportster 28800 Int. £239  
US Robotics Courier v34 + Fax Ext. £149  
US Robotics Worldport 28.800 PCMCIA £145  
Modem cable 9.25 pin or 25-25 pin £6

**SCSI CONTROLLER CARDS**

laptec 1542 Bareboard £119  
laptec 1542C ISA SCSI HDD & FDD Controller kit £169  
laptec 2742C EISA SCSI HDD & FDD Controller kit £269  
laptec 2842C VLB SCSI HDD & FDD Controller kit £189  
laptec 2940 PCI SCSI HDD & FDD controller kit £269  
laptec 294D PCI SCSI HDD & FDD kit wide SCSI £129  
Tape Domain PCI £65  
SCSI software £25  
SCSI Cable 50-50 Centronic £15  
SCSI Cable Micro D-50 Centronic £25  
SCSI Cable Micro D-Micro D £29

**TAPE STREAMERS**

HP Surestore 2000 3GB Int/Ext £579/£679  
HP Surestore 5000 2GB to 8GB Int/Ext £669/£769  
HP Surestore 6000 4GB to 16GB Int/Ext £799/£899  
Tape 4mm DAI £12  
Iomega Zip drive £145  
100MB disk £15

**KEYBOARDS**

102 key enhance click keyboard £18  
102 key enhance soft touch keyboard £15  
Fujitsu 102 key enhance ergonomic keyboard £30  
Cherry 102 key enhance membrane soft touch £25  
Microsoft natural keyboard £64  
Keyboard adaptor AT to PS/2 or PS/2 to AT £5  
Keyboard extension cable £8  
Quick Start Game pad £10

**MICE & JOY STICKS**

3 button mouse Microsoft compatible £8  
3 button mouse with mat MS compatible £10  
Logitech Pilot Mouse 3 button MS compatible £19  
Warrior 5 Joystick (analog PC joystick) £29  
Microsoft Mouse V2 button serial £9  
Printer switch 2 to 1 manual £12  
Printer switch 2 to 1 auto £22  
Printer switch 4 to 1 manual £39  
Printer switch 4 to 1 auto £4  
Parallel printer cable £6  
25-25pin printer cable £6

**SCANNERS**

Trust Mono Scanner £49  
Trust Colour Scanner £119  
Logitech Scanner model Colour 24 bit £79  
Logitech Easytouch Scanner £109  
HP Scanner III CX £259  
Epson GTX - 6500P parallel 600 dpi £399  
Epson GTX - 6500 S SCSI £469  
Epson GTX - 8500 S SCSI 400 dpi £579

**NETWORK**

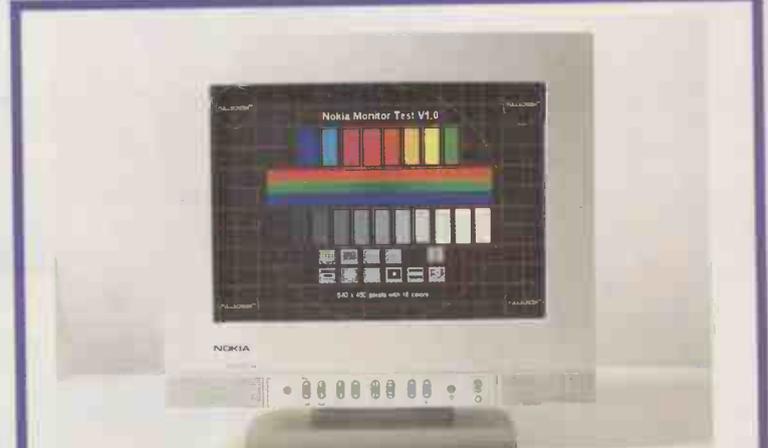
NE2000 compatible Novell approved £29  
Longshine BNC/10 Base T £29  
3 COM 3C509 £59  
3 COM 3C589 COM/ICA £139  
3 COM 3C590 PCI £49  
SMC Elite Ultra 16 £59  
SMC Elite Ultra 16C Combo £49  
Terminator £2  
T-piece £2  
Ethernet Cables 3M £5; 6M £8; 10M £10  
RJ 45 cable 3M £9; 6M £12; 10M £17; 20M £25  
Cables supplied at any length @ £1 per metre over 10m

**PRINTERS**

HEWLETT PACKARD £169  
Deskjet 320 portable £229  
Deskjet 540 mono £199  
Deskjet 620 with sheet feeder £30  
Colour kit for 320 or 540 £399  
Deskjet 660C Colour £389  
Deskjet 1200C colour £449  
Laserjet SP 400 dpi; 6ppm; 2MB £729  
Laserjet SMP 600dpi; 6ppm; 6MB £849  
Laserjet 4 plus 600dpi; 12ppm; 2MB £949  
Laserjet 4M plus postscript; 600dpi; 12ppm; 6MB £1269

CANON £249  
BIC 70 £329  
B1300 £349  
B1600C £349  
BIC 4000 £249  
BIC 800 (A3) £1099

EPSON £99  
LX 100 9 pin; 240 cps £109  
LQ 100 24 pin; 200 cps £139  
STYLUS 400 INKJET £179  
STYLUS 800 PLUS INKJET £329  
STYLUS 1000 INKJET £329  
STYLUS COLOUR INKJET £379



**NOKIA 447V 17" MONITOR £479**

- \* 17" FLAT, SQUARE TUBE
- \* 0.28mm DOT PITCH
- \* 1024 x 768 at 80Hz
- \* DIGITAL CONTROLS
- \* INTEGRAL SPEAKERS
- \* POWER SAVING
- \* MPR II LOW RADIATION

ALL PRICES EXCLUDE VAT (@17.5%) & DELIVERY  
Warranty: All products carry 1 year return to base warranty unless specified otherwise.  
Delivery Charge: Next day delivery £10. Recorded delivery by post for small items from £5. Delivery charge for complete systems £15.  
Price specifications subject to changes without prior notice.  
Payment: Cash/credit card/banker's draft/telex transfer/cheque (allow 5 working days to clear). Government/Local Authority/College Official orders welcome.  
OPENING HOURS: MONDAY TO FRIDAY 9.30AM - 6.30PM SATURDAY 10.30AM - 4PM CALLERS WELCOME

CALL OUR SALES DIRECTLINE NOW!! 01438 361212

## CONNER

See Page 2	<b>Enhanced - IDE</b>	For NEW PRODUCTS
CFS540A	545Mb 256K	12ms £129
CFA1275A	1.2Gb 256K	10ms £229

### CONNER 850Mb £135

#### FAST SCSI - 2

CP1080	1.08Gb 512K	9ms £309
CFP2107	2.1Gb 512K	9ms £799
CFP2105	2.1Gb 512K	11ms £599

## MICROPOLIS

#### FAST SCSI - 2

MIC4221	2.1Gb 512K	8.5ms £599
MIC3243	4.3Gb 512K	8ms £749
MIC1991	9.0Gb 512K	11ms £1399

#### AUDIO VISUAL DRIVES

MIC4221AV	2.1Gb 512K	8.5ms £685
MIC3243AV	4.3Gb 512K	8.5ms £999
MIC1991AV	9.0Gb 1.0Mb	11ms £1499

## WESTERN DIGITAL

#### Enhanced-IDE

AC2540	540Mb 128K	11ms £125
AC2635	635Mb 128K	11ms £144
AC2850	850Mb 128K	10ms £139
AC31200	1.2Gb 256K	10ms £269
AC31600	1.6Gb 256K	10ms £429

\*ALL DRIVES SUPPLIED WITH DISK MANAGER & DISK ROCKET

### PRO-MOTION!

210Mb Drives From **£69**  
420Mb Drives From **£85**

## IOMEGA

#### ZIP DRIVE

#### PARALLEL & SCSI OPTIONS AVAILABLE

ZIP DRIVE IS FOUR DRIVES IN ONE!  
Increase your Hard Drive Capacity Inexpensively on 100Mb Removable Disks. Provides High Capacity Mobile Storage!  
Use it at the Office, on the Road, Anywhere!!

**£147**

FREE MEDIA WITH 1st ORDER

**NEW!!**

## HP SURESTORE



SS 2000 - 4mm DDS1	2Gb	Int £599	Ext £699
SS 5000 - 4mm DDS1	4/8Gb	£699	£799
SS 6000 - 4mm DDS2	4/16Gb	£849	£949



**2.0Gb INT**

**£599**

Plus Free Tape

#### DAT BACKUP SOFTWARE

## CHEYENNE

ARCSOLO Single User	DOS £ 88	WIN £ 99
ARC SERVE 5 User	Windows Version £185	£195
10 User	£345	£395
25 User	£525	£615
50 User	£640	£740
100 User	£765	£865
250 User	£845	£1065

**£99**

# HARD DRIVES

**UK'S PREMIER RESELLER OF HARD DRIVES**



**5.25" DRIVE ST410800N ELITE 9 9Gb 1024K £1799**



ST3660A MEDALIST 545xe	IDE	545Mb	14ms	120K	£115
ST5850A DECATHLON 850	IDE	855Mb	11ms	256K	£139
ST31220A MEDALIST 1080	IDE	1.08Gb	12ms	256K	£199
ST31230N HAWK 2LP FAM	SCSI	1.05Gb	9ms	512K	£349
ST32430N HAWK 2LP FAM	SCSI	2.14Gb	9ms	512K	£699
ST15230N HAWK 4	SCSI	4.29Gb	9ms	512K	£849
ST32550N BARRACUDA 2LP	SCSI	2.14Gb	8ms	512K	£759
ST15150N BARRACUDA 4	SCSI	4.29Gb	8ms	1024K	£1099

## ACCESSORIES

#### CABLES

Dual Daisy Cable	£10
SCSI Centronics Cable	£20
MicroD-Centronics Ext	£39
Power Splitter Cable	£ 5
SCSI Terminator	£20
MicroD Terminator	£29

#### CONTROLLERS

IDE Super I/O 2HDD, 2FDD, 2Ser	£19
IDE ADP60 HDD	£34
IDE ADP60F HDD/FDD	£38
SCSI Adaptec 1515 Kit	£59
SCSI Adaptec 1542 Kit	£165
SCSI Adaptec 2940 Kit	£189

## REMOVABLE HARD DRIVES

SYDOS WORKS LIKE A FIXED DISK DRIVE YET OFFERS UNLIMITED CAPACITY PLUS ALL THE ADDITIONAL FEATURES OF REMOVABLE MEDIA



**SyQuest**

- #Unlimited Capacity
- #Data Security
- #High Speed Backup
- #Fault Tolerance
- #Internal & External Units

Type	Interface	Capacity	Int	Ext	Each	5 Pack
SyQuest 3.5"	SCSI/IDE	105Mb	£137	£237	£39	£189
SyQuest 3.5"	SCSI/IDE	270Mb	£249	£349	£45	£219
SyQuest 5.25"	SCSI	88Mb	£169	£269	£39	£189
SyQuest 5.25"	SCSI	200Mb	£259	£359	£59	£290
EASY 135	SCSI/IDE	135Mb	<b>NEW PRODUCT - CALL NOW!</b>			

## TAPE STREAMERS

#### MicroSolutions

#### Backpack Family



MicroSolutions, Leaders of Parallel Port Technology. This Unit Requires No Hardware Installation, Simply Plug & Play Portable

FREE SOFTWARE! EXTERNAL

Backpack 1080	340Mb	<b>£219</b>
Backpack 900	900Mb	<b>£349</b>



A DIVISION OF **hp**

DJ35 COLORADO TRAKKER	340Mb	£ 86
DJ25 COLORADO TRAKKER	680Mb	£139
DJ50 COLORADO TRAKKER	1.3Gb	£237
JT35 COLORADO JUMBO	350Mb	£169
JT25 COLORADO JUMBO	700Mb	£229

#### IOMEGA



THE IDEAL MINI CARTRIDGE TAPE BACKUP SYSTEM FOR TODAY'S LARGER HARD DRIVES. ADVANCED TECHNOLOGY MAGNETO RESISTIVE THIN FILM HEAD ASSURES FAST AND ACCURATE BACKUP.

<b>700Mb</b>	<b>£145</b>
IOMEGA 250Mb Portable	£159
IOMEGA INSIDER 250Mb	£ 89
QIC & WIDE 420Mb Internal	£108
IOMEGA TAPE 700 Internal	£145
IOMEGA TAPE 700 External	£219
IOMEGA TAPE 1.7Gb Internal	£239
Tape Accelerator Card	£ 49
700Mb Data Cartridge	£ 17

**IOMEGA 1.7Gb £239**

**EXCLUSIVE OFFER**

## Quantum

#### Enhanced-IDE

TRAILBLAZER	850Mb 256K	11ms
FIREBALL	540Mb 256K	11ms
FIREBALL	1.0Gb 256K	11ms

#### FAST SCSI - 2

CAPELLA	2.0Gb 256K	11ms
ATLAS	2.0Gb 256K	11ms
GRAND PRIX	4.0Gb 256K	11ms



#### Enhanced-IDE

ALLADIN	540Mb 512K	9ms
---------	------------	-----

#### FAST SCSI - 2

PEGASUS	1.05Gb 512K	9ms
ALLEYCAT 0664	2Gb 512K	9ms
WILDCAT 0780	4Gb 512K	9ms

## Maxtor

#### AUDIO VISUAL DRIVES

7540AV	540Mb 256K	12ms
7850AV	850Mb 256K	10ms
71260A	1.08Gb 256K	10ms

## NOTEBOOK DRIVES

#### 2.5" LAPTOP IDE DRIVES

ST19300AG	262Mb	Seagate
ST19385AG	341Mb	Seagate
ST19550AG	455Mb	Seagate
ST19655AG	520Mb	Seagate
MK2526FC	532Mb	Toshiba
GT540A	540Mb	IBM Thinkpad
GT810A	810Mb	IBM Thinkpad



## OPTICAL STORAGE

Internal	<b>£399</b>
External	<b>£499</b>

#### SPECIAL OFFER

FUJITSU M2512A	
230Mb Internal Kit	<b>£595</b>
230Mb External Kit	<b>£695</b>
Fujitsu M2512A 230Mb Optical Kit	
16 Bit SCSI Controller Software & One 230Mb Optical Disk	

EXABYTE	
EXB2501C	1.2Gb £ 499
EXB4200	2.0Gb £ 699
EXB4200C	2/4Gb £ 749
EXB8205XL	3.57Gb £ 999
EXB8205XL	7/14Gb £ 1399

#### WANGTEK

5150ES	250Mb	£299
5525ES	525Mb	£325
51000ES	1.0Gb	£459

## ALL PRODUCTS FACTORY NEW & CARRY MANUFACTURER WARRANTIES

Open **SUNDAYS** For Your Convenience  
Sales Lines Open **7 DAYS!**  
8.30am until late

SOUTHERN SALES  
Niall House, 23/26 Boulton Rd  
Pln Green Industrial Estate  
Stevenage SG1 4QX  
**(01438) 361212**  
24 Hour Fax **(01438) 360646**  
Order Line

MAJOR SUPPLIERS TO:  
GOVERNMENT BODIES  
EDUCATIONAL ESTABLISHMENTS  
HEALTH AUTHORITIES &  
CORPORATE ORGANISATIONS  
ALL PRICES EX VAT & DELIVERY AT £12

SCOTLAND & NORTHERN SALES  
Eldon House, 66 Townhead  
Kirkintilloch  
Glasgow G66 1NZ  
**(0141 775 1333)**  
24 Hour Fax **(0141) 775 2333**  
Order Line



ORDER DIRECT (NORTH) 10 LINES

**0141 775 1333**

IF YOU DON'T SEE WHAT YOU NEED...CALL!

**PRO-TEKNOLOGY (UK)**

...SUPPLIERS OF QUALITY COMPUTERS & PERIPHERALS

# ULTIMATE PC POWER

Why PRO?

- ▶ 100% Money Back Guarantee. Love It - Or Return It!
- ▶ We Fulfill Contracts From £1000 To £1,000,000
- ▶ Free Lifetime Technical Support
- ▶ The Leader In Customer Satisfaction
- ▶ YES! - 5 Year Warranty ...



**BEST VALUE, SERVICE AND SELECTION**

**TENDERS AND OFFICIAL ORDERS WELCOME**

**YOU ORDER - WE ACTION**

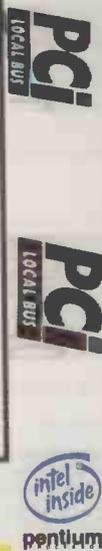
**LIFETIME TECHNICAL SUPPORT**

**EXPERIENCE PROTEKNOLOGY**

We are sure that you'll be satisfied and come back again

## 486 FAMILY PC

- ▶ Intel DX4-100 Processor
- ▶ 4Mb Ram
- ▶ 540Mb 11ms IDE Hard Drive With Enhanced IDE Interface
- ▶ 256K External Cache
- ▶ 3.5" Diskette Drive
- ▶ 1Mb Vesa Local Bus Graphics Card
- ▶ 3 ISA, 3VLB Expansion Slots
- ▶ 14" SVGA Non-Interlaced Monitor
- ▶ Mini Tower Or Desk Top Case
- ▶ MS-DOS 6.22, WFWG 3.11
- ▶ 5 Year Warranty (1 Year On-Site)



**£599**

**MULTIMEDIA UPGRADE**  
Quad Speed CD ROM  
16 Bit Sound Card  
Speakers **£159**

## P5-100 PRO

- ▶ Intel 100Mhz Pentium Processor
- ▶ 8Mb EDO RAM
- ▶ 1.0Gb 11ms EIDE Hard Drive
- ▶ Quad Speed CD ROM Drive
- ▶ 3.5" Diskette Drive
- ▶ 2Mb DRAM Diamond Stealth
- ▶ PCI Graphics - High Refresh
- ▶ 16 Bit Stereo Sound Card
- ▶ 100% Soundblaster Compatible
- ▶ 15" SVGA Non-Interlaced Monitor
- ▶ Mini Tower Or Desktop Case
- ▶ MS-DOS 6.22, WFWG 3.11
- ▶ 5 Year Warranty (1 Year On-Site)

**£1299**

### PRINTERS

- Hewlett Packard Deskjet 540 **£249**
- Hewlett Packard 660C **£359**

## P5-75 MULTIMEDIA

- ▶ Intel 75Mhz Pentium Processor
- ▶ 8Mb EDO RAM
- ▶ 850Mb 11ms IDE Hard Drive With Enhanced IDE Interface
- ▶ 4 PCI & 4 ISA Expansion Slots
- ▶ 3.5 Diskette Drive
- ▶ 1Mb DRAM Diamond Stealth
- ▶ PCI Graphics Card - High Refresh
- ▶ 256Kb Secondary Cache
- ▶ 14" SVGA Non-Interlaced Monitor
- ▶ Mini Tower Or Desktop Case
- ▶ MS-DOS 6.22, WFWG 3.11
- ▶ 5 Year Warranty (1 Year On-Site)

**£899**

### COMMUNICATION UPGRADE

Internet Ready  
Ready Installed  
28.8 Modem **£199**

## Best-Selling Memory Finder...

**CPU'S**

- 486-100 **£99**
- Pentium 75 **£139**
- Pentium 100 **£239**
- Heatsink/Fan **£10**

**SIMM CONVERTORS**  
30 PIN SIMM MODULE TO SIPP CONVERTOR  
**£5**

**PRO-TEKNOLOGY ONLY SUPPLY APPROVED MEMORY**

**SIMMS**

- 4Mb x 9 30Pin 70ns **£109**
- 4Mb 72Pin 70ns **£115**
- 8Mb 72Pin 70ns **£228**

### NEW PRODUCTS

- Conner 635Mb E/IDE Hard Disk **£129**
- Conner 420Mb Tape Drive IDE **£ 99**
- Conner 800Mb Tape Drive IDE **£159**
- IOMEGA Zip Drive Parallel SCSI Port **£149**
- Motorola Modem 3400 Online Bundle **£189**
- Windows '95 Upgrade On 3.5" **£ 69**

**DON'T MISS OUT! ORDER YOUR COPY TODAY!**

**FULL RANGE OF ESCOM MEMORY STOCKED!!**

**FOR MORE INFORMATION ON NEW PRODUCTS - CALL OUR HOTLINE ON 01438 361212**

All Prices Exclusive of VAT @ 17.5% And Delivery @ £12. Prices And Specifications Subject To Change Without Prior Notice. All Trade Marks Are Of Their Respective Owners. E & OE

### GET PEAK PERFORMANCE FROM YOUR PCI

We Supply Memory Kits For The Following:

**IBM, DELL, DAN, VIGLEN, COMPAQ, AST, GATEWAY, ELONEX, AMSTRAD, ZENITH, ESCOM.**

**PLUS**

**MORE, MORE, MORE...**

**COME VISIT OUR NEW BIGGER COMPUTER SUPERSTORE AT STEVENAGE OPEN 7 DAYS**

**SOUTHERN SALES**  
Niall House, 23/26 Boulton Rd  
Pin Green Industrial Estate  
Stevenage SG1 4GX  
**(01438) 361212**  
24 Hour Fax **(01438) 360646**  
Order Line

**HOW TO ORDER**

- 1 PHONE YOUR REGIONAL SALES OFFICE**
- 2 FAX US YOUR ORDER**
- 3 SEND US YOUR ORDER**
- 4 VISIT OUR SHOWROOM**

**SCOTLAND & NORTHERN SALES**  
Eldon House, 66 Townshead  
Kirkintilloch  
Glasgow G66 1NZ  
**(0141 775 1333)**  
24 Hour Fax **(0141) 775 2333**  
Order Line





## HOW TO ORDER

Order by telephone, quoting your credit card number. If paying by cheque please make payable to "FIRST COMPUTER CENTRE". In any correspondence please quote a phone number, post code & Dept Ref. Allow 5 working days cheque clearance.

**SHOWROOM ADDRESS:**  
**FIRST COMPUTER CENTRE** Dept. PCW  
 UNIT 3 ARMLEY PARK COURT  
 STANNINGLEY ROAD  
 LEEDS. LS12 2AE

Prices and delivery times are subject to change in price. Please check our latest prices before ordering. Delivery is possible some days. All items are subject to availability. Terms & conditions apply. Available upon request. All prices include VAT @ 17.5% EACR

## LOW COST DELIVERY

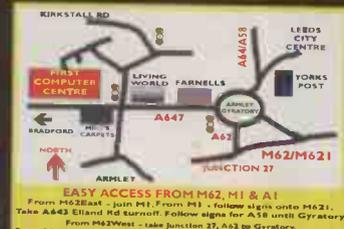
- 2-3 Week Days £3.50
- Next Week Day £5.00
- Saturday Delivery £10.00

## OPEN 7 DAYS

Late Nights Weds & Thurs till 7:30pm



**Tel: 0113-231-9444**



E-mail: sales@firstcom.demon.co.uk  
 Fax: 0113-231-9191  
 BBS: 0113-231-1422

**PC REPAIRS/UPGRADES**

We offer a FREE quotation on the repair of your computer or any peripheral (monitor, printer etc). Return carriage back to you is just £3.00. We can also collect your faulty equipment for just £11 via our national courier. Upgrades of Motherboards, Sound Cards etc can also be carried out here in our custom-built workshops. Our engineers will be happy to quote you for the professional completion of those tricky jobs. Call our Customer Service Dept for further details.

# THE MOTHERBOARD SPECIALISTS

## WHY INTEL?

Inventors of the P5 "Pentium" processor who better to trust for the motherboard at the heart of your system?  
 Choose Intel for guaranteed performance, 100% compatibility and great value for money!

## WHY FIRST?

- ☺ All Motherboards are pre-tested before shipment.
- ☺ Prices are adjusted Daily.
- ☺ Dedicated Technical Support Staff.
- ☺ Multi-Million £ Company
- ☺ Established over 5 Years
- ☺ E-Mail Support (WWW Soon)
- ☺ Low Cost Delivery

## intel P5 MOTHERBOARD

### ADVANCED ZP (Zappa)



### Specs for P5-75 - P5-120 Boards:

- ☺ Intel Triton Chipset
- ☺ 3 - 16 Bit ISA Slots
- ☺ 2 - 32 Bit PCI Slots
- ☺ 1 - Combination (ISA/PCI) Slot
- ☺ Up to 512KB Direct Mapped, WBack Cache
- ☺ 1Mb Flash Intel BIOS
- ☺ Up to 128MB RAM using 72 Pin SIMM or EDO RAM
- ☺ Enhanced IDE Controller, Mode 3,4. Win 95. ATAPI
- ☺ ECP/EPP Parallel Port, 16550 Dual Serial Ports
- ☺ ISA/PCI "Plug N' Play", Win 95 Ready.
- ☺ Dallas Real Time Clock, APM 1.1, EnergyStar.
- ☺ Board Size 8.6" x 10"

P5-75 (256k. 0Mb).....	£316
P5-75 (OK, 8Mb EDO).....	£499
P5-90 (256k. 0Mb).....	£399
P5-90 (OK, 8Mb EDO).....	£588
P5-100 (256k. 0Mb).....	£499
P5-120 (256k. 0Mb).....	£636

## intel P5 MOTHERBOARD

### ADVANCED EN (Endeavour)



### Specs for P5-90 - P5-133 Boards:

- ☺ Intel Triton Chipset
- ☺ 3 - 16 Bit ISA Slots
- ☺ 4 - 32 Bit PCI Slots
- ☺ Up to 512KB Direct Mapped, WB Cache (256k Included)
- ☺ 1Mb Flash Intel BIOS
- ☺ Up to 128MB RAM using 72 Pin SIMM or EDO RAM
- ☺ Pipelined Burst or Modular Cache accepted.
- ☺ Enhanced IDE Controller, Mode 3,4. Win 95. ATAPI
- ☺ ECP/EPP Parallel Port, 16550 Dual Serial Ports
- ☺ ISA/PCI "Plug N' Play", Win 95 Ready.
- ☺ Dallas Real Time Clock, APM 1.1, EnergyStar.
- ☺ Board Size 8.6" x 10". SoundBlaster Compat Built-In

P5-90 (256k. 0Mb).....	£466
P5-100 (256k. 0Mb).....	£554
P5-120 (256k. 0Mb).....	£699
P5-133 (256k. 0Mb).....	£859

# MEMORY

## 72 Pin SIMMs or EDO RAM??

4mb (1*32)	£96
8mb (2*32)	£194
16mb (4*32)	£340
32mb (8*32)	£727

Intel's Zappa & Endeavour boards allow you to use either standard 72pin SIMMs or the new EDO RAM. If you use these boards with standard 72pin SIMMS then you will need Cache memory on the motherboard. If you use the Zappa or Endeavour with EDO RAM then Cache memory is not essential.

4mb (EDO)	£116
8mb (EDO)	£272
16mb (EDO)	£471

Both types of memory may be mixed and matched and are auto-detected by Intel's motherboards.

## DIAMOND Stealth 64 Video

- ☺ Real time digital video acceleration
- ☺ 64-bit graphics performance
- ☺ Flicker-free refresh to 120Hz
- ☺ Upgradeable to hardware MPEG playback
- ☺ Made in the USA

Diamond's Stealth 64 Video VRAM is the perfect choice for graphics and video performance. Stealth 64 Video offers easy to use software for the novice and powerful features for the professional. Regardless of the application or operating system, performance is maximised by offloading common graphics functions from the CPU. Accelerated video playback provides smooth viewing of popular multimedia applications and video clips with up to 30 frames per second. The Stealth 64 Video continues Diamond's award-winning tradition, delivering the best price/performance multimedia accelerators available.

Diamond Stealth 64 1mb DRAM Video	£99
Diamond Stealth 64 2mb DRAM Video	£139
Diamond Stealth 64 2mb VRAM Video	£194
Diamond Stealth 64 4mb VRAM Video	£309

## CD ROMS

### 4X

Giving around 400kbs data transfer, a 4X Speed drive will allow your multimedia applications to fly. No more Lip-Sync problems! The new ATAPI (IDE) interface works straight off your Intel motherboard or most other IDE Cards.

Goldstar 540B (IDE) 220ms 600kbs	£113
Mitsumi FX400 (IDE) 230ms 600kbs	£112
Toshiba 5302B (IDE) 150ms 660kbs	£119

### 6X

With speeds of over 900kbs data transfer, the latest 6X Speed drives take multimedia to new levels of realism. ATAPI (IDE) Drives will be here soon, meanwhile try a SCSI drive with a Future Domain SCSI controller.

NEC CDR-512 (SCSI) 150ms 900kbs	£249
NEC 6Xi (SCSI) 150ms 900kbs	£282
Plextor PX63CS (SCSI) 115ms 900kbs	£378

Future Domain TMC850MCD 8bit Card £30  
 Future Domain TMC1610MCD 16bit Card £47

## 486 CPUs

DX2-50 IBM	£29
DX2-66 Cyrix	£41
DX2-66 Intel	£77
DX2-80 Cyrix	£49
DX4-75 Intel	£84
DX4-100 Cyrix	£64
DX4-120 AMD	£136

## SupraFAX Modem

### SupraFAX Modem 288

- ☺ V34 Standard
  - ☺ Silent & Adaptive Answer
  - ☺ Class 1 & 2 Fax, Flash ROM.
  - ☺ 5 Year Warranty
  - ☺ DOS & Windows Fax S/ware
- £149 Internal  
 £170 External

### SupraFAX Modem 144

- ☺ V32bis (up to 57,600bps)
  - ☺ Silent Answer
  - ☺ Class 1 Fax
  - ☺ 5 Year Warranty
  - ☺ DOS & Windows Fax S/ware
- £78 Internal  
 £89 External

All Internal SupraFAX Modems come complete with a modems cable. SupraFAX Modems are now on sale. Made in the USA.

## HARD DRIVES

### WESTERN DIGITAL

Western Digital Caviar drives are designed to significantly improve overall system performance. Very low seek times, a multi-segmented, adaptive read/write cache and I/O interleaving gives you a superior performance. Low Power consumption, low profile. LOW PRICES!!

639mb 10ms	£133
853mb 10ms	£145
1083mb 10ms	£195
1280mb 10ms	£218
1600mb 10ms	£341

### Seagate

Pentium Systems and PCI Bus architecture have created the need for speed. Seagate's response is FAST ATA. This increases the external transfer rate from 4.3MB per sec to around 10MB per sec. Seagate FAST ATA IDE drives deliver the performance you need for tomorrow's applications.

545mb 14ms	£113
854mb 11ms	£148
1083mb 12ms	£187

## SOFTWARE

- M/S Win 3.x to Win 95 (CD) £69
- M/S Win 3.x to Win 95 (3.5") £69
- M/S Plus for Win 95 (CD) £29
- M/S Plus for Win 95 (3.5") £29

M/S Ancient Lands £11	M/S Cinema 95 £33
M/S Art Gallery £28	M/S Composer Coll £48
M/S Beethoven £26	M/S Dang. Creatures £19
M/S Bookshelf 95 £23	M/S Dinosaurs £21
M/S Encarta 95 £19	M/S Explorapedia £28
M/S Mozart £26	M/S Wine Guide £34

- D/K Ency Nature £32
- D/K Ency Science £32
- D/K History of World £32
- D/K Fly 1st Incredible £24
- D/K PB Bears £23
- D/K Stowaway £24
- D/K Ult. Human Body £32
- D/K Way Things Work £32
- D/K World Ref Atlas £38
- D/K Ultimate Sex Disc £19

## TOP 20

- 1) Star Trek Final Unity £29
- 2) Minerva 6 £11
- 3) Night Owl 17 £14
- 4) Myst £21
- 5) Ultimate Doom £16
- 6) BodyWorks 4 £16
- 7) CD Repair Kit £7
- 8) Linux Toolbox £22
- 9) Compton's Int. Ency £16
- 10) Dungeon Master 2 £26

- 11) Arthur's Teacher £12
- 12) S' 10 Pack Vol.3 £22
- 13) Sim City 2000 £18
- 14) DiscWorld £29
- 15) 7th Guest £12
- 16) Mini Dog Mcree 2 £15
- 17) Hot Sound/Vision 2 £16
- 18) DIZONE £15
- 19) Terminal Velocity £22
- 20) Animals of San Diego £9

## US Robotics

### Sportster 288

- ☺ V34 Standard
  - ☺ Up to 115,200bps (V42bis)
  - ☺ Class 1 & 2 Fax
  - ☺ 5 Year Warranty
  - ☺ DOS & Windows Fax S/ware
- £165 Internal or External

### COURIER

- ☺ V34+ (33,600)
  - ☺ Upgradeable Flash-ROM
  - ☺ Class 1 & 2 Fax
  - ☺ 5 Year Warranty
  - ☺ DOS & Windows Fax S/ware
- £245 Internal or External

# PC-based industrial automation & lab control solutions from Roldec

**NEW!**

## BEST-SELLING CARDS



### FPC-010 12-BIT AD/DA CARD

Our best-selling AD/DA card, simple BASIC operation, ideal for home or hobby applications.

FPC-010 12-Bit AD/DA ..... **£45**



### FPC-024 48 LINE DIGITAL I/O

The easiest way of providing digital control. Uses Intel's 8255 and 8235 ICs. Ideal for low cost PC control Systems.

FPC-024 48 Line Digital I/O ..... **£23**

### DCI-148 4-PORT RS232 ISA FIFO

Add four high-speed ports for Modem communications. Complete with Windows Drivers.

DCI-148 4-Port RS232 ISA FIFO ..... **£137**

## AD/DA CARDS



### DCI-072 14-BIT AD/DA 2D/A

Simple operation with data capture software.

DCI-072 14-Bit AD/DA 2D/A ..... **£108**

### DCI-525 ADVANCE 12-BIT AD/DA

High performance AD/DA combined with 16 digital I/O lines.

DCR-525 Advance 12-Bit AD/DA .. **£204**

### DCI-508 8-BIT D/A

8 channels for industrial control.

DCR-508 8-Bit D/A ..... **£215**

### DCI-512 8-BIT D/A

Greater resolution, for better industrial control.

DCR-512 12-Bit D/A ..... **£267**

DCI-060 12-Bit AD/DA ..... **£81**

DCI-062 12-Bit AD/DA 2D/A ..... **£92**

DCI-070 14-Bit AD/DA ..... **£92**

## ROLDEC PRODUCT FOCUS:

### DCI-100 2-PORT RS232 WITH 16650

#### DCI-100 2 PORT RS232 WITH 16650

This card with the new 16650 UART incorporating 32-byte Read/Write buffers, for use with high-speed modems providing safer data transfer.

DCI-100 2 Port RS232 with 16650 ..... **£55**



## DIGITAL I/O CARDS

### DCI-020 MULTI 8255 CARD 192 LINE

Features the most digital lines on one card.

DCI-020 Multi 8255 Card 192 Line ..... **£59**

### DCI-030 TTL I/O

64 TTL Level I/O lines, ideal for PC integration with electronic systems.

DCI-030 TTL I/O ..... **£37**

### DCI-025 64 CHANNEL I/O

TTL Level outputs. A wide range of daughterboards are available for interfacing. Call for details.

DCI-030 TTL I/O ..... **£267**

### DCI-028 16 CHANNEL RELAY BOARD

For isolated control of equipment.

DCI-028 16-Channel Relay Board ..... **£78**

### DCI-029 16 CHANNEL OPTO ISO BOARD

For isolating digital inputs.

DCI-029 16-Ch. OPTO ISO Board ..... **£68**

## RAM/ROM DISK CARDS

### DCR-288 ROM/RAM/FLASH

High-performance Autoboot card with FLASH and SRAM capacity.

ALL07 Universal Programmer ..... **£131**

### SEP81AE EPROM PROGRAMMER

For EPROM programming up to 8MBit.

SEP81AE EPROM Programmer ..... **£169**

DCR-512 512K ROM Card ..... **£78**

## DEVICE PROGRAMMERS

### ALL03A UNIVERSAL PROGRAMMER

PC-based programmer. Devices covered include EEprom, MPU, PLD, GAL.

ALL03A Universal Prog ..... **£395**

### ALL07 UNIVERSAL PROGRAMMER

Interlaced via parallel port for programming ability for laptops or on-site applications.

ALL07 Universal Programmer ..... **£550**

### SEP81AE EPROM PROGRAMMER

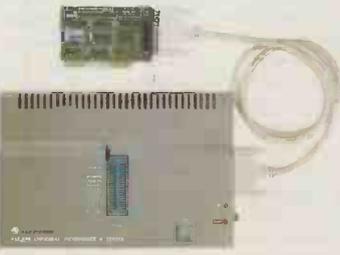
For EPROM programming up to 8MBit.

SEP81AE EPROM Programmer ..... **£169**

### EPP01AE EPROM PROGRAMMER

For EPROM programming up to 1MBit.

EPP01AE EPROM Programmer ..... **£155**



CALL FOR OUR FULL PRICE LIST

**01902 45 64 64**

## SERIAL CARDS

### DCI-140 4-PORT RS232

The simplest way of providing 4 serial ports on existing systems.

DCI-140 4-Port RS232 ..... **£40**

### DCI-150 8-PORT RS232 CARD

Multi-serial card for multi-user systems.

DCI-150 8-Port RS232 Card ..... **£110**

### DCI-153 8-PORT RS232 ISA FIFO

8 high-speed ports, with buffering, complete with Windows Driver.

DCI-153 8-Port RS232 ISA FIFO ..... **£257**

### DCI-128 2-PORT RS422/485 CARD

Faster and more reliable for comms at distances of up to 4000ft.

DCI-128 2-Port RS422/485 Card ..... **£73**



# ROLDEC SYSTEMS

- **Specialist skills and product knowledge**  
We have a fully-trained team with in-depth knowledge, specialist skills and expertise for a full range of scientific and industrial PC applications.
- **Established since 1990**  
We have been trading profitably since 1990, basing the strength of our business around repeat orders with satisfied customers. Our current client list includes every single University, British Aerospace, British Telecom, Rolls Royce, GEC Marconi, Motorola, CompuServe Europe, various Local and Health Authorities.
- **Distribution tie-up with Decision Computing International of Taiwan.**  
We can bring you high quality of technical products and components at truly competitive prices.
- **Genuine customer care policy**  
All our staff are trained to give you polite, knowledgeable and helpful service.
- **Credit facilities: 30 days account available (subject to status).**
- **All products carry a minimum 12 months' guarantee.**

Call us now on  
**01902 45 64 64**



Roldec Systems Ltd., Roldec House,  
504 Dudley Road, Wolverhampton, WV2 3AA.  
Tel: 01902 45 64 64. Fax: 01902 45 25 92

Specialix

LYTECH

COMPUTER DECISION INTERFACE

ADVANTECH

# THE BEST PLACE FOR BEST PRICES

## GET WINDOWS '95 FOR ONLY £49.50!

To qualify, simply buy...

- ANY 4Mb, 8Mb, 16Mb or 32Mb memory upgrade
- ANY 1Gb or 2Gb IDE or SCSI HD



## IDE HARD DRIVES

CONNER	
540Mb CFS540A 12ms E-IDE	£105
635Mb CF5635A 12ms E-IDE	£129
850Mb CFS850A 12ms E-IDE	£135
1.3Gb CFS1275A 11ms E-IDE	£225
FUJITSU	
528Mb M2684T 12ms E-IDE	£112
1Gb M1606T 12ms E-IDE	£240
IBM	
540Mb 12ms E-IDE	£108
1Gb Pegasus 10ms E-IDE	£215
MAXTOR	
540Mb 7540AV 12ms E-IDE	£112
850Mb 7850AV 12ms E-IDE	£139
1Gb 71260AT 12ms E-IDE	£225
QUANTUM	
540Mb Maverick 14ms E-IDE	£107
420Mb Trailblazer 12ms IDE	£112
540Mb Fireball 12ms IDE	£122
730Mb Lightning 11ms E-IDE	£139
850Mb Trailblazer 12ms E-IDE	£145
1Gb Fireball 12ms E-IDE	£225
SEAGATE	
545Mb ST3660A 14ms E-IDE	£102
850Mb ST580A 11ms E-IDE	£139
1Gb ST31220A 12ms E-IDE	£169
WESTERN DIGITAL	
540Mb AC2540 12ms E-IDE	£115
635Mb AC2635 12ms E-IDE	£123
730Mb AC2700 12ms E-IDE	£135
850Mb AC2850 12ms E-IDE	£139
1.28Gb AC31200 10ms E-IDE	£210
1.6Gb AC31600 12ms E-IDE	£365

## SCSI HARD DRIVES

CONNER	
1Gb CFP1060S 9ms	£257
1Gb CFP1080S 9ms	£285
2Gb CFP2105S 9ms	£535
4Gb CFP4207S 9ms	£815
FUJITSU	
532Mb M2684S 12ms	£120
1Gb M1606S 9ms	£299
2Gb M2903S 9ms SCSI-2	£619
2Gb M2915S 10.5ms SCSI-2	£649
3Gb M2909S 11ms SCSI-2	£835
IBM	
1Gb Pegasus 11ms	£279
2Gb Alleycat 11ms	£689
4Gb Starfire 9ms	£1,185
MIKROPOOLS	
2.1Gb Taurus 8.5ms SCSI-2	£599
4.3Gb Capricorn 8.5ms SCSI-2	£795
9.1Gb Scorpio 12ms SCSI-2	£1,495
QUANTUM	
540Mb Maverick 14ms SCSI	£129
850Mb Trailblazer 12ms SCSI	£175
1Gb Fireball 12ms SCSI	£329
2.1Gb Atlas 9ms SCSI	£642
4.3Gb Atlas 8ms SCSI	£953
SEAGATE	
1Gb ST31230N Hawk 9ms SCSI-2	£305
2.1Gb ST32430N Hawk 9ms SCSI-2	£659
2.1Gb ST3250N Barracuda 8ms SCSI-2	£710
4Gb ST15150N Barracuda 8ms SCSI-2	£1,090
9Gb ST410800N Barra. 10ms SCSI-2	£2,090

## FLOPPY DRIVES

3.5" 1.44MB Sony	£18
5.25" 1.2MB Panasonic	£33

## TAPE BACKUP / STORAGE

Backpack 250Mb Parallel	£259
Backpack 680Mb Parallel	£375
Jumbo 350Mb DJ35 Internal	£87
Jumbo 680Mb DJ25 Internal	£135
Jumbo 1.4Gb DJ50 Internal	£215
COLORADO	
Colorado 350Mb Trakker External	£169
Colorado 700Mb Trakker External	£229
CONNER	
Conner 420Mb Tape Store Internal	£99
Conner 850Mb Tape Store Internal	£179
Conner 4Gb TSM4000 Int. E-IDE ATAPI	£389
Conner 4Gb TSM4000 Int. SCSI ATAPI	£389
Conner 2Gb DAT Internal	£599
Conner 8Gb DAT Internal	£657
EXABYTE	
Exabyte 2Gb DAT Internal SCSI	£565
HEWLETT PACKARD	
HP 2Gb DAT Shurestore Internal	£525
HP 4Gb DAT Shurestore Internal	£599
HP 8Gb DAT Shurestore Internal	£699
HP 2Gb DAT Shurestore External	£635
HP 4Gb DAT Shurestore External	£745
HP 8Gb DAT Shurestore External	£875
IOMEGA	
Iomega 700Mb Parallel Internal	£129
Iomega 700Mb Parallel External	£195
Iomega 800Mb Travan	£135
WANGTEK	
Wangtek 500Mb Internal SCSI	£365
Wangtek 500Mb External SCSI	£519
Wangtek 1Gb Internal SCSI	£475
Wangtek 1Gb External SCSI	£619
WANGDAT	
WangDAT 2Gb DAT Internal SCSI	£655
WangDAT 2Gb DAT External SCSI	£765
WangDAT 2-4Gb DAT Internal SCSI	£615
WangDAT 4-8Gb DAT Internal SCSI	£715
WangDAT 4-8Gb DAT External SCSI	£910
WangDAT 8-16Gb DAT External SCSI	£985

## GRAPHICS CARDS

Trident 256K SVGA Card	£20
Trident 512K SVGA Card	£24
1MB SVGA Card Trident 8900	£38
1MB VLB Cirrus 5492	£45
1MB PCI VLB Cirrus 5434	£54
1MB PCI/VLB Orchid Kelvin 64 DRAM	£89
2MB PCI/VLB Orchid Kelvin 64 DRAM	£129
2MB PCI/VLB Orc. Fahrenheit DRAM	£135
Diamond Viper Pro Video 2MB PCI/VLB	£265
Diamond Viper Pro Video 4MB PCI/VLB	£365
DIAMOND STEALTH GRAPHICS CARDS	
1MB Diamond Stealth SE PCI	£78
1MB Diamond Stealth SE VLB	£79
2MB Diamond Stealth SE PCI or VLB	£117
1MB D/S 64 DRAM PCI	£89
1MB D/S 64 DRAM VLB	£89
2MB D/S 64 DRAM PCI	£125
2MB D/S 64 DRAM VLB	£125
2MB D/S 64 Video VRAM PCI	£210
2MB D/S 64 Video VRAM VLB	£210
4MB D/S 64 Video VRAM PCI	£319
4MB D/S 64 Video VRAM VLB	£329
NUMBER 9	
1MB 9FX Vision 330 PCI or VLB	£99
2MB 9FX Vision 330 PCI or VLB	£145
1MB 9FX Motion 531 PCI or VLB	£139
2MB 9FX Motion 531 PCI or VLB	£189
2MB 9FX Motion 771 PCI or VLB	£279
4MB 9FX Motion 771 PCI or VLB	£399
4MB Imagine 128 1280 PCI or VLB	£759
4MB Imagine 128 1600 PCI or VLB	£949
8MB Imagine 128 PCI or VLB	£1,399
ORCHID	
1MB Kelvin EZ PCI or VLB	£89
1MB Kelvin 64 PCI or VLB	£99
1MB Fahrenheit 64 PCI	£119
2MB Kelvin 64 PCI or VLB	£135
2MB Fahrenheit 64 PCI	£159
2MB Fahrenheit 64 VLB	£155
2MB Fahrenheit Pro 64 PCI or VLB	£245
4MB Fahrenheit Pro 64 PCI or VLB	£349

## CD-ROM DRIVES

AT INTERFACE	
Panasonic CR562 Internal Dual Speed	£45
Creative Labs 563 Internal Dual Speed	£67
Interface card for the above	£9
IDE INTERFACE	
Goldstar GCD520B E-IDE Dual Speed	£59
Mitsumi FX400 E-IDE Quad Speed	£102
Toshiba XM5302B IDE Quad Speed	£113
Sony CDU-76E IDE Quad Speed	£115
NEC IDE Internal Quad Speed	£116
Pioneer DR-VA124X Quad Speed	£125
Quad Speed CD-ROM & 650MB Rewritable Optical	£499
SCSI INTERFACE	
Toshiba XM5501 Internal Quad Spd.	£175
Pioneer DRV124X Internal 4.4 Speed	£199
Toshiba XM3601 Internal 4.5 Speed	£229
Plextor 4PLEX Internal Quad Speed	£279
Plextor 4PLEX External Quad Speed	£359
NEC 6X1 Internal 6 Speed	£260
NEC 6XE External 6 Speed	£350
PARALLEL PORT	
Microsolutions Backpack Dual Speed	£215
Microsolutions Backpack Quad Spd.	£265

## RECORDABLE CD

Plasmon RF4102 Int. SCSI (+ software)	£1,250
JVC XR-W2001 Internal SCSI	£1,345
Kodak PLD225 Internal SCSI	£2,100
Philips CDD522 Internal SCSI	£1,499
Fuji Writable Media	£8

## MULTIMEDIA BUNDLES (IDE)

Panasonic 2X CD-ROM with 16-Bit stereo sound card & 4W speakers	£95
Mitsumi 4X IDE CD Drive with 16-Bit stereo sound card and 25W speakers	£165

The sound cards supplied with Roldec kits are ATAPI cards which guarantees you high quality, true 16-bit sound and a built-in enhanced IDE interface. When these are used with a Quad Speed drive you get enhanced sound quality.

## MULTIMEDIA CARDS

CREATIVE LABS	
Video Spigot	£75
TV Coder (External)	£119
MP400 MPEG Player	£174
Video Blaster RT300	£255
ORCHID	
1Mb Kelvin MPEG	£249
2Mb Kelvin MPEG	£295
Videola	£249
Videola Pro	£439
Videola Premium	£569
HAUPPAGE	
Win/TV Prisma	£149
Win/TV Cinema	£189
Win/TV Celebrity	£259
VIDEOLOGIC	
1Mb 928 Movie ISA	£189
1Mb 928 Movie ISA Sound	£259
1Mb 928 Movie VLB	£189
1Mb 928 Movie VLB Sound	£259
1Mb 928 Movie with MPEG Player ISA	£425
1Mb 928 Movie with MPEG Player VLB	£425
1Mb 928 VRAM Upgrade Kit	£85
2Mb PCI Movie	£329
Captivator & Video for Windows	£165
Captivator & Video for Win/Action	£185
Captivator Pro	£189
Captivator Pro & TV	£219
MPEG Player for VMC	£239

## MONITORS

SMILE 15" SVGA FST COLOUR	
ONLY £210	
ESP	
14" VGA Mono	£65
14" SVGA 0.28mm MPRII	£145
14" SVGA 0.28 NI	£145
15" XGA 0.28 NI 1280x1024	£199
SMILE	
14" SVGA	£160
15" SVGA FST	£210
17" SVGA 0.26mm FST	£480
SONY	
15" SVGA SFI NI 1280x1024	£327
17" SVGA SFI NI	£630
20" SVGA SFI NI	£1,428
CTX	
14" CTX 1451 CD NI MPRII	£169
21" CTX CPS-1565GN NI SVGA MPRII	£239
17" CTX 1785GM SVGA MPRII 26	£499
17" CTX 1765GM SVGA MPRII 28	£445
LMT1000 16-Greyscale LCD VGA 9.4"	£495
LMT5020 4096-Colour LCD VGA 9.4"	£1,999
ILYUMIA	
15" Vision Master FST MF-8115	£265
21" Vision Master FST MF-8221	£1,249
21" Vision Master FST MF-9121	£1,295
VIEWSONIC	
14" Viewsonic 6E 1024 x 768 NI	£165
15" Viewsonic 15E5 1280 x 1024 NI	£245
17" Viewsonic 17-2 1280 x 1024 NI	£669
20" Viewsonic 20G 1600 x 1200 NI	£989
21" Viewsonic 21 1600 x 1200 NI	£1,335
MITSUBISHI	
15" SD5520 Diamond Scan 15FS	£339
17" FFY7705 Diamond Scan 17FS	£595
17" THG8705 Diamond Pro 17TX	£919
21" THN9105 Diamond Pro 21TX	£1,295
PANASONIC	
15" Panasync (TX-T1562) 1024x768 NI	£279
17" Panasync (TX-D1732) 1024x768 NI	£449
17" Panasync (TX-D1751) 1280x1024 NI	£775
20" Panasync (TX-D2032) 1280x1024 NI	£1,119
21" Panasync (TX-D2131) 1280x1024 NI	£1,349
PHILIPS	
14" Mono Monitor 14M	£89
14" Enhanced VGA 14C	£169
15" Brilliance Autocan 15B	£249
15" Brilliance Autocan NI 15A	£275
17" Autocan 17C	£429
17" Autocan 17B	£559
20" Autocan 20C	£775
20" Autocan 20T	£1,299
21" Autocan 21B	£1,439
21" Autocan with Cyberscreen21A	£1,749

EPSON	
EPSON Stylus Colour	£339
EPSON	
LX300 9-pin Dot Matrix	£95
LX1050 9-pin Dot Matrix	£185
FX870 9-pin Dot Matrix	£245
FX170 9-pin Dot Matrix	£305
LQ150 Mono 24-pin Dot Matrix	£114
LQ300 24-pin Dot Matrix	£149
LQ570+ 24-pin Dot Matrix	£215
LQ1070+ 24-pin Dot Matrix	£299
LQ870 24-pin Dot Matrix	£376
LQ1170 24-pin Dot Matrix	£435
Stylus Colour	£339
Stylus 1000	£329
Stylus Pro XL - Oversize A3	£1,589
SQ870 Inkjet	£449
SQ1170 Inkjet	£599
EPL-3000 4ppm Laser	£369
EPL-5200 6ppm Laser 600dpi	£479
EPL-9000 8ppm Laser 600dpi	£1,195
EPL-9000PS 8ppm PS Laser 600dpi	£1,375
HEWLETT PACKARD - DESKJETS	
HP Deskjet 540 (upgradeable to colour)	£209
HP Deskjet 660C	£292
HP Deskjet 850C	£390
HP Deskjet 1200C	£629
HP Deskjet 1200C PostScript	£985
HP Deskjet 1600C	£833
HP Deskjet 1600CM	£1,219
HP Deskjet 320 (upgradeable to colour)	£165
HP Deskjet 320 & Sheetfeeder	£180
HP Deskjet 320/540 Colour Kit	£28
HEWLETT PACKARD - LASER PRINTERS	
HP Laserjet 5P	£209
HP Laserjet 5MP	£725
HP Laserjet 4 Plus	£985
HP Laserjet 4M Plus	£1,298
HP Laserjet 4si	£2,099
HP Laserjet 4si MX	£2,965
HP Laserjet 4V A3	£1,365
HP Laserjet 4MV A3 PostScript	£1,989
HP Colour Laserjet	£4,199
HEWLETT PACKARD - PAINT PRINTERS	
HP Paintjet XL300	£1,595
HP Paintjet XL300 PostScript	£2,575
MITSUBISHI	
CP-J10 Inkjet	£225
DiamondScript 210 Colour	£1,890
Colour Sublimation S3410-30	£3,699
Colour Thermal Transfer C6710-10	£4,099
Colour Sublimation S3600-30	£4,699
DiamondScript 230 Colour	£5,350
A3 Colour Sublimation S6600-30	£9,299
NEC	
Superscript 610 Plus 6ppm Laser	£294
Superscript 660 Plus 6ppm Laser	£405
Superscript 660i Plus 6ppm Laser	£555
S'cript Colour 3000 Plus 1ppm Laser	£668

IF YOU CAN'T SEE THE ITEM YOU NEED CALL ROLDEC ON 01902 45 64 64

## CREATIVE LABS SOUNDBLASTER CARDS

Value 16-bit Stereo	£59
16 Value IDE	£64
16 Pro IDE	£86
16 MCD	£89
Wave Blaster 2 Upgrade	£90
16 Pro IDE ASP	£108
16 SCSI-II	£115
AWE 32 IDE Value	£125
AWE 32, with 4M bit on board	£160
AWE 32 IDE	£160
Discovery CD16	£171
Video Blaster MP400	£171
Digital Edge 3X	£228
Discovery 4X	£279
SoundBlaster Multimedia Home CD	£279

# ROLDEC'S YELLOW PAGES!

# ROLDEC SYSTEMS



## MEMORY

256K 256K 70ns SIMM.....	£10
SIM70 1MB 70ns SIMM.....	£26
SIM4M 4MB 70ns SIMM.....	£89
72 pin 4MB 70ns SIMM.....	£90
72 pin 8MB 70ns SIMM.....	£185
72 pin 16MB 70ns SIMM.....	£320

**OUR MEMORY PRICES ARE CHANGING ALL THE TIME. CALL US FIRST ON 01902 45 64 64 FOR THE MOST UP-TO-DATE PRICES!**

## FUNCTION CARDS

ISA Multi I/O 1P2S/1G IDE controller.....	£8
VESA Multi I/O + Mode 3 Enhanced IDE.....	£12
VESA Multi I/O + Mode 4 Enhanced IDE.....	£15
VESA High Perf. I/O, 16550 UART.....	£16

### FUTURE DOMAIN FUNCTION CARDS

ISA Fast SCSI-II controller.....	£99
PCI Fast SCSI-II controller.....	£119

### ADAPTEC FUNCTION CARDS

ISA 1542CF Fast SCSI controller.....	£135
ISA 1542CF Fast SCSI controller kit.....	£169
VESA SCSI - 2842A.....	£189
PCI SCSI - 2490.....	£199
EISA SCSI Master kit - 2742.....	£279



## FAX MODEMS (B.A.B.T. APPROVED)

Motorola Professional Sol'n 28.8 Ext. ....	£187
Motorola Internet Solution 28.8 Ext. ....	£199
PACE Microlin NB32+ PCMCIA.....	£169
PACE Linnet FX34+ External.....	£210
PACE Microlin NB34 PCMCIA.....	£217
PACE Microlin FX34 Pocket.....	£265
PACE Microlin FX34 Internal.....	£275
Roldec 14,400 V32 Internal.....	£66
Roldec 14,400 V32 External.....	£85
Roldec 14,400 V32 PCMCIA.....	£167
Roldec 28,800 V34 Internal.....	£159
Roldec 28,800 V34 External.....	£179
US Rob. Worldport 24/9.6 PCMCIA.....	£129
US Robotics Sportster V34 Internal.....	£158
US Robotics Sportster V34 External.....	£158
US Robotics Courier V34 Internal.....	£238
US Robotics Courier V34 External.....	£238

**IF YOU CAN'T SEE THE ITEM YOU NEED CALL ROLDEC ON 01902 45 64 64**

## NETWORK SOFTWARE

Novell Personnel Software.....	£46
Novell Personnel Software 5-user.....	£176
Novell Network 3.12 5-user.....	£422
Novell Network 3.12 10-user.....	£962
Novell Network 3.12 25-user.....	£1,430
Novell Network 3.12 100-user.....	£2,704
Novell Network 4.01 5-user.....	£481
Novell Network 4.01 10-user.....	£1,094
Novell Network 4.01 25-user.....	£1,625
Novell Network 4.01 100-user.....	£3,074

## NETWORK CARDS

NE2000-Compatible BNC.....	£19
NE2000-Compatible RJ45.....	£21
NE2000-Compatible Combo.....	£26
Novell NE2000 16-Bit BNC or RJ45.....	£57
3COM 3C509 16 Bit BNC or RJ45.....	£78
SMC Elite Ultra 16 Bit BNC or RJ45.....	£63
Intel Etherexpress 16 Bit BNC or RJ45.....	£73
D-Link PCI Ethernet 32 Bit combo.....	£89



## 486 MOTHERBOARDS

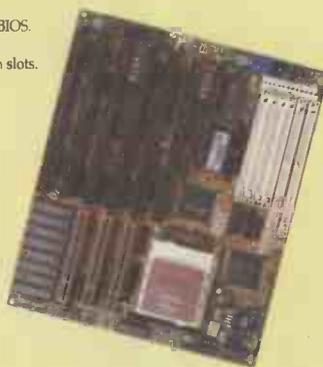
Intel CPUs	QOI	VLB-PW4T	PCI-P14	PCI 48AL
Bareboard	-	£63	£72	£95
486DX2-66	£75	£138	£147	£170
486DX4-75	£90	£153	£162	£185
486DX4-100	£109	£172	£181	£204
AMD CPUs				
486DX2-66	£64	£127	£136	£148
486DX2-80	-	-	-	-
486DX4-100	£75	£138	£138	£159

**QOI** 2/3 Baby AT size board with 256K cache, OPTI chipset, AMI Win BIOS Flash ROM. Memory 4 x 30 pin & 2 x 72 pin SIMM slots supports up to 64MB, 3 x VESA, 6 x ISA 16 Bit, 1 x 8 expansion slots. Supports DX4 Intel, AMD & Cyrix CPU, Green Functions.

**PW4T** 2/3 Baby AT size board with 256K cache, Winbond chipset, AMI BIOS. Memory 4 x 30 pin & 2 x 72 pin SIMM slots supports up to 64MB. 3 x VESA (2 x VESA LB Masters) 6 x ISA 16 Bit, 1 x 8 Bit expansion slots. Supports DX4 Intel, AMD & Cyrix CPU, Green Functions.

**PCI14** 2/3 Baby AT size board with 256K cache, AMI BIOS. Memory 4 x 72 pin SIMM slots supports up to 128MB. 3 x PCI 32 Bit, 4 x ISA 16 Bit expansion slots. Supports DX4 Intel, AMD & Cyrix CPU, Green Functions. 2 x on-board PCI Local-Bus Enhanced IDE controllers.

**PCI48AL** 486SX, SX2, DX, DX2, DX4 Processors Intel, AMD, Cyrix 256K or 512K write-back cache. Up to 64MB RAM on-board, ALI Chipset, AMI BIOS, 3 PCI slots, 4 ISA slots. 2 PCI E-IDE channel (mode 3/4) and floppy controller 2.88. 2 serial fast UART 16550 compt., 1 parallel ECP/EPP, 1 PS/2 mouse ports. 1/2 baby AT size.



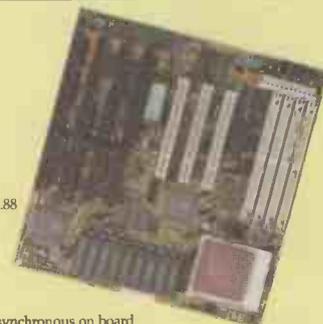
## PENTIUM™ MOTHERBOARDS

CPU	PCI54AL	PE-256	PCI54IT	INTEL PLATO	INTEL ENDEAVOUR
Bareboard	-	£129	£129	£142	£245
Pentium™-75	£129	£258	£258	£271	-
Pentium™-90	£210	£339	£339	£352	£455
Pentium™-100	£260	£389	£389	£402	£505
Pentium™-120	£400	-	-	-	£645
Pentium™-130	£515	-	-	-	£760

**PCI54AL** Intel P54C/CT 75/90/100/120/133MHz processors 256K or 512K write-back cache; Up to 128MB RAM ALI chipset; Plug and Play AMI BIOS 3 PCI slots; 4 ISA slots; 2 PCI E-IDE channels & floppy controller 2 serial, 1 parallel ports; 4/5 baby AT size

**PE-256** Intel Pentium™ 75/90/100/120/133MHz processors 256K or 512K write-back cache; Up to 128MB RAM; SIS chipset 3 PCI slots; 4 ISA slots; 2 PCI E-IDE channels (mode 3/4); floppy controller 2.88 2 serial fast UART 16550 compt., 1 parallel ECP/EPP, 1 PS/2 mouse ports 4/5 baby AT size

**PCI54IT** Intel P54C/CT 75/90/100/120/133/150/166/180/200MHz processors 256K or 512K write-back cache; Up to 64MB RAM Pipelined Burst Synchronous module, Asynchronous module, or Discrete Asynchronous on board Up to 128MB RAM Fast Page and EDO support Intel Triton Chipset; Plug and Play AMI BIOS; 4 PCI slots, 3 ISA slots 2 PCI E-IDE channel (mode 3/4) & floppy controller 2.88; 2 serial fast UART 16550 compt., 1 parallel ECP/EPP, 1 PS/2 mouse ports; 1/2 baby AT size



## SCANNERS

HP Scanjet 111P AT Interface.....	£384
HP Scanjet 11CX AT Interface.....	£759
HP Scanjet 11CX Document Feeder.....	£Call
Roldec 600/1200dpi Flatbed.....	£299
Roldec 1200/2400dpi Flatbed.....	£440
Mustek Hand-held 256-greyscale.....	£55
Mustek Hand-held 1200 Colour.....	£119

**IF YOU CAN'T SEE THE ITEM YOU NEED CALL ROLDEC ON 01902 45 64 64**

## KEYBOARDS

CKB33 Soft Touch.....	£10
RKB65 102 Key Click.....	£13
KB61102 Key Click Metal.....	£20
Cherry High Quality Keyboard.....	£23

## MICE & TRACKBALLS

EC-3N MS-Compatible Mouse.....	£5
TX-300A MS Compat Mouse & Mat.....	£9
MSM-2 Microsoft Mouse.....	£29
LTM Logitech Mouse.....	£25
TK-300 Desktop Trackball.....	£20

## CASES

AW-4000 Workstation 90w PSU, TUV.....	£57
AS-4300 Slimline 200w PSU, TUV.....	£49
AD-4300 Desktop 200w PSU, TUV.....	£49
AM-4000 Mini Tower 200w PSU, TUV.....	£46
AM-4300 Midi Tower 200w PSU, TUV.....	£59
AB-4000 Big Tower 250w PSU, TUV.....	£81

Low Cost Cases with Speed Display	
WE-827 Mini Tower Case, 200w PSU.....	£34
WE-837 Desktop Case, 200w PSU.....	£34
WE-935 Midi Tower Case, 200w PSU.....	£47
WE-990 Full Tower Case, 250w PSU.....	£75

• We are in our sixth year of trading, offering a huge range of popular brand PC peripherals, add-ons and software.

• Specialist skills and product knowledge.

We have a fully-trained team with in-depth knowledge, specialist skills and expertise for a full range of scientific and industrial PC applications.

• Established in the Public Sector.

Roldec are a reliable and well-established supplier to the Public Sector. Since May 1995, we have been awarded the following number of contracts: 25 National Government, 207 Local Government, 6 Ministry of Defence, 304 University, 83 Higher Education, 163 Schools and 472 Times 100. You're in safe hands!

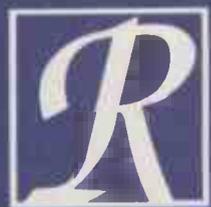
• Distributor for Decision Computing International of Taiwan.

We can bring you high quality of technical products and components at truly competitive prices.

• Genuine customer care policy

All our staff are trained to give you polite, knowledgeable and helpful service. We offer a 14-day "no-quibble" money back guarantee (subject to our terms and conditions). We also offer fast turnaround on warranty repairs and free telephone technical support for all our customers.

**Call us now on 01902 45 64 64**



Roldec Systems Ltd.,  
Roldec House, 504 Dudley Road,  
Wolverhampton, WV2 3AA.

Fax: 01902 45 25 92

**PRICES CHANGE DAILY! CALL 01902 45 64 64**

.. DON'T FORGET! ALL PRICES ARE EXCLUSIVE OF VAT AND DELIVERY .....

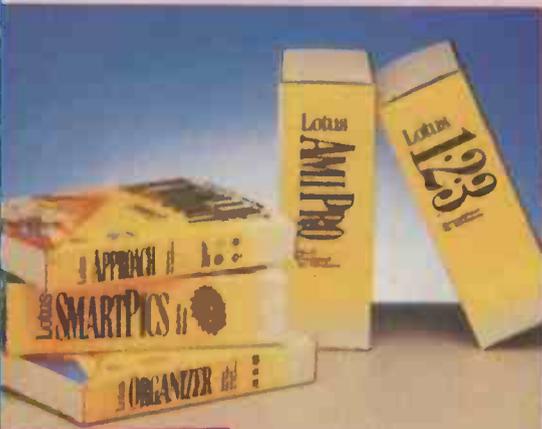
# COMPUTECH

COMPUTER SERVICES

TEL: 01923 224440 FAX: 01923 468480 468 St Albans Road, Watford Herts WD2 5QU



No minimum order  
Phone or Fax Now for  
next day delivery



## EDUCATIONAL SOFTWARE

### BORLAND

PARADOX V 5.0 WIN.....	£119
PARADOX V 5.0 DOS.....	£145
DBASE V 5.0 WIN/DOS.....	£138
DBASE IV V 2.0.....	£138
QUATTRO PRO V 6.0.....	£37
C++ V 4.2 DOS/WIN.....	£122
C++ V 4.2 DOS/WIN CD ROM.....	£99
TURBO C++ V 3.0 DOS.....	£38
TURBO C++ VIS EDITION.....	£47
TURBO PASCAL + OBJECTS V 7.0.....	£99
TURBO PASCAL V 7.0 DOS.....	£47
TURBO PASCAL WIN V 1.5.....	£47
PARADOX ENGINE V 3.0.....	£70
6 DATABASE FRAMEWORKS.....	£60
OBJECT VISION V 2.1 WIN.....	£60
OBJECT VISION PRO V 2.1 WIN.....	£129

### LOTUS

SMARTSUITE V 3.0.....	£184
123 V 2.4 DOS.....	£138
123 V 3.4 DOS.....	£138
123 V 4.0 DOS.....	£138
123 V 5.0 WIN.....	£138
FREELANCE V 4.0 DOS.....	£138
FREELANCE V 3.0 WIN.....	£138
SMARTPICS.....	£89
AMI PRO V 3.01 WIN.....	£97
ORGANISER V 1.1.....	£49
SYMPHONY V3.0.....	£138
LICENSES AVAILABLE.....	£CALL

FORTRAN 5.1.....	£64
MACRO ASSEMBLER V 6.01.....	£64
OFFICE V 4.2 FULL COPY.....	£177
OFFICE V 4.2 1 MLP.....	£138
OFFICE V 4.3 PRO.....	£265
OFFICE V 4.3 PRO 1 MLP.....	£179
LICENSES AVAILABLE.....	£CALL

### MICROGRAPHIX

ABC FLOWCHARTER V 3.0.....	£155
DESIGNER V 4.01 WIN.....	£175
PICTURE PUBLISHER V 4.01.....	£170
WINDOWS DRAW.....	£40
ORG CHART WIN.....	£64

### MICROSOFT

CREATIVE WRITER.....	£31
DOS 6.22 UPGRADE.....	£34
DOS 6.22 (OEM).....	£34
WIN 3.11.....	£50
WIN WORKGROUP ADD PACK.....	£43
WIN WORKGROUP.....	£85
WIN NT V 3.5 ADV SERVER DUAL.....	£282
WIN NT V 3.5 WORKSTATION DUAL.....	£119
WIN NT SINGLE USER.....	£59
WIN NT 20 USER.....	£CALL
MAIL 3.2 SERVER & 10 USER LIC.....	£199
WORD V 6.0 WIN.....	£130
WORD V 6.0 DOS.....	£86
ACCESS V 2.0.....	£64
FOXPRO 2.6 DOS.....	£133
FOXPRO 2.6 WIN.....	£65
EXCEL V 5.0 WIN.....	£138
PROJECT V 4.0.....	£136
POWERPOINT V 4.0.....	£136
PUBLISHER V 2.0.....	£68
VISUAL BASIC V 3.0 WIN.....	£64
VISUAL BASIC V 3.0 DOS.....	£59
WORKS V 3.0 DOS.....	£68
WORKS V 3.0 WIN.....	£68

### CLARIS

FILEMAKER PRO V 2.0.....	£95
WORKS WIN.....	£49

### COMPUTER ASSOCIATES

SUPERCALC V 5.5 DOS.....	£49
SUPERCALC 5.2 WIN.....	£49
SUPERPROJECT DOS.....	£178
SUPERPROJECT WIN.....	£178
CLIPPER V 5.2 DOS.....	£177
CLIPPER TOOLS V 3.0.....	£118

### GST

TIMEWORKS PUBLISHER V 3.0.....	£49
DESIGNWORKS WIN.....	£58
DESIGNWORKS CD ROM.....	£49
1ST PRESS & 1ST DESIGN.....	£49
1ST DESIGN.....	£30
PRESSWORKS.....	£29

### NOVELL

3.12 10 USER.....	£CALL
3.12 25 USER.....	£CALL
3.12 50 USER.....	£CALL
3.12 100 USER.....	£CALL
3.12 250 USER.....	£CALL
4.1 10 USER CD ROM.....	£CALL
4.1 25 USER CD ROM.....	£CALL
4.1 50 USER CD ROM.....	£CALL
4.1 100 USER CD ROM.....	£CALL
4.1 250 USER CD ROM.....	£CALL

### WORDPERFECT / NOVELL

WORDPERFECT V 6.1A.....	£118
WORDPERFECT V 6.1B.....	£118
WORDPERFECT V 5.1 + DOS.....	£119
WORDPERFECT V 5.2 WIN.....	£119
PRESENTATION V 2.0 WIN/DOS.....	£59
WORKS & QUICKEN V 3.0.....	£199
PERFECT OFFICE V 3.0.....	£119
PERFECT OFFICE PROFESSIONAL.....	£269

**HUGE SAVINGS  
CALL  
FOR DETAILS**

### ADOBE / ALDUS

PAGEMAKER V 5.0.....	£245
PAGEMAKER V5.0.....	£995
PERSUASION V 2.1.....	£145
INTELLIDRAW V.....	£83
PHOTOSTYLER V 1.1.....	£379
ILLUSTRATOR V 4.0.....	£249
PREMIER.....	£135
PHOTOSHOP V 3.0.....	£379
STREAMLINE.....	£78

**OFFICIAL GOVERNMENT, PLC AND HEALTH AUTHORITY  
ORDERS ACCEPTED**

## CORPORATE SOFTWARE

**COMPUTECH OFFERS MANY  
PROFESSIONAL SERVICES  
INCLUDING NETWORK  
INSTALLATION, ON-SITE  
MAINTENANCE CONTRACTS,  
HARDWARE INSTALLATION  
AND BUSINESS NEEDS  
ANALYSIS.**

**CALL SALES FOR DETAILS.**

**COMPETITIVE  
PRICING  
& PROMPT  
DELIVERY**

### BUSINESS TOOLS

BORLAND REPORT SMITH WIN V 2.0.....	£59
BORLAND SIDELINK WIN.....	£29
CA SUPER PROJECT V 2.1 DOS.....	£425
CA SUPER PROJECT V 3.0 WIN.....	£449
LOTUS ORGANISER.....	£79
MS OFFICE ASSISTANT.....	£59
MS PROJECT 4.0.....	£259
MS PROJECT 4.0 DOS DUAL MEDIA.....	£219
MS SCHEDULER+ WIN STARTER PACK.....	£87
SAGE TELEMACIG DOS.....	£199
SPINNERAKER LABELS UNLIMITED WIN.....	£37
SPINNERAKER LABELS UNLIMITED DOS.....	£28
SYMANTEC ACT.....	£149
SYMANTEC ON TARGET.....	£69
MAINSTREAM INFOCENTRAL WP.....	£52

### CAD

AUTOCAD LT WIN.....	£355
AUTOSKETCH V 3.0 DOS.....	£57
AUTOSKETCH V 2.0 WIN.....	£129
GENERIC CAD V 6.1 DOS.....	£355
FASTCAD 3D DESIGN & FLOORPLAN BUNDLE.....	£118
FASTCAD CADVANCE WIN.....	£355
FASTCAD EASY CAD V 2.0.....	£92
FASTCAD 3D DESIGN & ESTIMATOR BUNDLE.....	£89
IMSI TURBOCAD II WIN.....	£53
IMSI TURBOCAD V 3.2 DOS.....	£53
IMSI TURBOCAD PRO WIN.....	£149

### CLIP ART IMAGES & SOUND CLIPS

CORELL ARTSHOW V 3.0 CD ROM.....	£15
CORELL ARTSHOW V 4.0 CD ROM.....	£27
CORELL ARTSHOW V 5.0 CD ROM.....	£24
CORELL GALLERY CD ROM.....	£28
CORELL PRO PHOTO CD.....	£79
MS SOUNDBITS MGM MOVIES.....	£14
MS SOUNDBITS FUNTSTONES.....	£14
MS SOUNDBITS MUSIC CLIPS.....	£14
WP EDU CLIP ART.....	£44
WP HOLIDAY CLIP ART.....	£41
WP MAINSTREET HOME CLIP ART.....	£22
WP MAINSTREET KIDS CLIP ART.....	£22
WP MAINSTREET OFFICE CLIP ART.....	£22

### COMMUNICATIONS

PROCOMM PLUS DOS.....	£54
PROCOMM PLUS WIN.....	£56
PROCOMM PLUS II WIN.....	£56
CROSSTALK V1 3.21 DOS.....	£79
CROSSTALK V1 3.71 WIN.....	£69
DELIRIA DOS FAX PRO V 2.0.....	£37
DELIRIA WIN FAX PRO V 4.0 UPGRADE.....	£55
DELIRIA WIN FAX PRO V 4.0 UPGRADE.....	£33
CARBON COPY PLUS V 6.1 DOS.....	£74
CARBON COPY V 2.0 WIN.....	£74
LAPLINK DOS.....	£59
LAPLINK WIN.....	£79

### DATABASES

BORLAND DBASE 5.0 DOS.....	£299
BORLAND DBASE 5.0 WIN.....	£209
BORLAND DBASE4 2.0 DOS.....	£199
BORLAND DBASE4 COMPLIER DOS.....	£185
PARADOX 4.5 DOS.....	£299
PARADOX 5.0 WIN.....	£223
RAPIDFILE DOS.....	£169

REFLEX 2.0 DOS.....	£169
CA CLIPPER 5.2 DOS.....	£259
CA CLIPPER TOOLS.....	£259
CLARIS FILEMAKER PRO.....	£99
DATAEASE EXP 1.1 WIN.....	£240
DATAEASE 5.0 DOS.....	£395
DATAEASE 5.0 WIN.....	£395
DATAEASE 4.53 LAN DOS.....	£495
LOTUS APPROACH 3.0 WIN.....	£82
MS ACCESS 2.0 WIN.....	£209
MS ACCESS DEVELOPERS KIT.....	£249
MS ACCESS SOLUTION PACK.....	£49
MS FOXPRO 2.6 PRO WIN.....	£299
MS FOXPRO 2.6 PRO DOS.....	£299
MS FOXPRO 2.6 WIN.....	£69
MS FOXPRO 2.6 DOS.....	£69

### DESKTOP PUBLISHING

ALDUS PAGEMAKER 5.0.....	£360
ALDUS PAGEMAKER CLASSIC.....	£53
CORELL VENTURA 4.2 WIN.....	£122
CORELL VENTURA 5.0 CD ROM.....	£239
CORELL VENTURA 5.0 DUAL.....	£279
MS PUBLISHER 2.0.....	£68
SERRIF PAGE PLUS 3.0 WIN.....	£49
QUARK EXPRESS WIN.....	£569

### GRAPHICS & DESIGN

ADOBE ILLUSTRATOR WIN.....	£370
ADOBE PHOTOSHOP 3.0.....	£489
CORELL DRAW 3 & CLIP ART CD ROM.....	£79
CORELL DRAW 4.0 CD ROM.....	£179
CORELL DRAW 4.0 DUAL.....	£279
CORELL DRAW 5.0 CD ROM.....	£289
CORELL DRAW 5.0 DUAL.....	£389
LOTUS FREELANCE 4.0 DOS.....	£219
LOTUS FREELANCE 2.1 WIN.....	£249
ABC FLOWCHARTER 3.0 WIN.....	£199
MICROGRAPHIX DESIGNER 4.1.....	£262
MICROGRAPHIX PICTURE PUBLISHER 5.0.....	£229
VISO 3.0.....	£82
MS POWERPOINT.....	£199
HARVARD GRAPHICS 3.0 WIN.....	£129
WP PRESENTATION DOS/WIN.....	£199

### INTERGRATED PACKAGES

LOTUS SMARTSUITE 3.0.....	£299
MS OFFICE 4.2.....	£305
MS OFFICE 4.2 CD ROM.....	£325
MS OFFICE 4.2 COMP UPGRADE.....	£264
MS OFFICE 4.2 UPGRADE.....	£199
MS OFFICE 4.3 PRO.....	£399
MS OFFICE 4.3 PRO CD ROM.....	£299
MS OFFICE 4.3 COMP UPGRADE.....	£299
MS OFFICE UPGRADE.....	£245
MS WORKS WIN.....	£79
MS WORKS DOS.....	£79
NOVELL PERFECT OFFICE.....	£279
WP WORKS.....	£54
LICENSES AVAILABLE.....	£CALL

### LANGUAGES & DEVELOPEMENT TOOLS

BORLAND DELPHI.....	£189
BORLAND C++ 4.2 CD ROM DOS/WIN.....	£199
BORLAND C++ 4.2.....	£199
TURBO PASCAL & OBJECTS.....	£179
TURBO C++ 3.0 DOS.....	£45

TURBO C++ WIN VIS EDITION.....	£59
TURBO PASCAL 7.0 DOS.....	£55
TURBO PASCAL 1.5 WIN.....	£69
MS FORTRAN COMPIER WIN/DOS.....	£99
MS MACRO ASSEMBLER.....	£79
MS VISUAL BASIC STD DOS.....	£73
MS VISUAL BASIC STD WIN.....	£73
MS VISUAL BASIC PRO DOS.....	£199
MS VISUAL BASIC PRO WIN.....	£199
MS VISUAL C++ STD.....	£52

### NETWORKING

NOVELL 3.12 5 USER.....	£CALL
NOVELL 3.12 10 USER.....	£CALL
NOVELL 3.12 25 USER.....	£CALL
NOVELL 3.12 50 USER.....	£CALL
NOVELL 3.12 100 USER.....	£CALL
NOVELL 3.12 250 USER.....	£CALL
NOVELL 4.02 5 USER.....	£CALL
NOVELL 4.02 10 USER.....	£CALL
NOVELL 4.02 25 USER.....	£CALL
NOVELL 4.02 50 USER.....	£CALL
NOVELL 4.02 100 USER.....	£CALL
NOVELL 4.02 250 USER.....	£CALL

### OPERATING SYSTEMS

MS DOS 6.22.....	£34
MS DOS 6.22 UPGRADE.....	£34
MS WINDOWS FOR WORKGROUPS.....	£54
MS WINDOWS FOR WORKGROUPS.....	£87
WORKGROUPS ADD ON PACK.....	£42
MS WIN NT ADV SERVER.....	£399
MS WIN NT WORKSTATION.....	£199
MS WIN NT CLIENT SERVER LIC.....	£35
OS/2 WARP.....	£49
OS/2 WARP CD ROM.....	£49

### SPREADSHEETS

BORLAND QUATTRO PRO 6.0 WIN.....	£129
CA SUPERCALC 5.5 DOS.....	£57
CA SUPERCALC 1.1 WIN.....	£57
LOTUS 123 3.4 DOS.....	£199
LOTUS 123 4.01 DOS.....	£199
LOTUS 123 5.0 WIN.....	£199
MS EXCEL 5.0 WIN.....	£205

### UTILITIES

PC TOOLS WIN.....	£59
PC TOOLS PRO DOS.....	£70
XTREE GOLD WIN.....	£49
XTREE GOLD DOS.....	£65
QEMM 7.5.....	£49
STACKER 4.0.....	£62
UNINSTALLER.....	£62
DR SOLOMANS CHECK IT PRO.....	£59
DR SOLOMANS ANTI VIRUS WIN.....	£62
DR SOLOMANS ANTI VIRUS WIN.....	£72
DR SOLOMANS PC SEC TOOL KIT.....	£139

### WORD PROCESSING

MS WORD 6.0 WIN.....	£209
MS WORD 6.0 DOS.....	£149
WORDPERFECT 5.1+.....	£210
WORDPERFECT 6.1A WIN.....	£189
WORDPERFECT 6.0B DOS.....	£89
LOTUS AMI PRO 3.1.....	£189
WORDSTAR 7.0 DOS.....	£189
LICENSES AVAILABLE.....	£CALL

**CALL HOTLINE  
01923 224440**

All prices include delivery & VAT  
Prices shown are for the minimum order

# COMPUTECH MULTIMEDIA SYSTEMS

486 Systems from **£760**



**486 DX2/80 SYSTEM**  
 • 486 DX2/80 CPU • PCI MOTHERBOARD • 4Mb RAM • 420Mb HARD DRIVE • 1Mb PCI GRAPHICS CARD • DESKTOP OR MINI TOWER CASE • MSDOS 6.22 & WINDOWS 3.11  
 • 102 KEY UK KEYBOARD • MS COMPATIBLE MOUSE • 14" LOW RADIATION MPRII, 28DPI COLOUR SVGA MONITOR £760

**486 DX2/80 MULTIMEDIA SYSTEM**  
 • 486 DX2/80 CPU • PCI MOTHERBOARD • 4Mb RAM • 420Mb HARD DRIVE • 1Mb PCI GRAPHICS CARD • QUAD SPEED CD-ROM DRIVE • SOUNDBLASTER 16 SOUND CARD  
 • 80 WATT SPEAKERS • DESKTOP OR MINI TOWER CASE • MSDOS 6.22 & WINDOWS 3.11 • 102 KEY UK KEYBOARD • MS COMPATIBLE MOUSE  
 • 14" LOW RADIATION MPRII, 28DPI COLOUR SVGA MONITOR £999

**486 DX4/100 SYSTEM**  
 • 486 DX4/100 CPU • PCI MOTHERBOARD • 8Mb RAM • 420Mb HARD DRIVE • 1Mb PCI GRAPHICS CARD • DESKTOP OR MINI TOWER CASE  
 • MSDOS 6.22 & WINDOWS 3.11 • 102 KEY UK KEYBOARD • MS COMPATIBLE MOUSE • 14" LOW RADIATION MPRII, 28DPI COLOUR SVGA MONITOR £999

**486 DX4/100 MULTIMEDIA SYSTEM**  
 • 486 DX4/100 CPU • PCI MOTHERBOARD • 8Mb RAM • 420Mb HARD DRIVE • 1Mb PCI GRAPHICS CARD • QUAD SPEED CD-ROM DRIVE • SOUNDBLASTER 16 SOUND CARD  
 • 80 WATT SPEAKERS • DESKTOP OR MINI TOWER CASE • MSDOS 6.22 & WINDOWS 3.11 • 102 KEY UK KEYBOARD • MS COMPATIBLE MOUSE  
 • 14" LOW RADIATION MPRII, 28DPI COLOUR SVGA MONITOR £1299  
 PENTIUMS HAND BUILT TO SPECIFICATION CALL TODAY FOR DETAILS.

## CTX EZBOOK

CPU	RAM	SCREEN	HDD	PRICE
486SX33	4Mb	Mono	260Mb	£975
486DX2-50	4Mb	Mono	260Mb	£1175
486DX4-75	4Mb	Mono	260Mb	£1239
486DX4-100	4Mb	Mono	260Mb	£1259
486SX33	4Mb	Dualscan	260Mb	£1375
486DX2-50	4Mb	Dualscan	260Mb	£1775
486DX4-75	4Mb	Dualscan	260Mb	£1875
486DX4-100	4Mb	Dualscan	260Mb	£1973
486DX2-50	4Mb	TFT	260Mb	£2175
486DX4-75	4Mb	TFT	260Mb	£2273
486DX4-100	4Mb	TFT	260Mb	£2375

XTRA MEMORY, LARGER HARD DISKS AND MANY ACCESSORIES ARE ALSO AVAILABLE PLEASE CALL FOR DETAILS

## Ultimate Price/Performance Notebook?

Computech's Hottest moving range of notebooks. Key features include: Up to 6 Hours battery life • Hot swap battery change [5 minutes between batteries] • True 3.3 volt design • Removable hard drives from 260Mb to 540Mb • Choice of TFT, Dualscan Colour or Mono LCD Display • Processor options include 486SX/33 DX2/50 DX4/75 DX4/100 • Inbuilt 16Bit Soundcard for enhanced multimedia applications • 3 Years free on-site warranty • Comes complete with carrying case, power supply and all cables.

We strongly recommend this Laptop as a market leader in it's price range. As a result of this, Computech pledge to attempt to beat any price quoted.



from **£975**

## PRINTERS & PERIPHERAL HARDWARE

### LASER

<b>BROTHER</b>	
HL630 APPM	£325
HL660DPI	£465
<b>CANON</b>	
LP8-8 IV 8PPM	£905
LP8-118R 8PPM	£1520
<b>EPSON</b>	
EPL3000 4PPM	£389
EPL5200 6PPM	£462
EPL5600 6PPM	£596
EPL7500 P5	£1135
<b>HEWLETT PACKARD</b>	
LASERJET 4L 4PPM	£369
LASERJET 5P 4PPM	£585
LASERJET 5MP 4PPM	£695
LASERJET 4MV 4PPM	£1975
LASERJET 4V 4PPM	£1365
LASERJET 4A 12PPM	£935
LASERJET 4Mx 12PPM	£1260
LASERJET 4SI 16PPM	£2085
LASERJET 4SIXx 16PPM	£2967
<b>NEC</b>	
SUPERSCRIP 610+ 6PPM	£283
<b>PANASONIC</b>	
KXP4400P 4PPM	£269
KXP4410 4PPM	£325
KXP4410 5PPM	£479
KXP4430 5PPM	£679
KXP4400 4PPM	£545
<b>STAR</b>	
WIN TYPE 4000 4PPM	£296

### INKJET PRINTERS

<b>CANNON</b>	
BJ30	£153
BJ200EX	£170
BJ230	£237
BJ300	£335
BJ330	£399
BJC70	£229
BJC600	£329
BJC800	£1065
BJC6000	£329
<b>EPSON</b>	
STYLUS 800+	£169
STYLUS 1000	£312
STYLUS COLOUR	£335
<b>HEWLETT PACKARD</b>	
DJ320	£149
DJ370 & CSF	£202
DJ540	£229
DJ660C	£329
DJ1200C	£945
DJ1200C PS	£1266
PJ XL300C	£1599
PJ XL300C A3	£2568
PJ XL300C A3	£1769

### 24 PIN DOT MATRIX

<b>CITIZEN</b>	
ABC MONO	£106
ABC COLOUR	£125
<b>EPSON</b>	
LQ150	£112
LQ570+	£185
LQ870	£350
LQ1070	£282
LQ1170+	£399
DG3000	£672
LQ3000	£672
<b>PANASONIC</b>	
KXP2023	£108
KXP2124	£198
KXP1624	£199
KXP2135	£124
KXP3626	£259
<b>STAR</b>	
LC2420H	£113
LC2415H	£232
LC24300C	£146
LC90	£278
LC240	£90
<b>9 PIN DOT MATRIX PRINTERS</b>	£CALL

### MOTHERBOARDS

486DX VLB 256K CACHE	£79
486DX PCI 256K CACHE	£89
486DX VLB / PCI 256K CACHE	£99
486DX 4 COMPATIBLE PCI 256K CACHE	£99
PENTIUM P60/66 256K CACHE PCI/VLB	£169
PENTIUM P60/66 512K CACHE PCI	£179
PENTIUM P90/100 256K PCI/VLB	£189

PENTIUM P90/100 512K PCI £199

### PROCESSORS (INTEL)

486DX2 50	£119
486DX2 66	£129
486DX4 100	£141
P60	£CALL
P66	£CALL
P90	£CALL
P100	£CALL
P120	£CALL
HEAT SINK WITH FAN	£9

### CRYXIX

486DX40	£84
486DX2 50	£87
486DX2 66	£109
486DX2 80	£129

### CRYXIX UPGRADES

386SX16/20 - 486SX40	£129
386SX25 - 486SX50	£159
386DX16/20 - 486DX40	£139
386DX25 - 486DX50	£159
386DX33 - 486DX66	£189

### INTEL OVERDRIVE CHIPS

486SX2 50	£85
486DX2 40	£119
486DX2 50	£119
486DX2 66	£139
486DX4 75	£299
486DX4 100	£359

### MEMORY SIMMS

30 PIN 1 MEG	£29
30 PIN 4 MEG	£119
72 PIN 4 MEG	£120
72 PIN 8 MEG	£235
72 PIN 16 MEG	£425

### KEYBOARDS

102 KEY QWERTY	£14
102 KEY CHERRY	£24
MS NATURAL KEYBOARD	£56

### POINTER DEVICES

SUPERMOUSE II	£9
MS MOUSE	£34
MS HOME MOUSE	£28
LOGITECH PILOT PS/2	£19
LOGITECH SERIAL	£19
LOGITECH CORDLESS	£55

### CASES WITH PSU

DESKTOP	£39
MINI TOWER	£39
FULL TOWER	£59
MIDI TOWER	£89
MULTIMEDIA	£99

### FLOPPY DRIVES

1.44 MB MITSUMI 3.5"	£22.50
1.2 MB MITSUMI 5.25"	£39

### TAPE BACKUP

COL JUMBO 250 INT	£99
COL TRACKER 250 EXT	£209
COL TRACKER 700 EXT	£359
OMEGA 250 INT	£110
OMEGA 700 INT	£265
OMEGA 700 EXT	£339
DC2120 TAPES	£11
CONNEX 2 GIG DAT INT	£639
CONNEX 8 GIG DAT INT	£689
WANGTEK 500 SCSI INT	£399

WANGTEK 500 SCSI EXT	£539
WANGTEK 1 GIG INT SCSI	£CALL
HP 2 GIG 35420	£599
HP 8 GIG 35480A	£CALL
2 GIG DAT TAPES	£13
A WIDE RANGE OF TAPES ARE AVAILABLE CALL FOR DETAILS.	

### HARD DRIVES

<b>CONNER</b>	
420 MB IDE	£110
540 MB IDE	£122
1 GIG IDE	£275
<b>FUJITSU</b>	
264 MD IDE	£110
355 MD IDE	£129
532 MB IDE £162	
<b>QUANTUM</b>	
365 MB IDE	£115
420 MB IDE	£119
540 MB IDE	£129
730 MB IDE	£189
<b>SEAGATE</b>	
428 MB IDE	£119
540 MB IDE	£130

### HARD DRIVES SCSI

SEAGATE 525 SCSI	£CALL
SEAGATE 1.5 GIG SCSI	£CALL
SEAGATE 1.7 GIG SCSI	£CALL
SEAGATE 2.1 GIG SCSI	£CALL
QUANTUM 540 MB SCSI	£CALL
QUANTUM 730 MB SCSI	£CALL
QUANTUM 2.1 GIG SCSI	£CALL

### GRAPHICS CARDS

<b>DIAMOND</b>	
SPEEDSTAR PRO 1MB ISA	£92
SPEEDSTAR PRO 2MB ISA	£144
STEALTH 64 1MB DRAM VLB	£92
STEALTH 64 1MB DRAM PCI	£95
STEALTH 64 2MB DRAM VLB	£127
STEALTH 64 2MB DRAM PCI	£129
STEALTH 64 2MB VRAM VLB	£230
STEALTH 64 2MB VRAM PCI	£216
STEALTH 64 4MB VRAM VLB	£318
STEALTH 64 4MB VRAM PCI	£318
<b>ORCHID</b>	
KELVIN 64 1MB ISA	£98
KELVIN 64 1MB VLB	£97
KELVIN 64 1MB PCI	£98
KELVIN 64 2MB ISA	£129
KELVIN 64 2MB VLB	£130
KELVIN 64 2MB PCI	£129

### MONITORS



CTX 14" SVGA	£169
CTX 15" SVGA	£229
CTX 17" SVGA	£489
NEC3V	£307
NEC4E	£364
NEC5FGP	£862
NEC6FGP	£1419
PHILIPS 14M	£89
PHILIPS 15B	£254
PHILIPS 17C	£423
PHILIPS 20C	£CALL
PHILIPS 20T	£1315
PHILIPS 21A	£CALL
SONY 1551	£590
SONY GDM1730	£595
SONY GDM175E1	£811
SONY GDM205E1VT	£1403
<b>ISATRONICS</b>	
ISA MULTI I/O	£9
VB MULTI I/O	£12
VB ENHANCED MULTI I/O	£19

### CONTROLLER CARDS

2 PORT SERIAL/PARALLEL	£14
2 PORT SERIAL	£10

### SCSI CONTROLLERS

ADAPTEC 1510	£55
ADAPTEC 1542	£174
ADAPTEC 2842	£189
ADAPTEC 2840	£239
ADAPTEC 2742	£289
PROMISE DC200	£75

### MULTI MEDIA VIDEO PRODUCTS

CANON ION RC260	£475
CANON RC260 CAMERA ONLY	£250
CANON RC560 ION CAMERA	£1995
CANON RC560 PC KIT	£2495
CREATIVE SE VIDEO BLASTER	£184
CREATIVE FS200	£240
CREATIVE VIDEO SPICOT	£172
CREATIVE TV COOKER	£105
DIAMOND VIDEOSTAR	£279
WIN TV CELEBRITY	£289
WIN TV CINEMA	£199
INTEL SMART VIDEO RECORDER	£339
LOGITECH PICTMAN PLUS	£382
VIDEOLOGIC CAPTIVATOR	£169
VIDEOLOGIC CAPTIVATOR PLUS	£189
928 MOVIE ISA/VLB	£189
928 MOVIE & SOUND ISA/VLB	£249
VIDEOLOGIC MPEG PLAYER	£229
VIDEOLOGIC MPEG & 928	£429
VIDEOLOGIC PCI MOVIE	£329
VIDEOLOGIC CAPTIVATOR PRO	£219

### SOUND CARDS

<b>CREATIVE</b>	
SB PRO VALUE	£52
SB 16 VALUE	£69
SB 16 MULTI CD	£90
SB 16 MULTI CD ASAP	£119
SB 16 SCSI II	£115
SB 16 SCSI II ADSP	£139
SB AWE 32	£179
MIDI KIT	£49

### CD ROM DRIVES



MITSUMI 4X	£123
PANA CR562B	£89
PANA CR652B & CONT	£97
NEC 4XE	£388
NEC 4XL	£272
NEC 4XP	£495

### SPEAKERS

LABTEC CS150	£17
SOUNDPEAT QS820	£13
CREATIVE PRO DIGITAL	£33
ZVFI PRO 13W	£45
TRUST 80W	£49
QS817P	£49

### MODEMS (BAPT APPROVED)

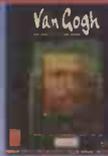


14400 FAX/MOD INT	£69

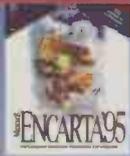
# CD-ROM SYSTEMS

EDUCATIONAL AND LEISURE PRODUCTS

A SMALL SELECTION FROM OUR HUGE RANGE - PLEASE CALL FOR YOUR FREE CATALOGUE



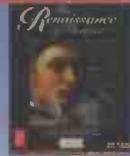
**NEW RELEASE**  
Van Gogh  
£29.95



**TOP SELLING**  
ENCYCLOPAEDIA  
MS Encarta  
£CALL



**SPECIAL**  
Berlitz French  
Only £79.95



**NEW RELEASE**  
The Renaissance of  
Florence  
£29.95



**NEW RELEASE**  
MS Bookshelf 95  
£LOWEST



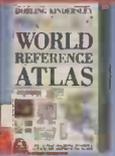
**NEW RELEASE**  
DK History of the  
World  
£36.95



**SPECIAL**  
Tuneland  
Only £15.95  
Limited Stocks



**GIFT**  
Playboy Screen  
Saver  
£16.95



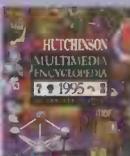
**TOP TITLE**  
DK World Reference  
Atlas  
£39.95



**NEW RELEASE**  
A Passion for Art  
Only £32.95 Limited Stocks



**NEW RELEASE**  
Basic Bridge £24.95  
Please call for details of  
other Bridge Programs



**SPECIAL**  
Hutchinson's Encycl. '95  
£32.95



**NEW**  
PB Bears Birthday  
£26.95



**SPECIAL**  
MS Cinemania 95  
£33.95



**NEW RELEASE**  
BBC 3D Garden  
Designer 2  
£21.95



**NEW RELEASE**  
Doom - The  
Ultimate  
£16.95



**NEW RELEASE**  
DK Encycl. Of  
Nature  
£36.95



**TOP TITLE**  
How Things Work in  
Busytown  
£29.95



**NEW RELEASE**  
Ann Hooper Ult.  
Sex Disc  
£32.95



**PUBLISHERS PICK**  
**10 TOP-SELLING CD-ROM'S**  
10 Top Selling CD Roms in One Value Pack  
• Dune II • Fighter Wing • Chinese  
Cooking • Wayne's World • Grandmaster  
Chess • Lemmings & Oh No More  
Lemmings • Sing Along Kid's Classics •  
Reunion • Internet for Everybody  
Unbelievable Value Only £19.95

**ATLAS'S**

3D Atlas	36.95
DK World Reference Atlas	39.95
Global Explorer	45.95
ITN Atlas	31.95
Mop n' Facts	26.95
One Tribe	38.95
One World	29.95
World Atlas 5.0	9.95

**REFERENCE AND EDUCATION**

100 Years of Motoring	NEW	36.95
Bodyworks 4.0	NEW	14.95
Chambers English Dictionary		43.95
Chronology of World History	NEW	125.95
Compton's Encyclopedia '95		12.95
DK History of the World	NEW	36.95
DK Encyclopedia Of Nature	NEW	36.95
DK Encyclopedia of Science		33.95
DK Ultimate Human Body		33.95
Haldeman Diaries	£CALL	
Hutchinson's Encyclopedia '95	SAVE	32.95
Infopedia		16.95
Leonardo The Inventor		16.95
Microsoft Ancient Lands	£CALL	
Microsoft Bookshelf 95	NEW	£CALL
Microsoft Cinemania 95		£CALL
Microsoft Dangerous Creatures	£CALL	
Microsoft Dinosaurs	£CALL	
Microsoft Encarta 95	£CALL	
Microsoft Explorapedia Nature		22.95
Microsoft Julia Childs Cooking		22.95
Microsoft Wine Guide	NEW	22.95
Concise Oxford Dictionary	VALUE	31.95
Oxford Compendium		45.95
Oxford English Dictionary (2nd Ed.)		359.95
Oxford Reference Shelf		45.95
Oxford Thesaurus		31.95
Please ask for details of other Oxford University Press publications on a CD Rom		
Pleasure of Sex		31.95
The Joy of Sex		21.95
Warplane: Modern Fighting Aircraft		19.95
World War 11 Encyclopaedia		31.95

**ART & CULTURE**

A Passion for Art	NEW	32.95
Great Artists	SAVE	31.95
Impressionism		15.95
Microsoft Art Gallery		33.95
Michelangelo		29.95
Renaissance of Florence	NEW	29.95
Survey of Western Art		18.95

Tate Gallery: Exploring 20th Cent. Art	79.95
The Louvre	NEW 29.95
Van Gogh: Life and Works	NEW 29.95
Voyage Through Egypt	NEW 29.95
Voyage Through Italy	NEW 29.95

**LITERATURE**

Dickens	NEW	
Greater and Lesser Mysteries		12.95
Monarch Notes		12.95
Macbeth	NEW	£CALL
Romeo and Juliet	NEW	31.95
Shakespeare: The Complete Works		27.95

**MUSIC**

Beethoven 5		28.95
Beatles: A Hard Days Night		19.95
Dylan: Highway 61	NEW SPECIAL	18.95
Introduction to Classical Music		31.95
Jazz: A Multimedia History	SAVE £3	9.95
Jazz Greats	NEW	24.95
Jump - David Bowie		25.95
Microsoft Beethoven	£CALL	
Microsoft Mozart	£CALL	
Microsoft Musical Instruments	£CALL	
Microsoft Schubert	£CALL	
Microsoft Strauss	£CALL	
Prince Interactive	SAVE £14	19.95
Residents Freak Show		27.95
Viking Opera Guide	SPECIAL	31.95
Woodstock		19.95
Xplora 1 Peter Gabriel		32.95

**LANGUAGES**

Asterix Leams French		53.95
Berlitz French	GREAT VALUE	79.95
Also avail for German, Italian, Spanish		
Global French		37.95
Also Avail for German, Italian, Spanish		
Language Systems 4-9 years. French,		
German, Spanish Japanese		19.95
Language Systems 9-Adult.		
French and Spanish		22.95
Learn to Speak French 4		82.95
Also available Learn to Speak Spanish 5		
Pronunciation Tutor- French	NEW	39.95
Also available for German and Spanish		

**RELIGION**

Bible Library (16 Bibles on one CD)		16.95
Bible Study Guide		14.95
Compton's Multimedia Bible		27.95

Dead Sea Scrolls	31.95
Family Bible	22.95
Holy Koran	46.95

**CHILDREN'S**

3D Body Adventure (6+)	19.95
3D Bug Adventure (3-8)	27.95
3D Dinosaur Adventure (3-10)	19.95
10 out of 10 (Please Call For Details)	16.95
Adventures with Edison	24.95
Aladdin Activity Centre (5+)	24.95
Arthur's Teacher Trouble (Unboxed)	27.95
Alge Blaster 3 (12+ Maths)	22.95
Around the World in 80 Days (5-8)	22.95
EA Kids Arts Centre (3+)	21.95
Arthur's Teacher Trouble (Unboxed)	9.95
Arthur's Birthday Surprise (3+)	26.95
Bernstein Bear	NEW £CALL
Chadwick and the Sneaky Egg Thief	19.95
Counting on Frank (8-11)	26.95
Director's Lab	NEW 29.95
DK My First Amazing Dictionary	25.95
DK Stawaway (4+) VALUE	25.95
DK The Way Things Work (4+)	33.95
Fisher Price A,B,C's (3-5)	22.95
Fisher Price 1,2,3's (3-5)	22.95
Freddie Fish	27.95
Fun School 4 (Call For Details)	15.95
Fun School 5 in Dreamland	18.95
Fun School 5 in Space	18.95
Fun School 5 in Time	18.95
Fun School Paint & Create	NEW 16.95
Fun School Maths	NEW 16.95
Fun School Spelling	NEW 16.95
Harry and The Haunted House	26.95
Jungle Book	27.95
Just Grandma & Me (Unboxed)	9.95
Little Monster at School (3+)	26.95
Lion King (4+)	27.95
Kid Works 2 (3+)	27.95
Kids Encyclopedia - Random House	28.95
Magic Theatre (6+)	19.95
Magic Bus Tour Solar System (6-10)	31.95
Magic Bus Tour Human Body (6-10)	31.95
Maths Workshop (Ages 4-4)	28.95
Mario Titles (Call for Details)	16.95
Microsoft Creative Writer	22.95
Microsoft Fine Artist	22.95
Millies Maths House	12.95
Peter Pan Painting (4-8)	27.95
Richard Scary's Busytown (3-6)	26.95
Ruff's Bone (3+)	26.95
Sesame Street Letters (3-6)	26.95
Sesame Street Numbers (3-6)	26.95
Sesame Street Words (3-6)	26.95
The Tortoise and the Hare (3+)	27.95

Thumbelina (4-10)	25.95
Treasure Hunt	22.95
Tuneland (3+) SAVE £22	15.95
The Circus	25.95
The Ultimate Haunted House	22.95
Zoo Opolis	NEW 24.95

**GAMES**

Award Winners Platinum (Includes Lemmings, Civilisation, Frontier Elite 2)	14.95
Apache Longbow	NEW £LOWEST
Are You Afraid Of The Dark	NEW £LOWEST
A4 Network	24.95
Bioforce	NEW 27.95
Bloodwing- Pumpkin Heads Revenge	£CALL
Civil War	22.95
Colonization	22.95
Command & Conquer	NEW £CALL
Chaos Control	£CALL
Dark Forces	26.95
Daedalus Encounter	17.95
Down Patrol	BARGAIN 15.95
Descent	20.95
Desert Strike	SPECIAL 29.95
Discworld	31.95
Doom Ultimate	NEW 15.95
Dr Drago Mad Cap Chase	NEW 23.95
Flight Unlimited	26.95
Full Throttle	NEW 23.95
FX Fighter	NEW 19.95
Gazillionaire	NEW 20.95
Indy Car Racing	SPECIAL 9.95
Jungle Strike	NEW 15.95
Klik & Play	27.95
Lemmings 1 & 2	9.95
Little Big Adventure	27.95
Lost Eden	21.95
Magic Carpet Plus	27.95
Machiovelli: The Prince	22.95
Micro Machines 2	23.95
MS Flight Sim 5.1	24.95
Monty Python Complete Waste of Time	27.95
Myst	SPECIAL 24.95
NASCAR Racing	SPECIAL 19.95
Novastorm	26.95
Pinball Fantasies Deluxe	NEW 25.95
Psycho Pinball	NEW 24.95
Prisoner of Ice	20.95
Sam and Max Hit the Road	SPECIAL 15.95
Syndicate Plus	28.95
Sim City Enhanced	SPECIAL 10.95
SimTown	NEW 29.95
Star Trek Next Generation	NEW 26.95
Take Take Your Best Shot	NEW 17.95
Tank Commander	NEW £CALL

TFX	SPECIAL	14
Theme Park		26
Transport Tycoon		26
Under A Killing Moon		22
US Navy Fighters		32
Virtual Pool	NEW	£CALL
X Com	NEW	23
FIFA Soccer		26
International Tennis Open		21
PGA Tour 486 Golf		28
World Cup Rugby 95		16

**HOME AND HOBBY**

3D Interior Designer	NEW	14
Astrology- Time Life	NEW	18
Bacchus and Comus Wine Guide		31
BBC Garden Designer 2	NEW	21
Cookbook Heaven		12
BH & G Healthy Cooking		18
Family Doctor		14
Family Tree Maker 2.0	NEW	PC3.5 39.95
Gardening		9.95
Herbalist		29
Home Botanist		26
Key Garden Planner	SPECIAL	15
Mayo Clinic Family Health		14
Pharmacist	SPECIAL	12
Prescription Drugs		12
Total Health Body and Mind		31
Wines of the World	SAVE £3	13

**DTP**

Cipart Warehouse		12
Cipart Extravaganza		28
Cipart Heaven 2		19
Corel Gallery		29
Corel Gallery 2		56
Corel Draw 3.0		47
Gifts Galore		16

**SCIENCE**

A Brief History of The World	SPECIAL	29.95
Animals of San Diego Zoo		9.95
Astronomical Explorations	NEW	26.95
Chemistry Set		109
Electricity and Magnetism		29.95
Interactive Periodic Table	SAVE	31.95
Interactive Space Encyclopaedia		25.95
Redshift		33.95
Space & Astronomy		18.95
Science Adventure		19
Undersea Adventure		19
NEW TITLES ARRIVING DAILY PLEASE CALL FOR DETAILS		

Mon- Fri 9.00am-6.00pm. Sat 10.00am-2.00pm. Fax Line: 0171 351 6787 24Hrs  
We accept most major credit cards. Prices subject to change without notice. E & OE

DATATRADER MARKETING LIMITED 79 LOTS ROAD, LONDON SW10 0RN



LOCAL AUTHORITY AND SCHOOL ORDERS ACCEPTED

ORDER HOTLINE - OVER 1500 TITLES AVAILABLE  
**0171 352 2127**

Please quote reference PCH 1 when ordering  
**FREE DELIVERY on all orders over £30.00 excl. VAT**

PRICING Please add £1.50 / item for post and packaging for all orders under £30.00 excl. VAT. Please add VAT at 17.5% to all orders. We will not bill your credit card until your order is despatched. Orders usually despatched within 24 hours. You will be informed at the time of placing your order if despatch will be delayed and the expected despatch date. All parcels sent by recorded delivery.

# The closer you look the better it gets

## DIFFERENT BY DESIGN

It is only when you look beneath the surface that you can assess the true quality of any computer system.

Every model in the TAG range is built using only the highest quality components combined to give the ultimate in reliability.

The thoroughly researched design policies of the TAG engineering team are combined to give the user the full benefit of today's hugely powerful technology.

You might expect technology like this to be expensive - surprisingly TAG PC TECHNOLOGY's range of systems are competitive with any comparable manufacturer. When you consider the benefits of longer system life, better performance and reduced down-time, the TAG range makes sense.

## TAG's EXPERIENCE

TAG's sales experience shows that it pays to keep the system options simple. Out of the three main groups with 3 options in each, there's the solution to virtually any business computing need. But if you need a unique system, we can build to your specification.

TAG PC Technology is part of the London Computer Group. With 12 years of successful trading in the hugely competitive computer market, we have developed a reputation for top quality and service.

TAG's client list is equally impressive and includes: BBC, Railtrack, Metropolitan Police, General Motors, plus Hospitals, Universities, Embassies, Government Departments and companies large & small.

**WHAT PERSONAL COMPUTER** "TAG system scored top marks for value for money."

**Personal Computer World** "TAG monitor achieved excellent results in our test. Undoubtedly the best monitor in this round up."

**PC Direct** "An attractive prospect, competently put together with a good level of performance."

## CASH BACK - a new concept

TAG also make it easy when replacing old computers.

TAG will buy your old system for cash or put it through our own highly successful auction company, to get the best deal possible.

## TAG's 10 COMMITMENTS

- 1 14 Day money back Guarantee
- 2 FREE configuration advice and system configurations
- 3 GUARANTEED 24 hour burn-in tests on all systems
- 4 GUARANTEED compatibility
- 5 FREE 2 year warranty with FREE loan equipment
- 6 FREE lifetime telephone support
- 7 FREE lifetime labour
- 8 GUARANTEED repairs within 72 hours
- 9 GUARANTEED highest quality components
- 10 GUARANTEED Value for money

## TAG CHARTER

TAG is so confident in the quality and reliability of their systems and technical services that they have a 'Satisfaction Charter' to meet their 10 commitments to you, our most important customer.

**TAG SATISFACTION CHARTER**

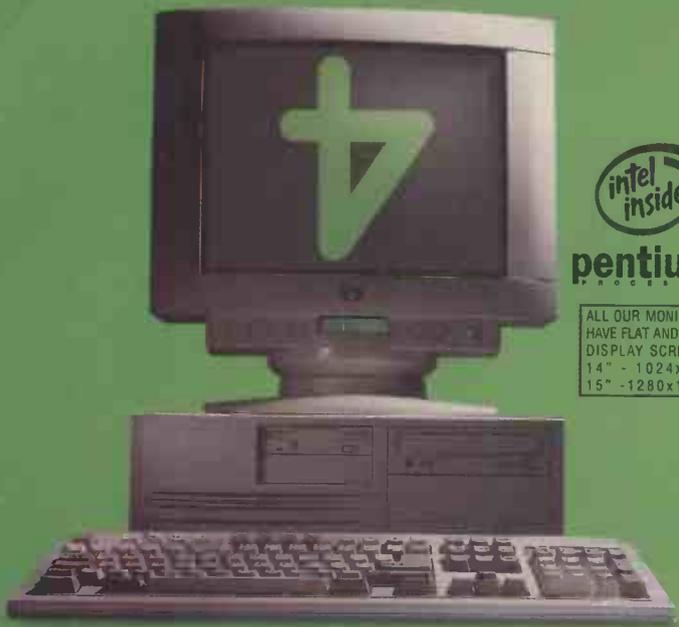


**TAG PC**  
TECHNOLOGY

0181 803 7770

THE CLOSER YOU LOOK, THE BETTER IT GETS





intel  
inside  
**pentium**  
PROCESSOR

ALL OUR MONITORS  
HAVE FLAT AND FULL  
DISPLAY SCREENS  
14" - 1024x768  
15" - 1280x1024

## TAG BASE 486DX4-100 £720

All TAGBASE systems come complete with fully documented DOS 6.22 and Windows for Workgroups 3.11 or IBM OS/2 WARP V3 with windows

### 486DX4-100

- Intel® 486DX4-100MHz processor
- 4 PCI & 4 ISA slots (1shared)
- Energy Star compliant power saving features
- P24T Pentium™ upgrade socket
- SIS Chip set
- 8k internal and 256k external cache
- 4Mb RAM expandable to 64Mb
- 3.5" diskette drive
- 560Mb 11ms enhanced IDE hard drive
- Video 7 SPEA PCI, 1Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 14" .28DP NI MPR-II colour SVGA display
- Enhanced keyboard & MS compatible mouse
- Available in desktop or mini tower case

£720

### P5-75

- Intel Pentium™ 75MHz processor
- PCI (75MHz to 133MHz) mother board
- 4 PCI & 4 ISA slots (1shared)
- Energy Star compliant power saving features
- Plug & play BIOS for easy upgradeability
- Intel Triton chip set
- 16k internal and 256k external cache
- 8Mb RAM expandable to 128Mb
- 3.5" diskette drive
- 850Mb 10ms enhanced IDE hard drive
- Video 7 SPEA PCI, 1Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 14" .28DP NI MPR-II colour SVGA display
- Enhanced keyboard & MS compatible mouse
- Available in desktop or mini tower case

£955

### P5-90

As P5-75 but with Intel Pentium™ 90MHz processor

£1015

## TAG UPGRADE OPTIONS ALL TAG UPGRADES ARE FITTED FREE

### MONITORS

Upgrade from 14" to 15" TAGVIEW Digital Control	£79
Upgrade from 14" to 17" SAMSUNG FST	£310
Upgrade from 15" to 17" SAMSUNG FST	£225

### STORAGE

Upgrade from 560Mb to 850Mb EIDE hard drive	£39
Upgrade from 560Mb to 1.3Gb EIDE hard drive	£108
Upgrade from 560Mb to 2.1Gb fast SCSI II, inc. controller	£459
Upgrade from 850Mb to 1.3Gb EIDE hard drive	£69
Upgrade from 850Mb to 2.1Gb fast SCSI II, inc. controller	£420
750Mb internal Jumbo Colorado tape streamer kit	£179
2Gb internal 4mm DAT tape streamer kit	£549

### MEMORY

Memory per 4Mb	£105
EDO memory per 4Mb	£125
Memory per 8Mb	£199
256k to 512k cache upgrade	£49
Upgrade from 1Mb to 2Mb video 7	£59

### MULTIMEDIA

Creative Labs, soundblaster AWE 32	£169
Sound Pro 16 (Creative Labs chip set)	£59
Yamaha YST-M5, 90Hz-20Hz 3w amplified per channel	£39
Yamaha YST-M10, 80Hz-29Hz 10w amplified per channel	£54
<b>TAG QUAD SPEED MULTIMEDIA KIT:</b>	
• Sound pro 16 card	• NEC Quad speed CD-ROM
• Yamaha YST-M5	• Encarta 95
£229	

### MISCELLANEOUS

Upgrade from desktop or mini tower to full tower case	£49
Microsoft ergonomic serial mouse	£19
NE-2000 compatible combo network card	£29
Extra 3 years warranty (5yrs total)	£149

### PRINTERS

Hewlett Packard LaserJet 5P	£599
Hewlett Packard LaserJet 4 Plus	£999
Hewlett Packard DeskJet 540	£210
Hewlett Packard DeskJet 660C	£299
Hewlett Packard DeskJet 850C	£399

TAG SALES TEAM  
0181 803 7770



intel  
inside  
**pentium**  
PROCESSOR

ALL OUR MONITORS  
HAVE FLAT AND FULL  
DISPLAY SCREENS  
14" - 1024x768  
15" - 1280x1024

## TAG MEDIA 486DX4-100 £1035

All TAGMEDIA systems come complete with fully documented DOS 6.22 and Windows for Workgroups 3.11 or IBM OS/2 WARP V3 with windows

### 486DX4-100

- Intel® 486DX4-100MHz processor
- 4 PCI & 4 ISA slots (1shared)
- Energy Star compliant power saving features
- P24T Pentium™ upgrade socket
- SIS Chip set
- 8k internal and 256k external cache
- 8Mb RAM expandable to 64Mb
- 3.5" diskette drive
- 560Mb 11ms enhanced IDE hard drive
- Video 7 SPEA PCI, 1Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 14" .28DP NI MPR-II colour SVGA display
- NEC quad speed internal CD-ROM drive
- Sound Pro 16 sound card (Creative Labs chip set)
- Yamaha YST-M5 powered Hi-Fi speakers
- Microphones & earphones
- MPC-2 Compatible
- Enhanced keyboard & MS compatible mouse
- Available in desktop or mini tower case
- FREE Microsoft Encarta 95

£1035

### P5-75

- Intel Pentium™ 75MHz processor
- PCI (75MHz to 133MHz) mother board
- 4 PCI & 4 ISA slots (1shared)
- Energy Star compliant power saving features
- Plug & play BIOS for easy upgradeability
- Intel Triton chip set
- 16k internal and 256k external cache
- 8Mb RAM expandable to 128Mb
- 3.5" diskette drive
- 850Mb 10ms enhanced IDE hard drive
- Video 7 SPEA PCI, 1Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 15" .28DP NI MPR-II colour SVGA display
- NEC quad speed internal CD-ROM drive
- Sound Pro 16 sound card (Creative Labs chip set)
- Yamaha YST-M5 powered Hi-Fi speakers
- Microphones & earphones
- MPC-2 Compatible
- Enhanced keyboard & MS compatible mouse
- Available in desktop or mini tower case
- FREE Microsoft Encarta 95

£1225

### P5-100

As P5-75 but with Intel Pentium™ 100MHz processor

£1375

### FAX/MODEMS

Internal 14.4 Fax/modem with comms & fax software	£69
Internal 34.4 voice fax/modem with comms & fax software	£89
28.8 Internal Fax modem	£129
US Robotics Sportster Internal 28.8 fax/modem	£199
Motorola Internet Solution, External 28.8 fax/modem includes: Internet membership option with Internet software, interactive on-line games	£189

### SOFTWARE

Microsoft Encarta (CD)	£39
Microsoft Home Entertainment pack: MS Works 3.0 (CD) • MS Encarta 95 (CD) • MS Golf (CD) • MS Sampler (CD) • MS Dangerous Creatures (CD) • MS Scenes (3.5") • MS Entertainment Pack (3.5")	£79
Novell Perfect Office V3 (CD) Includes Wordperfect 6.1 and Presentations, Infocentral 1.1, Quatro Pro 6, Groupwise 4.1, Envoy 1.0a	£109
Upgrade standard operating system to Windows 95	£39

WINDOWS 95 SPECIAL WHEN AVAILABLE



ALL OUR MONITORS  
HAVE FLAT AND FULL  
DISPLAY SCREENS  
14" - 1024x768  
15" - 1280x1024



## TAG PRO

PS-100 **£1585**

All TAGPRO systems come complete with fully documented DOS 6.22 and Windows for Workgroups 3.11 or IBM OS/2 WARP V3 with windows

### PS-100

- Intel Pentium™ 100MHz processor
- PCI (75MHz to 133MHz) mother board
- 4 PCI & 4 ISA slots (1 shared)
- Energy Star compliant power saving features
- Plug & play BIOS for easy upgradeability
- Intel Triton chip set
- 16k internal and 256k external cache
- 16Mb RAM expandable to 128Mb
- 3.5" diskette drive
- 850Mb 10ms enhanced IDE hard drive
- Video 7 SPEA 64 bit PCI, 2Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 15" .28DP NI MPR-II colour SVGA display
- NEC quad speed internal CD-ROM drive
- Enhanced keyboard & MS ergonomic mouse
- Available in desktop or mini tower

**£1585**

### PS-120

As PS-100 but with Intel Pentium™ 120MHz processor

**£1720**

### PS-133

- Intel Pentium™ 133MHz processor
- PCI (75MHz to 133MHz) mother board
- 4 PCI & 4 ISA slots (1 shared)
- Energy Star compliant power saving features
- Plug & play BIOS for easy upgradeability
- Intel Triton chip set
- 16k internal and 256k external cache
- 16Mb RAM expandable to 128Mb
- 3.5" diskette drive
- 1.3Gb 10ms enhanced IDE hard drive
- Video 7 SPEA 64 bit PCI, 2Mb graphics accelerator card
- 1 parallel port, 2 serial (16650 UART) ports
- 15" .28DP NI MPR-II colour SVGA display
- NEC quad speed internal CD-ROM drive
- Enhanced keyboard & MS ergonomic mouse
- Available in desktop or mini tower

**£1845**

### PS-133 S

As PS-133 but with • 32Mb EDO RAM expandable to 128Mb  
• 2.1Gb 9ms fast SCSI II hard drive

**£3020**

Take a closer  
look at what  
makes TAG  
so different

**ATTENTION TO DETAIL**  
Don't confuse TAG with High St box shifters. Every member of the sales team is a knowledgeable professional who has been trained to listen to what you want, and offer you what you need. Right through the production and testing process the TAG team take their tasks seriously - with a rigorous quality control and pre-delivery testing routine on each and every TAG system shipped, they can't afford not to.

**NETWORKING**  
TAG Network specialists advise on enhancing your existing network or designing and installing the latest, fastest set-ups available.

**INTERNET READY**  
All TAG PC's are supplied with FREE Internet Software and Connection.

**INSTALLATION without interruption**  
Our specialist installation team will keep disruption to a minimum. Included in the installation process is a complete back-up of your old system, permanent deletion of any sensitive information and restoration of your essential data onto your new TAG system. Only when you are thoroughly satisfied with your new system is the installation complete.

**AFTER SALES - we're always there**  
TAG's commitment to customer satisfaction doesn't end on delivery.

Telephone support engineers are always on hand to give support right through the lifetime of your system.

The 2 year warranty guarantees to turn any system round in 72 hours, or to provide a loan system free of charge.

3 years back to base extended warranty giving you complete extra peace of mind for only £150.

- 2 YEAR WARRANTY**
- LIFETIME TELEPHONE SUPPORT**
- INTERNET READY**
- NETWORKS**
- VALUE FOR MONEY**



TO ORDER PHONE THE  
**TAG SALES TEAM**

**0181 803 7770**  
FAX ORDERLINE 0181 345 5358 TECHNICAL SUPPORT 0181 807 3970



**TAG PC TECHNOLOGY**

**SHOWROOM OPENING TIMES**  
9am - 6.30 pm MON to FRI  
9am - 4pm SAT



TAG PC TECHNOLOGY LTD,  
Toaken House, Pegamoid Road,  
Edmonton, London N18 2NJ

THE CLOSER YOU LOOK, THE BETTER IT GETS  
**501**

Delivery cost for most systems is £15. All prices exclude VAT @ 17.5%. E & OE. All prices correct at time of going to press. 14 DAY MONEY BACK GUARANTEE. TAG PC Technology prices and specifications are subject to change without notice. All sales are subject to TAG PC terms and conditions, a copy of which is available on request. Photographs shown for illustration purposes only. All trademarks acknowledged. Intel Pentium and Overdrive are trademarks of Intel Corporation. © TAG PC Technology Ltd 1998.



# Perfect Computing Solutions. . .



## Admin Systems

### Admin Pentium Specials

- Genuine Intel Pentium processor
- Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk
- 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks
- 1Mb PCI Diamond S. Video Card
- Cherry Keyboard
- 12 Month on site warranty



"The Admin rates consistently above average, putting some more expensive systems to shame"  
Computer Shopper



"Overall we found the fastest system in windows was the Admin"  
Computer Buyer



**FREE III!!!**  
**LOTUS ORGANISER**  
\*WHILE STOCKS LAST

#### Admin 75- Pentium® Processor

- Genuine Intel Pentium 75MHz processor • Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk • 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks • 1Mb PCI Diamond Stealth Video Card • Cherry Keyboard
- 12 Month on site warranty.....£965

#### Admin 90 Pentium® Processor

- Genuine Intel Pentium 90MHz processor • Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk • 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks • 1Mb PCI Diamond Stealth Video Card • Cherry Keyboard
- 12 Month on site warranty.....£1029

#### Admin 100 Pentium® Processor

- Genuine Intel Pentium 100MHz processor • Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk • 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks • 1Mb PCI Diamond Stealth Video Card • Cherry Keyboard
- 12 Month on site warranty.....£1099

#### Admin 120 Pentium® Processor

- Genuine Intel Pentium 120MHz processor • Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk • 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks • 1Mb PCI Diamond Stealth Video Card • Cherry Keyboard
- 12 Month on site warranty.....£1229

#### Admin 133 Pentium® Processor

- Genuine Intel Pentium 133 MHz processor • Intel Triton PCI Motherboard
- 850Mb Fast Hard Disk • 8Mb Ram (Max 128Mb)
- 14" N/LLR 1024 X 768 SVGA Colour Monitor
- MS DOS 6.22, Windows 3.11 & Microsoft Mouse, complete with manuals and disks • 1Mb PCI Diamond Stealth Video Card • Cherry Keyboard
- 12 Month on site warranty.....£1329

**Multimedia Option**  
**CD ROM, Sound Card 16bit, 25 watt speakers & 10 cd's software**  
**Available on all systems.....£129**

Upgrades • Memory Upgrades, Larger Hard Drives, Higher Spec Display Cards, Modems, etc...



## Keyboard

- |   |                                      |
|---|--------------------------------------|
| NEW KB101.....£49   | 102 key standard.....£10             |
| NEW KB101 PLUS.....£POA   | Cherry Membrane (OEM).....£19        |
| -KB101 & KB101+ Windows 95 keyboard feature three additional 'Chicago -keys' designed to offer users an easier interface with future versions of Microsoft Windows operating system including Windows 95. | Cherry G80-3000 Click.....£33        |
| -With your KB101 & KB101+ you get easy to understand user guides and product support  | Cherry G80-3000 soft.....£31         |
|   | P52 Keyboard adapter.....£5          |
|   | Keyboard Extension cable.....£9      |
|   | Notebook keyboard.....£64            |
|   | Cherry G84-4100.....£199             |
|   | Trackball Notebook keyboard.....£199 |
|   | NEW Windows 95 Keyboard.....£49      |
- Please Call Now !!!



## Cases with PSU

- |                                    |
|------------------------------------|
| Mini Tower with LED.....£30        |
| Desk Top with LED.....£32          |
| Full Tower.....£65                 |
| Deluxe Desktop Case TUV.....£49    |
| Desktop Multi-Media.....£99        |
| Slimline Case.....£49              |
| Deluxe Mini-Tower Case TUV.....£49 |



## Scanners

- |                                  |
|----------------------------------|
| NEW HP3 C.....£609               |
| Logitech Scanman colour.....£165 |
| Scanman 32 for Dos + OCR.....£56 |
| Scanman 32 for Wind OCR.....£56  |
| Scanman 256 PC.....£78           |
| Scanman Easytouch.....£106       |
| Logitech Power page.....£299     |
| Epson GTX 8500 P.....£495        |
| Epson GTX 8500 SCSI.....£572     |
| Epson GTX 9000 P.....£602        |
| Epson GTX 9000 SCSI.....£672     |
| Epson GTI 8500 SCSI.....£748     |
| Epson GTI 9000 SCSI.....£855     |
| Trust Handheld Col.....£99       |
| Trust 1200.....£289              |
| Trust 2400.....£369              |

**Buy with confidence from a 12 year established company**



## Tape Back-Up

NEW "Tape Backup Solution" Teac's FT-3010K Cartridge Tape Back up kit  
-Internal Tape Drive with 5.25" bracket

- Backup software
- User's manuals
- Interface cable
- Power cable
- Mounting Screws



- Colorado Drives**
- |                           |
|---------------------------|
| Jumbo DJ35 350MB.....£85  |
| Jumbo DJ25 700Mb.....£139 |
| Jumbo DJ50 1.4Gb.....£219 |
| Tracker 350mb.....£159    |
| Tracker 700mb.....£229    |
- HP Jetstore DAT**
- |                   |
|-------------------|
| Jetstore.....£POA |
|-------------------|
- IOMEGA**
- |                         |
|-------------------------|
| 250Mb Int.....£79       |
| 250Mb Parallel.....£149 |
| 700Mb Int.....£129      |
| 700Mb parallel.....£189 |



## Modems

- |                                   |  |
|-----------------------------------|--|
| <b>Admin</b>                      |  |
| 9600 Fax 2400 modem.....£69       |  |
| 14.4 Modem 9600 Fax Int.....£99   |  |
| 28.8 Fax Modem.....£139           |  |
| <b>Pace</b>                       |  |
| Microlin FX 32+ (Int).....£136    |  |
| Microlin FX 32+ (Ext).....£149    |  |
| Microlin FX 34 (Int).....£229     |  |
| Microlin FX 34 (Ext).....£229     |  |
| Mobi Fax 32+ 14.4.....£92         |  |
| Linnet Message Centre.....£218    |  |
| <b>PCMCIA Version</b>             |  |
| Microlin FX +NB32+.....£189       |  |
| NEW Microlin FX NB 34.....£POA    |  |
| <b>US Robotics:</b>               |  |
| Courier DS V.34 (Ext).....£255    |  |
| Courier DS V.34 (Int).....£255    |  |
| W/Port DS Cell PCMCIA.....£194    |  |
| W/Port DS Cell Portable.....£169  |  |
| W/Port 2496 PCMCIA.....£129       |  |
| Sportster Int. 14.4 Fax.....£105  |  |
| Sportster Ext. 14.4 Fax.....£105  |  |
| Sportster Ext. 14.4 Mac.....£139  |  |
| Sportster 28.8 V34 Ext.....£159   |  |
| Sportster 28.8 V34 Int.....£159   |  |
| <b>PCMCIA</b>                     |  |
| IBM Fax Modem Quad speed.....£129 |  |
| IBM Fax Modem High speed.....£199 |  |
| Dacom Goldcard V32bis-FX.....£189 |  |
| Dacom Goldcard V34bis+FX.....£269 |  |
- All modems are BABT approved



## Printers

- |                                 |  |                                    |  |
|---------------------------------|--|------------------------------------|--|
| <b>Brother</b>                  |  | <b>NEC</b>                         |  |
| HL 660.....£459                 |  | Nec Superscript 610+.....£279      |  |
| HL - 1260.....£899              |  | Nec Superscript 660.....£379       |  |
| HL - 630.....£319               |  | Nec Superscript Col. 3000.....£669 |  |
| HL631.....£349                  |  | <b>Canon</b>                       |  |
| <b>Hewlett Packard</b>          |  | NEW BJ30.....£151                  |  |
| HP 4L.....£349                  |  | NEW BJC70 Colour.....£219          |  |
| NEW HP 5P.....£589              |  | New BJC600e.....£328               |  |
| NEW HP 5MP.....£709             |  | BJ200ex.....£170                   |  |
| HP 4.....£969                   |  | BJ230.....£237                     |  |
| HP 4M+ PS.....£1289             |  | BJ300.....£355                     |  |
| HP4V (A3).....£1364             |  | BJ330.....£395                     |  |
| HP 4MV PS (A3).....£1968        |  | BJC800.....£1075                   |  |
| HP 4Si.....£2053                |  | BJC820.....£1223                   |  |
| HP 850 Colour.....£386          |  | NEW BJC4000c.....£228              |  |
| <b>Deskjet 1600c.....£819</b>   |  | <b>Epson</b>                       |  |
| <b>Deskjet 540.....£219</b>     |  | Epson Pro XL(A3).....£POA          |  |
| <b>540 Colour Kit.....£29</b>   |  | Stylus Colour.....£334             |  |
| <b>Deskjet 660.....£293</b>     |  | Stylus 800 +.....£178              |  |
| <b>Deskjet 320.....£163</b>     |  | Stylus 1000.....£329               |  |
| <b>Deskjet 1200C +.....£625</b> |  | LX 300.....£95                     |  |
| <b>Deskjet 1200PS.....£984</b>  |  | LX 1050.....£186                   |  |
| <b>HP SUPPORT PACKS</b>         |  | FX 870.....£239                    |  |
| 310/520/540.....£40             |  | FX 1170.....£305                   |  |
| 500/500c/560c.....£65           |  | LQ 100.....£99                     |  |
| 1200/XL300.....£100             |  | LQ 300.....£149                    |  |
| 4L.....£100                     |  | LQ 570+.....£214                   |  |
| 4P/AMP.....£124                 |  | LQ870.....£369                     |  |
| 4/M.....£155                    |  | LQ1070.....£293                    |  |
| 4V,4MV.....£220                 |  | LQ1170.....£433                    |  |
| <b>Kyocera</b>                  |  | <b>Star</b>                        |  |
| FS400 4ppm.....£POA             |  | Wintype 800c Colour.....£POA       |  |
| FS1550 10ppm.....£874           |  | NEW Wintype 4000.....£287          |  |
| FS1600 10ppm 600dpi.....£1085   |  |                                    |  |



## Facsimile

- |                             |  |
|-----------------------------|--|
| <b>Brother</b>              |  |
| NEW FX475M.....£299         |  |
| NEW FX 490DT.....£359       |  |
| NEW FX 5000P.....£POA       |  |
| Fax 1400M.....£399          |  |
| Fax 1000P Laserfax.....£439 |  |
| <b>BT</b>                   |  |
| DF100.....£199              |  |
| DF200.....£249              |  |
| DF300.....£259              |  |
| DF400.....£329              |  |
| BF800 Laserfax.....£749     |  |
| <b>Samsung</b>              |  |
| SF40.....£176               |  |
| SF500.....£199              |  |
| SF1505.....£259             |  |
| SF800.....£259              |  |
| SF2800.....£299             |  |
| SF5500 plain paper.....£699 |  |
| SF5600 plain paper.....£799 |  |



## Multimedia

- |  |  |
|--|--|
| <b>Soundblaster 16 Value.....£57</b>       |  |
| <b>Soundblaster 16 MCD.....£82</b>         |  |
| <b>Soundblaster 16 ASP MCD.....£113</b>    |  |
| <b>Soundblaster 16 SCSI.....£113</b>       |  |
| <b>Soundblaster 16 SCSI ASP.....£129</b>   |  |
| <b>Soundblaster 32 AWE2 - IDE.....£165</b> |  |
| <b>Soundblaster 32 AWE2 Value.....£122</b> |  |
| <b>Soundblaster 32 AWE2 MCD.....£163</b>   |  |
| <b>CD ROM DRIVES</b>                       |  |
| <b>NEW CD-56.....£POA</b>                  |  |
| <b>Creative Labs</b>                       |  |
| NEW 503B SCSI.....£109                     |  |
| <b>Pioneer</b>                             |  |
| DR-U124X.....£179                          |  |
| DRM - 602X 6CD.....£365                    |  |
| <b>Mitsumi</b>                             |  |
| Triple speed.....£69                       |  |
| Quad speed 250ns.....£99                   |  |
| <b>AZTECH</b>                              |  |
| Dual Speed.....£59                         |  |
| Quad Speed.....£99                         |  |
| <b>NEC</b>                                 |  |
| NEC CDR-272 Quad.....£110                  |  |
| NEC CDR-512 6 X Speed SCSI.....£229        |  |
| <b>Sony</b>                                |  |
| Sony CDU 55E 2.4X.....£89                  |  |
| <b>Panasonic</b>                           |  |
| Panasonic CR562.....£49                    |  |
| Panasonic 563CD.....£79                    |  |
| Panasonic PD System SCSI.....£549          |  |
| Panasonic PD System.....£499               |  |
| Optical disk 650Mb for PD System.....£39   |  |
| <b>Speakers</b>                            |  |
| 25 Watt Active speakers.....£19            |  |
| 80 Watt Active speakers.....£39            |  |



## Mice

- |                                 |
|---------------------------------|
| 3 Button Serial Mouse.....£7    |
| MS Mouse 2.0 (OEM).....£19      |
| Logitech pilot.....£17          |
| Logitech Trackman pilot.....£27 |
| Logitech mouseman.....£29       |

Please ensure suitability of any of the goods advertised with the manufacturer as non-faulty products returned will incur a 25% handling charge

All Prices subject to change without notice. All prices exclude VAT at 17.5%. Intel Inside logo is a registered trade mark of Intel Corporation.

# A D M I N C U R E



# Perfect Computing Solutions. . .



## Drives

WESTERN DIGITAL CAVIAR 3YR WARRANTY 3.5"	
635MB AC A 12ms 128k Cache 3YR Warranty	£119
850MB AC2850A 12ms 128k Cache 3YR Warranty	£135
1.2 GB AC31200A 10ms 128k Cache 3YR Warranty	£199
1.6 GB AC31600A 10ms 128k Cache 3YR Warranty	£POA
QUANTUM	
540MB QMV 540A IDE 14ms 128k Cache 2YR Warranty	£99
1.0GB FBL 1080AT 12ms 128k Cache 2YR Warranty	£POA
2.1GB QATL 2150 SCSI 8ms 1Mb Cache 5YR Warranty	£POA
4.3GB QGP 4301S SCSI 8.6ms 512k Cache 5YR Warranty	£POA
MAXTOR	
540MB 7540A12ms 32k Cache 1YR Warranty	£99
850MB 7850AV12ms 256k Cache 1YR Warranty	£129
1.2Gb 71260AV 12ms 256k cache 2YR Warranty	£POA
SEAGATE IDE	
545MB ST3660A 14ms 128k Cache 3YR Warranty	£99
850MB ST 5850A 12ms 256k Cache 3YR Warranty	£139
1.6GB ST 31220A12ms 256k Cache 3YR Warranty	£179
545MB ST5660N 12ms Decathlon SCSI	£187
4.3Gb ST15230N 9ms Hawk SCSI	£1269
1.05Gb ST31230N 9ms Hawk 2LP SCSI	£339
2.1Gb ST3240N 9ms Hawk 2LP SCSI	£799
2.1Gb ST32550N 8ms Fast SCSI 2 Barracuda	£829
4.3Gb ST15150N 8ms Fast SCSI 2 Barracuda	£1459
FUJITSU	
545MB M1603T E-IDE MODE 4 10ms 256k Cache 3yr Warranty	£99
1090MB M1606T E-IDE MODE 4 10ms 256k Cache 3yr Warranty	£179
545MB M1603S Fast SCSI-2 10ms 512k Cache 5yr Warranty	£139
1090MB M1606S Fast SCSI-2 10ms 512k Cache 5yr Warranty	£239
2017MB M2932S Fast SCSI-2 10ms 512k Cache 5yr Warranty	£539
4350MB M2934S Fast SCSI-2 10ms 510k Cache 5yr Warranty	£729
CONNOR	
420MB CFS 425A 15ms 2YR Warranty	£89
540MB CFS 540A 15ms 2YR Warranty	£99
850MB CFS 850A 12ms 3YR Warranty	£129
1GB CFF 1060A 12ms 5YR Warranty	£POA
1.2Gb CFS 1275A 12ms 3YR Warranty	£POA
1.08GB CP1080S 10ms SCSI 3YR Warranty	£349
2.1GB CFP 2107S 9ms SCSI 5YR Warranty	£769
4.2Gb Caymen CFP4207S 10ms SCSI 5YR Warranty	£1249
MICROPOLIS	
2.1GB MC3221 SCSI-2 8.5ms 5YR Warranty	£579
4.3GB MC3243 SCSI-2 8.5ms 5YR Warranty	£849
9.1GB MC1991 SCSI-2 8.5ms 5YR Warranty	£1490
3.5" Floppy (1.44)	£19
5.25" Floppy (1.2)	£35
Removable Hard Drive Rack	£29
Fixing Kit	£5
Hard Drive Cables	£5
ISA Multi I/O	£10
VLB Multi I/O 4HDD 2FDD	£17
2S 1P Mode 3 (1Gb)	£17
PCI Multi I/O	£19

Please confirm latest price!!!



## Monitors

14" Mono	£69
14" (0.28) SVGA Colour Int	£129
14" (0.28) SVGA Col. LR/Int	£139
14" (0.28) SVGA Col. LR/NI	£149
15" (0.28) SVGA Col.	
1024 X 768	£199
Trust 14" 0.31 SVGA	£123
Trust 14" 0.28 SVGA	£145
View Sonic 14" 6E	£149
View Sonic 15" V15ES	£199
View Sonic 17" V17	£429
View Sonic 20" V20	£979
View Sonic 21" V21	£1339
NEC	
XV15 15" 1024 X 768 NI LR	£279
XV17 17" 1024 X 768 NI LR	£559
Efficiency Series	
15 15" 1024 X 768 NI LR	£389
17 17" 1024 X 768 NI LR	£697
21 21" 1152 X870 NI LR	£1329
Professional series	
XP17 17"1152 X870 NI LR	£909
XP21 21"1360X1024 NI LR	£1749

### Panasonic



New PanaSync 5G	£POA
Phillips	
17" Digital Multi-Scan colour FST Display	
14M 14" VGA Mono LR	£89
14C 14" 1024 X 768 I LR	£163
14B 14" 1024 X 768 NI LR	£179
15B 15" 1024 X 768	
NI LR Stereo	£254
17C 17" 1024 X 768	
NI LR Stereo	£423
17A 17" 1280 X 1024 NI LR	£546
20C 20" 1280 X 1024 NI LR	£779

### Sony

15SF1 1024X768 NI LR	£305
17SF1 1024X768 NI LR	£559
17SE1 1280X1024 NI LR	£827
20SE1 1280X1024 NI LR	£1419

All Prices subject to change without notice. All prices exclude VAT @ 17.5%

Government deposits, Local Authorities, BFPO (Europe) and personal export scheme orders welcome. Free delivery\* normally within seven working days of order or sooner, (GB mainland only). Minimum order values will apply dependent on type of goods ordered. Next day delivery available at a small charge. All prices exclude VAT @ 17.5%. Stocks subject to availability. Please note we have NO COD facilities. Goods not sold on trial basis. Orders accepted subject to our standard Terms of Trading Copies available on request. Prices subject to change without prior notice. Please ensure suitability of any of the goods advertised with the manufacturer before ordering as non faulty products returned will incur a 25% handling charge. Pictures and illustrations shown are not intended to be representative of the actual products sold. On-Site warranty where offered above, only applicable to mainland UK. All trade marks are acknowledged. E & OE \*The Intel and Pentium Processor logo are registered trademarks of Intel Corporation



## Motherboards

VLB - SOYO 1	
486 SX,DX,DX2,DX4, P24	
3 VLB, 2 master, 1 slave, 7 (4)ISA, Ziff socket, 256K Cache, 128MB max memory, 4 30 pin & 2 72 pin simm sockets, supports both 5 V and 3.45V, Full green functions, fast page burst mode DRAM controller, shadow RAM in 32Kb, Turbo speed switch, Supports internal Cache write-back, Award Bios, SIS chipset	£79
VLB - SOYO 2	
As above but with 4 72 pin simm sockets	£79
NEW RANGE PCI MOTHERBOARDS	
486 SX, SL, DX, DX2, DX4, P24T	
3 PCI, 4 ISA slots, on board IDE, Green functions, 4 72 pin simm modules, 32 - bit data path (132 MB/s peak) auto config., multi master capability	£69
NEXT GEN 586 -complete with CPU	
Nx P80 586 80MHz	£189
Nx P80 586 90MHz	£199
Nx P80 586 100MHz	£249
PENTIUM MOTHERBOARDS	
Intel Triton P75/90/100/120/133,256k Cache, On board support EDO	£149
Pentium 75/90/100 PCI	£99
Gibabyte P60 PCI	£109
Gibabyte P90 PCI	£139
Soyo P5 60/66Mhz Motherboard with 256K Cache 4 PCI 4 ISA	£POA
Soyo P5 90MHz Motherboard with 256K Cache 4 PCI & 4ISA	£POA



## Networking

Novel	
Personal Netware from	£89
Netware V312 (5 user)	£403
Netware V312(10")	£909
Netware V312 (25")	£1351
Netware V4.1CD (5 user)	£424
Netware V4.1CD (10")	£973
Netware V4.1CD (25")	£1436
Networking Cards	
Jumperless NE2000 compt.BNC	£24
Jumperless NE2000 compt.VTP	£24
VL Bus 3 in 1 Ethernet	£69
PCI Ethernet BNC/UTP	£79
EISA Ethernet 3 In 1	£159
PCMCIA Ethernet BNC/UTP	£99
Pocket Lan adaptor	£69
2 Port Ethernet repeater	£149
5 Port Ethernet repeater	£179
Ethernet printer server	£119
3Com Etherlink III BNC	£66
Genius E3000 II	
parallel port adapter	£75
3Com Etherlink III 5 pack	£293
3Com Etherlink III RJ45	£65
Genius GE2000 II	£32
Intel Ethernet Express ISA 16	£57
Intel Ethernet Express	
ISA 5 Pack	£279
Intel Ethernet Express Flash	
combo 5 pack	£315
D Link DE220 OCT	£55
Networking Connectors	
BNC or RJ45 Crimp ring	£1
BNC T Connector	£4
BNC Terminator	£3
BNC Faceplates	£3
BNC Crimptool	£25
Ethernet cable stripper	£12
Cables	£POA



## I/O & Display Cards

DISPLAY CARDS	
1MB SVGA ISA	£44
Cirrus Logic 5428/9 VLB	£49
Cirrus Logic 5434 PCI 1Mb	£59
Trident 9400 PCI 1Mb	£49
Diamond Stealth	
DS 64 1Mb Video DRAM	£89
DS 64 2Mb Video DRAM	£119
DS 64 2Mb Video VRAM	£139
DS 64 4Mb Video VRAM	£329
Orchid Kelvin 64	
Kelvin 64 1MB	£99
Kelvin 64 2MB	£129
I/O CARDS	
ISA Multi I/O	
2HDD,2FDD,2S,1P,1G	£9
VLB multi I/O 2HDD 2FDD 16550UART	
2S 1P 1G enhanced	£17
CMD 6210 IDE mode 3 4IDE	
2FDD 2S 1P	£28
PCI mode 3 4IDE high speed	£26
SCSI Adaptec 1542 AHA	£134
SCSI Adaptec 2940 PCI Kit	£199
SCSI Adaptec 2742 EISA	£249
SCSI Adaptec 1542 Kit	£179
SCSI Adaptec 1515	£59



## Memory

Prices changing please confirm price

We only sell top branded modules:

1Mb X 9 70ns 3 Chlp	£24
4Mb X 9 70ns 3 Chlp (30pin)	£89
1 X 32 bit 70ns 72pin (4Mb)	£89
2 X 32 bit 70ns 72 pin (8Mb)	£179
2 X 36 bit 70ns 72 pin (8Mb)	£189
4 X 32 bit 70ns 72 pin(16Mb)	£289
4 X 36 bit 70ns 72 pin(16Mb)	£299
8 X 32 bit 70ns 72 pin(32Mb)	£POA
8 X 32 bit 70ns 72 pin(32Mb)	£POA
EDO Slimms	
1 x 32bit 70ns	£99
2 x 32bit 60ns	£199
DRAM's	
256k x4 DIL 70ns	£4
256k x 16 SOJ 70ns	£19
256k x 16 EDO 70ns	£19
1m x 4 SOJ 60ns	£14
1m x 4 ZIP 70ns	£15
1m x 4 SOJ 70ns	£15
FSRAM's	
32k x 8 DIL 20ns	£4
128k x 8 DIL 20ns	£19



## CPU'S

Intel 486DXII 66	£69
Intel 486DX4/75	£89
Intel 486DX4/100	£99
Intel Pentium 75MHz	£129
Intel Pentium 90MHz	£199
Intel Pentium 100MHz	£269
Intel Pentium 120MHz	£399
AMD DXII/80	£69
AMD DX 4/100	£89
SGS Thompson DXII-50	£39
SGS Thompson DXII-66	£49
SGS Thompson DXII-80	£59
Cyrix DXII-66	£49
Cyrix DXII-80	£69
Heat Sink & Fan 486	£9
Heat sink & Fan Pentium	£17

Admincure  
Clearly the only choice!



## Price Promise

We believe that our prices will represent the best value available on the market place, however, if you have a large enquiry we will be able to offer excellent savings. . . . Tenders are welcome! Remember when comparing like for like - we will not be beaten on price!



## Technical Support

In the event of you having any problems our free technical support line is available to all Admincure customers.



## Confidence

Established 12 years in the business Admincure have grown into a multi million pound operation offering a wide range of products including: Printers, Consumables, Peripherals and are authorised dealers for most popular brands.



## COMPUTER SHOPPER

1994 Awards Nomination  
Fair Trading Award  
Admincure

**FREE DELIVERY!!!**  
ON OUR ENTIRE RANGE, anywhere in mainland UK by Courier Service  
Minimum Order Values Apply  
Please call for details



## Export Orders

Export orders a speciality, we offer a complete service including despatch and VAT exemption. Overseas orders welcome.



## Corporate & Public Sector

We welcome orders from corporate, education and public sector organisations. Our standard 30 day terms will apply, just fax your order!



## Installation Service

For a small charge, one of our engineers will deliver AND INSTALL your equipment for you and provide a basic training session.



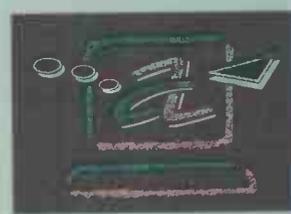
## Repeat Customers

On average about 40% of our business is through repeat customers and recommendations which prove our respectability in the market place.



## Payment Methods

Access & Visa - NO Surcharge. Cheques with order welcome. 30 day term accounts opened subject to status. Leasing facilities available please call for details.



Admincure Limited, Admin House,  
Great Central Way, Rugby,  
Warwickshire, CV21 3XH

## Order Line 01788 567 567

General Enquiries: 01788 547774  
Admin PC Enquiries: 01788 540220  
Administration: 01788 544645  
Administration Fax: 01788 569069  
Sales Fax: 01788 550097

To Order Call: 01788 567 567  
General Enquiries Call: 01788 547774  
Admin PC Enquiries Call: 01788 540220

Admincure  
Established 12 years

Choice To order call: 0181-993 9003

Choice To order call: 0181-993 9003

# Choice of FUJITSU ICL PC's



## ERGO PRO

- PCI Graphics
- 8Mb RAM / 540MB HDD
- Optional Ergo arm/foot
- 14" SVGA colour monitor
- MS DOS 6.22 / Windows 3.11
- 3 yr parts & labour warranty (1st year on-site).

## Ergo Pro E 75MHz

**£1299**

## Ergo Pro X 90MHz

**£1825 (16Mb)**

## TeamSERVER C450I

- Intel Pentium 75MHz CPU
- 256k Cache, Quad CD ROM drive
- 1 Gig SCSI 2 HDD, 1Mb PCI SVGA
- PCI Ethernet card
- Three year warranty
- Optional built-in PCMCIA.
- Netware 4.1 Pre-loaded.

## TeamSERVER C450I

**£2199**

**48 hour delivery on all Fujitsu ICL systems**

Choice Systems Limited is an authorised reseller for Fujitsu-ICL PC's.

## CHOICE PENTIUM PCI ULTRA



- P75/90/100/120/150 P6 overdrive
- Intel Triton chipset, 4PCI & 3ISA slots
- 8Mb RAM, 256k Cache
- Flash BIOS - plug & play

- 1Mb PCI SVGA Graphics Card
- 540Mb E-IDE fast HDD
- 14" SVGA LR Monitor
- Desktop or Mini Tower
- 102 Key UK Keyboard

Lease from as little as **£6** per week

**PENTIUM 75MHZ**  
**£969**  
*Excludes V.A.T & Delivery.*

**Intel Pentium 90MHz** £1049  
**Intel Pentium 100MHz** £1125  
**Intel Pentium 120MHz** £1299  
**Intel Pentium 133MHz** £1399



## MULTI-MEDIA

- Quad speed Creative CD-ROM drive
- SoundBlaster 16 ASP sound card
- External Speakers
- Microsoft Encarta 95 CD

**MULTI-MEDIA**  
**£225**  
*Excludes V.A.T & Delivery.*

## MULTI-MEDIA - OPTION 2

- Quad speed Creative CD-ROM drive
- SoundBlaster 16 ASP sound card
- External Speakers
- Microsoft Encarta 95 CD
- Microsoft Home CD Pack:

**SOFTWARE**  
**£299**  
*Excludes V.A.T & Delivery.*

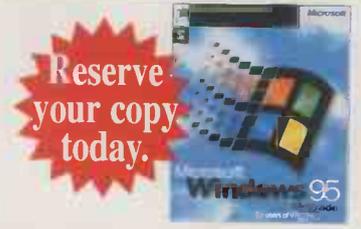
- MS Works
- MS Publisher,
- MS Encarta 95
- MS Musical Instruments
- MS Cinemania 95 + Games
- MS Dangerous Creatures
- MS Ancient Lands
- MS Book Shelf



## CHOICE - D.I.Y

- INTEL MOTHERBOARDS**  
Advanced EV, Windows compatible with plug & play BIOS P75/P90/P100/P120/P133 .....CALL
- TMC**  
486V/L 256K cache .....£79  
486 PCI/VL, 256K cache .....£120  
Pentium PCI Triton .....£199
- MEMORY**  
4MB 32 bit .....£99  
4MB 36bit .....£115  
8MB 32bit .....£199  
8MB 36bit .....£225  
16MB 32bit .....CALL
- MONITORS**  
Sony, Phillips, NEC .....CALL
- HARD DISK DRIVES**  
All manufacturers .....CALL
- CD-ROM DRIVES & SOUND CARDS**  
Mitumi Quad speed CD drive .....£115  
NEC Quad speed CD drive .....£125  
Creative Labs sound cards .....CALL  
NEC / Toshiba six speed SCSI CD drives .....CALL

- FAX MODEM CARDS**  
**(£10 FREE COMPUSERVE SUBSCRIPTION)**  
14.4 internal MRI .....£85  
28.8 internal MRI .....£175  
US Robotics modems .....Call
- MOBILE 2.5 HARD DISK DRIVE**  
Requires no power, plug & play to any notebook or PC.  
340MB HDD .....£295  
540MB HDD .....£395  
810MB HDD .....£699  
1GIGABYTE .....CALL
- NEW PCMCIA 4 X CD-ROM DRIVE**  
Works with all PCMCIA type 2 slots with or without soundcard on board. Windows 95 compatible.  
PCMCIA Dual speed .....£249  
PCMCIA Dual speed + soundcard .....CALL  
PCMCIA Quad speed .....CALL  
PCMCIA Quad speed CD + soundcard .....CALL
- WINDOWS 95**  
**(CALL TO RESERVE YOUR COPY)**  
Windows 95 upgrade .....CALL  
Windows 95 NEW version .....CALL



## PROFESSIONAL UPGRADE SERVICE FROM CHOICE SYSTEMS.

Choice Systems will upgrade your existing computer with new Motherboard, New memory, Multi-Media upgrade or a bigger hard disk drive. Call us now and ask for the upgrade desk for a competitive quote.

Choice To order call: 0181-993 9003

# Choice systems

Established since 1986

The Choice customer charter is designed to guarantee that you have made an Ironclad quality purchase.

At Choice Systems we only sell "brand-name" systems & components with a proven track record for reliability & quality. It is this policy that has kept both us & our customers consistently in front.

FUJITSU ICL  
RESELLER

AUTHORISED  
OPTI DEALER

LEASING &  
FINANCE

BRAND NAME  
SECURITY

CORPORATE  
ACCOUNTS

Corporate, Government & Local Authorities orders welcome with purchase orders.

Opening times:  
Mon-Fri 9.30 - 6.00  
Sat: 10.00 - 4.00

Tel: 0181-993 9003

Facsimile: 0181-993 9936



Choice Systems Limited, Unit 1, Concord Business Centre Concord Road, Acton, London W3 0TJ

All prices exclude V.A.T. All prices are subject to change without prior notice. E&OE. All trademarks & registered Trade Marks are acknowledged. Choice Systems terms & conditions apply. Leasing & finance subject to status.

# Choice of OPTI Notebooks

## OPTI 90MHz PCI PANTERA



- 90MHz Pentium® processor
- Hard disk - 520Mb fast HDD
- 8Mb RAM (upgradeable 40Mb)
- Latest PCI graphics
- Infra red port allowing wireless data transfer
- Display 9.5" LCD + CCFT backlit (10.3" STN)
- Colours - 1024 x 768 256 for external CRT.
- Built in Audio 16BIT sound card & microphone.
- PCMCIA 2 x PCMCIA type 2 or 1 X PCMCIA 3
- Graphics - 1Mb PCI graphics.
- 3.5 FDD fitted.
- Expansion slots 1 serial, 1 parallel port.
- External mouse, keyboard, VGA ports
- Battery - 1 NI-MH.

CHOICE PRICE

**£2099**

Excludes V.A.T & Delivery.

Lease from as little **£13** per week



Recyclable structure



Fully Upgradeable

	10.3 DI scan	10.3 TFT
pentium 75	£1999	£2695
pentium 90	£2099	£2895
pentium 100	CALL	CALL

## OPTI PLATINUM

- i 486DX4/100.
- 520Mb HDD.
- 4Mb RAM, 3.5 FDD.
- 1Mb VESA 32 BIT graphics.
- Dual scan system.
- Built in 16 bit Soundcard.
- 2 type 2 PCMCIA slots or 1 type 3.
- Trackball. • Carry bag.
- 2 year Opti warranty.

CHOICE PRICE

**£1100**

Excludes V.A.T & Delivery.

Lease from as little **£7** per week

	Mono	DL STN	TFT
486DX2/66	£999	£1350	£1875
486DX4/75	£1049	£1399	£1925
486DX4/100	£1100	£1450	£1975

## OPTI 1000™ ML

- New Cyrix 486 DX2/66 processor.
- 4Mb RAM.
- 340Mb HDD.
- Two PCMCIA type 2 or type one type 3.
- Dual scan mono screen.
- Trackball.

Lease from as little **£6** per week

Enhanced power management

Low power consumption

CHOICE PRICE

**£875**

Excludes V.A.T & Delivery.



## SOFTWARE UPGRADE

- OS/Warp
- 32 Bit Lotus SmartSuite

Min requirement 8Mb RAM. Pre-loaded software



CHOICE PRICE ADD

**£49**

Software Pre-Loaded. Add £99 for software with disks & manuals.

## OPTIONS

PCMCIA Quad speed CD-ROM (add).....	CALL	Novell approved Docking station Platinum .....	£339
PCMCIA Dual speed CD-ROM (add).....	£249	AC/DC adaptor (add).....	£95
RAM upgrade (add) Platinum .....	£155	Battery charger (add).....	£79
RAM upgrade 12Mb (add) Platinum.....	£299	PCMCIA fax modem 14.4 (add).....	£185
RAM upgrade 20Mb (add) Platinum.....	£650	PCMCIA Rapido 28.8 (add).....	£299
RAM upgrade Pantera.....	CALL	PCMCIA Ethernet adaptor (add).....	£125
HDD upgrade to 1 Gb (add) Platinum/Pantera CALL		PCMCIA SCSI 2 card (add).....	£175
New PCMCIA joystick card.....	£49	14"/15"/17" External monitors.....	CALL

# BYTEWISE TECHNOLOGY.....

Bytewise Technology is unique in producing the black range of computers and supplying black parts and accessories to the industry in the U.K. and abroad.

Furthermore, we build computers to suit your needs, you can select from a range of high capacity storage, memory upgrade and powerful type of CPU.

All our systems are configured and thoroughly tested with a variety of software windows applications.

If you want something to look different why not order one now and try it yourself !!!!

**For a complete black system please add £50.00 to system prices below.**



## Swift (PENTIUM)

Intel Pentium Processor • 256K Cache • 8MB RAM  
70ns upgradable to 128MB • 1.0GB EIDE Hard Disk •  
EIDE PCI Controller Card with Fast 2s & 1p • 3.5"  
1.44MB Floppy drive • 1MB PCI Diamond Stealth  
DRAM upgradable to 2MB Windows Accelerator SVGA  
Card • 14" .28DP Super VGANI/LR Colour Monitor •  
102 Key Enhanced U.K Keyboard • Microsoft  
Compatible Mouse • Desktop or Minitower case •  
MS-DOS 6.22 & Windows 3.11 FWG

<b>Pentium 75MHz</b>	<b>£985.00</b>
<b>Pentium 90MHz</b>	<b>£1050.00</b>
<b>Pentium 100MHz</b>	<b>£1150.00</b>
<b>Pentium 120MHz</b>	<b>£1250.00</b>
<b>Pentium 133MHz</b>	<b>£1360.00</b>

## Swift 486

486 Processor • 256K Cache • 3 PCI/VL Bus • 4MB  
RAM 70ns upgradable to 64MB • 540MB IDE Hard  
Disk • VLB/EIDE Controller Card with 2s, 1p & 1G  
Port • 3.5" 1.44MB Floppy drive • 1MB SVGA PCI/  
VLB upgradable to 2MB Windows Accelerator Card •  
14" .28DP Super VGA NI/LR Colour Monitor • 102  
Enhanced U.K Keyboard • Microsoft Compatible Mouse  
• Desktop or Minitower case.

<b>486DX4-100</b>	<b>£640.00</b>
<b>486DX2-66</b>	<b>£580.00</b>
<b>486DX2-50</b>	<b>£580.00</b>
<b>486DX-33</b>	<b>£650.00</b>
<b>486SX2-50</b>	<b>£570.00</b>

## Swift Multi Media

Same as other systems specifications, all our Multimedia systems come with:  
Microsoft Encarta/ MS Works/ Money/ Dangerous  
Creatures/ Golf and Scenes add:  
• For Panasonic 562 Dual speed, Soundblaster 16 Bit compatible and speakers £150.00  
• As above with Mitsumi Quad speed IDE £199.00  
• Toshiba XM-5302B Quad speed IDE CD-Rom, Soundblaster 16 Sound Card and Zyfi 2 speakers £215.00  
• As above with Soundblaster AWE 32 (512K) £280.00

**See next page for more Multimedia packs and parts.**

**Radio Card: Radio FX lets you listen to your favourite FM Stereo £38.00**

**UPGRADING REPAIRS AND OTHER SERVICES ARE AVAILABLE**

We accept orders from Education and Public Sector Organisations.

Bytewise is a long established company who have been supplying computers and peripherals to thousands of customers locally, nationally and internationally

**Internet Connection:**

When you purchase a computer with a Fax-Modem card from us we will install and configure ready to use at no extra cost.

**CALL NOW ON 0171-275 8853 OR FAX ON 0171-275 8344**

# HIGH QUALITY COMPUTERS & PARTS

## MOTHERBOARDS

Pentium 133MHz 256K Cache	£685
Pentium 120MHz 256K Cache	£560
Pentium 100MHz 256K Cache	£430
Pentium 90MHz 256K Cache	£355
Pentium 75MHz 256K Cache	£295
<b>486 VLB WITH CPU</b>	
486SX-25 256k cache & VLB	£110
486SX2-50 256k cache & VLB	£120
486DX-33 256k cache & VLB	£180
486DX2-50 256k cache & VLB	£130
Intel 486DX2-66 256k cache & VLB	£150
IBM 486DX2-66 256k cache & VLB	£125
486DX4-75 256k cache & VLB	£160
486DX4-100 256k cache & VLB	£175
AMD 486DX4-100 256k cache & VLB	£160

### 486 PCI WITH CPU ADD £20

### 386 Motherboard

386SX-40	£42
386DX-40 128k cache	£60

### CPU

Intel 80486 SX-25	£45
Intel 80486 SX2-50	£50
Intel 80486DX-33	£105
Intel 80486DX2-50	£60
Intel 80486DX2-66	£78
IBM 80486DX2-66	£55
Intel 80486 DX4-75	£85
Intel 80486DX4-100	£110
PENTIUM 75MHz	£135
PENTIUM 90MHz	£215
PENTIUM 100MHz	£295
PENTIUM 120MHz	£425
PENTIUM 133MHz	£535

## MEMORY

4MB RAM MODULE 72 PIN	£95
4MB RAM MODULE 72 PIN w/parity	£115
8MB RAM MODULE 72 PIN	£190
8MB RAM MODULE 72 PIN w/parity	£220
16MB RAM MODULE 72 PIN	£340
16MB RAM MODULE 72 PIN w/parity	£380
32MB RAM MODULE 72 PIN	£690
4MB RAM MODULE 30 PIN	£98
1MB RAM MODULE 30 PIN	£28
256KB RAM	£10

## HARD DRIVES

<b>IDE DRIVES</b>	
Seagate IDE 214MB	£95
Seagate IDE 428MB	£115
Seagate IDE 545MB	£120
Seagate IDE 850MB	£150
Seagate IDE 1.0GB	£175
<b>SCSI DRIVES</b>	
Seagate SCSI II 1.0GB	£295
Seagate SCSI II 2.1GB	£595
Seagate SCSI II 4.0GB	£745
Seagate SCSI 9.0GB	£1800
Fujitsu 528MB	£135
Fujitsu 1.0G	£265
Fujitsu 2.0G	£495
Fujitsu 4.0G	£725
Micropolis 2.0GB	£585
Micropolis 4.0GB	£760
Micropolis 9.0GB	£1425
HP 1.0 GB	£305
HP 2.0 GB	£460

### 2.5" DRIVES

Seagate IDE 260MB	£175
Seagate IDE 455MB	£270
Fujitsu SCSI 265MB	£175
Fujitsu SCSI 532MB	£205

## CASES WITH PSU

Multi-Media Desktop Case	£80
<b>Economy range</b>	
Desktop with display	£30
Minitower with display	£26
Slimline case	£39
Miditower with display	£65
Large Tower	£75
<b>Procase range</b>	
109M Desktop with display	£44
222M Desktop with display	£54
609M Minitower with display	£42
902M Minitower with display	£54
Miditower with display	£74
Large Tower	£92
<b>Delux range</b>	
KS330D Minitower w/display	£62
KS730D Desktop w/display	£60
KS130 Full Tower w/display	£96

## DISPLAY CARDS

VGA 256K 16-bit	£25
VGA 512K 16-bit	£30
VGA 1MB 16-bit	£40
<b>CIRRUS LOGIC</b>	
Cirrus Logic 512KB ISA	£32
Cirrus Logic 1MB ISA	£48
Cirrus Logic 1MB VLB	£60
Cirrus Logic 1MB PCI	£65
<b>OTHERS</b>	
Trident 1MB PCI	£60
Diamond Stealth 64 1MB VLB/PCI	£95
Diamond Stealth 64 2MB VLB /PCI	£115
Diamond Stealth 64 2MB VRAMVLB /PCI£215	
Diamond Stealth 64 2MB VRAMVLB /PCI£320	
Diamond VIPER 2MB VLB/PCI	£230
Orchid Kelvin EZ VLB or PCI	£155
Orchid Kelvin 64 VLB or PCI	£175

## I/O CARDS

IDE controller (2HDD,2FDD, 2S, 1P, G)	£10
Enhanced IDE Multi I/O VLB Bus	£18
DTC Enhanced Multi I/O VLB card	£25
IDE Multi I/O PCI Bus	£40
Promise Cache controller	£79
Promise VLB Cache controller	£115
<b>SCSI</b>	
Adaptec 1505 Complete Kit ISA	£45
Adaptec 1515 Complete Kit ISA	£70
Adaptec 1542 Complete Kit ISA	£175
Adaptec 2842 Complete Kit VLB	£165
Adaptec 2742 Complete Kit EISA	£265
Adaptec 2940 Complete Kit PCI	£215
DTC3130 32 Bit Fast SCSI 2 PCI	£75
DTC3270 32 Bit Fast SCSI 2 VLB	£90

## FLOPPY DISK DRIVES

1.44MB 3.5" Mitsumi	£19
1.44MB 3.5" Teac	£25
1.44MB 3.5" Sony/Mitsubishi	£20
1.2MB 5.25" Teac	£42
1.2MB 5.25" Sony/Mitsubishi	£39
1.2MB 5.25" Mitsumi	£40

## MOUSE

Mouse	£8
Mouse and Pad	£10
Logitech Mouse Pilot II	£22
Microsoft V2.0	£25
PS2 Mouse	£20
Logitech Cordless Mouse	£61

## PRINTERS

Panasonic KX-P1150 9 Pin	£98
Panasonic KX-P2023 24 Pin	£130
Panasonic KX-P2124 24 Pin Colour	£210
HP Deskjet 540	£210
HP Deskjet 660C	£350
Canon BJ30	£155
Canon BJ200ex	£175
Samsung SL1051A Laser Printer	£340
Samsung SL1082A Laser Printer	£560
Samsung SL1081P Laser Printer	£470
Panasonic KX-P6100 Laser	£285
Panasonic KX-P4440 Laser	£705
HP Laserjet 5L	call
HP Laserjet 4L	£380
HP Laserjet 5 Plus	call
HP Laserjet 4 Plus	£980

## PCMCIA

US Rebotic WorldPort 2496 Fax/Modem	£145
Wordport V.34 Fax/Modem	£185
Longshine 14.4k Fax Modem	£115
Longshine 16 Bit Ethernet BNC/TP	£95
3COM Ethernet Combo	£169

## PSU

200W for Minitower or Desktop	£26
230W for Minitower or Desktop	£45
250W for Big Tower	£55
300W for Big Tower	£60
250W Big L Type	£60

## UPS

250VA Mini Guard (Mini Tower Type)	£75
425VA Mini Guard (Mini Tower Type)	£135
600VA Mini Guard (Mini Tower Type)	£165

### Delivery:

£15 for the Systems  
£10 for Cases or Monitors  
£4 for small Items

## MONITORS

14" Super VGA Colour .39DP	£130
14" Super VGA Colour .28DP	£140
14" SVGA Colour, LR	£145
14" SVGA Colour NI & LR	£160
14" VGA Mono	£70
15" SVGA NI/LR MPR II	£225
17" SVGA NI/LR MPR II	£475
<b>PHILIPS</b>	
14" PHL 14A LR AUTOSCAN	£230
14" PHL 14C LR	£190
15" PHL 15A LR	£285
15" PHL 15B LR	£275
17" PHL 17C	£480
20" PHL 20C	£820
<b>SONY</b>	
17" Trinitron 1730	£695
20" Trinitron 2036S	£1320

## KEYBOARDS

AT 102 English	£12
PS2 102 Keyboard	£25
Chicony 102 Key Industrial	£20
Cherry G83	£30
AT English+other language	£65

## SCANNERS

Addup Hand Held 256 Gray Scale	£49
Addup Hand Held Colour	£99
Logitech Scanman 256 Gray Scale	£95
Logitech Scanman 32 Colour 24 Bit	£195
Logitech Scanman Easy Touch	£120
Mustek Paragon 600 24 Bit F/bed	£299
Mustek Paragon 1200 24 Bit F/bed	£389
Canon IX-4015 Colour Scanner	£560

## BACKUP SYSTEMS

Jumbo 350MB	£99
Jumbo 700MB	£155
KE10 External Kit	£77
Tracker 250MB External	£165
Tracker 350MB External	£175
Tracker 700MB External	£250
Summit 350MB Internal	£115
Summit 700MB Internal	£199
Exabyte DAT 2GB Drive	£585
Exabyte DAT 2GB Complete Kit	£775
Exabyte DAT 4GB Drive	£695
Exabyte DAT 4GB Complete Kit	£815

<b>Tapes</b>	
DC 2060 120MB	£12
DC 6250 250MB	£16
DC 6525 525MB	£19
DL 9100 1.0GB	£26
DL 90 DAT 4mm 4.0GB	£17
DL 120 DAT 4mm 4.0GB	£20
DC 9120 PT25 Media 1.2GB	£34
DC 9200 PT50 Media 2.0GB	£38

## MULTI MEDIA



Panasonic 562 CD-ROM Drive	£55
Panasonic 574 CD-ROM IDE Drive	£115
Panasonic 504 SCSI CD-ROM Drive	£155
Mitsumi Quad Speed IDE Drive	£110
NEC Quad Speed IDE Drive	£115
NEC Six Speed SCSI Drive	£295
Sounblaster 16 bit Compatible	£45
Sounblaster 16 bit Value	£70
Sounblaster 16bit MCD	£95
Sounblaster 16bit MCD ASP	£120
Sounblaster AWE 32 bit	£180
<b>Multimedia Packages:</b>	
• Toshiba Quad CD-ROM, Optimum 16 bit Sound card, Zyi 2 Speakers and Lotus 123, AmiPro, Approach, Screencam & Lotus Smartpics	£265
• As Above but with Sound Blaster 16	£275

## JET BLACK PARTS

Black Slimline	£58
Black Desktop	£58
Black Minitower	£59
Black Large Tower	£126



Black Keyboard	£26
Black Mouse	£15
1.44MB Citizen	£30
1.2MB Teac	£42
14" Super VGA Colour	£160
14" Super VGA Colour NI/LR	£180
Speakers	£20

## NETWORK CARDS

NE2000 16 Bit coax	£30
NE2000 10Base T (UTP)	£32
<b>3Com</b>	
3Com 3C509	£76
3Com 3C509 Combo	£90
3Com 3C579 32 Bit EISA	£165

<b>SMC</b>	
SMC Elite Ultra	£70
SMC Elite Ultra Combo	£84
SMC E32C 32 Bit EISA	£155
Novell	
Eagle BNC	£65
Eagle TP	£60
Eagle Combo	£70

<b>Accessories</b>	
Boot ROM	£12
BNC(Terminator)	£3
Ethernet Cables3M W/BNC	£10
HUBS 8RJ45 + 1 BNC	£167
HUBS 12RJ45 + 1 BNC +1 AUI	£265

## FAX-MODEM CARDS

14400 Fax-Modem Internal or Ext.	£85
Pocket Fax-Modem	£90
<b>US Rebotic</b>	
Sportster 14,400 Int/Ext	£125
Sportster 28,000 Int/Ext	£185
Courier Dual STD Trbo +	£320
Courier V 34 Int/Ext	£270
<b>Pace</b>	
Linnet 24	£92
Linnet Quad FX	£99
Linnet 32+ FX	£190
Microline FX	£105

## ACCESSORIES

Keyboard adaptor to PS2	£7
Removable HDD Kit	£15
Heat sink with Fan	£10
Printer Cable	£5
SCSI Cable	£10
Laplink Cable	£10
3.5" to 5.25" Adaptor	£5

## SOFTWARE

MS-DOS 6.22	£35
Windows 95 Upgrade	£59
Windows 95 full Version OEM	£79
Windows 95 full Version OEM CD	£75
Windows 3.11 FWG	£55
MS-DOS 6.22 & Windows 3.11	£75
Novel 3.12 5users	£430
Novel 3.12 10users	£950
Novel 4.1 5users CD	£430
Novel 4.1 10users CD	£950
Novell Personal Network	£48

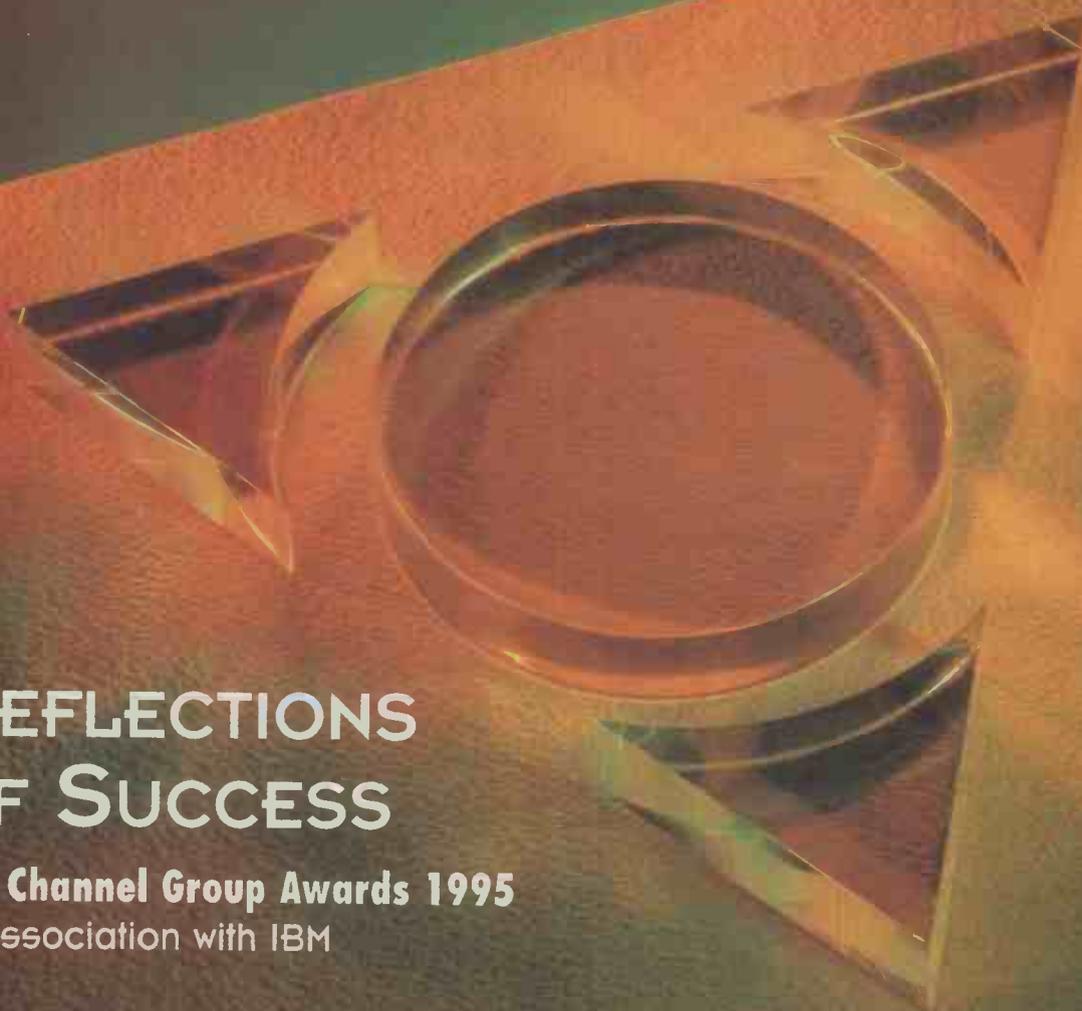
## Showroom Opening

Times:  
**Mon to Fri**  
10.00am to 6.00pm  
**Sat**  
10.00am to 2pm



All prices exclude VAT and delivery

Bytewise Technology Ltd  
25-Downham Road, London N1 5AA  
Tel: 0171-275 8853 Fax: 0171-275 8344



# REFLECTIONS OF SUCCESS

## The Channel Group Awards 1995 In association with IBM

Following their successful debut last year, we invite your nominations for The Channel Group Awards 1995. This is the industry event of the year: 17 prestigious awards that recognise outstanding achievement throughout the Channel.

With *PC Dealer*, *Computer Retail News* and *VAR World*, The VNU Channel Group covers the whole spectrum of selling IT products and our Awards reflect success throughout this dynamic market.

### A MEMORABLE NIGHT OUT

All The Channel Group Awards for 1995 will be announced and presented at a sumptuous Gala Dinner at the New Connaught Rooms, Covent Garden on the evening of Tuesday 28 November.

The ceremony will be hosted by a well-known personality and a memorable evening's entertainment will include dancing until the

early hours, with carriages at 2.00am. You can book whole tables (they seat 10) at a cost of £950 plus VAT or buy tickets individually at £100 plus VAT.

### ANYONE CAN BACK A WINNER

We need your nominations for 12 of the Award categories by 6 October. And you can even vote for your own company! Everyone who completes and returns a nomination form will be entered into a draw, from which two lucky winners will each receive a free ticket for the Awards Dinner.

### PHONE NOW FOR YOUR NOMINATION FORM

Look out for the nomination forms in the next issues of *PC Dealer*, *Computer Retail News* and *VAR World*. Or phone now on 0171 316 9192 and we will send you one direct, together with any other information you may need.

## PC DEALER BUSINESS DISTRIBUTOR OF THE YEAR

The Best to Sell Retail Leisure Product of the Year  
The Best to Sell Games Product of the Year  
The Value Added Reseller (VAR) of the Year  
Network Distributor of the Year  
Peripherals Distributor of the Year  
Mac Distributor of the Year  
Retail Distributor of the Year  
PC Distributor of the Year

The Best to Sell Retail Business Product of the Year  
The Best to Sell Software Product of the Year  
The Best to Sell Hardware Product of the Year  
A Special Channel Award from IBM  
1995 Channel Magtrack Award  
Retailer of the Year  
Unix Distributor of the Year  
Dealer of the Year



# Is YOUR MEMORY LETTING You DOWN?

Learn how millions have already  
overcome the problem



unlock  
THE FULL POTENTIAL  
of your PC

With the growing complexity of the latest software, an increase in memory is regarded as an essential investment for both the individual and companies alike, to improve PRODUCTIVITY gains on all levels. . . . Users have found that memory upgrades pay for themselves in less than a month and after that, the returns keep growing.

## can you afford to miss out?

By talking to a company who specialise in memory, you will gain expert advice on what's best for your particular needs. . . . We offer competitive prices and fast delivery. . . . Full instructions are included so installation is easy and there's also a help line to talk you through the installation process. . . .

★ ★ ★

Upgrade the memory using our high QUALITY components will transform everything you can do on your PC, making it so much faster, more efficient and user friendly. . . . With additional memory you can also run the latest WINDOWS 95 package, which is destined to become the operating system of the 90's and will open up new and EXCITING possibilities. . . .

★ Microsoft  
Windows® 95★



SAVE TIME WITH AN EASIER-TO-USE INTERFACE, long file names and one-click access to all your programmes and documents with the Start button. . . .

Plug and Play technology automatically connects compatible disk drives, sound cards, etc. . . . .

32-bit, pre-emptive multitasking lets you run multiple programmes or performs multiple tasks simultaneously. . . . .

Gain access to e-mail and faxes with Microsoft Exchange, and to the Internet with The Microsoft Network. . . . .

Full-motion video provides vividly realistic game play with big, fast, on-screen action. . . . .

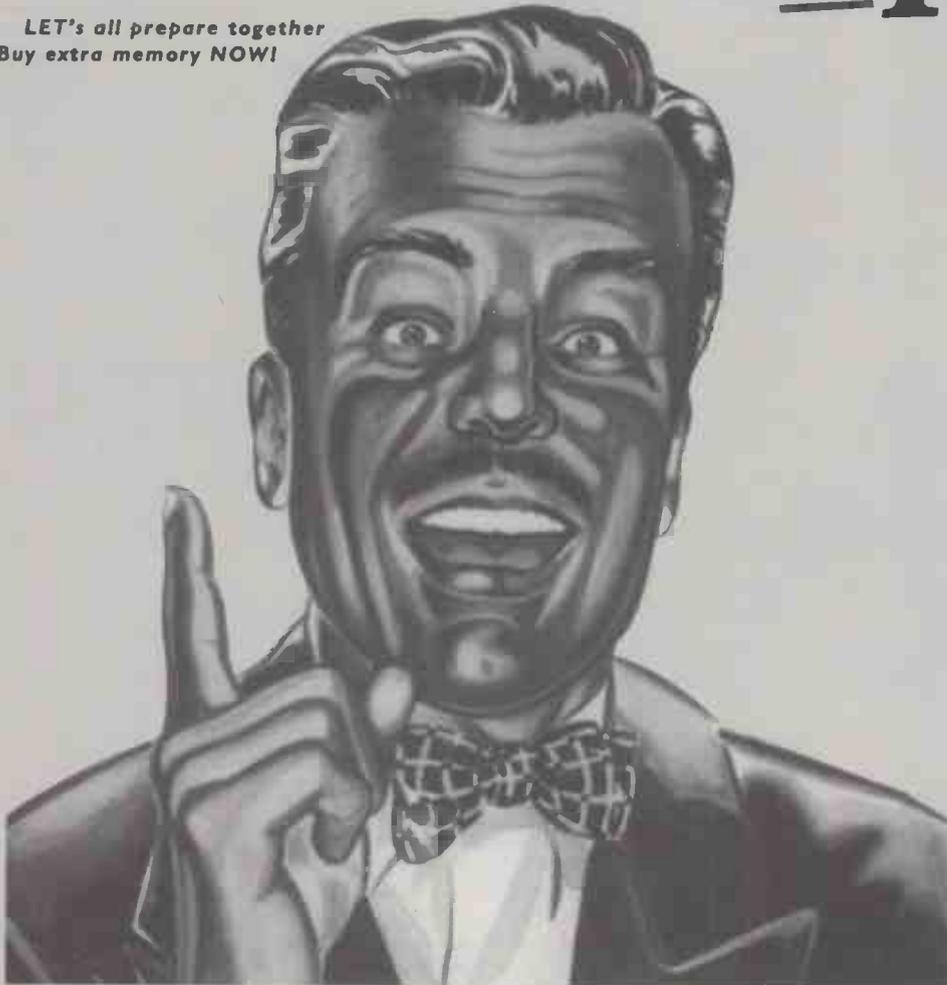
★ Read on . . . for even more ★

swell ways to improve your memory. ....

# Memory MAYHEM, Co

## we've a Specialist

LET's all prepare together  
Buy extra memory NOW!



## Call ME today

Our memory  
Specialists  
are on hand

to offer expert advice, answer questions and help you get the power, PERFORMANCE And speed you want from your pc. So whatever your PC needs, we can help you choose the right upgrade at the right price.....

Act FAST..... to keep  
up with TODAY'S  
TECHNOLOGY

### - DESKTOP MEMORY -

<b>Amstrad</b>		(Exc VAT)
1286, 2286, 3286.....	2MB Upg....	£ 62.00
1386, 2386, 7386.....	4MB Upg....	£132.00
7486, 5286, Mega PC.....	8MB Upg....	£229.00
<b>AST</b>		
Premmia 4/33, 4/33S.....	4MB Upg....	£189.00
4/50D, 4/66D, MTE 4/33.....	8MB Upg....	£299.00
MTE 4/66D, P/60, SE4/33.16MB	Upg....	£589.00
SE4/66D.....	16MB Upg....	£589.00
<b>Elonex</b>		
286M, 286C, 386.....	2MB Upg....	£ 65.00
486, SX/16/M/V/B.....	4MB Upg....	£199.00
486, SX/16/M/V/B.....	8MB Upg....	£249.00
<b>Compaq</b>		
New Prolinea Family.....	4MB.....	£129.00
.....	8MB.....	£258.00
.....	16MB.....	£450.00
Presario 500/700/900.....	4MB.....	£129.00
Family.....	8MB.....	£258.00
.....	16MB.....	£450.00
<b>Digital</b>		
Venturis 486.....	4MB.....	£129.00
.....	8MB.....	£215.00
.....	16MB.....	£474.00
Celebris Pentium.....	4MB.....	£142.00
.....	8MB.....	£270.00
.....	16MB.....	£585.00
<b>DELL</b>		
Optiplex.....	8MB.....	£270.00
560/ME, 566/ME.....	16MB.....	£570.00
590/ME.....	16MB.....	£570.00
<b>IBM</b>		
Aptiva Range.....	4MB Upg....	£149.00
.....	8MB Upg....	£269.00
.....	16MB Upg....	£479.00
PSI Pro, Willow Series.....	4MB Upg....	£149.00
VALUEPoint.....	4MB Upg....	£149.00
<b>Mitac</b>		
386/486 Range.....	2MB Upg....	£ 65.00
.....	4MB Upg....	£132.00
.....	8MB Upg....	£229.00
<b>Packard Bell</b>		
Legend 200, 316, 386.....	2MB Upg....	£ 72.00
416, 486.....	4MB Upg....	£144.00
.....	8MB Upg....	£279.00
.....	16MB Upg....	£459.00
<b>Tandon</b>		
SL286, PAC, 286N.....	2MB Upg....	£ 79.00
SL386, 386N, 386SX.....	4MB Upg....	£129.00
486.....	8MB Upg....	£299.00
<b>Time</b>		
All models.....	2MB.....	£ 65.00
.....	4MB.....	£129.00
.....	8MB.....	£225.00
<b>Viglen</b>		
Genie II, Elite.....	2MB.....	£ 64.00
4SX25, 4DX33.....	4MB.....	£129.00
4DX50, 4DX2-50/66.....	8MB.....	£279.00
<b>VTECH/LASER</b>		
All Models.....	4MB.....	£135.00
.....	16MB.....	£535.80

Remember one thing, remember to

Telephone Lines manned during the hours of 8am-7pm Monday to Friday

# Component CALAMITIES

## WHO CAN Help!

★ Component headaches? talk to us ★

### -PRINTER MEMORY-

<b>Hewlett Packard</b>	(Exc VAT)
Laserjet 4+/4M+/5P/5MP..4MB.....	£149.00
.....8MB.....	£259.00
Laserjet 4/4M/4SI/4SIMX..4MB.....	£149.00
.....8MB.....	£259.00
<b>LASERJET 4L.....</b>	1MB Upg... £ 79.00
Deskjet 1200C/1200C PS...2MB Upg... £ 95.00	
.....4MB Upg...£149.00	
.....8MB Upg...£259.00	

### -PORTABLE MEMORY-

<b>AST</b>	(Exc VAT)
Ascentia 900n.....4MB.....	£169.00
4/50, 4/75.....8MB.....	£299.00
.....16MB.....	£559.00
<b>Compaq</b>	
Contura 400 Family.....4MB.....	£170.00
.....8MB.....	£359.00
.....16MB.....	£668.00
<b>IBM</b>	
Thinkpad 750/755.....4MB C/Card	£179.00
.....8MB C/Card	£339.00
<b>NEC</b>	
Versa V/50C, V/50D.....4MB C/Card	£175.00
20, 20C, 25, 25C, 25CP.....8MB C/Card	£339.00
25P, 33, 33C.....12MB C/Card	£469.00
.....16MB C/Card	£559.00
<b>Toshiba</b>	
T1900, T1910.....4MB.....	£165.00
T4600, T1950.....8MB.....	£289.00
T4850, T4800, T4900.....16MB.....	£639.00
T2100, T2130.....4MB.....	£175.00
T2150, T2110.....8MB.....	£324.00
.....16MB.....	£675.00

Memory prices..... are subject to market fluctuations

This is JUST A SELECTION of memory and components please call OUR TELEPHONE OPERATORS for more variety and the BEST PRICES.

All prices are exclusive of VAT and carriage



THIS is a reduced specimen Olivetti tape drives the hit of the day but in Limited Supply

### -MOTHERBOARDS-

<b>MP5-TRI • Intel Pentium 75/90/100/120 MHz processor</b>	(Exc VAT)
• Intel Triton Chip Set	
• Flash Bios supports plug and play	
• 256K External Cache fitted	
• EDO RAM supported, max 128MB	
• 2 Fast PCI IDE Int. mode 4 supported	
• 4 ISA, 4 PCI Slots,	
• 1 EPP and 2 serial ports .....	£149.00
• With 512k Cache fitted.....	£189.00

<b>486 PCI, UMC 8880 chip set</b>	(Exc VAT)
• Supports Intel DX2/4 processors plus, P24D-66 and P24T	
• Also supports processors from Cyrix, UMC, AMD, IBM & SGS	
• 256K External Cache	
• Maximum 256MB Memory	
• On-board Fast PCI IDE supports mode 3 & 4	
• 4 ISA, 4 PCI Slots.....	£95.00

<b>SUPER I/O CARD</b>	(Exc VAT)
• ISA Bus, UMC chip set	
• Up to 4 IDE devices	
• Two high speed serial 1 enhanced parallel port, 1 Games Port.....	£12.00

### -VGA CARDS-

<b>ST32 • S3-Trio 32 Chip Set</b>	(Exc VAT)
• PCI 32 bit graphics processor	
• Resolution Support max 1280 X 1024 X 256 colours.....	£60.00
<b>ST64 • S3-Trio 64 Chip Set</b>	(Exc VAT)
• PCI 64 bit graphics processor	
• Resolution Support max 1280 X 1024 X 256 colours.....	£78.00

<b>OEM Diamond Stealth SE 1MB VL.....</b>	£69.00
---	--------

<b>OEM Diamond Stealth SE 1MB PCI.....</b>	£69.00
--	--------

### -HARD DRIVES-

.....	(Exc VAT)
.....540MB IDE.....	£103.00
.....1GB IDE.....	£162.00
.....1GB SCSI.....	£297.00
.....2GB SCSI.....	£582.00

### -FLOPPY DRIVES-

.....	(Exc VAT)
.....3.5" 1.44MB.....	£ 23.00
.....5.25" Frame.....	£ 3.95
.....5.25" 1.2MB.....	£37.00

### -TAPE DRIVES-

<b>Olivetti STU 26-081</b>	(Exc VAT)
80MB Tape Drive includes fixing brackets.....	£29.00

### -MULTI MEDIA-

<b>Panasonic 562B</b>	(Exc VAT)
Internal CD ROM.....	£55.00
<b>Goldstar Quad speed IDE internal CD ROM.....</b>	£120.00
<b>NEC 6 XE External six speed CD ROM.....</b>	£375.00
<b>MULTI-MEDIA KIT</b>	
Inc Panasonic CD-ROM, 16 Bit Soundcard & Speakers.....	(Exc VAT) £129.00

### -INTEL PROCESSORS-

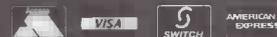
<b>New PENTIUM OVERDRIVES</b>	
...get 'em FRESH in a FLASH!	
<b>486 DX2/50 OverDrive chip.....</b>	(Exc VAT) £ 79.00
<b>486 DX2/66 OverDrive chip.....</b>	£ 98.00
<b>486 DX4/75 OverDrive chip.....</b>	£109.00
<b>486 DX4/100 OverDrive chip.....</b>	£143.00
<b>Pentium overdrive chip 63MHZ(5VOLTS).....</b>	£172.00
<b>PENTIUM PROCESSOR</b>	(Exc VAT)
Intel P75.....	£139.00
Intel P90.....	£211.00
Intel P100.....	£290.00
Intel P120.....	£432.00
Intel P133.....	£538.00
<b>486 PROCESSORS</b>	
Intel DX4/75.....	£ 85.00
Intel DX4/100.....	£115.00

TRADE Enquiries Welcome PLEASE Call

Just memory & Components

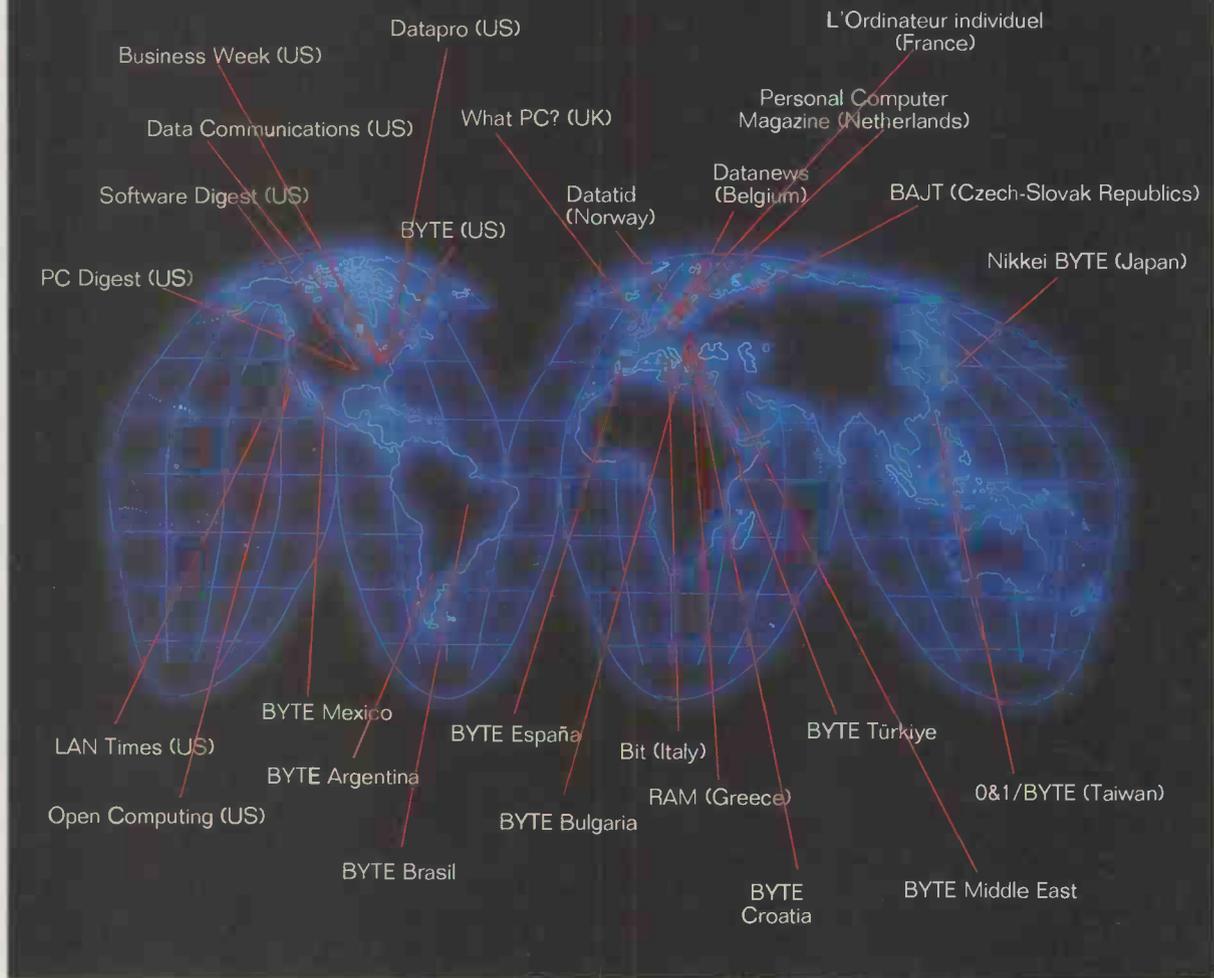
dial this number 0990 26 27 28 Quote Ref No PW 10

9am-5.30 pm Saturdays. Facsimile orders can be sent to 0990 42 43 44



check suitability with manufacturers before ordering. Immediate despatch is subject to stock availability and receipt of cleared funds or in case of Government and Education customers receipt of an official order. All prices are exclusive of carriage & VAT. Prices fluctuate due to market conditions &/or currency exchange rate changes. E&OE. Just Memory & Components, Crown House, Ormskirk, Lancashire L40 8JT.

# World Dominance



## NSTL Benchmarks Are The Worldwide Standard

From North America to Asia, South America to Europe, more than 20 publishing partners utilize test results produced by NSTL's unique, cross-platform InterMark™ benchmarks, providing more than 8 million readers globally with objective, real world product evaluations.

Think global — and put NSTL to the test.

In the United Kingdom, NSTL's Publishing Partner is: VNU Business Publications Ltd., which publishes **What PC?** and other computer magazines. VNU Business Publications also makes available on diskette the Euromark™ versions of the InterMark benchmarks. For more information on obtaining a copy of the Euromark benchmarks, contact John Bames in London at: Tel: (44) (71) 316 9000. Fax: (44) (71) 316 9003



# SUMMER OFFERS!

**US Robotics**  
The Intelligent Choice in Data Communications

Sportster 14.4 + Fax  
**£109**

Sportster 28.8 + Fax  
**£155**



WorldPort 28.8  
PCMCIA

Compatible with any PCMCIA Type II slot.

- 28,800bps • V.34
- HST Cellular • MNP 5
- V4bis & V2terbo
- Powered by the computer

**£179**

Lowest  
EVER  
Prices!



- Both Sportster Modems feature:
- V21, V22, V22bis, V32, V32bis
  - V34 (Sportster 28.8 only)
  - MNP2-4, V42, V42bis, MNP5
  - Free communications & fax software
  - Full manufacturers 2 year warranty

EXTERNAL & INTERNAL PRICES

**US Robotics**  
The Intelligent Choice in Data Communications

## Motorola Internet Solution

- Everything you need to connect to the Internet!
- High speed 28,800bps fax / modem
  - Group 3, BAPT approved & Hayes compatible
    - Lightweight - only 298 grams
    - Inc Delrina WinCom & WinFax Lite
    - 2 Year warranty
    - Email software
    - WorldWide Web browser

**£185**

## Maxtor Hard Drives



540Mb  
**£135**

850Mb  
**£159**

1.2Gb  
**£239**

## SONY 15"/17" Monitor Offers

The Multiscan 15sf Trinitron Monitor features:

- Visual Area of 285 x 213mm
- Virtually Flicker-Free Display
- Compact Size - depth only 384mm

**£315**



The Multiscan 17sf Trinitron Monitor features:

- Visual Area of 328 x 242mm
- Compatible with PC, Mac and other workstations
- Digital Multiscan Technology eliminates distortion

**£599**



## Creative Labs Home CD Pack

New Multimedia bundle includes:

- Microsoft Encarta 95
- Microsoft Works 3
- Microsoft Publisher 2
- Microsoft Golf 2
- Microsoft Ancient Lands

Pack also includes 23 titles

**£289**

**CREATIVE**  
CREATIVE LABS

## Microsoft Office 95 Upgrade

Standard Version includes:

- Microsoft Word 95
- Microsoft Excel 95
- Microsoft Schedule + 95
- Microsoft PowerPoint 95



**£179.99**



Windows 95  
**£59.99**

OR BUY BOTH FOR JUST

**£229**

SAVE

**£10**

Was £239.99

## Novell PerfectOffice

GET NOVELL PERFECT OFFICE AND WINDOWS 95 FOR JUST

**£180\***

PerfectOffice Professional features:

- Paradox 5.0 • Quattro Pro 6.0
- WordPerfect 6.1 • Envoy 1.0a
- GroupWise 4.1 • AppWare 1.0
- WordPerfect Presentations 3.0
- InfoCentral 1.1

\*Includes £35 cash-back rebate from Novell. Total selling price is £215 plus vat.



## OKI 400 Series Printers

OKI 400EX

**£279**

OKI 410EX

**£399**

Features include:

- 4 ppm speed
- 1Mb RAM standard
- Fast RISC processor
- 300 x 300dpi resolution (600dpi 410ex)
- Data compression fast graphics printing



**OKI**

Byte Direct

Byte



CALL NOW

**0121 766  
5559**

OPENING HOURS

MON-FRI 8.30am - 6.30pm  
SATURDAY & SUNDAY CLOSED

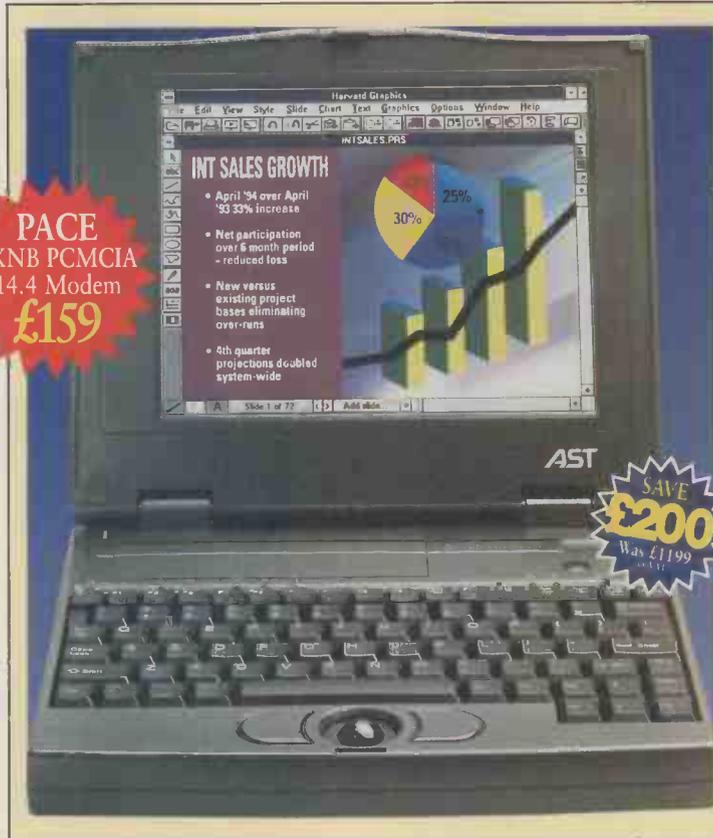
Byte Direct  
James House,  
Warwick Road,  
Birmingham B11 2LE.  
Fax: 0121 773 0119.



All prices are excluding VAT @ 17.5% and delivery. Offers subject to availability. E&OE. All trademarks are recognised.

BIG BRANDS FROM THE BIG RESELLER

# SUMMER SPECIALS!



**PACE**  
FXNB PCMCIA  
14.4 Modem  
**£159**

## ASCENTIA 800N

- Intel 50MHz 486DX2 Processor
- 4Mb RAM Upgradable to 20Mb
- 250Mb Hard Disk Drive
- 3.5" 1.44Mb Floppy Disk Drive
- 9.5" VGA STN Colour Display
- PCMCIA Rel. 2.1 Type II/III Slots
- 256 Colour, Local Bus Graphics, 1Mb VRAM
- 84 key Keyboard, 12 function keys with Trackball
- MS DOS 6.22, MS Windows for Workgroups 3.11 and Lotus Organizer
- Weight: 2.8Kg
- Dimensions: 44mm High x 225mm Deep x 265mm Wide

**AST**  
COMPUTER

**Byte**  
**AST**  
EXCLUSIVE

AN EXCLUSIVE OPPORTUNITY TO BUY THIS GREAT AST NOTEBOOK AT AN UNBELIEVABLE PRICE. EXCLUSIVELY FROM BYTE DIRECT



NOW ONLY  
**£999**

**Lowest Price EVER!**

## INTEL OVERDRIVE UPGRADES

**BIG Savings!**

**intel** **Byte**

**INTEL DX2 OVERDRIVE®**

**INTEL PENTIUM® OVERDRIVE®**

### SPECIFICATIONS



- For most 16, 20, 25, 33MHz Intel 486 SX or DX CPU-based systems
- Features Intel's "speed tripling" technology
- 16K on-chip cache memory

- On-chip maths co-processor
- The most powerful PC upgrade available

INTEL DX4 16MHz-48MHz .....	<b>£121</b>
INTEL DX4 20MHz-60MHz .....	<b>£121</b>
INTEL DX4 25MHz-75MHz .....	<b>£121</b>
INTEL DX4 33MHz-100MHz .....	<b>£187</b>

### SPECIFICATIONS

- For any 16, 20, 25, 33MHz Intel 486 SX or DX CPU-based systems
- Features Intel's "speed doubling" technology
- 8K on-chip cache memory
- On-chip maths co-processor
- Opens and runs all your software applications faster on your system



INTEL DX2 25MHz-50MHz .....	<b>£79</b>
INTEL DX2 33MHz-66MHz .....	<b>£105</b>

The Pentium® Overdrive® processor is the newest and fastest member of the Intel Overdrive processor family. It is the upgrade option for Intel SX2 and DX2 CPU-based systems and is the superior upgrade option for Intel 486SX and DX based systems. It is based on Intel's latest and most sophisticated Pentium® processor technology and features a superscalar architecture, which allows the execution of more than one instruction per clock cycle, 32K on-chip cache (one 16K code cache and one 16K data cache) and a faster floating point unit. It operates at two and a half times the speed of the system bus. E.g., when a Pentium Overdrive® processor is installed in a 33MHz Intel 486 DX based system, the integer unit, floating point unit and cache unit operate at 83MHz while the speed of the external bus remains at 33MHz, thus delivering Pentium® processor class performance.

INTEL P24T 63MHz.....	<b>£625</b>
INTEL P24T 83MHz.....	<b>£Call</b>

All prices are excluding VAT @ 17.5% and delivery. Offers subject to availability. E&OE. All trademarks are recognised.

# SUMMER OFFERS!

## Save up to £125!



### AST PC Adventure Bundle

#### SYSTEM SPECIFICATIONS

- Choice of Processor
- 8Mb RAM Standard
- 540MB HARD DISK DRIVE
- 3.5" 1.44Mb Floppy Disk Drive
- 16 bit Local Bus Graphics with 1Mb VRAM
- 14" Super VGA Colour Monitor
- 2 Free ISA Expansion Slots
- 102 key Keyboard and AST Mouse
- Pentium™ OverDrive Upgrade Support
- 12 Months On-site Parts and Labour Warranty

#### FREE MULTIMEDIA PACK

- QUAD SPEED CD ROM DRIVE
- 16 bit SoundBlaster Sound Card
- Twin Stereo Speakers and Microphone

#### SOFTWARE SUITE

- MS DOS 6.21
- Windows 3.1
- AST Works!
- MS Works • Intuit Quicken
- MS Encarta '95 CD
- MS Golf CD
- MS Cinemania '95 CD



**12** Months On-Site Warranty



### Choose Your Adventure Configuration...

AST Adventure 6075p

- Intel 75MHz Pentium™ Processor
- 8Mb RAM Upgradable to 128Mb
- 540Mb Hard Disk Drive
- PCI Graphics (1Mb VRAM)
- 14,400/9600 Data /Fax Modem

SAVE **£125**  
Was £1475  
Now £1349

**£1349**

AST Adventure 6066d

- 486 66MHz DX2 Processor
- 8Mb RAM Upgradable to 32Mb
- 540Mb Hard Disk Drive
- VESA LB Graphics (1Mb VRAM)

SAVE **£100**  
Was £1099  
Now £999

**£999**

Available with 4Mb RAM £899

**Byte Direct**

BIG BRANDS FROM THE BIG RESELLER

**CALL NOW**  
**0121 766 5559**

**OPENING HOURS**  
MON-FRI 8.30am - 6.30pm  
SATURDAY & SUNDAY CLOSED

Byte Direct  
James House,  
Warwick Road,  
Birmingham B11 2LE.  
Fax: 0121 773 0119.



All prices are excluding VAT @ 17.5% and delivery. Offers subject to availability. E&OE. All trademarks are recognised.

Call for price of  
NEW HP  
DeskJet 600

Upgrade  
to Colour for  
**£30**



**hp** HEWLETT  
PACKARD

## DeskJet 540

Black & white printers with a colourful future.

Affordable, professional-quality printing that's great for the home, office and small business. Whether you need a printer to catch up on office work or help you with your personal correspondence, the new HP DeskJet 540 is the perfect place to start. With the low-cost optional HP Colour Kit, adding vivid colour is a snap!

- 3ppm Print Speed
- 600 x 300dpi with Resolution Enhancement technology
- Colour Printing with optional colour kit
- HP PCL3 emulation
- Range of Built in Typefaces
- Parallel Interface
- Built in Sheet Feeder

- Suitable for printing on Paper, Envelopes or Postcards
- Dimensions: 436mm x 405mm x 199mm
- 3 Year Warranty

**£219**



HP DeskJet 320

**FREE**  
Colour Kit  
with Bundle

- 600dpi x 300dpi Resolution
- HP PCL 3 with extensions
- 3ppm Print Speed
- 48 KB of memory
- 84 Bitmapped Fonts
- 14 Typefaces

**Last Stocks  
Hurry!**

HP DESKJET 320 **£175**  
HP DESKJET 320 + BUNDLE **£199**



HP DeskJet 660C

- 600dpi (600 x 300dpi Colour) Printing
- 4ppm Print Speed
- 2 Button Control Panel
- Built in Sheet Feeder
- Suitable for Printing on Paper, Postcards or Envelopes
- Windows Software

HP DESKJET 660C **£315**



HP DeskJet 850C

- 600dpi (600 x 300dpi Colour) Printing
- 6ppm Print Speed
- 2 Button Control Panel
- Supports PC and Macintosh
- Built in Sheet Feeder
- Suitable for Printing on Paper, Postcards or Envelopes

HP DESKJET 850C **£409**



HP LaserJet 4L

- 300dpi with Resolution Enhancement
- 4ppm Print Speed
- Network flexibility
- Enhanced HP PCL 5
- 26 scalable fonts
- 1-100 sheet input trays as standard
- 1 year HP Warranty

HP LASERJET 4L **£369**  
HP LASERJET 4ML **£765**



HP LaserJet 4Plus

- 600dpi with Resolution Enhancement technology
- 12ppm Print Speed
- 25MHz RISC processor
- Network flexibility
- 2MB Exp. to 66MB
- 100 & 250 sheet input trays
- Automatic I/O switching
- 45 scalable fonts
- 1 year HP Warranty

HP LASERJET 4PLUS **£1015**  
HP LASERJET 4MPLUS **£1349**

## HP LaserJet 5P



**hp** HEWLETT  
PACKARD

The new HP LaserJet 5P delivers professional quality print on your desktop.

- 600dpi with Resolution Enhancement technology
- 6ppm Print Speed
- 20MHz Engine
- 2Mb Memory Standard
- 110 Typefaces
- 2 Paper Trays
- 2 Parallel Ports, Hot-Switched
- Infrared Port for use with Windows 95
- Custom SIMM's for Forms, Letterheads etc.

HP 5P **£609**    HP 5MP **£739**

**FULL RANGE OF HP PRINTERS AVAILABLE**

# Canon BUBBLEJET PRINTERS



Canon BJ-20

- High quality 360x 360dpi printing
- 'Smoothing' gives up to 720x360dpi
- Built-in sheet-feeder
- 20 TrueType fonts & 8 built-in scalable fonts

**£155**



Canon BJC-70

- 360 x 360dpi resolution
- Optional 'mobile' kit
- Full colour printing
- Online black ink
- Built-in 30 sheet feeder
- 20 TrueType fonts and 8 built-in typefaces
- Weighs 1.4kg

**£229**



Canon BJC-4000

- 360 x 360dpi colour printing
- Fast-dry, water-resistant non-fade inks
- Unique no-banding controls
- Online black ink
- Built-in 100 sheet feeder
- Prints on plain paper & OHPs
- Quiet operation

**£235**



Canon BJC-600e

- 360dpi colour printing
- Added smoothing gives mono resolution of 720 x 360dpi
- Higher colour print speeds
- 4colour cartridge system

**£339**

## Canon BJ 200ex

- 360 x 360dpi resolution
- 3 Papper minute print speed
- Includes 'Advanced' Windows driver
- 'Smoothing' gives up to 720x360dpi
- Very quiet operation

**£185**

# SUMMER OFFERS!

## COMPAQ Presario

**BIG**  
Savings on  
Presarios!

### Presario 524

- 486DX2 66MHz Processor
- 8Mb RAM
- 420Mb Hard Drive
- Local Bus Graphics
- Integrated SVGA Colour Monitor
- 2 ISA Slots/3 drive bays

SAVE **£150**  
Was £1,199 **£1,049**

### Presario 742

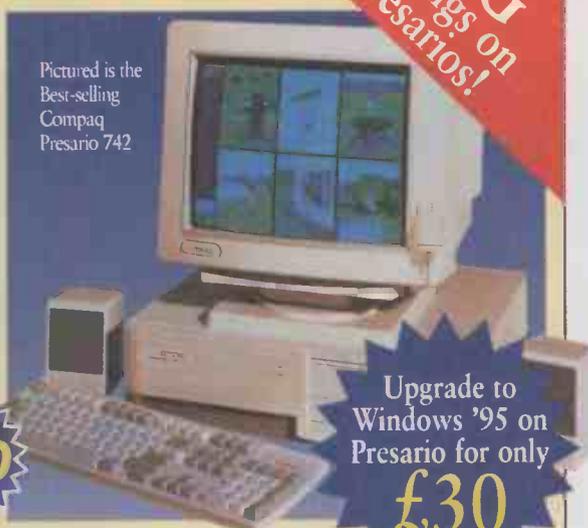
- 486DX4/90MHz Processor
- 8Mb RAM
- 420Mb Hard Drive
- Enhanced Local Bus Graphics
- SuperVGA Colour Monitor
- 3 ISA Slots/3 drive bays

SAVE **£150**  
Was £1,299 **£1,149**

### Presario 942

- 486DX4/90MHz Processor
- 8Mb RAM
- 420Mb Hard Drive
- Enhanced Local Bus Graphics
- SuperVGA Colour Monitor
- 5 ISA Slots/5 drive bays

SAVE **£130**  
Was £1,329 **£1,199**



Pictured is the Best-selling Compaq Presario 742

Upgrade to Windows '95 on Presario for only **£30**

### EVERY COMPAQ PRESARIO OFFERS THESE FEATURES:

SOFTWARE SUITE	MULTIMEDIA HARDWARE	COMMUNICATIONS	3 YEAR WARRANTY
<ul style="list-style-type: none"> <li>• MS DOS 6</li> <li>• MS Windows 3.1</li> <li>• MS Works for Windows 3.0</li> <li>• MS Money 3</li> <li>• MS Encarta CD</li> <li>• Compaq Tabworks</li> <li>• Compaq Welcome, Control &amp; Learning Centre</li> <li>• The Ultimate Human Body CD</li> <li>• MS Entertainment IV</li> </ul>	<ul style="list-style-type: none"> <li>• Quad CD-ROM Drive</li> <li>• CD Stereo Sound System</li> <li>• Stereo Speakers and Microphone</li> </ul>	<p>Fax/Modem offering:</p> <ul style="list-style-type: none"> <li>• Telephone Answering Machine and Message Centre</li> <li>• Fax Machine</li> <li>• Access to On-line Services including:</li> <li>• 1 Months Free Subscription to CompuServe</li> </ul>	<p><b>3</b> YEAR WARRANTIES, 1ST YEAR ON-SITE, 2ND &amp; 3RD YEARS RETURN-TO-BASE ON ALL COMPAQ PRESARIOS</p>

## COMPAQ ProLinea

- Processors from 486/50MHz to 100MHz Pentium
- 4Mb, 8Mb or 16Mb RAM Upgradable
- Hard Disks from 200Mb to 720Mb
- 3.5" 1.44Mb Floppy Disk Drive
- Enhanced Local Bus Graphics (PCI on new models)
- 102 key Keyboard and Mouse
- Plug & Play Compatible (new models only)
- ISA/PCI Expansion Slots (new models)
- MS DOS 6.2, Windows 3.1
- 3 year Warranty (1st year on site)

FROM **£689**

**MASSIVE REDUCTIONS**  
on ALL ProLineas!

### PROLINEA V3 (3Slot / 3Bay)



### PROLINEA V4 (4Slot / 4Bay)



### PROLINEA V5 (5Slot / 5Bay)



V3 (3 Slot / 3 Bay Family)	Price
4/50 M270W 4MB	£689
4/66 M270W 8MB	£869
4/66 M420W 8MB	£899
4/100 M270W 8MB	£999
4/100 M420W 8MB	£1,029
5/75 M420W 8MB	£1,249

V4 (4 Slot / 4 Bay Family)	Price
4/66 M270W 8MB	£879
4/66 M420W 8MB	£919
4/100 M270W 8MB	£1,079
5/75 M420W 8MB	£1,279
5/90 M420W 8MB	£1,369
5/90 M720W 8MB	£1,649

V5 (5Slot / 5Bay)	Price	Monitor Options	Price
4/66 M270W 8MB	£929	14" SVGA Colour Monitor	£209
4/66 M420W 8MB	£979	14" Low Rad 1024 Colour Monitor	£249
5/75 M420W 8MB	£1,349	15" 151FS Colour Monitor	£349
5/90 M420W 8MB	£1,429	17" 171FS Colour Monitor	£679
5/75 M420CDS 8MB	£1,549	QVision 172	£829
5/90 M420W CDS	£1,649	QVision 200	£1,479
5/90 M720W 16MB	£1,679		

CALL FOR THE FULL RANGE OF COMPAQ PCs & SERVERS

All prices are excluding VAT @ 17.5% and delivery. Offers subject to availability. E&OE. All trademarks are recognised.

**Byte Direct**  
BIG BRANDS FROM THE BIG RESELLER

**CALL NOW**  
**0121 766 5559**

**OPENING HOURS**  
MON-FRI 8.30am - 6.30pm  
SATURDAY & SUNDAY CLOSED

Byte Direct  
James House,  
Warwick Road,  
Birmingham B11 2LE.  
Fax: 0121 773 0119.



# SUMMER SPECIALS!

## T.I. TravelMate 4000 & 5000 Notebooks



Exciting  
NEW range from  
Texas available from  
11th September.  
Call for details

The  
World's 1st  
Notebook with  
PCI Bus

### TRAVELMATE 4000M

- 486 DX2/50MHz Processor
- TFT Active Matrix Colour Screen
- 4Mb of RAM
- 455Mb Hard Disk Drive
- 16-Bit Sound and MIDI Port
- Fast SCSI II Port
- Up to 5 Hours Battery Life
- 1 x Type III PCMCIA Slot



ONLY  
**£1,499**

**FULL RANGE OF TEXAS MACHINES INCLUDING  
LARGE SCREEN MODELS NOW IN STOCK**

### TRAVELMATE 5000M

- Intel 75MHz Pentium Processor
- PCI Bus Architecture
- TFT Active Matrix Colour Screen
- 8Mb of RAM
- 770Mb Hard Disk Drive
- 16-Bit Sound and MIDI Port
- Fast SCSI II Port
- 1 x Type III PCMCIA Slot

SAVE  
OVER  
**£200!**

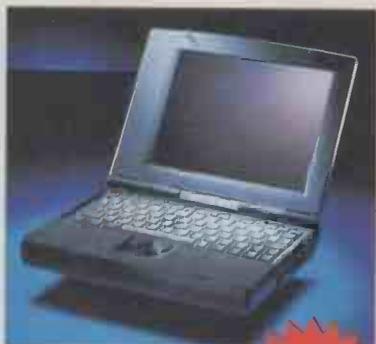
ONLY  
**£3,199**

## The Byte Portable



A Member Of  
Specialist Computer Holdings

WE'RE CELEBRATING  
20 YEARS IN THE  
INDUSTRY -  
YOUR GUARANTEE OF  
THE BEST SUPPORT  
AND SERVICE WHEN  
BUYING DIRECT.



- DX2/66MHz Processor
- 4Mb RAM
- 250Mb Hard Disk Drive
- Dual Scan Mono Screen
- Integral Tracker Ball
- 3.5" 1.44Mb Floppy Disk Drive
- MS-DOS 6.22
- Microsoft Windows 3.11
- 12 Months Warranty

FREE  
Carry Case  
worth £25!

SAVE  
**£50**  
Was 8499  
or V11

Built for Byte by Mitac

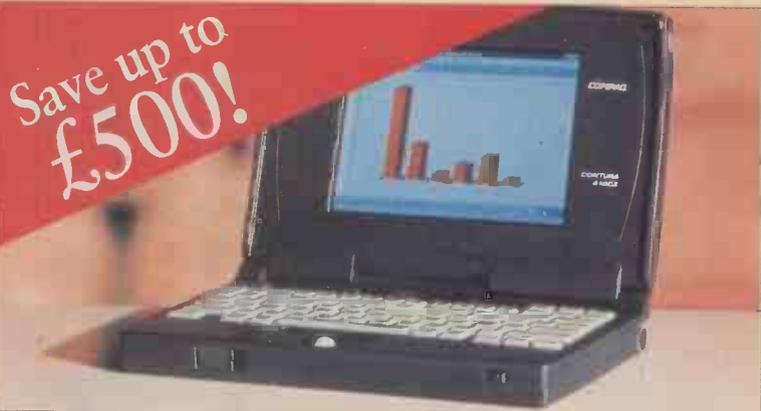
**MITAC**



**£799**

5 1 8

## COMPAQ Contura



Save up to  
**£500!**

### Price Reductions & New Models!

Contura 410			New Contura 420 & 430	
410 Model 250	SAVE £430!	£869	420C Model 420	£1,729
410C Model 350	SAVE £390!	£1,329	420CX Model 420	£2,249
410CX Model 350	SAVE £500!	£1,729	430C Model 720	£2,149
LIMITED STOCKS ON THESE MODELS			430CX Model 720	£2,599

All prices are excluding VAT @ 17.5% and delivery. Offers subject to availability. E&OE. All trademarks are recognised.

# NEW TOSHIBA MODELS & PRICES

## NEW Models! TOSHIBA

### NEW! TOSHIBA Satellite Pro 400 Series NEW!

- Intel Pentium 75MHz Processor
- 8Mb RAM Upgradable to 40Mb
- 810Mib Hard Disk Drive
- 3.5" Swapable 1.44Mb Floppy Drive
- 10.4" High Res. STN Colour Display
- Ergonomic 84 key, full size Keyboard
- PCMCIA Rel. 2.0 Type III Slot
- MS DOS 6.22, MS Windows 3.11
- SoundBlaster Compatible Sound System
- Lithium ION battery pack with 4 Hours Battery Life • Weighs 3.1Kg
- 3 Year Warranty



T400CS/810

£2,419

- Intel Pentium 75MHz Processor
- 8Mb RAM Upgradable to 40Mb
- 810Mib Hard Disk Drive
- EIDE CD-ROM Drive Swapable
- 3.5" Swapable 1.44Mb Floppy Drive
- 10.4" High Res. TFT Colour Display
- Ergonomic design 84 key, full size Keyboard
- PCMCIA Rel. 2.0 Type III Slot



- MS DOS 6.22, MS Windows 3.11
- SoundBlaster Compatible Sound System
- Lithium ION battery pack with 4 Hours Battery Life • Weighs 3.1Kg
- 3 Year Warranty

T400CDT/810

£3,129

### TOSHIBA 2110 CS

- Intel 75MHz 486DX4 Processor
- 4Mb RAM Upgradable to 28Mb
- 350Mib Hard Disk Drive
- 3.5" 1.44Mb Floppy Disk Drive
- 10.4" VGA STN Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- Port Replicator Interface
- 84 key Keyboard, 12 function keys with Mousepoint
- MS DOS 6.22, MS Windows 3.11
- Up to 4.5 Hours Battery Life
- Weighs 3.1Kg • 1 Year Warranty

T2110CS/350

£1,525

### TOSHIBA 2130 CS

- Intel 75MHz 486DX4 Processor
- 8Mb RAM Upgradable to 28Mb
- 520Mib Hard Disk Drive
- Internal 3.5" 1.44Mb Floppy Drive
- 10.4" VGA STN Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- Port Replicator Interface
- 84 key Keyboard, 12 function keys with Mousepoint
- MS DOS 6.22, MS Windows 3.11
- Up to 4.5 Hours Battery Life
- Weighs 3.1Kg
- 1 Year Warranty

T2130CS/520

£1,780

### TOSHIBA 2130 CT

As above specification but with 10.4" VGA TFT Colour Display.

NEW LOW PRICE

T2100CT/350

£1,949

### NEW! TOSHIBA Portégé 610CT NEW!



- Intel Pentium 90MHz Processor
- 8Mb RAM Upgradable to 40Mb
- 720Mib Hard Disk Drive
- 3.5" Swapable 1.44Mb Floppy Drive
- 9.5" High Res. TFT Colour Display
- Ergonomic 84 key, full size Keyboard
- PCMCIA Rel. 2.0 Type III Slot
- MS DOS 6.22, MS Windows 3.11
- SoundBlaster Compatible Sound System
- Lithium ION battery pack with up to 4.5 Hours Life Battery Life
- Weighs 2.2Kg
- 3 Year Warranty



Poertégé 610CT

£2,999

### TOSHIBA T2150CDS



- Intel 75MHz 486DX4 Processor
- 4Mb RAM Upgradable to 28Mb
- 260Mib or 520Mib Hard Disk Drive
- Optional Quad Speed CD ROM Drive
- External 3.5" 1.44Mb Floppy Drive
- 10.4" VGA STN Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 key Keyboard, 12 function keys with Mousepoint
- MS DOS 6.22, MS Windows for Workgroups 3.11
- Up to 3.0 Hours Battery Life
- Weighs 3.2Kg
- 3 Year Warranty

T2150CDS/260

£2,029

T2150CDS/520

£2,149

### TOSHIBA T2150CDT



- Intel 75MHz 486DX4 Processor
- 8Mb RAM Upgradable to 28Mb
- 520Mib Hard Disk Drive
- Quad Speed CD ROM Drive
- 3.5" 1.44Mb Floppy Disk Drive
- 10.4" VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 key Keyboard, 12 function keys with Mousepoint
- MS DOS 6.22, MS Windows 3.11
- Up to 3 Hours Battery Life
- Weighs 3.1Kg
- 3 Year Warranty

T2150CDT/520

£2,699

### TOSHIBA T4850CT



- Intel 75MHz 486DX4 Processor
- 8Mb RAM Upgradable to 40Mb
- 810Mib Hard Disk Drive
- 3.5" 1.44Mb Floppy Disk Drive
- 10.4" VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 key Keyboard, 12 function keys with Ballpoint Mouse
- MS DOS 6.2, MS Windows for Workgroups 3.11
- MS Windows Sound System
- Up to 3.5 Hours Battery Life
- Weighs 3.2Kg
- 3 Year Warranty

T4850CT/810

£2,959

### TOSHIBA T4900CT



- Intel 75MHz Pentium Processor
- 8Mb RAM Upgradable to 40Mb
- 880Mib Hard Disk Drive
- 3.5" 1.44Mb Floppy Disk Drive
- 10.4" VGA TFT Colour Display
- PCMCIA Rel. 2.0 Type II/III Slots
- 84 key Keyboard, 12 function keys with Mousepoint
- MS DOS 6.2, MS Windows for Workgroups 3.11
- MS Windows Sound System
- Up to 3.0 Hours Battery Life
- Weighs 3.1Kg
- 3 Year Warranty

T4900CT/500

£3,999

### TERMS & CONDITIONS

All prices exclude VAT and delivery, prices on application. All registered trademarks acknowledged. All prices subject to change without notice and subject to availability, please call before ordering. Goods not offered on a trial basis. All orders accepted subject to Byte standard terms and conditions of sale, a copy of which is available on request. Subject to availability despatch is normally within 2 days of cleared payment. Please allow 7 days for cheque clearance. All orders will be fulfilled within 28 days unless otherwise stated. Packaging on BYTE BUNDLE OFFERS may differ to that shown. Pack shots are shown for illustration only. Minimum order value for mail order is £50. E & O.E.

Byte Direct  
BIG BRANDS FROM THE BIG RESELLER

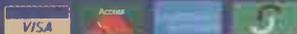


CALL NOW  
0121 766  
5559

### OPENING HOURS

MON-FRI 8.30am - 6.30pm  
SATURDAY & SUNDAY CLOSED

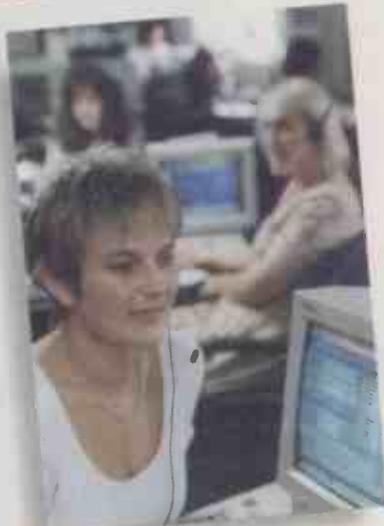
Byte Direct  
James House,  
Warwick Road,  
Birmingham B11 2LE.  
Fax: 0121 773 0119.



Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros



# A perfect balance



Telesales Department

## ESTABLISHED 12 YEARS

Evesham Micros has been established for 12 years and now has four operating locations with a total annual turnover exceeding £45 million. It has risen to a position of strength in the computer market, with sustained growth and a secure financial status.

## PCDMA

We are a founder member of the Personal Computer Direct Marketers Association; a collaboration of manufacturers who adhere to a professional code of practice. This assures you of our pledge to provide a high standard of service. Additionally, the Payment Protection Plan provides peace of mind if you pay by cheque.



## READY TO RUN

All systems are fully formatted and pre-installed with DOS and Windows or Windows '95. We also include the original installation disks and manuals, plus our own PC manual and easy-to-follow guide to Windows. A mouse is also included. Any peripherals and upgrades you buy with your PC will, wherever possible, be fully configured and tested.



## DYNAMIC BURN-IN

A rigorous burn-in procedure repeatedly tests all key components. Only after passing this and a final QC inspection do we ship the goods.

## Our recipe for customer satisfaction

### READY TO SHIP

We endeavour to build and despatch all orders as quickly as possible. To this end, we try to maintain a buffer stock of popular configurations which can be either shipped immediately or purchased from one of our showrooms. These models are highlighted in the pricing information. Custom and other configurations are built to customer

"Ready to ship"

order and take a little longer, but we aim to despatch as quickly as possible. If you contact us we will

give you a realistic estimate of the current delivery situation.

### NO CHARGE UNTIL SHIPMENT

If you pay by credit card, payment is not processed until the goods are shipped. Beware of suppliers who charge your credit card weeks before they ship your order!

### INSTALLATION/TRAINING

We can now offer a personal installation and training option for your new Vale PC. One of our local installers will deliver the PC to your premises or home, set it up for you and include a period of familiarisation training. This option costs £50.00<sup>vat</sup>. More in-depth training can be negotiated directly with the installer.

### ON-SITE MAINTENANCE

All PCs (except the *Voyager* notebooks) based on the UK mainland, plus the Isle of Wight, Northern Ireland and the Republic of Ireland have the benefit of on-site maintenance for the first year, covering both parts and labour. The length of cover can be extended to 2 or 3 years if desired (see the "Options" section of each page for price details).



### 30 DAY MONEY BACK GUARANTEE

We are so confident that you will be delighted with your Vale PC that should you, for any reason at all, be unhappy with your purchase, we will COLLECT it and refund your money in full. You will NOT pay any carriage or restocking charges (UK mainland only).

### LIFETIME WARRANTY

We also offer a lifetime warranty on labour, so if a problem arises at anytime in the future you will only pay for the parts necessary to repair it.

### LIFETIME TECHNICAL SUPPORT

As an owner, you will be privileged with access to our exclusive VALE HOTLINE telephone support number. Our award winning staff are both friendly and knowledgeable and have a full individual record of your system. Lines open 9am until 5-30pm Monday to Friday, and 10am until 4pm Saturday. To further improve our support service we have now installed a bulletin board for Vale customers offering latest drivers and technical information.



### NO DEPOSIT PERSONAL FINANCE

Available with all purchases over £1000, subject to status.



### WINDOWS 95

Windows 95 can be specified instead of Windows 3.11 at no extra cost.



### NET ACCESS



With our special Internet access package, reaching a whole world of information from your Vale PC is very easy. Please see the *Platinum* page.

### SOFTWARE PROTECTION

For your peace of mind all Vale PCs are thoroughly virus checked and have Iris Anti-virus software installed.



## The proof of the pudding!



The readers of 'Personal Computer World' have just voted us "Best Hardware Supplier". We were also runner up for "Best After Sales Service" and "Best Telephone Support".



For the last 2 years Evesham Micros have swept the board when it comes to Service Awards. Our efforts to provide the best possible service have once again been rewarded – the readers of 'Computer Shopper' magazine have voted Evesham Micros "Best Customer Liaison" for 1994.



In the 1993 'PC Direct HITS AWARDS' we won both "Customer Service Excellence" and "Service and Support Excellence" categories as voted by their readers. In 1994 we did it again winning the prestigious "Service Excellence" award. We are especially proud of all these accolades as they were nominated by readers who have actually dealt with our company. They also voted us their favourite supplier for several other products highlighted throughout our pages.







# Premier PCI

"Recommended" January 1995

In a group test with PCs from Compaq, Elonex & Hewlett Packard.

"Without hesitation we recommend the Vale Premier from this group."  
Vale Premier Media '95 PC



## The "Recommended" option for serious performance.

If you are looking for a top specification 486 the Vale Premierpci has class beating credentials.

The secret of success is quality. The Vale Premier range offers high performance, high specification computers that have received top ranking reviews and phenomenal sales success. We have been meticulous in our choice of components in an effort to offer the best value for money - in fact, our careful selection process even includes the keyboard and a Logitech mouse!! The keyboard with the Premier range is a full 102-key unit with proper tactile switches and a sturdy metal base. It has consistently impressed reviewers: "...almost traditional in its weight and touch. A deeply desirable device." Computer Buyer, June 1994.

Designed for



Windows 95 can be specified instead of Windows 3.11 at no extra cost.

"Recommended" March 1995

"When you take into consideration the price and the one year on-site warranty, the Vale offers excellent value for money."



- ◆ Integrated motherboard with Flash BIOS
- ◆ Type 3 ZIF socket for processor upgrades, including Pentium OverDrive®
- ◆ On-board fast PCI hard disk controller
- ◆ 528Mb IDE hard disk (see the "options" section below for larger sizes)
- ◆ 8Mb RAM (expandable to 128Mb)
- ◆ 256kb external processor cache
- ◆ 2xPCI, 1xPCI/16-bit & 4x16-bit expansion slots
- ◆ 1 EPP parallel port and 2 serial ports with 16550 UART
- ◆ 2Mb Diamond Stealth 64DRAM 64-bit PCI video card
- ◆ Microprocessor controlled 15" FST non-interlaced 0.28mm dot pitch monitor
- ◆ 3.5" 1.44Mb Floppy Disk Drive
- ◆ TÜV approved Power Supply with low noise fan
- ◆ EPA Energy Star compliant
- ◆ Choice of desktop or mini-tower case
- ◆ Full-tower case available at extra cost
- ◆ 102-key tactile keyboard
- ◆ Logitech Mouse
- ◆ Includes MS-DOS 6.22, Iris Anti-virus software (3 month license), and your choice of either Windows for Workgroups 3.11 or Windows95. Full manuals and disks supplied
- ◆ "Introduction to Windows" manual supplied
- ◆ 30 day moneyback guarantee
- ◆ 1 year On-Site Maintenance for parts and labour
- ◆ Lifetime technical support hotline
- ◆ Lifetime labour warranty

### 15" MONITOR WITH EASY TO USE DIGITAL ON-SCREEN SETTINGS

The Vale EcoScan 15 that is supplied with the Premier and Platinum ranges is a superb quality micro-processor controlled 15" monitor. It's dark non-glare FST screen with 'Edge-to-Edge' display gives as much as 30% greater useable picture area than most 14" models. Complete control over all display adjustments is obtained via an ingeniously simple digital push button system, with on-screen representation of the settings. As it complies with the stringent Swedish MPR II safety standards and can display up to 1024x768 at a flicker-free 72Hz refresh rate it is especially kind to your eyes.



A Vale Premier Media '95 PC

### NO DEPOSIT PERSONAL FINANCE

Example: Premier 486DX2\*66 Lotus Multimedia Office PC  
(Cash price £1455.83 inc VAT).

**£52.03 inc VAT** per month. No deposit.  
36 monthly payments.  
APR 18.5%. Total payable £1873.08 inc VAT.



### PREMIER OPTIONS

- 16Mb RAM instead of standard 8Mb .....£160.00 +VAT
- 32Mb RAM instead of standard 8Mb .....£540.00 +VAT
- 1Gb IDE hard disk instead of 528Mb IDE.....£60.00 +VAT
- 1Gb SCSI hard disk instead of 528Mb IDE.....£329.00 +VAT
- 2Gb SCSI hard disk instead of 528Mb IDE.....£680.00 +VAT
- Diamond Stealth 64VideoRAM card (2Mb) .....£100.00 +VAT
- Diamond Stealth 64VideoRAM upgrade to 4Mb.....£130.00 +VAT
- Diamond Motion Video Player accessory for Stealth 64VideoRAM (gives MPEG decoding and includes upgrade to 4Mb) .....£249.00 +VAT
- Internal high density 5.25" 1.2Mb Drive .....£49.00 +VAT
- Full-Tower case .....£50.00 +VAT
- Installation/training service .....£50.00 +VAT
- Second year on-site maintenance.....£59.00 +VAT
- Second and third year on-site maintenance.....£149.00 +VAT

### MONITOR UPGRADES

- 15" Idek iiyama SVGA colour (up to 65kHz scan, 1280x1024 max).....£50.00 +VAT
- 17" CTX SVGA colour (see Platinum page).....£229.00 +VAT
- 17" Panasonic TX-D1732 SVGA colour.....£299.00 +VAT
- 17" Idek iiyama Vision Master SVGA colour (see Platinum Triton page) - PC Magazine "Editors' Choice" April 1995.....£320.00 +VAT
- 20" Tatung SVGA .....£699.00 +VAT
- 21" Idek iiyama SVGA colour (up to 92kHz scan, 1600x1200 max).....£1050.00 +VAT

PLEASE SEE THE PLATINUM PAGE FOR VALE ACCESSORIES

### PREMIER MODELS

	528Mb	MEDIA '95	Lotus Office
486dx2*66	£999+VAT	£1199+VAT	£1239+VAT
486dx4*100	£1049+VAT	£1249+VAT	£1289+VAT

Prices highlighted in yellow indicate "Ready to Ship" models which we try to keep in stock for immediate despatch. Multimedia models feature quad speed CD-ROM drives (see below).

### BUSINESS FINANCE

Example: Lease the Premier 486DX2\*66 Lotus Multimedia Office PC for

**£43.86+VAT** per month.  
3 year term, payable quarterly.



We offer a full range of multimedia packs and products, any of which can be specified with your Vale PC, see page 9 of our advert for full details. Please note that bundled software does not feature full retail packaging. When ordering double speed CD-ROM installations in Vale computers the Panasonic CR-571 enhanced IDE drive may be used.



- ◆ Lotus 1-2-3, Lotus AmiPro, Lotus Approach, Lotus Screencam, Lotus Smartpics
- ◆ Software Toolworks Grolier Encyclopaedia for 1995 - version 7
- ◆ FIFA International Football, Supervoice, Dragon Lore, MegaRace, Theme Park
- ◆ Professor Windows, Professor Training Suite, Professor Multimedia, Typing Tutor
- ◆ Pilot Multimedia including 'Interlude' and 'Get Organized'

# Lotus Office



With double speed CD-ROM drive  
**£190+VAT**

With quad speed CD-ROM drive  
**£240+VAT**

EveshamMicros ● (01386) 765500 ● EveshamMicros ● (01386) 765500 ● EveshamMicros ● (01386) 765500 ● EveshamMicros

Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros



# Platinum PCI

## Vale Platinum... the Editors' Choice - twice!

Four 1995 magazine accolades already - stunning success for a stunning performer.

A true giant killing act, the Vale Platinum has already received four magazine accolades this year including the highly prestigious PC Magazine "Editors' Choice" on two occasions!! This is no mean feat; both times computers from 30 different manufacturers, including the giants of the industry, were compared and examined in minute detail. The only computer to earn the title "Editors' Choice" was the Vale Platinum. At our attractive prices there is no need to compromise.

- ◆ Pentium® processor, upgradeable via Intel socket 5
- ◆ Integrated motherboard with 2x PCI, 1xPCI/16-bit & 3x16-bit expansion slots
- ◆ 256kb external CPU write-back cache ◆ 8Mb RAM (expandable to 128Mb)
- ◆ Fast PCI IDE hard disk controller
- ◆ Flash BIOS ◆ EPP and ECP capable printer port
- ◆ Two 16550 compatible UART driven high speed serial ports
- ◆ Diamond Stealth 64DRAM 2Mb 64-bit video card
- ◆ Microprocessor controlled 15" FST non-interlaced monitor (as Premier range)
- ◆ Full Microsoft Windows 95 'plug and play' support
- ◆ 3.5" 1.44Mb Floppy Disk Drive ◆ TÜV approved Power Supply with low noise fan
- ◆ CPU cooling fan ◆ EPA Energy Star compliant
- ◆ Latest Windows keyboard ◆ Microsoft mouse
- ◆ Includes MS-DOS 6.22, Iris Anti-virus software (3 month license), and your choice of either Windows for Workgroups 3.11 or Windows95. Full disks and manuals supplied
- ◆ "Introduction to Windows" manual supplied
- ◆ Choice of desktop or mini-tower case ◆ Full-tower case available at extra cost
- ◆ 30 day moneyback guarantee
- ◆ 1 year On-Site Maintenance (next working day response) for parts and labour
- ◆ Lifetime technical support hotline ◆ Lifetime labour warranty

### NO DEPOSIT PERSONAL FINANCE

Example: Buy the Platinum P90 Lotus Multimedia Office PC (1Gb)  
(Cash price £1831.83 inc VAT).

**£65.46 inc VAT per month.**

No deposit. 36 monthly payments.  
APR 18.5%. Total payable £2356.56 inc VAT.



## The finest in...

For a top performing system only the best will do... our suppliers are all the established leaders in their field.

intel® Motherboards



Micro-Star International



Processor

Hard disk



DIAMOND Video card

CD-ROM drive TOSHIBA

Microsoft Mouse



Keyboard KEY TRONIC®

Windows 95 can be specified instead of Windows 3.11 at no extra cost.

Our new Windows keyboard has three extra keys that are programmable for use with Windows 3.x but really come in to their own in Windows95 as Application keys.

PLATINUM MODELS			
PENTIUM 75	Standard	EDA '95	Lotus Office
	528Mb	£1169+VAT	£1369+VAT
	1Gb	£1229+VAT	£1429+VAT
	2Gb	£1419+VAT	£1659+VAT
PENTIUM 90	Standard	EDA '95	Lotus Office
	528Mb	£1259+VAT	£1459+VAT
	1Gb	£1319+VAT	£1519+VAT
	2Gb	£1509+VAT	£1749+VAT
PENTIUM 120 Add £240+VAT to the price of P90 models			
PENTIUM 133 Add £330+VAT to the price of P90 models			

Prices highlighted in yellow indicate "Ready to Ship" models which we try to keep in stock for immediate despatch. Multimedia models feature quad speed CD-ROM drives (see pages 3&4).

### Platinum plus

**SPECIAL OFFER**  
Upgrade any Platinum 1Gb or 2Gb model to Platinum plus specification for **£400+VAT**.

- ◆ 17" CTX monitor
- ◆ 16Mb RAM
- ◆ Mode 4 enhanced IDE hard disk installation
- ◆ Support for EDO RAM

**PLATINUM PLUS UPGRADES**

- Upgrade to 32Mb RAM.....£360.00 +VAT
- 17" Panasonic monitor.....£70.00 +VAT
- 17" Idek iiyama monitor.....£91.00 +VAT
- 20" Tatung monitor.....£470.00 +VAT
- 21" Idek iiyama monitor.....£821.00 +VAT

### PLATINUM OPTIONS

Upgrade to 16Mb RAM (Platinum).....£160.00 +VAT	Installation/training service.....£50.00 +VAT
Upgrade to 32Mb RAM (Platinum).....£540.00 +VAT	Second year on-site maintenance.....£259.00 +VAT
Upgrade to 32Mb EDO RAM (Triton).....£400.00 +VAT	Second and third year on-site maintenance.....£149.00 +VAT
256k Pipeline-Burst cache (Platinum Triton).....£50.00 +VAT	<b>MONITOR UPGRADES</b>
512k Pipeline-Burst cache (Platinum Triton).....£100.00 +VAT	15" Idek iiyama SVGA colour (up to 65kHz scan, 1280x1024 max).....£50.00 +VAT
1Gb SCSI hard disk instead of 1Gb IDE.....£269.00 +VAT	17" CTX SVGA colour (illustrated).....£229.00 +VAT
2Gb SCSI hard disk instead of 2Gb IDE.....£430.00 +VAT	17" Panasonic TX-D1732 SVGA colour.....£299.00 +VAT
Upgrade to Diamond	17" Idek iiyama Vision Master SVGA colour (see Platinum Triton, right) - PC Magazine "Editors' Choice" April 1995.....£320.00 +VAT
Stealth 64VideoVRAM card (2Mb).....£100.00 +VAT	20" Tatung SVGA.....£699.00 +VAT
Stealth 64VideoVRAM upgrade to 4Mb.....£130.00 +VAT	21" Idek iiyama SVGA colour (up to 92kHz scan, 1600x1200 max).....£1050.00 +VAT
Diamond Motion Video Player accessory for Stealth 64VideoVRAM (gives MPEG decoding and includes upgrade to 4Mb).....£249.00 +VAT	
Internal high density 5.25" 1.2Mb Drive.....£49.00 +VAT	
Full-Tower case.....£50.00 +VAT	

Pentium is a registered trademark of Intel Corporation

## Why Diamond Video Cards ?

The highly acclaimed Stealth range has won many press accolades including the coveted PC Magazine "Editors' Choice". Now a new range of stealth cards is available, giving a wide choice of graphics performance. They are all based around S3 chipsets for superb Windows acceleration as well as class leading DOS performance, and come with the renowned InControl Tools utility for setting up the Windows environment. Remember that Diamond are continually striving to optimise the performance and compatibility of their video cards; and you therefore have the assurance that driver support is ongoing.

**STEALTH SE** (Vale Popular). The latest addition to the range continues the tradition of delivering the best price/performance available. It displays 24-bit True Colour at 640x480.

**STEALTH 64DRAM** (Vale Premier and Platinum). The Stealth 64DRAM is the world's fastest DRAM accelerator, its S3 Vision864 controller setting a new standard in affordable 64-bit graphics performance. Supplied with full AutoCAD drivers.

**STEALTH 64VideoVRAM** (Option). The new Stealth 64VideoVRAM is the ultimate graphics and video accelerator. It is supplied with full AutoCAD drivers and its 2Mb high speed VRAM can be expanded to 4Mb, giving 24-bit colour at 1280x1024! It has driver support for all popular video formats, including MPEG - you can scale video playback up to full screen, or view video clips in full-motion (up to 30 fps). The optional Motion Video Player accessory provides hardware MPEG decoding, allowing full-screen full-motion video, as well as accepting video input from camcorder, VCR, laserdisk etc.



Source: PC Labs Winmark 3.1. The figures represent megapixels per second over a variety of Windows related tasks. Last two figures produced on a Vale Platinum P90, all others on a Vale 486dx2-66. Figures vary with processor type.



May 1995 27 June 1995 (US)



Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros

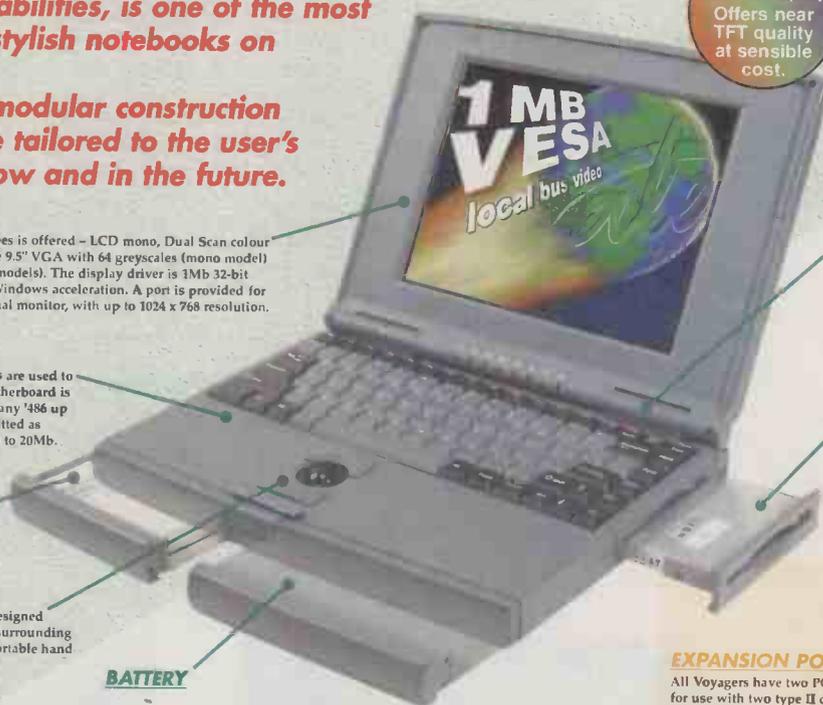


# Voyager



"It's toughness, excellent performance and good display make it a machine that we must honour with the PC Today best buy award."  
Vale Voyager 486dx2+66 Dual Scan Colour  
January 1995

**The Vale Voyager, with its flexibility, Windows performance and sound capabilities, is one of the most powerful and stylish notebooks on the market.**  
**Its completely modular construction enables it to be tailored to the user's exact needs, now and in the future.**



**'Dual Scan' Colour display**  
Offers near TFT quality at sensible cost.



A Vale Voyager with the supplied carrying pouch

**DISPLAY**

A choice of display types is offered - LCD mono, Dual Scan colour and TFT colour. All are 9.5" VGA with 64 greyscales (mono model) or 256 colours (colour models). The display driver is 1Mb 32-bit VESA local bus with Windows acceleration. A port is provided for connection to an external monitor, with up to 1024 x 768 resolution.

**CPU & RAM**

Low power consumption CPUs are used to maximize battery life. The motherboard is CPU upgradeable, supporting any i486 up to the DX4-100. 4Mb RAM is fitted as standard, and can be upgraded to 20Mb.

**HARD DISK**

The hard disk is removable, offering the ultimate in upgradeability and data security.

**TRACKBALL**

A 19mm ergonomically designed trackball is built-in. The surrounding surface makes for a comfortable hand rest whilst typing.

**BATTERY**

**BUILT-IN AUDIO**

The Voyager has a built-in microphone and speaker, with digitized audio recording/playback capability. A Yamaha music chipset (SoundBlaster and Windows Sound System compatible) allows for sound generation. There are sockets for external speakers and microphone. With this audio performance, the addition of a CD-ROM drive makes the Voyager truly 'Multimedia ready'.

**3.5" FLOPPY DRIVE**



Designed for  
Windows 95 can be specified instead of Windows 3.11 at no extra cost.

## VOYAGER

**EXPANSION PORTS**

All Voyagers have two PCMCIA ports for use with two type II cards or one type III card. Rear panel connectors include serial port; EPP parallel port; SVGA monitor; and PS/2 mouse, keyboard or keypad. A further port enables fast connection to a docking station.

**QUALITY & STYLE**

Voyager notebooks measure 286 x 226mm. The Voyager is just 34mm thick and weighs 2.4kg (mono model), while the Voyager II colour models are 49mm and 2.9kg. The quality of fit and finish is amongst the best we have ever seen.

**WARRANTY**

Voyagers feature 12 months 'return to base' warranty covering parts, with a lifetime warranty on labour.

**Monochrome**

	250MB	340MB	528MB
486dx2+66	£899 <sup>+VAT</sup>	£949 <sup>+VAT</sup>	£999 <sup>+VAT</sup>
486dx4+75	£949 <sup>+VAT</sup>	£999 <sup>+VAT</sup>	£1049 <sup>+VAT</sup>
486dx4+100	£979 <sup>+VAT</sup>	£1029 <sup>+VAT</sup>	£1079 <sup>+VAT</sup>

**Dual Scan Colour**

	250MB	340MB	528MB
486dx2+66	£1269 <sup>+VAT</sup>	£1319 <sup>+VAT</sup>	£1369 <sup>+VAT</sup>
486dx4+75	£1319 <sup>+VAT</sup>	£1369 <sup>+VAT</sup>	£1419 <sup>+VAT</sup>
486dx4+100	£1349 <sup>+VAT</sup>	£1399 <sup>+VAT</sup>	£1449 <sup>+VAT</sup>

**TFT Colour**

	250MB	340MB	528MB
486dx2+66	£1689 <sup>+VAT</sup>	£1739 <sup>+VAT</sup>	£1789 <sup>+VAT</sup>
486dx4+75	£1739 <sup>+VAT</sup>	£1789 <sup>+VAT</sup>	£1839 <sup>+VAT</sup>
486dx4+100	£1769 <sup>+VAT</sup>	£1819 <sup>+VAT</sup>	£1869 <sup>+VAT</sup>

**VOYAGER OPTIONS**

Additional primary NiMH battery	£89 <sup>+VAT</sup>
Upgrade from 4Mb to 8Mb RAM	£169 <sup>+VAT</sup>
Upgrade from 4Mb to 12Mb RAM	£299 <sup>+VAT</sup>
Upgrade from 4Mb to 20Mb RAM	£499 <sup>+VAT</sup>
Docking station	£349 <sup>+VAT</sup>
Cigar lighter adaptor	£49 <sup>+VAT</sup>
Additional PSU	£49 <sup>+VAT</sup>

**DOCKING STATION**



With a docking station on your desk the Voyager becomes a true "desktop replacement". The docking station has two drive bays (1x3.5" & 1x5.25"), three ISA expansion slots (2x full length & 1x 1/2 length), as well as permanent ports for monitor, keyboard, PS/2 mouse, serial, parallel, speaker, microphone and audio line-in.

**RAM UPGRADES**

Make the most of the power of your notebook by specifying extra RAM - up to 20Mb for the Voyager or up to 40Mb for the Voyager II.



**PCMCIA MODEMS**

A FAX/modem is the gateway to a world of communications, whether sending and receiving faxes or connecting to the internet information superhighway.



## Corporate and Network Sales

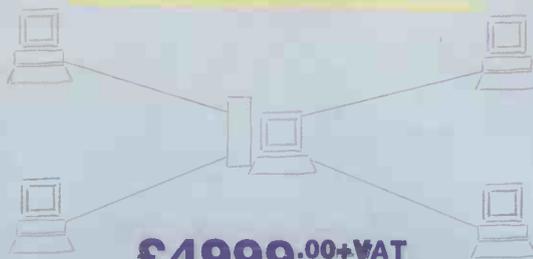
Established for over 12 years, Evesham Micros has gained consistent industry recognition for its quality of product and service and has a proven track record of supplying some of the country's leading organisations - a wide spectrum of businesses, government bodies and educational establishments. Each of our branches has dedicated account managers who can support your I.T. needs. Whether your needs are large or small, they are ready to discuss your requirements and advise on the ideal solution - we can offer PCs for Windows applications or CAD/CAM, right through to complete network solutions. We are able to react quickly to the market, therefore we can offer your company the latest technology at competitive prices.

**Network Solutions**

Whatever your networking requirement, we can provide the complete solution. From a simple two user peer to peer system to a Wide Area Network, we can install and support the entire installation - from initial concept to user training. All our installations are supervised by a Novell Certified Network Engineer, thus assuring our clients of the very best in networking expertise. Why not contact our Corporate Sales staff at your nearest Evesham Micros branch to discuss your requirements.



**5 Station Solution**



**£4999.00+VAT**

Not including cabling and installation

**1 Fileserver:**  
♦ Vale Pentium P90 Fileserver (as right)

**4 Workstations:**  
♦ 4x Vale Popular 486dx2+66  
♦ 528Mb hard disk  
♦ Ethernet card suitable for 10Base2 or 10BaseT

We fully appreciate that no two network requirements are exactly the same. While the above is an example of one of our solutions, we will be delighted to quote for your individual needs.



Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros

# TWO GREAT MULTIMEDIA BUNDLES



OFFERED WITH A VARIETY OF PACKS

## Microsoft Encarta '95

The complete multimedia encyclopaedia.

**Microsoft Works** The integrated productivity suite: Word Processor, Spreadsheet, Database, Graphics, Communications.

**Microsoft Golf** Experience the true-to-life challenges of the game of golf.

**Microsoft Scenes** Superb screen saver.

**Microsoft Money** All you need to take control of your finances.

**Microsoft Dangerous Creatures** See extraordinary creatures come to life.

**PhotoCD software.**



## Lotus Suite:

- Lotus 1-2-3
- Lotus AmiPro
- Lotus Approach
- Lotus ScreenCam
- Lotus Smartpics

## Top Games Titles:

- Supervoice, Dragon Lore, MegaRace, Theme Park, FIFA International Soccer

## Grolier Encyclopaedia:

- Software Toolworks Grolier Encyclopaedia for 1995 - version 7

## Lotus Office



Upgrade speakers in any pack to ZyFi 2 PROs for a surcharge of £20+VAT.

**Plus:** Professor Windows, Professor Training Suite, Professor Multimedia, Typing Tutor Pilot Multimedia including 'Interlude' and 'Get Organized'

See the CD-ROM drives (below and right) for details of the complete packs. When ordering please quote pack number. We recommend a minimum 486sx33 system for these packs. Please note that bundled versions of software and sound cards are not full retail packs, and the software features on-line documentation.

## PANASONIC DOUBLE SPEED CD-ROM DRIVE



**CR-562 Double Speed, multi-session drive limited offer at only**

**£45.00+VAT**

Includes cables and driver software

- Double speed 300kb/sec data transfer rate
- Multi-session mechanism - compatible with Kodak Photo CD Standard
- Motorised loading tray - no need for a caddy
- High speed 320ms access
- White book (CDi) compatible for video CDs
- MPC compatible ○ Mounts in 5.25" drive bay
- Output from audio CDs via headphone socket
- Requires SoundBlaster or compatible card with Panasonic CD interface

- 1E** £55.00 +VAT CR-562 with AT-bus driver card
- 1F** £79.00 +VAT CR-562 bundled with Soundplus 16 card
- 1B** £95.00 +VAT CR-562 with genuine SoundBlaster 16 card
- 1C** £115.00 +VAT CR-562 with genuine SoundBlaster 16 ASP card

## Microsoft Media '95

- 7C** £136.00 +VAT CR-562 with Media '95 pack, ZyFi 2 speakers and Soundplus 16 card
- 7A** £150.00 +VAT CR-562 with Media '95 pack, ZyFi 2 speakers & genuine SoundBlaster 16
- 7B** £179.00 +VAT CR-562 with Media '95 pack, ZyFi 2 speakers & genuine SoundBlaster 16 ASP

## Lotus Office

- 9C** £169.00 +VAT CR-562 with Lotus Multimedia Office, ZyFi 2 speakers and Soundplus 16 card
- 9A** £185.00 +VAT CR-562 + Lotus Multimedia, ZyFi 2 speakers & genuine SoundBlaster 16
- 9B** £205.00 +VAT CR-562 + Lotus Multimedia, ZyFi 2 speakers & genuine SoundBlaster 16 ASP

## TOSHIBA QUAD SPEED IDE CD-ROM DRIVE

### TOSHIBA XM-5302B ENHANCED IDE DRIVE



### WHY SETTLE FOR LESS!!

With 4x speed and the latest enhanced IDE interface this drive has the performance to cope with the most demanding multimedia applications.

- Enhanced IDE ATAPI interface
- Quad speed 600kb/sec sustained data transfer rate
- Super fast 190ms access
- Output from audio CDs via headphone socket
- Multi-session drive - compatible with Kodak Photo CD
- MPC and White Book (CDi) compatible



"The Vale Pentium's Toshiba XM-5302B ATAPI CD-ROM drive is among the fastest and most modern you can buy". PC Magazine May 1995

This drive requires an enhanced IDE interface, and therefore we sell it only in the packs below - not separately.

- 4A** £145.00 +VAT XM-5302B with genuine SoundBlaster 16 card
- 4B** £210.00 +VAT XM-5302B with genuine SoundBlaster AWE32 value
- 4C** £300.00 +VAT XM-5302B with genuine SoundBlaster AWE32

## Microsoft Media '95

- 5A** £200.00 +VAT XM-5302B with Media '95 pack, ZyFi 2 speakers and SoundBlaster 16 card
- 5B** £265.00 +VAT XM-5302B with Media '95 pack, ZyFi 2s and SoundBlaster AWE32 value
- 5C** £355.00 +VAT XM-5302B with Media '95 pack, ZyFi 2s and SoundBlaster AWE32

## Lotus Office

- 6A** £240.00 +VAT XM-5302B with Lotus Multimedia Office, ZyFi 2s and SoundBlaster 16
- 6B** £305.00 +VAT XM-5302B with Lotus Multimedia Office, ZyFi 2s and SB AWE32 value
- 6C** £395.00 +VAT XM-5302B with Lotus Multimedia Office, ZyFi 2s and SB AWE32

## SPECIAL OFFER! - LIMITED STOCKS

"Software Toolworks Grolier Encyclopaedia for 1994 - Version 6" with any of our multimedia packs for only... **£10+VAT**

## TEAC SIX SPEED IDE CD-ROM DRIVE

**6X speed - for only £209+VAT!**

You can now afford the performance you have been dreaming about.

- 8A** £209.00 +VAT  
CD-56E with AT-Bus driver card
- 8B** £249.00 +VAT  
CD-56E with genuine SoundBlaster 16 card
- 8C** £314.00 +VAT  
CD-56E with genuine SoundBlaster AWE32 value
- 8D** £404.00 +VAT  
CD-56E with genuine SoundBlaster AWE32

- Enhanced IDE ATAPI interface
- Six speed 900kb/sec sustained data transfer rate
- Super fast 139ms access
- Plug and Play compliant
- Output from audio CDs via headphone socket
- Multi-session drive - compatible with Kodak Photo CD
- MPC and White Book (CDi) compatible



## Microsoft Media '95

- 11A** £304.00 +VAT CD-56E with Media '95 pack, ZyFi2 speakers and genuine SB 16 card
- 11B** £369.00 +VAT CD-56E with Media '95 pack, ZyFi2s and SoundBlaster AWE32 value
- 11C** £459.00 +VAT CD-56E with Media '95 pack, ZyFi2s and SoundBlaster AWE32

## Lotus Office

- 10A** £344.00 +VAT CD-56E with Lotus Multimedia Office, ZyFi2s and genuine SB 16
- 10B** £409.00 +VAT CD-56E with Lotus Multimedia Office, ZyFi2s and AWE32 value
- 10C** £499.00 +VAT CD-56E with Lotus Multimedia Office, ZyFi2s and SB AWE32

## CREATIVE CREATIVE LABS, INC.

- SoundBlaster 16 Value pack ..... £67.00+VAT  
with IDE CD-ROM interface
- SoundBlaster 16 MCD card ..... £99.00+VAT  
with Panasonic/Sony/Mitsumi CD-ROM interfaces
- SoundBlaster AWE32 Value card ..... £135.00+VAT  
Integrated design combining SB16 with WaveBlaster, bringing the power of *Advanced WavEffects Synthesis*. Has IDE CD-ROM interface and 512kb RAM (not upgradeable) for sampling.

- SoundBlaster AWE32 card ..... £179.00+VAT  
As above but with Advanced Signal Processing chip, and 512kb RAM (upgradeable to 28Mb with SIMMs).
- MIDI Kit ..... £59.00+VAT
- VideoBlaster SE ..... £189.00+VAT  
The ultimate in video versatility for multimedia computing for only.
- TV Coder ..... £129.00+VAT  
VGA to Video encoder. Transfer your PC creations and manipulations back to video.



## PC SOUND SOLUTIONS

### SOUNDPLUS 16 CARD

**Incredible value...£39.99+VAT**  
A 16-bit stereo sound card, compatible with the SoundBlaster and SoundBlaster Pro, as well as the Windows Sound System, MPU-401 and AdLib standards. It provides CD-ROM interfaces for Panasonic, Sony, Mitsumi and IDE CD-ROM drives, has a MIDI interface/joystick port, and also interfaces for microphone, speakers, audio in/out, and wave table synthesizer. The high specification includes 48kHz stereo sampling rate, a 20 voice FM music synthesizer, and a 4 Watt per channel stereo power amplifier.

- 3H** £74.99 +VAT Soundplus 16 sound card with QS-123 joystick, ZyFi2 active speakers and Monkey Island 2
- 3F** £109.00 +VAT SoundBlaster 16 ASP with QS-123 joystick, ZyFi2 active speakers and Monkey Island 2



"Monkey Island 2 LeChuck's Revenge" is a registered trademark of Lucasfilm Games

Upgrade to ZyFi2 PROs for a supplement of £20+VAT.

## ZYFI 2 SPEAKERS

**THE NEW ZYFI 2 ACTIVE POWER AMPLIFIED STEREO SPEAKERS OFFER THE VERY BEST IN SOUND REPRODUCTION - IDEAL FOR ALL SOUND CARDS AND MULTIMEDIA SYSTEMS!**

Feature built-in power amplifier with separate L/R volume controls and tone control. Magnetically shielded.

**RECOMMENDED PC ANSWERS** March 1995  
"Sound quality is splendid and a great improvement over the originals - stereo comes across well and the sound is crisp. You can get a fair amount of bass too... ZyFi2s are definitely a sound investment."



Only £29.00 +VAT

## ZYFI 2 PRO SPEAKERS

**The latest addition to the serious multimedia system must be our ZYFI 2 PRO Active speaker system.**

With a PMPO of 60 Watts per channel and an amplifier with a true 18 Watts RMS per channel rating, the PROs deliver a rich dynamic sound. They feature separate volume, bass and treble controls, and are magnetically shielded. Speaker size 14x23x15cm.

**RECOMMENDED PC ANSWERS** March 1995  
"If you've invested in a decent sound card, then you've got to get some serious amplification to do it justice, and these are the boys to add a bit of oomph to your PC, especially if you plan to play some audio CDs or are serious about games."



Only £49.00 +VAT

**Suncom**  
**FX2000 Joystick £19.00+VAT**  
This recent addition to the highly acclaimed range of Suncom joysticks brings further advances in comfort and control. The pistol grip can be easily rotated to give perfect orientation for left or right handed use, while the unique "V" designed top fire button allows lightning fast response.  
**SPECIAL OFFER**  
Includes F15 III on CD! Switchable autofire, throttle control and suction feet complete the package. Requires game port.

**MSC Multi-System £69.00+VAT**  
**EVERYTHING YOU COULD WANT FROM A JOYSTICK.**  
The Multi-System is three control systems in one. The sturdy base sits securely on your desktop with suction feet, and provides a nicely weighted steering wheel for driving games. The wheel un-clips to reveal bars which twist into position for either an aircraft yoke or bike handle bars. Whichever you use there are control buttons at your fingertips, and an aircraft throttle paddle. The four mounted pedal box gives you throttle and brake controls. Multi-System has a port for a second joystick. Requires game port.

**It's a car!**  
**It's a bike!**  
**It's a plane!**

**FLIGHTSTICK £27.00+VAT**  
**THE FLIGHTSTICK IS CONSISTENTLY REVIEWED AS THE BEST QUALITY JOYSTICK IN ITS CLASS**  
Test fly a Flightstick with your favourite simulator and you will know the meaning of control. Whether you're a novice or experienced combat pilot, flying skills will be improved and enemy kill rate will increase. Excellent construction - looks and feels like the real thing! Includes throttle control and 7ft long connection cable. Requires game port.

**FLIGHTSTICK PRO £55.00+VAT**  
**THE ULTIMATE COMBAT STICK FOR COMPUTER PILOTS!**  
The new Flightstick PRO from CH Products offers the ultimate in fingertip control. It has four fire buttons, and a four-way switch which allows you to control weapons, radar and viewing functions on more advanced software - all without taking your hand from the stick! With its top quality sturdy construction it is designed to last for years. Includes driver software and long connection cable. Requires game port.

**VIRTUAL PILOT £68.00+VAT**  
**THE MOST REALISTIC FLIGHT YOKE AVAILABLE FOR THE PC**  
Enjoy the ultimate realism in all flight simulation games with the Virtual Pilot, made in the USA by CH Products. Looking just like a real airplane yoke, it is designed for the ultimate precision, giving you superb control. Also ideal for driving games. Clamps to table top. Requires game port.

**VIRTUAL PILOT PRO £79.00+VAT**  
The VIRTUAL PILOT PRO has all the best features of the award winning VIRTUAL PILOT. It adds four extra fire buttons and two four-way switches for unrivaled control in all combat and simulation games. Requires game port.

**PRO PEDALS £85.00+VAT**  
Featuring dual operating modes for forward and back rudder motion, as well as pivot movement for driving games, the CH Products PRO PEDALS provide gamers with the most realistic flying and driving experience. They also include aircraft style toe-brakes, and independent accelerator and brake controls. They are designed to work with all CH Products joysticks and yokes, and are built with rugged components to withstand the toughest competitor. Require game port.

**GAME PORT 2000 £12.50+VAT**  
Game port card for any of these joysticks and yokes. Works with any clock speed. Particularly recommended for 486sx2-66 and Pentium systems.

Evesham Micros (01386) 765500 Evesham Micros (01386) 765500 Evesham Micros (01386) 765500

Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros • CALL US NOW ON (01386) 765500 • Evesham Micros

## UPGRADES & ACCESSORIES

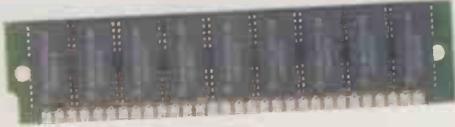
### PROCESSORS



- CPU UPGRADES**
- 486dx2-66 .....£49.00<sup>+VAT</sup>
  - 486dx4-100 .....£99.00<sup>+VAT</sup>
  - Motherboard support for 3.3V required.
  - Pentium P75 .....£149.00<sup>+VAT</sup>
  - Pentium P90 .....£239.00<sup>+VAT</sup>
  - Pentium P120 .....£479.00<sup>+VAT</sup>
  - Pentium P133 .....£569.00<sup>+VAT</sup>
  - Heatsink and fan recommended for all above processors.
  - CPU Heatsink .....£3.00<sup>+VAT</sup>
  - 486 fan & heatsink .....£10.00<sup>+VAT</sup>
  - Pentium fan & h/sink .....£9.00<sup>+VAT</sup>

### MEMORY SIMMS

- 1Mb 30-pin SIMM (3 chip) 70ns .....£34.00<sup>+VAT</sup>
- 4Mb 30-pin SIMM (3 chip) 70ns .....£120.00<sup>+VAT</sup>
- 4Mb 72-pin SIMM 70ns 32-bit .....£105.00<sup>+VAT</sup>
- 8Mb 72-pin SIMM 70ns 32-bit .....£205.00<sup>+VAT</sup>
- 16Mb 72-pin SIMM 70ns 32-bit .....£360.00<sup>+VAT</sup>
- EDO RAM: 4Mb 72-pin SIMM 70ns 32-bit .....£133.00<sup>+VAT</sup>
- EDO RAM: 8Mb 72-pin SIMM 70ns 32-bit .....£238.00<sup>+VAT</sup>
- EDO RAM: 16Mb 72-pin SIMM 70ns 32-bit .....£430.00<sup>+VAT</sup>



### PCI MOTHERBOARDS



**SPECIAL PRICES**

Our bulk purchase of motherboards allows us to offer you these special prices...

**486 UP TO DX2-66 (TYPE 4).....£69.00<sup>+VAT</sup>**  
 ● Vale VIP board ● Will accept most 486 CPUs up to DX2-66 ● 2xPCI slots ● 1xPC/ISA slots ● 2xVL-Bus/ISA slots ● 2xISA slots ● 256kb Cache ● ZIF socket ● P24T upgradeable ● Accepts 30-pin and 72-pin SIMMS.

**SPECIAL OFFER!**  
 Type 4 board with 486dx2+66 processor.....£119.00<sup>+VAT</sup>

**486 UP TO DX4-100 (TYPE 7).....£99.00<sup>+VAT</sup>**  
 ● Will accept most 486 CPUs up to DX4-100 ● 3xPCI local bus slots ● 4xISA slots ● ZIF socket ● P24T upgradeable ● 256kb Cache ● On-board PCI IDE hard disk controller ● 2x 16550 compatible UART driven high speed serial ports ● EPP and ECP compatible parallel port ● Accepts 72-pin SIMMS.

**SPECIAL OFFERS!**  
 Type 7 board with 486dx2+66 processor.....£145.00<sup>+VAT</sup>  
 Type 7 board with 486dx4+100 processor...£195.00<sup>+VAT</sup>

**Pentium (TYPE 6).....£139.00<sup>+VAT</sup>**  
 ● 2xPCI local bus slots ● 1xPC/ISA bus slot ● 3xISA slots ● ZIF socket ● 256kb Cache ● On-board PCI IDE hard disk controller ● 2x 16550 compatible UART driven high speed serial ports ● EPP and ECP compatible parallel port ● Accepts 72-pin SIMMS.

**SPECIAL OFFERS!**  
 Type 6 board with P75 processor .....£285.00<sup>+VAT</sup>  
 Type 6 board with P90 processor .....£375.00<sup>+VAT</sup>  
 Type 6 board with P120 processor .....£615.00<sup>+VAT</sup>

**Triton FOR PENTIUM CPUs (TYPE 8).....£249.00<sup>+VAT</sup>**  
 ● Intel Advanced Endeavour board with Triton chipset ● 3xPCI local bus slots ● 1xPC/ISA bus slot ● 2xISA slots ● ZIF socket ● 256kb Asynchronous Cache ● On-board PCI IDE hard disk controller ● 2x 16550 compatible UART driven high speed serial ports ● EPP and ECP compatible parallel port ● Support for EDO RAM. Pipeline-Burst cache and Native Signal Processing ● On-board sound with Creative Labs Vibra 16 chipset ● Accepts 72-pin SIMMS.

**SPECIAL OFFERS!**  
 Type 8 board with P90 processor .....£485.00<sup>+VAT</sup>  
 Type 8 board with P120 processor .....£725.00<sup>+VAT</sup>

**NB - all special offers include heatsink and fan.**

### MONITORS

Due to our bulk purchasing power for our own Vale PCs, we are able to offer the following high specification monitors at very competitive prices.



**Vale EcoScan 15**  
 ● On screen micro-processor controlled digital adjustments ● Low radiation (MPR III) ● 1280 x 1024 max. res. ● Fully non-interlaced ● Energy Star power saving ● 72Hz Flicker-Free at 1024x768  
**ONLY £249.00<sup>+VAT</sup>**

**Vale Eco14 SVGA Colour.....£149.00<sup>+VAT</sup>**  
 0.39mm dot pitch

**Viewsonic 6E 14" Colour.....£169.00<sup>+VAT</sup>**  
 0.28mm dot pitch • 1024x768 max non-interlaced • 800x600 @ 72Hz refresh • EPA Energy Star compliant

**CTX 17" Colour.....£459.00<sup>+VAT</sup>**  
 0.28mm dot pitch • 1280x1024 max • Up to 65KHz horiz. scan • 1024x768 @ 75Hz refresh • MPRII and EPA compliant

**Idek iiyama 15" Colour.....£279.00<sup>+VAT</sup>**  
 0.28mm dot pitch • 1280x1024 max • Up to 65KHz horiz. scan • 1024x768 @ 75Hz refresh • MPRII and EPA compliant

**Idek iiyama 17" Colour.....£549.00<sup>+VAT</sup>**  
 0.28mm dot pitch • 1600x1200 max • Up to 86KHz horiz. scan • 1280x1024 @ 74Hz refresh • MPRII and EPA compliant - PC Magazine "Editor's Choice" April 1995

**Idek iiyama 21" Colour.....£1279.00<sup>+VAT</sup>**  
 1600x1200 max • Up to 92KHz horiz. scan • 1280x1024 @ 72Hz refresh • MPRII and EPA compliant

**Tatung 20" Colour.....£899.00<sup>+VAT</sup>**  
 1280x1024 max. res (non-Interlaced) • 0.31mm dot pitch • Auto 29-65KHz horiz. scan

### UPSONIC UPSs



Protect your installation from mains power faults with an Upsonic uninterruptible power supply.

- UPSONIC Station 28 280VA rating.....£84<sup>+VAT</sup>
- UPSONIC Station 40 400VA rating .....£129<sup>+VAT</sup>
- UPSONIC Station 60 600VA rating .....£155<sup>+VAT</sup>
- UPSONIC Station 90 900VA rating .....£235<sup>+VAT</sup>
- UPSONIC Station 140 1400VA rating.....£415<sup>+VAT</sup>
- UPSONIC Station 200 2000VA rating.....£649<sup>+VAT</sup>

### SYSTEM SERIES ON-LINE UPSs

- True on-line protection ● True Sine wave output
- Fully automatic operation with LED status indicators
- Communications interface for use with automatic shutdown software
- System 300 has comprehensive LCD display of operating, monitoring and diagnostic information
- UPSONIC System 60 600VA rating.....£360<sup>+VAT</sup>
- UPSONIC System 100 1000VA rating .....£499<sup>+VAT</sup>
- UPSONIC System 300 3000VA rating .....£1399<sup>+VAT</sup>

### AMSTRAD ACCESSORIES

- 3.5" 720kb Internal floppy drive for PC1512/1640. Suits any single drive machine. Complete kit with full instructions.....£51.06<sup>+VAT</sup>
- PC1512 RAM upgrade to 640k with full instructions.....£25.49<sup>+VAT</sup>

### HARD DISKS

**COST EFFECTIVE MASS STORAGE**



- DRIVE MECHANISM ONLY:**
- Optimal installation kit (5.25" mounting bracket kit plus cables).....£10.00<sup>+VAT</sup>
  - Seagate 130Mb (IDE).....£69.00<sup>+VAT</sup>
  - Seagate 260Mb (IDE).....£89.00<sup>+VAT</sup>
  - Seagate 340Mb (IDE).....£99.00<sup>+VAT</sup>
  - Seagate ST3660A (IDE) 528Mb.....£115.00<sup>+VAT</sup>
  - Seagate ST31220A (IDE) 1Gb.....£175.00<sup>+VAT</sup>
  - Seagate ST31230N (SCSI) 1Gb.....£359.00<sup>+VAT</sup>
  - Seagate ST32430N (SCSI) 2Gb.....£679.00<sup>+VAT</sup>

### HD CONTROLLER CARDS

- Tekram (PCI bus) c/w 0Mb RAM (upgradeable to 16Mb).....£69.00<sup>+VAT</sup>
- Tekram (PCI bus) c/w 2Mb RAM (upgradeable to 16Mb).....£149.00<sup>+VAT</sup>



- PROMISE CACHING HARD DISK CONTROLLERS**
- DC99M (ISA bus) c/w 512kb RAM (upgradeable to 8.5Mb).....£49.00<sup>+VAT</sup>
  - DC4030 (VL bus) c/w 0kb RAM (upgradeable to 16Mb).....£89.00<sup>+VAT</sup>
  - DC4030 (VL bus) c/w 2Mb RAM (upgradeable to 16Mb).....£149.00<sup>+VAT</sup>

### VIDEO CARDS

**Why Diamond DIAMOND Video Cards? MULTIMEDIA**

The highly acclaimed Stealth range has won many press accolades including the coveted PC Magazine "Editors Choice", and the new Stealth SE and Stealth 64 Video continue the tradition of delivering the best price/performance available. They are all based around S3 chipsets for superb Windows acceleration as well as class leading DOS performance, and come with the renowned InControl Tools utility for setting up the Windows environment.

- Diamond Stealth 24 VL Bus (1Mb).....£79.00<sup>+VAT</sup>
- Diamond Stealth SE VL Bus (1Mb).....£78.00<sup>+VAT</sup>
- Diamond Stealth SE PCI Bus (1Mb).....£74.00<sup>+VAT</sup>
- Diamond Stealth 64DRAM VL Bus (2Mb).....£129.00<sup>+VAT</sup>
- Diamond Stealth 64DRAM PCI Bus (2Mb).....£125.00<sup>+VAT</sup>
- Diamond Stealth 64VideoVRAM VL Bus (2Mb).....£219.00<sup>+VAT</sup>
- Diamond Stealth 64VideoVRAM PCI Bus (2Mb).....£219.00<sup>+VAT</sup>
- Upgrade to 4Mb for Stealth 64VideoVRAM .....£130.00<sup>+VAT</sup>
- Diamond MVP accessory for Stealth 64Video, gives MPEG decoding and upgrade to 4Mb VRAM.....£249.00<sup>+VAT</sup>

### NOTEBOOK CARRY CASES

**SOLIDEX® Combining modern design with classic styling**

**TECHNOLOGY CASE £39.00<sup>+VAT</sup>**



- Computer compartment (15.5" x 10.5" x 3.5")
- Printer/FAX compartment (12.75" x 9" x 2")
- Cellular 'phone and power supply pockets
- Diskette and file pockets, pen and business card holders

**EXECUTIVE CASE £59.00<sup>+VAT</sup>**

- Computer compartment (16.5" x 10.5" x 2.5")
- Cellular 'phone and power supply pockets
- Diskette and file pockets, pen and business card holders



## NETWORK PRODUCTS

Reliability is the key to network installations – you cannot afford to make compromises. We offer top quality branded products at an affordable price.

Novell Authorised Reseller  
We are NOVELL Authorised Resellers Please contact us regarding your specific networking requirements.

### Instant PCMCIA Ethernet

#### PCMCIA NETWORKING HEADACHES?

Solve all your problems with this revolutionary new adapter.



- Hassle free automatic installation – just plug it in, type NDCGO, and you have instant Ethernet
- 10BaseT and 10Base2 ports
- 10Mbps, 16-bit

**ONLY £139.00 +VAT**

#### Cabling.

BNC connectors: T Connector	£3.20 +VAT
Through Connector	£1.80 +VAT
Cable plug	£1.75 +VAT
Ethernet Cable: Loose, per metre	£0.75 +VAT
5m length with BNC plugs at each end	£8.50 +VAT
10m length with BNC plugs at each end	£14.00 +VAT
20m length with BNC plugs at each end	£20.00 +VAT



Novell compatible  
16-bit network card.  
Fully Novell authorised and tested.

- Faster than and compatible with NE2000 cards
- 10BaseT and 10Base2 I/O
- NETBIOS compatible
- 10Mbps

**£39.00 +VAT**

Kingston card with Novell Netware Lite.....£59.00 +VAT



#### Network hubs.

- 9 port stackable hub...£129.00 +VAT
- 16 port hub.....£219.00 +VAT

#### Pocket LAN adaptor

10Base2 & 10BaseT (connects to parallel port) ..£110.00 +VAT

## PAGE FAX/MODEMS

### The Internet

V32bls package...£119 +VAT  
V34bls package...£195 +VAT



This package is the affordable way to enhance your PC with communications ability. Send and receive faxes, and access online information services and the Internet. Apart from your PC and a phone socket, everything you need is included:

- Pace FAX/modem: either MobiFax 144 pocket unit (V32bls) or Linnet 34fx desktop (V34bls)
- Software to access Internet facilities
- 21 days free subscription to an internet service provider
- "The Net" guide book
- FAX software



Authorised Dealer



#### SPECIAL LIMITED OFFER!

#### MICROLIN V34bis fax modems

- MICROLIN fx 34 portable external unit.....£180 +VAT
- MICROLIN fx 34 internal unit.....£179 +VAT
- MICROLIN NB 34 PCMCIA type II unit.....£199 +VAT

#### Linnet Message Desk.....£195 +VAT

Desktop Voice, Data and Fax Modem.  
Integrates your PC and your telephone to provide complete communications facilities.



## KEYBOARDS & MICE

**£13.00 +VAT**

Made for us by Mitsumi, this is the 102-key keyboard used in our Vale Popular range of PCs. A very neat and attractive design, it is superb value for money.

**ERGONOMIC KEYBOARD**  
**£29.00 +VAT**

Take the strain out of typing. This specially designed keyboard allows your hands and wrists to work naturally for maximum comfort and maximum speed. Recommended by professional typists and ideal for learners.

**£25.00 +VAT**

A top quality 102-key keyboard as used in our Vale Premier and Platinum ranges of PCs. It features proper tactile keys and a sturdy metal base. This unit has consistently impressed reviewers: "...almost traditional in its weight and touch. A deeply desirable device." Computer Buyer, June 1994

**WINDOWS 95 KEYBOARD**  
**£35.00 +VAT**

Our new Windows keyboard has three extra keys that are programmable for use with Windows 3.xx but really come in to their own in Windows 95 as Application keys. As used in our state of the art Vale Platinum Triton PCs.

**MS Mouse 2.0** **£38.00 +VAT**

**Intellipoint version**

Ergonomics at it's best! Microsoft have their finger on the button when it comes to mouse design.

Maximum comfort and optimum usability for all home PC users. With the Home Edition of Intellipoint Software

**NEW**

**£25.00 +VAT** **MS Home Mouse**

**MITSUMI MOUSE** **£9.99 +VAT**

A very stylish, comfortable and good quality mouse at a budget price. As used in our Vale Popular range of PCs.

## SOFTWARE BARGAINS

**Lotus SMARTSUITE-3**

**Test drive it today!**

With a 60 day money back guarantee you have nothing to lose.

- Lotus 1-2-3 v5.0
- Lotus Freelance Graphics v2.1
- Lotus Ami Pro v3.1
- Lotus Organizer v1.1
- Lotus Approach v3.0

Competitive upgrade (Via voucher redemption)

**£229 +VAT**

Version upgrade **£174 +VAT**  
Via voucher redemption

**Outright purchase**  
No competing product?

Don't worry, we will supply a qualifying product free of charge.

Microsoft Windows 95 Upgrade pack

Upgrade from Windows 3.x or Windows for Workgroups 3.x

CD format .....£78.95 +VAT  
3.5" format.....£79.95 +VAT

**Windows 95 'Plus pack'**  
Comprises Internet Access and Theme Park for Windows 95

CD format .....£38.95 +VAT  
3.5" format.....£39.95 +VAT

### Microsoft Office

- ◆ MS Word
- ◆ MS Excel
- ◆ MS Mail (workstation license)
- ◆ MS Powerpoint
- ◆ MS Access (Office professional only)

Now all your programs work together like one!

**Competitive Upgrades**

**OFFICE 95 STANDARD** **£199 +VAT**

**OFFICE 95 PROFESSIONAL** **£299 +VAT**

Competitive Upgrades are via voucher redemption.

**Version Upgrades**

Office 95 Standard.....£175 +VAT  
Office 95 Professional.....£259 +VAT

**Outright Purchase**

Office 95 Standard.....£409 +VAT  
Office 95 Professional.....£529 +VAT

## IONEGA TAPE BACKUP

Top quality tape streamer available as either an internal or a stand alone unit. The stand alone version simply connects to the PC's parallel port, with a through port for printer operation.

- ◆ Internal unit and external 'parallel port' version available
- ◆ Industry standard QIC-80 recording format
- ◆ The only drive to read QIC tapes and Irwin tapes
- ◆ Internal unit includes DOS backup software
- ◆ Parallel port unit includes Central Point backup software (for DOS)
- ◆ 2 year warranty



**PC today**

"A superb combination of tape drive and software." PC Today, December 1993



**250Mb Version**

**INTERNAL UNIT** **£89.00 +VAT**

**PARALLEL PORT UNIT** **£199.00 +VAT**

DC2120 tape for 250Mb Unit .....£15.00 +VAT

**800Mb Version**

**INTERNAL UNIT** **£149.00 +VAT**

**PARALLEL PORT UNIT** **£239.00 +VAT**

Tape for 800Mb Unit.....£29.00 +VAT

Evesham Micros (01386) 765500

# SCAN THESE PRICES

ALL SCANNERS ARE TWAIN COMPLIANT



Colour Model

£99.99+VAT

Produced by the 24-bit hand scanner at 300dpi.

Providing powerful colour scanning tools, this package enables high quality colour images to be generated for use in professional graphics presentations.

### COLOUR SCANNER FEATURES:

- Colour mode gives genuine 16 million colour, 400dpi hardware scanning (not software interpolated)
- Greyscale mode with true 256 greyscales at up to 400dpi
- Halftone and Line-art modes at up to 400dpi

### PACKAGE INCLUDES:

- HAND-HELD COLOUR SCANNER & INTERFACE CARD
- 'iPhoto Plus' top professional Windows based Image Scanning and Photograph re-touching software
- 'PERCEIVE PERSONAL' powerful OCR Windows software, giving simple, efficient operation with highly effective results

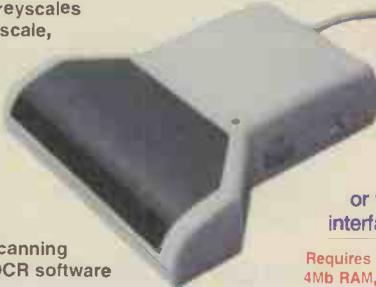
or with 'parallel port' interface (see bottom right) £149.00+VAT

Requires '386 or higher, Windows 3.1 or higher, at least 4Mb RAM, Mouse, Hard Drive and 256 colour SVGA graphics or higher,

## Scanners from Mustek

True 256 GREYSCALE HANDY SCANNER with all the right features, including O.C.R. and extensive graphics editing facilities.

- Genuine 256 greyscale performance – not interpolated from 32 greyscales (Beware: Many scanners advertised as 256 greyscale are 32 greyscale, achieving 256 only by software interpolation)
- Photo-realistic quality monochrome scans, with actual shades and shadows, at up to 400dpi
- Halftone and Line-art scanning at genuine 800dpi resolution
- Full 105mm wide scanning head
- Eight selectable scanning resolutions between 100 and 800dpi
- Variable brightness control ● Built-in scan speed indicator
- Includes "iPhoto Plus" top professional Windows based image scanning and photograph re-touching software, and "Perceive Personal" OCR software



WHAT PC? BEST BUY



EVESHAM MICROS LTD 256 Greyscale Handy Scanner

EVESHAM MICROS LTD 256 Greyscale Handy Scanner

"Superb quality results time after time. The ease of use is commendable and the bundled software offers brilliant value for money... We therefore recommend the Mustek without hesitation."

What PC?, August 1993

with internal interface card £59.00+VAT

or with 'parallel port' interface (see bottom right) £109.00+VAT

Requires '386 CPU or above with Colour Monitor, at least 4Mb RAM, Windows 3.1 or higher, Hard Drive and Mouse.

### TRY BEFORE YOU BUY



To help with your choice of scanner we have prepared a sample disk pack for each of the three units featured on this page.

Each sample pack contains several images (including the Car and Child) scanned in various modes to provide an exact representation of each unit's capabilities – before you buy.

A fact sheet is also included containing loading instructions, scanning info., and printed originals produced by the scanner of your choice for comparison.

Please state which scanner you are interested in (greyscale, colour or flatbed). Supplied on 3 1/2 disks.



Cost Per Pack £5.00+VAT including delivery – refundable on purchase of a scanner.

## FLATBED A4 COLOUR SCANNERS

- 600dpi unit giving 1200dpi via interpolation, or 1200dpi unit giving 2400dpi via interpolation
- Very fast 800dpi single-pass unit giving 1600dpi via interpolation
- Line art, 8-bit grey and 24-bit colour modes
- 12 built-in halftoning patterns
- 216mm x 356mm scan area
- SCSI expansion card interface supplied
- Powerful OCR software and 'iPhoto Plus' Image Scanning and Photograph re-touching software



new fast single pass model



"Excellent value for money. The works for only £700."

PERSONAL COMPUTER December 1993

Personal Computer World April 1993

"The MFS6000C is a quality piece of hardware... Superb results."

"The Mustek MFS-1200CX provides a good set of features at the lowest price in the test group. ...if you need an inexpensive high-resolution scanner, then the Mustek MFS-1200CX should be on your shortlist."

PC MAGAZINE October 1994

600/1200dpi £299.00 +VAT  
 1200/2400dpi £449.00 +VAT  
 single pass  
 800/1600dpi £399.00 +VAT  
 Transparency adaptor .....£179+VAT  
 Sheet feeder .....£299+VAT

Requirements: '386 or higher, Windows 3.1 or higher, Mouse, Hard Drive and 256 colour SVGA graphics or higher. 600dpi unit needs at least 4Mb RAM, 800dpi unit needs at least 8Mb RAM.

## External SCANNER INTERFACE

Connect your scanner to your printer port!

This compact in-line interface box does away with the need to install an expansion card for your scanner, by simply plugging into the Parallel port. It is ideal for anyone who wants to transfer their scanner quickly between computers, as well as notebook owners and those who have simply run out of expansion ports. Compatible with the Mustek Black & White, Greyscale, & 24-bit Colour hand-held scanners.



only £59.00+VAT

CALL US NOW ON (01386) 765500

# PCW 486DX2-66

- 486DX2-66 processor
- PCI motherboard
- 528Mb hard disk
- 4Mb RAM (expandable to 128Mb)
- 14" SVGA monitor
- 1Mb PCI video card
- 3.5" 1.44Mb floppy disk drive
- 2 serial and 1 parallel ports
- MS DOS 6.22, Windows 3.11 and mouse (all manuals and disks supplied)
- 102 key keyboard
- 1 year return to base warranty
- Lifetime technical support hotline

## Multimedia version £799+VAT

- ◆ Double speed CD-ROM drive
- ◆ SoundPlus 16 sound card
- ◆ ZyFi2 amplified stereo speaker system
- ◆ Microsoft Media '95 software bundle: Encarta '95, Works, Golf, Scenes, Money, Dangerous Creatures
- ◆ PhotoCD software



Unbelievable value!!  
**£649+VAT**

RAM upgrades: £120+VAT per 4Mb

# PRINTERS

## LEXMARK WINWRITER 200

Using the Microsoft At Work standard to guarantee ease of use and Windows '95 compatibility, WinWriter 200 is the laser printer with a certain future.

**PC PLUS GOLD**  
"The WinWriter produces good quality prints with clean, clear text and no banding on graphics."  
March 1995 (at an RRP of £459)

**PC PRO**  
"Lexmark has paid attention to all the important basics, removed the frills and offers irresistible value-for-money"  
January 1995 (at an RRP of £479)

RAM upgrade to 1.5Mb...£60+VAT  
4500 page toner unit (only 2.4p per page)...£109+VAT  
On-site warranty until the year 2000 for only...£99+VAT

**ONLY £239+VAT**

- 4ppm print speed
- Fast GDI Windows printing
- Laser quality 300 dpi resolution
- 12 months on-site maintenance
- 2000 page per month duty cycle

- PCL4 printing from within Windows
- Windows & TrueType scalable fonts
- 512kb RAM Std, upgradeable to 4.5Mb
- Bi-directional parallel port interface (cable supplied)

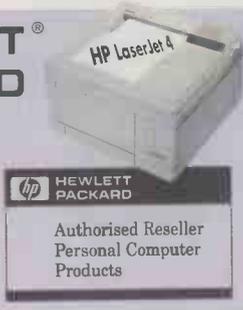
- Easy to use print features totally controlled from PC (no printer buttons)
- 150-sheet paper tray - Prints A4 paper, letter, legal, labels, and envelopes



# HEWLETT PACKARD

- HP LaserJet 4 L .....£385.00+VAT
- HP LaserJet 5 P .....£629.00+VAT
- HP LaserJet 5 MP .....£769.00+VAT
- HP LaserJet 4 ML .....£799.00+VAT
- HP LaserJet 4 Plus .....£1059.00+VAT
- HP LaserJet 4 M Plus .....£1399.00+VAT

- PostScript Level 2 upgrade for LaserJet 4 .....£229.00+VAT
- 2Mb RAM upgrade for LaserJet III / IIIP .....£119.00+VAT
- 4Mb RAM upgrade for LaserJet III / IIIP .....£169.00+VAT
- 4Mb RAM upgrade for LaserJet 4 .....£169.00+VAT



- HP DeskJet 320.....£181.00+VAT
- HP DeskJet 320 with sheet feeder.....£201.00+VAT
- Colour kit for 310/320/540.....£30.00+VAT
- HP DeskJet 600.....£229.00+VAT
- HP DeskJet 660.....£319.00+VAT
- HP DeskJet 850.....£425.00+VAT
- HP DeskJet 1200C.....£679.00+VAT
- HP DeskJet 1200C/PS.....£1069.00+VAT
- HP DeskJet 1600.....£899.00+VAT

- HP DeskJet long life black ink cartridge.....£25.00+VAT
- HP DeskJet colour ink cartridge.....£25.00+VAT
- HP DeskJet 2 year On-Site warranty agreement (mono models) .....£55.00+VAT (colour models) .....£65.00+VAT
- 256kb RAM cartridge for DeskJet Plus / 500.....£59.00+VAT

Authorised Reseller  
Personal Computer Products

- ### STAR
- Star XB24-200.....£346.00+VAT
  - Star XB24-250.....£425.00+VAT
  - Star WinType 4000 laser (requires Windows 3.1 or later).....£319.00+VAT

- ### PANASONIC
- Panasonic KX-P2135.....£139.00+VAT
  - Panasonic KX-P2624.....£339.57+VAT

- ### CANON
- Canon BJ-30.....£169.00+VAT
  - Canon BJ-200EX (Epson compatible).....£190.00+VAT
  - Canon BJ-230.....£269.00+VAT
  - Canon BJ-C600E.....£369.00+VAT
  - Canon BJ-C4000.....£259.00+VAT

- ### EPSON
- Epson LX300.....£105.00+VAT
  - Epson LQ570+.....£235.00+VAT
  - Epson Stylus Colour.....£375.00+VAT

Cut Sheet feeders are available for most printers. Please call for price / availability

This product can seriously **SAVE** you money...  
**INK REFILLS**  
For HP DeskJet/500/Plus/DeskWriter printers

The best and easiest to use inkjet refills we have found. Comprehensive and simple to follow instructions are supplied. Each pack will refill a standard cartridge four times, or a long life cartridge twice.

**ONLY £11.99+VAT**  
- that's as little as £3 per cartridge fill!

# CLEARANCE BARGAINS

- Categories: 1. As new  
2. Minor imperfections  
3. Discoloured and/or slightly damaged cases
- ### NOTEBOOKS
- Olivetti Philips, 486s25, mono screen Category 2 .....£525.00+VAT
  - Triumph Adler notebook, 486s25, 120Mb HD, colour screen Category 2 .....£649.00+VAT
- ### PRINTERS
- DOT MATRIX.....£75.00+VAT
  - NEC P22Q 24-pin Category 2 .....£75.00+VAT
  - Star LC240 Category 2 .....£75.00+VAT
  - Olivetti DM124 Colour Category 2 .....£89.00+VAT

- ### INKJET
- Olivetti JP350S Category 2 .....£69.00+VAT
  - Canon BJ-C600 Category 2 .....£279.00+VAT
- ### LASER
- Ti microWriter Category 2 .....£249.00+VAT
- ### SOFTWARE
- Superstor disk compression software .....£5.00+VAT
  - Lotus Organiser software .....£10.00+VAT
- ### OTHERS
- 486dx33 CPU Category 1 .....£29.00+VAT
  - 486dx2-50 CPU Category 1 .....£35.00+VAT
  - Creative Labs SB16 chipset sound card Category 2 .....£45.00+VAT
  - Gresham GPR1200 UPS Category 2 .....£269.00+VAT

- HP ScanJet 2P Category 1 .....£349.00+VAT
  - 400dpi GreyArtist handscanner Category 2 .....£29.00+VAT
  - Mustek 800/1600dpi A4 flatbed colour scanner Category 2 .....£349.00+VAT
  - Mustek 1200/2400dpi A4 flatbed colour scanner Category 2 .....£399.00+VAT
  - Iomega Floptical (Internal) Category 2 .....£179.00+VAT
  - Iomega Floptical (external) Category 2 .....£199.00+VAT
  - ZyFi speakers Category 2 .....£10.00+VAT
  - ZyFi2 speakers Category 2 .....£15.00+VAT
  - ZyFi2 Pro speakers Category 2 .....£25.00+VAT
- Please contact our Evesham branch for these products. All are clearance lines, shop soiled or second hand stock and all carry 12 months warranty. More clearance bargains are held at our other branches - please call them if you do not see what you require.

# Evesham Micros



WINNER OF ALL CUSTOMER SERVICE CATEGORIES IN THE 'PC DIRECT HITS AWARDS' FOR '93 AND '94

## HOW TO ORDER....

Call us now on **01386 765500**

TELESALES OPENING TIMES:  
9am - 7pm Monday-Friday  
9am - 5.30pm Saturday

Mail Order Fax: **01386 765354**

Send Cheque, Postal Order or Access/VISA/Switch/AmEx card details to:

Evesham Micros Ltd., Dept PECW,  
Unit 9, St Richards Road,  
Evesham, Worcs. WR11 6TD

### - DELIVERY -

Same day despatch whenever possible.  
Delivery on orders up to £150.00 ex VAT value is charged at £4.50 +VAT. All items above this value are shipped by insured Express Courier service at £8.00 +VAT per order - normally next working day after despatch (UK mainland only, others please call).

Please note that 5 banking days must be allowed for cheque clearance. Immediate clearance on Bank Drafts and Building Society cheques

Government, Education & PLC purchase orders welcome

Credit card orders: We do not charge the card until the goods are despatched.



Always a good sign.

## RETAIL SHOWROOMS

Normal Opening times: Monday-Saturday, 9.00-5.30  
Late Night Opening Until 7pm Wednesday-Friday

EVESHAM	CAMBRIDGE
Unit 9 St Richards Rd, Evesham Worcs WR11 6TD ☎ 01386-765500 fax: 01386 765354	5 Glisson Road, Cambridge CB1 2HA ☎ 01223-323898 fax: 01223 322883

BIRMINGHAM	MILTON KEYNES
251-255 Moseley Rd, Highgate, Birmingham B12 0EA ☎ 0121-446 5050 fax: 0121 446 5010	320 Witan Gate, Milton Keynes MK9 2HP ☎ 01908-230898 fax: 01908 230865

TECHNICAL SUPPORT Monday to Friday, 10.00 - 5.00  
**01386-769403**

1 YEAR WARRANTY ON ALL GOODS  
All goods subject to availability. Please note that On-site Maintenance applies to UK mainland only. Details correct at time of going to press. Prices and specifications subject to change without notice. E & O E.

THIS ADVERT IS EFFECTIVE FROM 1/9/95  
SOME PRICES AND SPECIFICATIONS MAY CHANGE AFTER 30/9/95

Evesham Micros ● CALL US NOW ON (01386) 765500 ● Evesham Micros ● CALL US NOW ON (01386) 765500 ● Media Codes: PCW

# RAM



## 72 PIN

### 32 BIT (Non Parity)

1 x 32 (4mb) 70ns .....	£ 95.00
2 x 32 (8mb) 70ns .....	£195.00
4 x 32 (16mb) 70ns .....	£338.00
8 x 32 (32mb) 70ns .....	£679.00

### 36 BIT (With Parity)

1 x 36 (4mb) 70ns	£115.00
2 x 36 (8mb) 70ns	£220.00
4 x 36 (16mb) 70ns	£364.00
8 x 36 (32mb) 70ns	£749.00

## 30 PIN

256 x 9 (256K) 70ns .....	£ 10.00
1 x 9 (1mb) 3 Chip 70ns .....	£ 26.50
1 x 9 (1mb) 9 Chip 70ns .....	£ 30.00
4 x 9 (4mb) 3 Chip 70ns .....	£ 97.00
4 x 9 (4mb) 9 Chip 70ns .....	£105.00
16 x 9 (16mb) 70ns .....	£ Call

## EDO RAM

£ Call



*In the unlikely event that the memory we supply is not compatible with your PC, we will swapout/replace free of charge*

Motherboards	Pentium Power
DX2/66 VL, 256K, ZIFF	Intel Triton Chipset. Supports EDO RAM.
DX4/100 VL, 256K, ZIFF	Pipeline burst cache. Upgradeable to P200.
PCI EIDE on board 256K	2 x Fast Serial. 1 x Fast Parallel.
DX2/66	P75 <b>£309.00</b> P120 <b>£599.00</b>
DX4/100	P90 <b>£389.00</b> P133 <b>£699.00</b>
	P100 <b>£469.00</b>

## IDE HARD DISK DRIVES

540 MB QUANTUM MAVERICK .....	£115.00	850 MB AC2850 WESTERN DIGITAL .....	£159.00
730 MB QUANTUM LIGHTING .....	£149.00	1 GB AC3110 WESTERN DIGITAL .....	£199.00

SCHOOLS, COLLEGES, UNIVERSITIES, PLEASE CALL FOR QUANTITY PRICES

LOCAL AUTHORITIES, GOVERNMENT DEPT. ENQUIRIES WELCOME.

NEXT DAY DELIVERY **£6.00** Up to 5kgs     NEXT DAY DELIVERY **£7.00** Over 5kgs

OPEN MONDAY - SATURDAY

*ALL PRICES EXCLUDE VAT*

# SALES HOTLINE: 01371 831159

★ All Major Credit Cards Accepted ★

TEC COMPUTERS LTD, YARDLEY'S, NEW BIGGEN STREET, THAXTED, ESSEX CM6 2QR



# PC Buyer

## The UK's Best Deals

Sept/Oct Issue  
All Offers End 14th Oct



- ◆ 486DX4-100 or 75MHz Pentium® processor
- ◆ 8Mb RAM (4Mb on £599)
- ◆ 540Mb hard drive
- ◆ 14" SVGA colour
- ◆ £1000 Worth of software including Lotus SmartSuite

### 486DX4-100

486DX4-100 with 540Mb hard drive and 4Mb RAM

# £599 + VAT

486DX4100 with 540Mb hard drive and 8Mb RAM = £699 + VAT

### 75MHz Pentium®

75MHz Pentium® with 540Mb hard drive and 8Mb RAM

# £799 + VAT



Multimedia Perfect Office '95



# £38

Per Month

Multimedia Time Machine '95



# £39

Per Month

Multimedia Office '95



# £899

+ VAT

See inside for full details

MITAC Notebooks From

**£899** + VAT

COLOSSUS 486DX2-66

**£649** + VAT



Laser Printer packs From

**£19** Per month



APR

# 0% INTEREST FREE CREDIT

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page ii for Interest Free example

**TIME**  
Computer Systems Ltd.

BGEA

# Time Services

Long established as a standard-setter in the computer market, Time Computers has always been the first choice of customers who demand quality products at competitive prices with reliable service and back-up.



Time Computers HQ site is situated in the Ribble Valley near the M65 & M66 motorway network.

As well as achieving soaring sales and rapid growth to become the UK's leading direct PC supplier, we have also established an excellent reputation for our professional approach to supplying quality computer solutions to small businesses and home users. We have the

resources, know how, and financial strength to keep us ahead with all the latest advances in computer technology and to respond quickly to market trends and the needs of our customers.

We were the first company to offer complete bundled solutions at affordable prices, the first to offer Interest Free Credit in the direct PC market

and the first to successfully develop the direct retail showroom concept.



The sales team are fully trained and will guide you through the selection process.

To ensure the quality of our products and to provide you with the latest technology, we have forged strong working relationships with the giants of the industry. Our direct relationships with the

world's leading hardware and software manufacturers coupled with the strength of our volume buying and our efficient centralised operation with its low overheads also means that we are able to offer the keenest prices on the very latest products.

We believe Time Computers' success story is a direct result of our commitment to listening to our customers needs, and most important of all, delivering those needs promptly. In our book the customer comes first.

It is our overall commitment to exceptional customer support programmes and high quality solutions that has put us where we are today - in a unique position of being able to offer the keenest priced solutions with the best service in the industry.



Upgrade service enables you to keep your system future-proof



## Pre-sales Advice

Our knowledgeable sales staff are fully trained with what is available in the PC industry and are happy to give you free advice on the most suitable make and model for your requirements.



## Configuration and Testing

Remember when you buy from Time Computers you are not limited to the standard configurations. Any options such as additional RAM, multimedia products, fax modems and extra drives that you may require will be installed in your PC system to make a solution tailored to your needs. The system will then be fully tested so that you can start using it immediately. On many systems bundled software may be pre-installed thus saving you many hours of time.



## Customer Service

Customer Services staff liaise closely with your sales contact, and will act as your representatives within the company, and ensure that your queries are speedily resolved.



Your representatives within Time Computers - Some members of the Customer Service team.



## Hardware and Technical Support

One of the main advantages of dealing directly with Time Computers is the facility to seek help from trained PC experts. Our technical support staff will provide free hotline support should your system ever malfunction, or if you wish to upgrade.



## Warranty

All goods carry 12 month's return-to-base warranty except where otherwise indicated. In addition, Time Cover offers a valuable extended 3 or 5 year warranty on PC Systems, covering all parts, labour and carriage costs to ensure long term trouble-free-use. Please ask for details when placing your order.



## Repair and Upgrade Facilities

We have in-house fully equipped facilities to repair the vast majority of products we sell. This means that you have very fast turn around should your system ever go faulty. Our upgrade service will enable you to keep your system future-proof by installing new processors, RAM and larger storage devices.

# Buying from Time



## Direct is Best

There is no doubt that the customer gets better value in terms of price, specification and support when they buy PC systems direct. When you buy from Time Computers you not only have all the advantages of buying direct but also advantages of having a wider range to choose from and retail showroom facilities.



## Wider Range

Time Computers is a multi-vendor direct company. Unlike other direct suppliers who are usually limited to one brand of PC (usually their own brand), Time Computers offers the best value products from the world's leading PC manufacturers (such as IBM, Compaq, Toshiba and Mitac) thus giving you more choice.



## Time Showroom Facilities

Our showroom facilities enables us to provide the most popular systems for display throughout the UK. This enables you to see and use the system before you decide to buy at the same time as having full access to all of our range of direct services provided by our specialist staff.



## Time Showroom Facilities

Time Retail Showrooms are available in the following Ryman Stores. Please call for details.



Time have a showroom presence throughout the UK.

- GREAT PORTLAND ST
- STRAND
- TOTTENHAM COURT RD
- KNIGHTSBRIDGE
- VICTORIA
- KENSINGTON
- WATFORD
- AYLESBURY
- MANCHESTER
- DARLINGTON
- IPSWICH
- BIRMINGHAM
- CLIFTON (BRISTOL)



## How to Order

Look through the offers and decide on the solutions which interest you most. Then call our sales team on (01282) 777 111. They can provide further advice and clarify any points. You can place your order directly with your sales contact over the phone and give details of the system you require. Payment can be made using Access, Visa, Switch or American Express. You can also send your order by fax, or post, if more convenient, including a cheque for the full amount made payable to "Time Computer Systems Ltd" (please allow 5 working days for cheques to clear).



## Credit Facilities

Interest Free Credit (APR 0%) is also available on some solutions and options (subject to status). All solutions advertised with Interest Free Credit can also be paid for in full by credit card or cheque. If you wish to take out Interest Free Credit, please let your sales contact know when placing your order. Systems which are not available on Interest Free Credit may be purchased on credit at a competitive APR (Annual Percentage Rate) of 19.8% over a 24 month period, subject to status. Please ask for further details.



Finance Department, where the most popular customer request is for Interest Free Credit.



## Delivery

After your order is placed and payment cleared (or credit agreement approved), your system will be tested and then despatched by courier to your preferred address. However, if any payment has been made by credit card, the delivery will be made to the address registered on the card, (unless otherwise advised in writing). If you are not in to receive the system, the courier will leave a message for you to contact the local depot and re-arrange delivery.

Goods are normally despatched within 7 to 10 days from cleared payment. All orders will be fulfilled within 28 days unless otherwise specified. Mainland insured courier delivery rates are listed as follows.

- £19 plus VAT (£22.33) for PC Systems
- £15 plus VAT (£17.63) for Printers and Peripherals
- £10 plus VAT (£11.75) for smaller items purchased separately



## Prices

System prices are shown without VAT (17.5%) and delivery. All Interest Free Credit prices include delivery & VAT. Please note that prices are subject to change and that these offers in this current advert are limited whilst current stocks last. Please order early to avoid disappointment. All trademarks are acknowledged. Prices, specifications and offers are subject to change, availability and subject to our conditions of sale copies of which are available on request. Please contact our sales staff for the latest up to date details. Intel Inside and Pentium logos are trademarks of the Intel Corporation. E&OE.

### INTEREST FREE EXAMPLE

The following example shows a typical purchase. All these interest free prices include delivery & VAT

Cash purchase	Credit Purchase	Deposit	24 Monthly Payments	Total
Time Machine E £1196.15	Time Machine E £120.95	£44.80		£1196.15
NEC Laser Pack £486.45	NEC Laser Pack £54.45	£18.00		£486.45
Total (inc. Del & VAT) £1682.60	Totals	£175.40	£62.80	£1682.60

**TOTAL CASH PRICE = TOTAL CREDIT PRICE**

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. The deposit may be paid by credit card or cheque. Most customers also purchase other options (e.g. floppy disks, 3 year extended warranty, Multimedia kit etc). Most of these are also available on Interest Free Credit whilst others can be paid for by increasing the deposit. Please call for details.



**COMPUTER SHOPPER**  
1994 Award Winner  
Fair Trading Award  
(Software Dealers)



Certificate No. FS 28122  
BS EN ISO 9002:1994

# More Power... ...Lower Prices!

When it comes to providing the latest PC technology and specification at down to earth prices, no-one gives you better value than Time. As the UK's leading direct PC supplier, we have the resources and buying power to offer you incredible deals on top quality high specification 486 and Pentium® systems.

As a truly special promotion, these state-of-the-art systems from

Mitac are bundled with a massive collection of the best business, educational and leisure software (including Lotus SmartSuite) - applications that would cost over £1000 if bought individually!

These systems are incredible value for money and with our popular finance option are affordable by virtually everyone from an amazing £28\* per month!

## 486DX2-66

- ◆ 486DX2-66 processor
- ◆ 4Mb or 8Mb RAM expandable to 64Mb
- ◆ Pentium® technology upgradeable
- ◆ 170Mb, or 540Mb IDE hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb local bus graphics with Windows® accelerator
- ◆ 14" SVGA colour screen
- ◆ IDE hard and floppy controller
- ◆ Parallel, 2 serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (2 VESA)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double (or quad speed option) CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite with 540Mb or larger drive models (see below)

## 486DX4-100

- ◆ 486DX4-100 processor
- ◆ Faster than most P60 systems
- ◆ 4Mb RAM expandable to 64Mb
- ◆ Pentium® technology upgradeable
- ◆ 540Mb IDE hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen (15" optional)
- ◆ IDE hard and floppy controller
- ◆ Parallel, 2 serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (2 VESA)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double (or quad speed) CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)

## 486DX4-100S

- ◆ 486DX4-100 processor
- ◆ Faster than most P60 systems
- ◆ 8Mb RAM expandable to 64Mb
- ◆ Pentium® technology upgradeable
- ◆ 540Mb or 850Mb IDE hard disk with 256K cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen (15" optional)
- ◆ IDE hard and floppy controller
- ◆ Parallel, 2 serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (2 VESA)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double (or quad speed) CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite worth over £1000 (see below)

£499 +VAT

540Mb model ..... £569  
540Mb 8Mb model ..... £669  
Multimedia models ..... +£99

Finance from under **£28\*** Per Month  
See example

£599 +VAT

Multimedia models ..... +£99

Finance from under **£33\*** Per Month  
See example

£699 +VAT

850Mb 8Mb models ..... £749  
Multimedia models ..... +£99

Finance from under **£38\*** Per Month  
See example

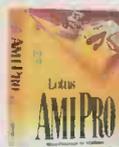
Please Note: Mouse is not included with this range as a choice of different mice is available from as low as £9 + VAT

### Software Applications\*\*

Claim your FREE software bundle with all systems with 540Mb or more hard disk capacity. This superb range of pre-loaded and ready to use software applications includes, the superb multi-tasking 32-bit version of Lotus SmartSuite for OS/2, IBM OS/2 Warp, Pacioli 2000 Business Accounts, Fun School, the best shareware games and other programmes. Other software options are also available.



Lotus 1-2-3 spread sheet is the worlds best spread sheet package



Lotus Ami Pro word processor with advanced features



Lotus Freelance Graphics presentation and drawing package



Lotus CC-Mail single user electronic mail licence



IBM Works is a superb easy to use collection of 5 great programs inc. WP, spread sheet, charting, database & reporting



FaxWorks allows you to send and receive faxes easily (modem required)



IBM Person to Person (via telephone or network) allows collaborative working on your PC



Personal Information Manager allows you to manage your time more effectively



CompuServe Information Manager and Internet Connection provide graphical interfaces to these services (modem required)

**CALL NOW!**  
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

Finance from under

£28\*  
Per Month



### 75MHz Pentium®

- ◆ Intel 75MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 540Mb, 850Mb or 1.08Gb enhanced IDE (fast ATA) hard disk with 256K hard disk cache
- ◆ 256K external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator - the best (other suppliers only offer slower cards with their Pentium® systems)
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 fast serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite worth over £1000 (see below)



### 90MHz Pentium®

- ◆ Intel 90MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 540Mb, 850Mb or 1.08Gb enhanced IDE (fast ATA) hard disk with 256K hard disk cache
- ◆ 256K external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator - the best (other suppliers only offer slower cards with their Pentium® systems)
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 fast serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite worth over £1000 (see below)



### 100MHz Pentium®

- ◆ Intel 100MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 540Mb, 850Mb or 1.08Gb enhanced IDE (fast ATA) hard disk with 256K hard disk cache
- ◆ 256K external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator - the best (other suppliers only offer slower cards with their Pentium® systems)
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 fast serial and keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite worth over £1000 (see below)

£799 +VAT

850Mb 8Mb model	£849
1.08Gb 8Mb model	£899
16Mb RAM models	+£200
Multimedia models	+£99

£899 +VAT

850Mb 8Mb model	£949
1.08Gb 8Mb model	£999
16Mb RAM model	+£200
Multimedia model	+£99

£999 +VAT

850Mb 8Mb model	£1049
1.08Gb 8Mb model	£1099
16Mb RAM model	+£200
Multimedia model	+£99

Finance from under **£44\*** Per Month  
See example

Finance from under **£49\*** Per Month  
See example

Finance from under **£54\*** Per Month  
See example

Please Note: Mouse is not included with this range as a choice of different mice is available from as low as £9 + VAT

\*APR **19.8%**

Finance Example: Cash Purchase: £599 +VAT = £726.15 inc. delivery & VAT. Credit Purchase: 10% (£72.62) deposit and 24 equal monthly payments of £32.68. Total Price £856.94 including delivery & VAT. Finance is available subject to status. Written details are available on request. Be sure you can afford the payments before entering into a credit agreement.



Pacioli 2000 Business Accounts is a full-featured package that outperforms many packages costing over £500



IBM OS/2 Warp v3 is the latest and most powerful 32-bit, multitasking operating system



PC DOS 7 (full version) is the latest version of DOS and gives you up to 40K more RAM than version 6.22



Fun School 4 covers the essential elements of the national curriculum



Fun School Maths educational package covering all the essentials



Doom virtual reality graphics game - the world's most popular game



Raptor Flight simulator / Warship shoot'em up action crazed guns blazing game



Blake Stone graphics adventure game set in a high tech space station



Epic Pinball professional arcade game with all the usual features

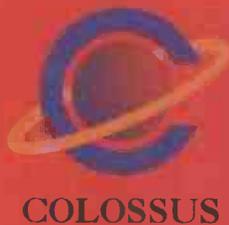
**CALL NOW!**  
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

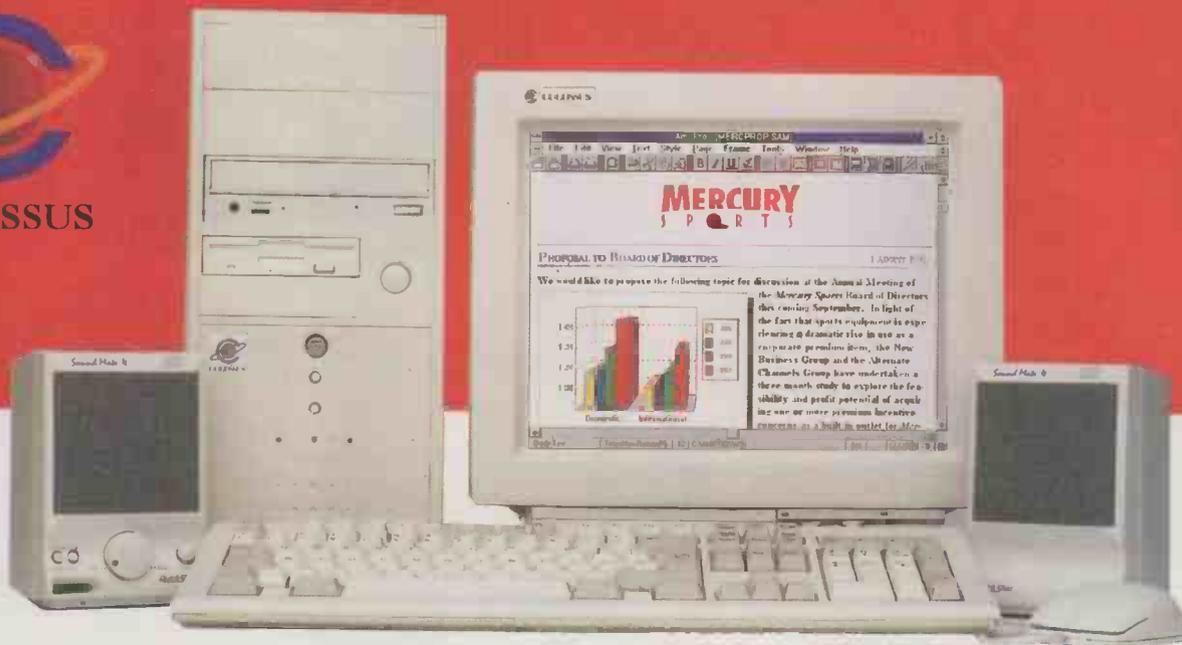
**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT





**COLOSSUS**



**486DX2-66**

- ◆ 486DX2-66 processor
- ◆ 256K external cache
- ◆ 4Mb or 8Mb RAM expandable to 64Mb
- ◆ Pentium® technology upgradeable
- ◆ Enhanced 540Mb or 850Mb IDE hard disk with 256K cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb 64-bit PCI local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen
- ◆ PCI enhanced IDE hard and floppy controller
- ◆ Parallel, 2 serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Microsoft compatible mouse
- ◆ Multimedia models include double (or quad speed option) CD-ROM drive 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)



**486DX4-100**

- ◆ 486DX4-100 processor
- ◆ 256K external cache
- ◆ 8Mb RAM expandable to 64Mb
- ◆ Pentium® technology upgradeable
- ◆ Enhanced 540Mb or 850Mb IDE hard disk with 256K cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb 64-bit PCI local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen
- ◆ PCI enhanced IDE hard and floppy controller
- ◆ Parallel, 2 serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Microsoft compatible mouse
- ◆ Multimedia models include double (or quad speed option) CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)



**75MHz Pentium®**

- ◆ Intel 75MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 540Mb, or 850Mb or 1.08Gb enhanced IDE (Fast ATA) hard disk with 256 hard disk cache
- ◆ 256 external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive, PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator
- ◆ 14" SVGA colour screen (15" Optional)
- ◆ PCI enhanced IDE hard and floppy controller
- ◆ Parallel, 2 Fast serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard and Microsoft compatible mouse
- ◆ Multimedia models include double or quad speed CD-ROM drive 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)

**£649** +VAT

850Mb 8Mb model .....£799  
Multimedia models .....+£99

**£799** +VAT

850Mb 8Mb model .....£849  
Multimedia models .....+£99

**£899** +VAT

850Mb 8Mb model .....£949  
1.08Gb 8Mb model .....£999  
16Mb RAM models .....+£200  
Multimedia models .....+£99

Finance from under **£36\*** Per Month  
See example

Finance from under **£44\*** Per Month  
See example

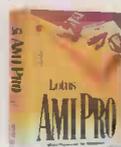
Finance from under **£49\*** Per Month  
See example

**Software Applications\*\***

Claim your FREE software bundle with all above Colossus systems. This superb range of pre-loaded and ready to use software applications includes, the superb multi-tasking 32-bit version of Lotus SmartSuite for OS/2, IBM OS/2 Warp, Pacioli 2000 Business Accounts, Fun School, the best shareware games and other programs. Other options are also available.



Lotus 1-2-3 spreadsheet is the worlds best spreadsheet package



Lotus Ami Pro word processor with every advanced feature



Lotus Freelance Graphics presentation and drawing package



Lotus CC-Mail single user electronic mail licence



IBM Works is a superb easy to use collection of 5 great programs inc. WP, spreadsheet, charting, database & reporting



FaxWorks allows you to send and receive faxes easily (modem required)



IBM Person to Person (via telephone or network) allows collaborative working on your PC



Personal Information Manager allows you to manage your time more effectively



CompuServe Information Manager and Internet Connection provide graphical interfaces to these services (modem required)

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**



**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

# Ultimate Performance Incredible Value!

These state-of-the-art systems from Colossus provide the ultimate performance and expandability at prices that only Time could achieve with our buying power. Take a closer look at these incredible high specification products from the performance PC manufacturer.

All systems come with a truly expandable midi-tower case with 8 drive bays. (Forget those mini-towers which are less expandable

than our desktops and go for this midi-tower for true expandability.) The software bundle shown below (worth over £1000) includes Lotus SmartSuite and is normally £99 extra with these systems but is available FREE for a limited period.

These systems are suitable for the power user who wants high specification and expandability.



## 90MHz Pentium®

- ◆ Intel 90MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 850Mb, 1.08Gb or 1.6Gb enhanced IDE (Fast ATA) hard disk with 256 hard disk cache, 256 external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 Fast serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 enhanced keyboard and Microsoft® compatible mouse
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)



## 100MHz Pentium®

- ◆ Intel 100MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 850Mb, 1.08Gb or 1.6Gb enhanced IDE (Fast ATA) hard disk with 256 hard disk cache, 256 external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 Fast serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 enhanced keyboard and Microsoft® compatible mouse
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)



## 120MHz Pentium®

- ◆ Intel 120MHz Pentium® processor
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 850Mb, 1.08Gb or 1.6Gb enhanced IDE (Fast ATA) hard disk with 256 hard disk cache, 256 external SRAM cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb optional) and super-fast 64-bit s3 Windows accelerator
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 Fast serial and keyboard ports
- ◆ Midi-tower case with 8 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 enhanced keyboard and Microsoft® compatible mouse
- ◆ Multimedia models include double or quad speed CD-ROM drive, 16-bit sound card and twin stereo speakers
- ◆ Software bundle including Lotus SmartSuite (see below)

£1049 +VAT

1.08Gb 8Mb model	£1099
1.6Gb 8Mb model	£1199
16Mb RAM models	+£200
Multimedia models	+£99

£1149 +VAT

1.08Gb 8Mb models	£1199
1.6Gb 8Mb models	£1199
16Mb RAM models	+£200
Multimedia models	+£99

£1299 +VAT

1.08Gb 8Mb model	£1349
1.6Gb 8Mb model	£1449
16Mb RAM models	+£200
Pentium® 133 model	+£100
Multimedia models	+£99

Finance from under **£57\*** Per Month  
See example

Finance from under **£62\*** Per Month  
See example

Finance from under **£70\*** Per Month  
See example

\*APR **19.8%**

Finance Example: Cash Purchase: £599 + VAT = £726.15 inc. delivery & VAT. Credit Purchase: 10% (£72.62) deposit and 24 equal monthly payments of £32.68. Total Price £856.94 including delivery & VAT. Finance is available subject to status. Written details are available on request. Be sure you can afford the payments before entering into a credit agreement.



Pacioli 2000 Business Accounts is a full-featured package that outperforms many packages costing over £500



IBM OS/2 Warp v3 is the latest and most powerful 32-bit, multi-tasking operating system



PC DOS 7 (full version) is the latest version of DOS and gives you upto 40K more RAM than version 6.22



Fun School 4 covers the essential elements of the national curriculum



Fun School Maths educational package covering all the essentials



Doom virtual reality graphics game - the world's most popular game



Raptor Flight simulator / Warship shoot'em up action crazed guns blazing game



Blake Stone graphics adventure game set in a high tech space station



Epic Pinball professional arcade game with all the usual features

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT



# Compaq Multimedia Time Machines



## System Specification

- ◆ 486DX2-66 or 486DX4-90 processor
- ◆ 8Mb RAM expandable to 64Mb
- ◆ 420Mb hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ Local bus SVGA graphics
- ◆ Standard desktop case with 3 bays and 3 expansion slots shown (Compact and Mini-Tower models also available)
- ◆ Serial, parallel, joystick, MIDI and mouse ports
- ◆ 14" Low radiation NI SVGA colour screen
- ◆ 16-bit stereo sound card, microphone and speakers
- ◆ Quad speed multisession CD-ROM drive
- ◆ Integrated 9600/2400 fax/data modem with telephone answering and CompuServe
- ◆ MS DOS 6.2, Windows 3.1 (free upgrade to Windows 95 from Compaq), Tabworks, Welcome Centre, Control Centre and Learning Centre
- ◆ PC joystick is included
- ◆ Model A features 486SX2-66, 4Mb RAM and double speed CD-ROM drive

Compaq Multimedia Time Machine 4: 75MHz Pentium® model includes 720Mb hard disk, 256K cache, Mini-Tower case, PCI bus graphics but no modem. Rest of specification as above.



### Additional Multimedia Software

- ◆ Time Almanac CD
- ◆ Bodyworks 3 CD
- ◆ EZ Language CD
- ◆ Play & Learn CD
- ◆ UFO for Windows CD
- ◆ Dinosaur Museum CD
- ◆ The Ultimate Human Body CD



## Software\*\*

See software section for details

### Business Software

- ◆ Lotus Software suite including Lotus 1-2-3, Ami Pro, Approach, Organizer 2, SmartPics and Lotus Training
- ◆ GST Pressworks 2 and Designworks 2
- ◆ TurboCAD for Windows
- ◆ Organize Your Way
- ◆ CV & Job Search Pro
- ◆ Quicken v4 personal finance pack
- ◆ Pacioli 2000 Business Accounts
- ◆ Masterclips SE and Picture This!

### Educational Software

- ◆ Windows Training and Windelete
- ◆ Computerworks and Autoworks
- ◆ Fun School 4, Fun School Maths and Typing Tutor

### Leisure Software

- ◆ PC Paintbrush
- ◆ Arts & Letters Draw and Wired for Sound lite
- ◆ Doom, Blake Stone, Pinball and Raptor Shareware Games

### Microsoft Software

- ◆ Microsoft Works v3 all-in-one package
- ◆ Microsoft Money finance pack
- ◆ Microsoft Encarta® '95 Encyclopaedia CD
- ◆ Microsoft Entertainment Pack
- ◆ Microsoft Golf CD
- ◆ Microsoft Beethoven CD
- ◆ Microsoft Dangerous Creatures CD

### Microsoft and additional multimedia software



Compaq Multimedia Time Machines are powerful multimedia systems that come with all the software you are ever likely to need. These systems include extra business, educational and CD multimedia titles not included with some of our other systems.

All systems are exclusive to Time Computer Systems

and feature high quality high speed multimedia with a PC joystick as standard. 486 systems also include a fax and data modem with answerphone facilities. These systems are also available on Interest Free Credit and monthly payment examples are shown below. A free upgrade to Windows 95 is available on all these systems

\*APR

# 0%

**INTEREST FREE CREDIT**

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page ii for Interest Free example.

Compact all-in-one model features 3 drive bays and 2 slots



Mini-Tower models feature 5 drive bays and 5 slots

Compaq Multimedia Time Machine A	Compaq Multimedia Time Machine 1	Compaq Multimedia Time Machine 2	Compaq Multimedia Time Machine 4
<b>486SX2-66</b> Compact Model	<b>486DX2-66</b> Compact Model	<b>486DX4-90</b> Standard Desktop Model	<b>75MHz Pentium®</b> Mini Tower Model
420Mb, 4Mb RAM, double speed and modem	420Mb, 8Mb RAM, quad speed and modem	420Mb, 8Mb RAM, quad speed and modem	720Mb, 8Mb RAM and quad speed
<b>£29*</b> Per Month	<b>£39*</b> Per Month	<b>£69*</b> Per Month	<b>£79*</b> Per Month
£137.65 deposit and 24 monthly payments of £49.00 OR £617.65 deposit and 24 monthly payments of £29.00 Total price £1099.00+VAT = £1313.65 inc delivery & VAT. *APR 0%	£178.15 deposit and 24 monthly payments of £62.00 OR £730.15 deposit and 24 monthly payments of £39.00 Total price £1399.00+VAT = £1666.15 inc delivery & VAT. *APR 0%	£186.40 deposit and 24 monthly payments of £69.00 Total price £1549.00+VAT = £1842.40 inc delivery & VAT. *APR 0%	£240.15 deposit and 24 monthly payments of £79.00 Total price £1799.00+VAT = £2136.15 inc delivery & VAT. *APR 0%
		<b>Compaq Multimedia Time Machine 3</b> (Mini Tower Model) is £50 + VAT extra	

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

# 01282 777 111

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Bumley, BB12 7GT

# Multimedia Time Machines 95

## System Specification

- ◆ **486 Models:** 486DX2-66 or 486DX4-100 processors
- ◆ **Pentium Models:** Pentium processor 75, 90, 100, 120 or 133MHz with 256K external cache
- ◆ 8Mb or 16Mb RAM expandable to 64/128Mb
- ◆ 540Mb, 850Mb, 1.08Gb or 1.6Gb fast enhanced IDE hard disks with upto 256K cache
- ◆ 1.44Mb floppy drive
- ◆ Super fast local bus SVGA graphics controller with 1Mb or 2Mb video RAM
- ◆ 14", 15" or 17" SVGA low radiation colour screen
- ◆ Mitac desktop case with 4 drive bays and 7 slots. Model 5 features Colossus Midi-Tower case with 8 drive bays
- ◆ 102 Keyboard and Microsoft compatible mouse
- ◆ Microsoft Windows® 95
- ◆ 12 Months warranty extendable to 5 years

### Multimedia Hardware

- ◆ Double speed or quad speed IDE CD-ROM drive
- ◆ 16-bit high quality sound card
- ◆ Twin stereo speaker system
- ◆ PC joystick

### Fax & Internet Pack

- ◆ BABT approved data and fax modem
- ◆ Easy to use fax software
- ◆ Communications software
- ◆ Introductory subscription to CompuServe with Internet mailbox



Optional: Advanced PC TV system with Teletext (£160) +VAT

## Pre-Loaded Software\*\*

See software section for details

### Business Software

- ◆ Lotus software suite including Lotus 1-2-3, Ami Pro, Approach, Organizer 2, SmartPics and Lotus Training
- ◆ GSP Pressworks and Designworks
- ◆ TurboCAD for Windows
- ◆ Organize Your Way
- ◆ CV & Job Search Pro
- ◆ Pacioli 2000 Business Accounts
- ◆ Masterclips SE and Picture This!

### Educational Software

- ◆ Fun School 4, Fun School Maths and Typing Tutor
- ◆ Computerworks, Bodyworks and Autoworks
- ◆ EZ Language French, German and Spanish

### Leisure Software

- ◆ PC Paintbrush
- ◆ Arts & Letters Draw, Doom, Blake Stone, Pinball and Raptor Games

### CD Multimedia Software

- ◆ Microsoft Encarta Encyclopaedia CD
- ◆ Microsoft Works CD
- ◆ Microsoft Golf CD
- ◆ Microsoft Beethoven CD
- ◆ Microsoft Dangerous Creatures CD
- ◆ Time Almanac CD
- ◆ UFO for Windows CD
- ◆ Dinosaur Museum CD



The new Multimedia Time Machines are powerful, high specification 486 and Pentium systems that feature a minimum of 8Mb or 16Mb RAM and have been optimised for Microsoft Windows® 95. Excellent business software from Lotus and other leading manufacturers is included together with a range of educational and leisure software. All are fully multimedia ready with fitted CD-ROM drives, 16-bit sound cards and a superb range of CD multimedia titles from Microsoft.

Also included is the Fax and Internet Pack allowing these systems to function as a

powerful fax machine and allowing you to get on-line to services such as CompuServe and the Internet. The optional PC TV with Teletext facility can be added to any model.

At these amazing prices with Interest Free Credit available for a limited period, these systems are without doubt the best computer solutions for the home and small business user.

APPROVED for credit by telecommunications systems specified in this advertisement for use subject to the conditions set out therein

**\*APR**

# 0%

**INTEREST FREE CREDIT**

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page ii for Interest Free example.

Multimedia Time Machine 95/1 486DX2-66	Multimedia Time Machine 95/2 486DX4-100	Multimedia Time Machine 95/3 75MHz Pentium®	Multimedia Time Machine 95/4 75MHz Pentium®	Multimedia Time Machine 95/5 90MHz Pentium®
486DX2-66 with 8Mb RAM, 540Mb hard disk, and 14" Screen	486DX4-100 with 8Mb RAM, 850Mb hard disk and 14" screen	75MHz Pentium® with 8Mb RAM, 850Mb hard disk, 64-bit PCI graphics and 14" screen	75MHz Pentium® with 16Mb RAM, 1.08Gb hard disk, 64-bit PCI graphics with 2Mb video RAM and 15" screen	90MHz Pentium® Colossus Midi-Tower with Triton Chipset, 16Mb RAM, 1.6Gb hard disk, 64-bit PCI graphics with 2Mb video RAM and 15" screen
<b>£39*</b> Per Month	<b>£49*</b> Per Month	<b>£59*</b> Per Month	<b>£69*</b> Per Month	<b>£79*</b> Per Month
£156.65 deposit and 24 monthly payments of £58.00 OR £612.65 deposit and 24 monthly payments of £39.00 Total price £1299.00 +VAT = £1548.65 inc delivery & VAT. *APR 0%	£178.15 deposit and 24 monthly payments of £62.00 OR £490.15 deposit and 24 monthly payments of £49.00 Total price £1399.00 +VAT = £1666.15 inc delivery & VAT. *APR 0%	£186.40 deposit and 24 monthly payments of £69.00 OR £426.40 deposit and 24 monthly payments of £59.00 Total price £1549.00 +VAT = £1842.40 inc delivery & VAT. *APR 0%	£245.90 deposit and 24 monthly payments of £91.00 OR £773.90 deposit and 24 monthly payments of £69.00 Total price £2049 +VAT = £2429.90 inc delivery & VAT. *APR 0%	£286.40 deposit and 24 monthly payments of £104.00 OR £886.40 deposit and 24 monthly payments of £79.00 Total price £2349 +VAT = £2782.40 inc delivery & VAT. *APR 0%
14" to 15" upgrade ..... +£99		90MHz Pentium® upgrade ..... +£79 100MHz Pentium® upgrade ..... +£179 14" to 15" upgrade ..... +£99	90MHz Pentium® upgrade ..... +£79 100MHz Pentium® upgrade ..... +£179 15" to 17" upgrade ..... +£199	100MHz Pentium® upgrade ..... +£100 120MHz Pentium® upgrade ..... +£250 133MHz Pentium® upgrade ..... +£350 15" to 17" upgrade ..... +£199

**CALL NOW!** Sales Lines Open Mon-Fri 8.30am-7.00pm Sat 9.00am-5.00pm

# 01282 777 111

**TIME** Computer Systems Ltd. Granville House, Blackburn Rd, Simonstone, Burnley, BB12 7GT

Tel: 01282 777 111 Fax: 01282 77 07 01. All prices exclude delivery (£19) and VAT (17.5%). \*Finance prices include delivery and VAT. \*\*All software applications are pre-loaded or on CD. Pack shots shown for illustration purposes only. Printed manuals and back-up media are available as options. E&OE



# Multimedia PowerStation '95

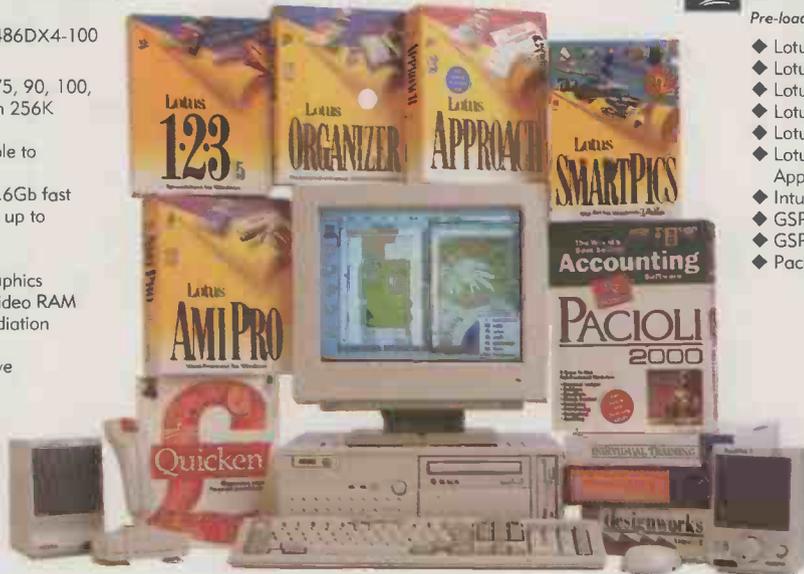


## System Specification

- ◆ 486 Models: 486DX2-66 or 486DX4-100 processors
- ◆ Pentium® Models: Pentium® 75, 90, 100, 120 or 133Mhz processor with 256K external cache
- ◆ 8Mb or 16Mb RAM expandable to 64 / 128Mb
- ◆ 540Mb, 850Mb, 1.08Gb or 1.6Gb fast
- ◆ Enhanced IDE hard disks with up to 256K cache
- ◆ 1.44Mb floppy drive.
- ◆ Super fast local bus SVGA graphics controller with 1Mb or 2Mb Video RAM
- ◆ 14", 15" or 17" SVGA low radiation colour screen
- ◆ Mitac desktop case with 4 drive bays and 7 slots. Model 5 features Colossus midi-tower case with 8 drive bays
- ◆ 102 Keyboard and Microsoft® compatible mouse
- ◆ Microsoft Windows® 95
- ◆ 12m Warranty extendable to 5 years

### Multimedia Hardware

- ◆ Double Speed or quad speed IDE CD-ROM drive
- ◆ 16-bit High quality sound card
- ◆ Twin stereo speaker system
- ◆ PC Joystick



Optional: Advanced PC TV system with Teletext ....£160 Extra  
Optional: Fax & Internet Packs .....See section at the back



## Software\*\*

Pre-loaded or on CD.

- ◆ Lotus 1-2-3 v5 spread sheet
- ◆ Lotus Ami Pro v3.1 word processor
- ◆ Lotus Approach v3 database
- ◆ Lotus Organizer v2
- ◆ Lotus SmartPics graphics
- ◆ Lotus Training for 1-2-3, Ami Pro and Approach
- ◆ Intuit Quicken v4 personal finance pack
- ◆ GSP Pressworks desktop publishing pack
- ◆ GSP Designworks art and graphics pack
- ◆ Pacioli 2000 Business Accounts

### Multimedia Software

- ◆ Microsoft Encarta® '95 CD Encyclopaedia
- ◆ Time Almanac CD
- ◆ EZ Language Multimedia CD - Learn French, German, Spanish and more
- ◆ Play and Learn educational CD
- ◆ UFO for Windows CD
- ◆ Dinosaur Museum CD

### Finance from under

£49\*  
Per Month

Finance Example  
Cash Purchase: £898 + VAT  
=£1077.48 inc. delivery & VAT. Credit Purchase: 10% (£107.75) deposit and 24 equal monthly payments of £48.49. Total Price £1271.51 inc. delivery & VAT.

\*APR  
19.8%



If you are looking for a powerful complete multimedia solution, the Multimedia PowerStation 95 represents the best value. These 486 and Pentium® systems have a high specification which has been optimised for Windows 95 and includes a minimum of 8Mb or 16Mb RAM, large hard drives up to 1.6Gb, fast controllers and plenty of expansion potential.

All are fully multimedia ready with fitted CD-ROM drives, 16-bit sound cards, an excellent range of educational CD titles including Microsoft Encarta, Bodyworks and EZ

Language. Low cost Fax and Internet packs and PC TV with Teletext options are also available.

Also included is a range of excellent business software from Lotus, Intuit and GSP which will handle all your requirements for word processing, filing, number crunching, organising, graphics, accounts and desktop publishing. At these special introductory prices, with the Finance option from under £49 these systems are a great buy.

Multimedia PowerStation '95/1 486DX2-66	Multimedia PowerStation '95/2 486DX4-100	Multimedia PowerStation '95/3 75MHz Pentium®	Multimedia PowerStation '95/4 75MHz Pentium®	Multimedia PowerStation '95/5 90MHz Pentium®
486DX2-66 with 8Mb RAM, 540Mb hard drive and 14" screen	486DX4-100 with 8Mb RAM, 850Mb hard drive and 14" screen	75MHz Pentium® processor with 8Mb RAM, 850Mb hard drive, 64-bit PCI graphics and 14" screen	75MHz Pentium® processor with 16Mb RAM, 1.08Gb hard drive, 64-bit PCI graphics with 2Mb video RAM and 15" screen	90MHz Pentium® processor Colossus Midi-Tower with 16Mb RAM, 1.6Gb hard drive, Triton chipset, 64-bit PCI graphics with 2Mb video RAM and 15" screen
<b>£898</b> +VAT	<b>£998</b> +VAT	<b>£1098</b> +VAT	<b>£1498</b> +VAT	<b>£1698</b> +VAT
	14" to 15" upgrade .....+£99	90MHz Pentium® .....+£79 100MHz .....+£179 14" to 15" upgrade .....+£99	90MHz Pentium® .....+£79 100MHz Pentium® .....+£179	100MHz Pentium® .....+£100 120MHz Pentium® .....+£250 133MHz Pentium® .....+£350

**CALL NOW!**  
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Bumley, BB12 7GT

# Multimedia Perfect Office



## System Specification

- ◆ 486 Models: 486DX2-66 or 486DX4-100 processors
- ◆ Pentium® Models: Pentium® 75, 90, 100, 120 or 133Mhz processor with 256K external cache
- ◆ 8Mb or 16Mb RAM expandable to 64 / 128Mb
- ◆ 540Mb, 850Mb, 1.08Gb or 1.6Gb fast enhanced IDE hard disk with up to 256K cache
- ◆ 1.44Mb floppy drive.
- ◆ Super fast local bus SVGA graphics controller with 1Mb or 2Mb Video RAM
- ◆ 14", 15" or 17" SVGA low radiation colour screen
- ◆ Mitac desktop case with 4 drive bays and 7 slots. Model 5 features Colossus midi-tower case with 8 drive bays
- ◆ 102 Keyboard and Microsoft® compatible mouse
- ◆ Microsoft Windows® 95
- ◆ 12m Warranty extendable to 5 years

### Multimedia Hardware

- ◆ Double Speed or quad speed IDE CD-ROM drive
- ◆ 16-bit High quality sound card



- ◆ Twin stereo speaker system
- ◆ PC Joystick
- ◆ Optional: Advanced PC TV system with Teletext (£160)

Optional: Fax & Internet Packs (see section at back)

### Leisure Software

- ◆ PC Paintbrush
- ◆ Arts & Letters Draw
- ◆ Doom, Blake Stone, Pinball and Raptor shareware games



## Software\*\*

See software section for details

### Novell Perfect Office Suite including:-

- ◆ Wordperfect 6.0 word processing package
- ◆ Quattro Pro for Windows spread sheet
- ◆ Presentations graphics package
- ◆ Infocentral Organizer
- ◆ Groupwise Electronic Mailing System

### Other Business Software

- ◆ GSP Pressworks and Designworks
- ◆ TurboCAD for Windows
- ◆ Organize Your Way
- ◆ CV & Job Search Pro
- ◆ Pacioli 2000 Business Accounts
- ◆ Masterclips SE and Picture This!

### Educational Software

- ◆ Fun School 4, Spelling, In Time, Paint and Create and Maths
- ◆ Typing Tutor
- ◆ Computerworks
- ◆ Bodyworks
- ◆ Autoworks
- ◆ EZ Language French German and Spanish

### CD Multimedia Software

- ◆ Microsoft Encarta® Encyclopaedia CD
- ◆ Time Almanac CD
- ◆ Bodyworks multimedia CD
- ◆ UFO for Windows CD
- ◆ Dinosaur Museum CD



The new Perfect Office Systems from Time are powerful, high specification 486 and Pentium® systems that feature a minimum of 8Mb or 16Mb RAM and have been optimised for Microsoft Windows 95. Excellent business software from Novell and other leading manufacturers is included together with a range of educational and leisure software. All are fully multimedia ready

with fitted CD-ROM drives, 16-bit sound cards and a superb range of CD multimedia titles.

These systems are suited to the power user needing powerful software in the form of Novell Perfect Office and are available on Interest Free Credit for a limited period only.

\*APR

# 0%

## INTEREST FREE CREDIT

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page ii for Interest Free example.

Multimedia Perfect Office 1 486DX2-66	Multimedia Perfect Office 2 486DX4-100	Multimedia Perfect Office 3 75MHz Pentium®	Multimedia Perfect Office 4 75MHz Pentium®	Multimedia Perfect Office 5 75MHz Pentium®
486DX2-66 with 8Mb RAM, 540Mb hard drive, and 14" screen	486DX4-100 with 8Mb RAM, 840Mb hard drive, and 14" screen	75MHz Pentium processor with 8Mb RAM, 850Mb hard drive, 64-bit PCI graphics and 14" screen	75MHz Pentium processor with 16Mb RAM, 1.08Gb hard drive, 64-bit PCI graphics, 2Mb video RAM and 15" screen	75MHz Pentium® Coloussus Midi-Tower with Triton chipset, 16Mb RAM, 1.06Gb hard drive, 64-bit PCI graphics, 2Mb video RAM and 15" screen
<b>£38*</b> Per Month	<b>£48*</b> Per Month	<b>£58*</b> Per Month	<b>£68*</b> Per Month	<b>£78*</b> Per Month
£159.15 deposit and 24 monthly payments of £53 OR £519.15 deposit and 24 monthly payments of £38 Total price £1199+VAT = £1431.15 Inc delivery & VAT. *APR 0%	£156.65 deposit and 24 monthly payments of £58 OR £396.65 deposit and 24 monthly payments of £48 Total price £1299+VAT = £1548.65 Inc delivery & VAT. *APR 0%	£188.90 deposit and 24 monthly payments of £64 OR £332.90 deposit and 24 monthly payments of £58 Total price £1449+VAT = £1724.90 Inc delivery & VAT. *APR 0%	£248.40 deposit and 24 monthly payments of £86 OR £680.40 deposit and 24 monthly payments of £68 Total price £1949+VAT = £2312.40 Inc delivery & VAT. *APR 0%	£288.90 deposit and 24 monthly payments of £99 OR £792.90 deposit and 24 monthly payments of £68 Total price £2249+VAT = £2664.90 Inc delivery & VAT. *APR 0%
	14" to 15" Upgrade ..... <b>£99</b>	90MHz Pentium® upgrade .. <b>£79</b> 100MHz Pentium® upgrade .. <b>£179</b> 14" to 15" upgrade ..... <b>£99</b>	90MHz Pentium® upgrade ... <b>£79</b> 100MHz Pentium® upgrade .. <b>£179</b> 15" to 17" upgrade ..... <b>£199</b>	100MHz Pentium® upgrade .. <b>£100</b> 120MHz Pentium® upgrade .. <b>£250</b> 133MHz Pentium® upgrade .. <b>£350</b> 15" to 17" upgrade ..... <b>£199</b>

**CALL NOW!**

Sales Lines Open  
Mon- Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

# 01282 777 111



**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT



# Compaq Presario Multimedia PowerStations



## System Specification

- ◆ 486DX2-66 or 486SX2-66 processor
- ◆ 4Mb or 8Mb RAM expandable to 64Mb
- ◆ 420Mb hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ Local Bus SVGA graphics
- ◆ Compact 3 bay case with 2 expansion slots
- ◆ Serial, parallel, joystick, MIDI and mouse ports
- ◆ 14" Low radiation NI SVGA colour screen
- ◆ 16-bit stereo sound card, microphone and speakers
- ◆ Double or quad speed multisession CD-ROM drive
- ◆ Integrated 9600/2400 fax/data modem with telephone answering and CompuServe
- ◆ MS DOS 6.2, Windows® 3.1 (free upgrades to Windows 95 from Compaq), Tabworks, Welcome Centre, Control Centre and Learning Centre



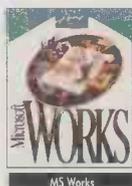
## Software\*\*

See software section for details

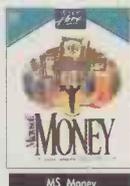
- ◆ Lotus 1-2-3 v5 spreadsheet
- ◆ Lotus Ami Pro v3.1 word processor
- ◆ Lotus Approach v3 database
- ◆ Lotus Organizer v2
- ◆ Lotus SmartPics graphics
- ◆ Lotus Training for 1-2-3, Ami Pro and Approach
- ◆ New Intuit Quicken v4 personal finance pack
- ◆ GSP Pressworks 2 desktop publishing pack
- ◆ GSP Designworks 2 art & graphics pack
- ◆ Pacioli 2000 Business Accounts
- ◆ Microsoft Works v3 all-in-one package
  - ◆ MS Money finance pack
  - ◆ MS Entertainment pack
  - ◆ Microsoft Encarta® '95 Encyclopaedia
  - ◆ EZ Language French, German, Spanish & more
- ◆ The Ultimate Human Body

Compaq Presario Multimedia PowerStations provide you with famous brand, high quality solutions for home and business use. Only systems from Time come with additional software including the Lotus Business Suite, GSP graphics and DTP packages and New Quicken v4 personal finance pack. Also included are some excellent CD titles including Microsoft® Encarta, EZ Language and The Ultimate Human Body.

All systems feature high quality multimedia and also include fax & data modem with answerphone facilities.



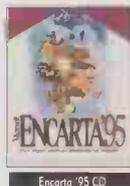
MS Works



MS Money



MS Entertainment Pack



Encarta '95 CD



EZ Language



The Ultimate Human Body

**Presario PowerStation A**  
486SX2-66, 4Mb double speed and modem

**£899** +VAT

**Presario PowerStation 1**  
486DX2-66, 8Mb quad speed and modem

**£1099** +VAT

## BUY NOW...

Pay only **£137.65** deposit with nothing more to pay for 6 months

These new Time Machines for the business user feature a minimum of 8MB RAM and have been optimised for Microsoft Windows 95. They all come with excellent software and can be configured with Multimedia options, Advanced PC TV and Fax/Data modems if required. All systems are available on Interest Free Credit with a incredible buy now, pay later offer.



## System Specification

- ◆ 486 Models: 486DX2-66 or 486DX4-100 Processors
- ◆ Pentium Models: Pentium® 75, 90, 100Mhz processor with 256K external cache
- ◆ 8Mb RAM expandable to 64/128Mb
- ◆ 540Mb or 850Mb fast Enhanced IDE hard disks with up to 256K cache
- ◆ 1.44Mb floppy drive.
- ◆ Super fast Local bus SVGA graphics controller with 1Mb Video RAM
- ◆ 14" or 15" SVGA low radiation colour screen
- ◆ Mitac desktop case with 4 drive bays and 7 slots.
- ◆ 102 Keyboard and Microsoft compatible mouse
- ◆ Microsoft Windows 95
- ◆ 12m Warranty extendable to 5 Years

Optional: Advanced PC TV system with Teletext .....£160

Optional: Multimedia Hardware  
Optional: Fax & Internet Packs

**Time Machine 95 /A**  
486DX2-66 with 8Mb RAM, 540Mb hard drive and 14" screen

**£49** Per Month  
\*£137.65 deposit, nothing to pay for 6 months and then 24 monthly payments of £49. Total price £1099 +VAT = £1313.65 inc delivery and VAT. \*APR 0%.

**Time Machine 95 /B**  
486DX4-100 with 8Mb RAM, 850Mb hard drive and 14" screen

**£53** Per Month  
\*£159.15 deposit, nothing to pay for 6 months and then 24 monthly payments of £53. Total price £1199 +VAT = £1431.15 inc delivery and VAT. APR \*0%.  
14" to 15" Upgrade .....+£99

**Time Machine 95 /C**  
75MHz Pentium® with 8Mb RAM, 850Mb hard drive, 64-bit PCI graphics and 14" screen

**£62** Per Month  
\*£178.15 deposit, nothing to pay for 6 months and then 24 monthly payments of £62. Total price £1399 +VAT = £1666.15 inc delivery and VAT. APR \*0%.  
90MHz Pentium® upgrade ..+£79  
100MHz Pentium® upgrade+£179  
14" to 15" Upgrade .....+£99



## Software\*\*

See software section for details

### Business Software

- ◆ Lotus Software suite including Lotus 1-2-3, Ami Pro, Approach, Organizer 2, SmartPics and Lotus Training
- ◆ GSP Pressworks and Designworks TurboCAD for Windows
- ◆ Organize Your Way
- ◆ CV & Job Search Pro
- ◆ Pacioli 2000 Business Accounts
- ◆ Masterclips SE and Picture This!

### Educational Software

- ◆ Fun School 4, Fun School Maths and Typing Tutor
- ◆ Computerworks, Bodyworks and Autoworks
- ◆ EZ Language French, German and Spanish

### Leisure Software

- ◆ PC Paintbrush
- ◆ Arts & Letters Draw
- ◆ Doom, Blake Stone, Pinball and Raptor shareware games

## ...PAY LATER

After 6 months pay just £49 per month for 24 months on Interest Free Credit. \*APR 0%.

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

# 01282 777 111



**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

# Multimedia Family PC



## System Specification

- ◆ 486DX2-66, 486DX4-100 or Pentium 75 processor
- ◆ 540Mb Enhanced IDE hard disk
- ◆ 4Mb or 8Mb RAM (Max. 64Mb)
- ◆ 1.44Mb 3.5" floppy drive
- ◆ Pentium technology upgradeable
- ◆ Local Bus SVGA graphics with 1Mb
- ◆ 14" SVGA colour screen
- ◆ Expandable case with 4 bays and 7 slots
- ◆ 102 Keyboard and mouse
- ◆ 12 months warranty expandable to 5 years
- ◆ Manufactured by Mitac in the UK

## Multimedia Hardware

- ◆ Double Speed or Quod Speed IDE CD-ROM drive
- ◆ 16-bit high quality sound card
- ◆ Twin stereo speaker system

## Optional:

Fax & Internet Packs - see section at the back

## Optional:

PC TV with Teletext £160 +VAT



## Software\*\*

See software section for details

The superb 32-bit multitasking version of Lotus SmartSuite for OS/2 with the following programs:-

- ◆ Lotus 1-2-3 Spreadsheet
- ◆ Lotus Ami Pro WordProcessor
- ◆ Lotus Freelance Presentation Graphics
- ◆ Lotus CC:Mail Licence
- ◆ Pacioli 2000 Accounts Suite
- ◆ PC DOS 7 -the latest version
- ◆ IBM OS/2 Warp 32-bit operating System
- ◆ IBM Works easy to use pack
- ◆ IBM Personal Information Manager
- ◆ IBM FaxWorks, Person-to-person
- ◆ CompuServe Information Manager & Internet Access (Modem required)
- ◆ DOOM, Epic Pinball, Raptor and Blake Stone shareware games

Fun school suite covering all the essential elements of the National Curriculum.

- ◆ Fun School 4 educational pack, Maths pack, Spelling, Fun School 5 in Time and Paint & Create

InfoWare Encyclopaedias

- ◆ Exploring Animals: Covers 195 different animals and their behaviour with video footage and photographs.
- ◆ Amazing Journeys: 1000 years of exploration, detailed animated journeys and discoveries
- ◆ World of Knowledge: Animated encyclopaedia covering 38 subjects
- ◆ World of Pharaohs: Interactive encyclopaedia of ancient Egypt with animation and maps
- ◆ History in Motion: Interactive encyclopaedia covering the history and development of transport



The new Family PC from TIME represents the best value Multimedia Educational PC system for the home. Models feature top quality advanced PC systems from Mitac, fitted with full-feature multimedia and pre-loaded with superb Lotus SmartSuite software and a range of other educational and leisure applications. At these special limited offer prices and with INTEREST FREE CREDIT for £29\* per month these deals are simply unbeatable.

### Multimedia Family PC /A 486DX2-66

With 540Mb drive and 4Mb RAM

£799 +VAT

Interest Free Credit £29\* Per Month

£265.15 deposit and 24 Monthly Payments of £29.  
Total price £799 + VAT = £961.15 Inc. Delivery & VAT.  
APR 0%

### Multimedia Family PC /B 486DX2-66

With 540Mb drive and 8Mb RAM  
+£139 +VAT

### Multimedia Family PC /C 486DX4-100

With 540Mb drive and 8Mb RAM

£999 +VAT

Interest Free Credit £39\* Per Month

£260.15 deposit and 24 Monthly Payments of £39.  
Total price £999 + VAT = £1196.15 Inc. Delivery & VAT.  
APR 0%

### Multimedia Family PC /D 75MHz Pentium®

With 540Mb drive and 8Mb RAM  
+£100 +VAT

\*APR

0%

INTEREST FREE CREDIT

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page 11 for Interest Free example.

CALL NOW!

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

01282 777 111

TIME  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT



# Mitac Notebooks

This superb new range of high performance notebooks from Mitac feature superb 486DX2-66 or 486DX4-100 processors with low power consuming 3.3V technology, superb crisp sharp mono or dual scan STN colour screens, latest PCMCIA type II/III slots, upto 20Mb standard RAM and high performance hard disks with up to 1.2Gb capacity. They feature a full notebook keyboard, integral

1.44Mb floppy drive, all standard ports a superb easy to use trackball and come complete with a range of excellent business software from Lotus, Quicken and AutoRoute.

Just compare the specifications with any other notebook in this price range and we are sure you will agree that these systems are unbeatable.

Finance from under

£49\*  
Per Month

\*APR  
19.8%

Finance Example: Cash Purchase: £899 + VAT = £1078.65 inc. delivery & VAT. Credit Purchase: 10% (£107.87) deposit and 24 equal monthly payments of £48.54 Total Price £1272.83 inc. delivery & VAT.



## Notebook Specification

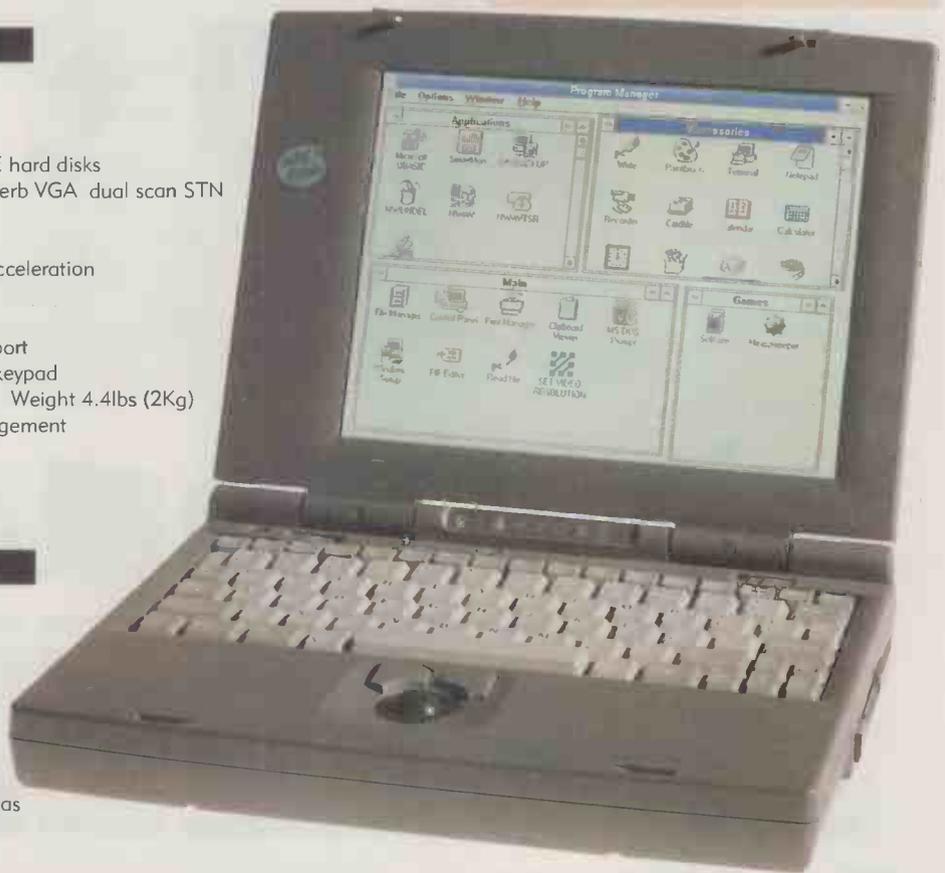
- ◆ 486DX2-66 or 486DX4-100 processor
- ◆ 4Mb, 8Mb, 12Mb or 20Mb RAM
- ◆ 340Mb, 540Mb, 810Mb or 1.2Gb fast IDE hard disks
- ◆ High contrast 9.5" LCD VGA mono or superb VGA dual scan STN colour displays
- ◆ 3.5" removable 1.44Mb floppy disk drive
- ◆ VESA Local bus graphics with Windows acceleration
- ◆ PCMCIA type II or 1 type III slot
- ◆ Built in 25mm trackball
- ◆ Parallel port, serial port, VGA port & PS2/port
- ◆ Integral 79-key keyboard with embedded keypad
- ◆ Size 26.8 x 20.4 x 4.5cm. (10.5 x 8 x 1.8" Weight 4.4lbs (2Kg)
- ◆ Up to 3 hour battery life with Power Management
- ◆ Battery & AC pack included
- ◆ DOS and Microsoft Windows 3.11
- ◆ 12 months warranty extendable to 3 years



## Software

See software section for details

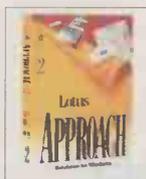
- ◆ Lotus 1-2-3 v5 Spread sheet
- ◆ Lotus Ami Pro v3.1 Word processor
- ◆ Lotus Approach v3 Database
- ◆ Lotus Organizer v2
- ◆ Lotus SmartPics Graphics
- ◆ AutoRoute Express UK Electronic Road Atlas
- ◆ Quicken v4 Personal Finance Pack



Lotus 1-2-3



Lotus Ami Pro



Lotus Approach



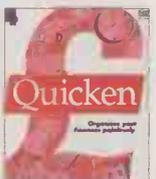
Lotus Organizer v2



Lotus SmartPics



AutoRoute Express



Quicken v4

Mitac Mobile Office 1  
486DX2-66 Mono  
With 340Mb hard drive

£899

+VAT

RAM Upgrade to 8Mb + £150

Mitac Mobile Office 2  
486DX4-100 Mono  
With 540Mb hard drive

£1029

+VAT

RAM Upgrade to 8Mb + £150

Mitac Mobile Office 3  
486DX2-66 Colour  
With 340Mb hard drive

£1269

+VAT

RAM Upgrade to 8Mb + £150

Mitac Mobile Office 4  
486DX4-100 Colour  
With 540Mb hard drive

£1399

+VAT

RAM Upgrade to 8Mb + £150  
RAM Upgrade to 12Mb + £300

Mitac Mobile Office 5  
486DX4-100 Colour  
With 810Mb Hard Drive  
(1.2Gb drive £220 extra)

£1569

+VAT

RAM Upgrade to 8Mb + £150  
RAM Upgrade to 12Mb + £300  
RAM Upgrade to 20Mb + £600

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

# Multimedia Office 95

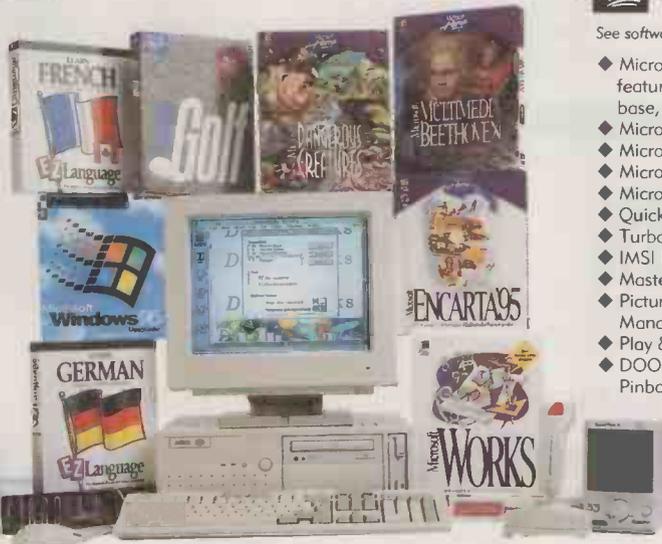


## System Specification

- ◆ **486 Models:** 486DX2-66 or 486DX4-100 processors
- ◆ **Pentium Models:** 75, 90, 100, 120 or 133Mhz Pentium processor with 256K external cache
- ◆ 8Mb or 16Mb RAM expandable to 64/128Mb
- ◆ 540Mb, 850Mb, 1.08Gb or 1.6Gb fast Enhanced IDE hard disks with upto 256K cache
- ◆ 1.44Mb floppy drive.
- ◆ Super fast local bus SVGA graphics controller with 1Mb or 2Mb Video RAM
- ◆ 14", 15" or 17" SVGA low radiation colour screen
- ◆ Mitac desktop case with 4 drive bays and 7 slots. Model 5 features Colossus Midi-Tower case with 8 drive bays
- ◆ 102 Keyboard and Microsoft compatible mouse
- ◆ Microsoft Windows 95
- ◆ 12months warranty extendable to 5 Years

### Multimedia HardWare

- ◆ Double Speed or Quad Speed IDE CD-ROM drive
- ◆ 16-bit high quality sound card
- ◆ Twin stereo speaker system
- ◆ PC Joystick



**Optional:** Advanced PC TV system with Teletext ..... + **£160**  
**Optional:** Fax & Internet Packs ..... see section at the back



## Software\*\*

See software section for details

- ◆ Microsoft Works v3 integrated package featuring word processing, spreadsheet, data base, and business graphics.
- ◆ Microsoft Encarta Multimedia Encyclopaedia CD
- ◆ Microsoft Dangerous Creatures CD
- ◆ Microsoft Multimedia Beethoven CD
- ◆ Microsoft Multimedia Golf CD
- ◆ Quicken v4 Personal Finance Pack
- ◆ TurboCAD v2 for Windows CAD package
- ◆ IMSI EZ Language Fench, German & Spanish
- ◆ Masterclips SE Clipart
- ◆ Picture This! Graphics Management Pack
- ◆ Play & Learn Educational CD
- ◆ DOOM, Raptor, Blake Stone and Pinball Games

**Plus Models (£199 extra) Also include the following additional software.**

- Microsoft Office 95 Package which includes the following 4 programs
- ◆ Microsoft Excel 95 Spreadsheet
  - ◆ Microsoft Word 95 Wordprocessor
  - ◆ Microsoft Powerpoint 95 Presentation Package
  - ◆ Microsoft Organizer/Scheduler
  - ◆ Time Almanac CD
  - ◆ Dinosaur Meuseum CD
  - ◆ UFO CD



The Multimedia Office 95 Systems provide systems based around Microsoft's software solutions. These high specification systems have been optimised for Windows 95 and include a minimum of 8Mb or 16Mb RAM, large hard drives upto 1.6Gb, fast 486 and Pentium® processors and plenty of expansion potential. All are fully multimedia ready with fitted CD-ROM drives, 16-bit sound cards, an excellent range of CD titles from Microsoft and others. Low cost Fax and

Internet packs and PC TV with Teletext options are also available.

Multimedia Office 95 Plus models come with additional software which includes the new 32-bit version of Microsoft Office 95 and additional CD titles. With Finance options from under £49 these systems are going fast!

### Finance from under

£ **49** \*  
Per Month

**Finance Example**  
 Cash Purchase: £899 +VAT  
 =£1078.65 inc. delivery & VAT.  
 Credit Purchase: 10% (£107.87)  
 deposit and 24 equal monthly  
 payments of £48.54 Total  
 Price£1272.83inc. delivery & VAT.

\*APR  
**19.8%**

Multimedia Office 95/1 486DX2-66	Multimedia Office 95/2 486DX4-100	Multimedia Office 95/3 75MHz Pentium®	Multimedia Office 95/4 75MHz Pentium®	Multimedia Office 95/5 90MHz Pentium®
486DX2-66 with 8Mb RAM, 540Mb hard drive and 14" screen	486DX2-100 with 8Mb RAM, 850Mb hard drive and 14" screen	75MHz Pentium® processor with 8Mb RAM, 850Mb hard drive, 64-bit PCI graphics and 14" screen	75MHz Pentium® processor with 16Mb RAM, 1.08Gb hard drive, 64-bit PCI graphics with 2Mb video RAM and 15" screen	90MHz Pentium® processor Colossus Midi-Tower with 16Mb RAM, 1.6Gb hard drive, Trion chipset, 64-bit PCI graphics with 2Mb video RAM and 15" screen
<b>£899</b>	<b>£999</b>	<b>£1099</b>	<b>£1499</b>	<b>£1699</b>
+VAT	+VAT	+VAT	+VAT	+VAT
14" to 15" upgrade ..... £99 Extra Plus Models ..... £199 Extra	14" to 15" upgrade ..... £99 Extra Plus Models ..... £199 Extra	90MHz Pentium® ..... £79 Extra 100MHz Pentium® ..... £179 Extra 14" to 15" upgrade ..... £99 Extra Plus Models ..... £199 Extra	90MHz Pentium® ..... £79 Extra 100MHz Pentium® ..... £179 Extra 15" to 17" upgrade ..... £199 Extra Plus Models ..... £199 Extra	100MHz Pentium® ..... £100 Extra 120MHz Pentium® ..... £250 Extra 133MHz Pentium® ..... £350 Extra 15" to 17" upgrade ..... £199 Extra Plus Models ..... £199 Extra

**CALL NOW!**

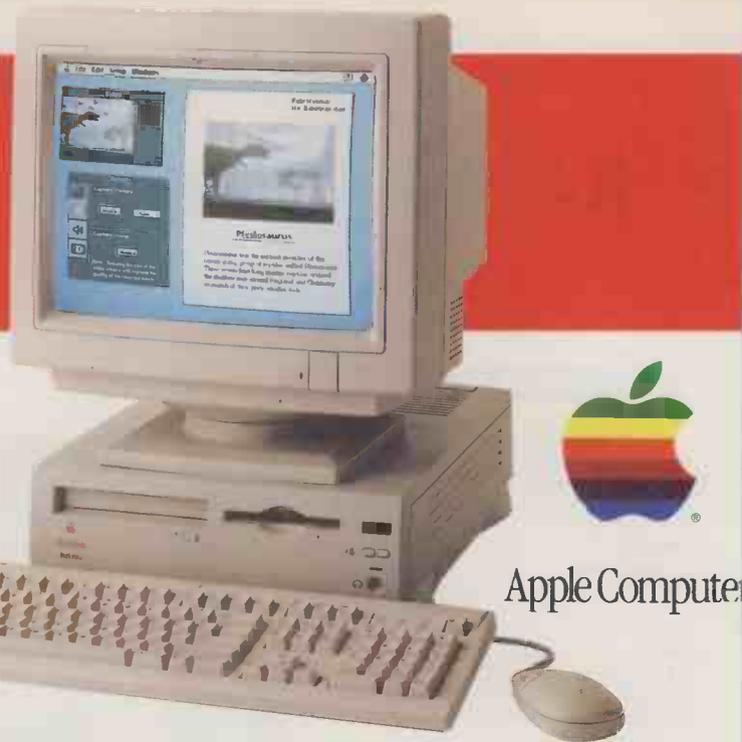
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT





Apple Computer

The following Apple Macintosh Performa systems offer a complete, ready to run, straight out of the box solution. They include the computer, colour display, keyboard and all the cables necessary to get your system up and running.

Finance from under

£46 \* \*APR 19.8%  
Per Month

Finance Example: Cash Purchase: £849 +VAT =£1019.90 inc. delivery & VAT. Credit Purchase: 10% (£101.99) deposit and 24 equal monthly payments of £45.90 Total Price £1203.59 inc. delivery & VAT.

Macintosh Performa 630/630CD



PC Specification

- ◆ 66/33 MHz Motorola 68LC040 with 32-bit data bus (66 MHz processor/33 MHz data bus)
- ◆ 4Mb of RAM expandable to 36Mb (8Mb on CD model)
- ◆ 500Mb hard disk (350Mb on CD model)
- ◆ 14" Performa Plus display (15" multiple scan display on CD models)
- ◆ 1Mb of DRAM display support
- ◆ 1.4Mb Apple SuperDrive floppy disk drive
- ◆ Keyboard, mouse, 2 serial ports, SCSI interface & video ports
- ◆ Communications expansion slot
- ◆ 8-bit stereo sound
- ◆ One sound-in port, front and rear headphone jacks
- ◆ Apple design keyboard and Apple desktop bus mouse II

630CD Models offer the following advantages:

- ◆ Integrated Apple CD 300i Plus CD-ROM drive
- ◆ 16-bit stereo CD playback

630CD Models with Apple Video/TV system offer the following advantages:

- ◆ Video and TV system
- ◆ Infra-red remote control
- ◆ Avid VideoShop software

Performa 630  
with 500Mb hard disk and 4Mb RAM

£849 + VAT

Performa 630CD  
with 500Mb hard disk and 8Mb RAM

£1099 + VAT

Performa 630CD/TV  
with Apple Video/TV System  
with 350Mb hard disk and 8Mb RAM

£1199 + VAT



Software\*\*

- ◆ Apple System 7.5 software
- ◆ Claris Works 2.1 (Claris Works 3.0 on 6200 model) integrated software package
- ◆ At Ease 2.0 security package
- ◆ PC Exchange allows you to share and move files between your Macintosh and MS DOS or Windows environment

Performa 630 Plus models also feature:

- ◆ Claris Organizer 3.0 (6200 model only)
- ◆ Mavis Beacon Teaches Typing
- ◆ A selection of Clip Art
- ◆ Spectre Supreme - 3D arcade game
- ◆ Rosetta Stone Power Pack: an introduction to 4 EC languages
- ◆ Grolier's New Multimedia Encyclopedia CD
- ◆ Microsoft Dinosaurs CD
- ◆ 1994 Guinness Multimedia Disc of Records CD
- ◆ San Diego Zoo presents The Animals CD
- ◆ The Tale of Benjamin Bunny CD
- ◆ Leonardo the Inventor: his drawings brought to life CD
- ◆ MacGallery Clip Art Treasure Pack (6200 model only)

Macintosh Performa 6200



PC Specification

- ◆ PowerPC 603 RISC processor running at 75MHz
- ◆ 256k level 2 cache
- ◆ 8Mb of RAM expandable to 36Mb
- ◆ 4Mb of ROM on 64-bit PowerPC bus
- ◆ 500Mb hard disk
- ◆ Integrated Apple CD 600i quad speed CD-ROM drive
- ◆ 16-bit stereo CD playback
- ◆ 8-bit stereo sound
- ◆ One sound-in port, front and rear head phone jacks
- ◆ 1Mb of DRAM display support
- ◆ 1.4Mb Apple SuperDrive floppy disk drive
- ◆ Keyboard, mouse, 2 serial ports, SCSI interface & video ports
- ◆ Communications expansion slot
- ◆ Apple Design keyboard and Apple desktop bus mouse II

Performa 6200  
with 500Mb hard disk and 8Mb RAM

£1179 + VAT

Performa 6200CD  
with 500Mb hard disk, 8Mb RAM  
and CD-ROM

£1319 + VAT

Performa 6200CD/TV  
with Apple Video/TV System  
with 500Mb hard disk, 8Mb RAM and  
CD-ROM drive

£1539 + VAT

Options

PRINTERS

- HP Deskwriter 660C.....£369
- HP Deskwriter 850C.....£450
- Epson Stylus Colour.....£399

SCANNERS

- Agfa Studio Scan II si Lite..£650
- Agfa Arcue II.....£2745

MODEMS

- 14.4 Teleport Gold 2.....£135
- 28.8 Teleport Platinum.....£249

CALL NOW!

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

01282 777 111

TIME  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

# Mobile Office

If you are looking for the ultimate notebook systems, take a look at our special deals on the incredible Colossus range of power notebooks. These systems come with fast 486DX4 processors, massive hard disks and ample RAM and are pre-loaded with the best software applications including Lotus 1-2-3, Lotus

Ami Pro, Lotus Organizer 2, Lotus Approach, Lotus SmartPics, Quicken v4 and AutoRoute Express.

They are completely modular and have a full range of docking facilities.

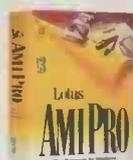
Finance from under

**£59\*** **\*APR**  
**19.8%**  
Per Month

Finance Example: Cash Purchase: £1079 + VAT = £1219.15 inc. delivery & VAT. Credit Purchase: 10% (£107.87) deposit and 24 equal monthly payments of £58.06 Total Price £1522.46 inc. delivery & VAT.



Lotus 1-2-3



Lotus Ami Pro



Lotus Approach



Lotus Organizer



Lotus SmartPics

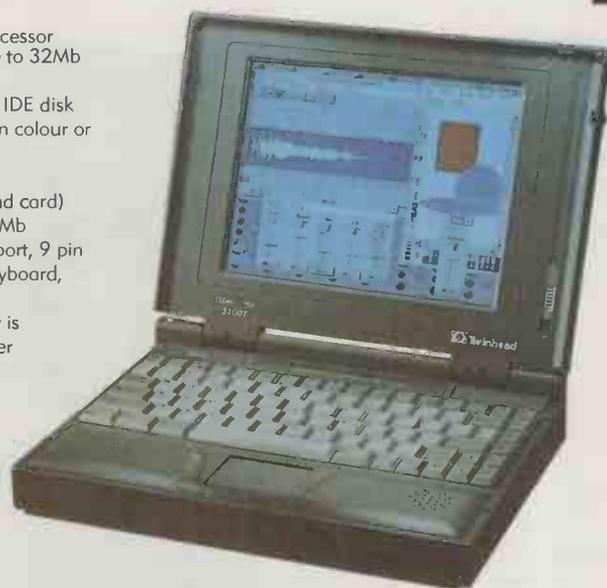


AutoRoute



## Notebook Specification

- ◆ Intel 100MHz or 75MHz 486DX4 processor
- ◆ 4Mb, 8Mb or 16Mb RAM expandable to 32Mb
- ◆ Removable 1.44Mb 3.5" floppy drive
- ◆ Removable 520Mb, 810Mb or 1.2Gb IDE disk
- ◆ 9.4" STN VGA mono, 10.4" dual scan colour or 9.4" TFT colour screens
- ◆ 2 PCMCIA Type II/1 Type III slot
- ◆ Built-in stereo speakers (optional sound card)
- ◆ 32-bit VESA local bus graphics with 1Mb
- ◆ One advanced bi-directional parallel port, 9 pin fast serial ports with 16550 UART, keyboard, external monitor, PS/2 mouse ports
- ◆ The latest NiMH rechargeable battery is removable. There is full advance power management
- ◆ Built-in TouchPad mouse - the best pointing device on any notebook
- ◆ LCD status display
- ◆ Dim: 287x200x47mm:  
Weight 6.2lbs
- ◆ 1 Year warranty extendable to 3 years



## Software\*\*

See Software Section for details

- ◆ DOS & MS Windows® 3.11
- ◆ Lotus 1-2-3 v5 spread sheet
- ◆ Lotus Ami Pro v3.1 word processor
- ◆ Lotus Approach v3 database
- ◆ Lotus Organizer v2
- ◆ Lotus SmartPics graphics
- ◆ Intuit Quicken v4 personal finance pack
- ◆ AutoRoute Express v3 road atlas

Options

Colossus Mono Notebook  
486DX4-75

with 340Mb hard drive, and 4Mb RAM

£ **1079**

+ VAT

Colossus Dual Scan Colour Notebook  
486DX4-75

with 340Mb hard drive, and 4Mb RAM

£ **1449**

+ VAT

Colossus TFT Colour Notebook  
486DX4-75

with 340Mb hard drive, and 4Mb RAM

£ **1949**

+ VAT

## Options

Upgrade to DX4-100 .....	£100	Carry Case .....	£25
Upgrade to 540Mb hard drive .....	£90	Docking Station .....	£36
Upgrade to 810Mb hard drive .....	£260	Port Replicator (mini docking station) .....	£95
Upgrade to 1.2Gb hard drive .....	£480	Car Adapter .....	£60
RAM Upgrade per 4Mb .....	£140	NiMH Battery .....	£67
Sound card module .....	£80	SMART Battery .....	£12

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT



# Texas Instruments TFT Colour Notebook

## Mobile Comms Office

Time announce incredible deals on the top of the range Texas Instruments TFT and dual scan colour multimedia notebooks. These systems come complete with the best software applications including:-

Lotus 1-2-3, Lotus Ami Pro, Lotus Organizer 2, Lotus Approach, Lotus SmartPics, Quicken v4 and AutoRoute Express.

All these systems also come with a complete Fax & Internet Pack including a BABT

approved Intel PCMCIA modem with appropriate fax and comms software. Fax your documents to anyone and connect to your PC to your base and many other on-line services with ease.

At just £49 per month on Interest Free Credit, these Mobile Comms Office Solutions are going fast. Hurry place your order today!

APPROVED for connection to telecommunication systems specified in this brochure for use subject to the conditions set out in them

**\*APR**

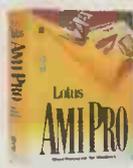
# 0%

**INTEREST FREE CREDIT**

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page 11 for Interest Free example.



Lotus 1-2-3



Lotus Ami Pro



Lotus Approach



Lotus Organizer



Lotus SmartPics



AutoRoute



Quicken

### Notebook Specification

Texas instruments latest 4000M models with built-in multimedia, Intel modem and Pre-loaded software. The Portable CD-ROM dock & Mega Bundle is also available as an option on Interest Free Credit.

- ◆ Intel 486DX2-50 or 486DX4-75processor
- ◆ 4Mb or 8Mb RAM
- ◆ 455Mb IDE hard disk
- ◆ Superb large 10.5" VGA TFT or 9.5" Dual Scan colour screen
- ◆ 1Mb VESA video
- ◆ Built-in 16-bit sound card, microphone and speakers
- ◆ Built-in point mouse
- ◆ Adaptec fast SCSI-II port
- ◆ Optional CD-ROM drive clips on 1.44Mb floppy drive
- ◆ PCMCIA II/III and all standard ports
- ◆ MS DOS 6.2 and Windows 3.1
- ◆ Intel PCMCIA fax & data modem with software

### Portable CD ROM & Mega CD Bundle

This is available on IF credit at extra cost (£29\* per month and includes the following:

- ◆ Double speed CD-ROM drive
- ◆ Larger speaker system with controls for volume, balance and mix
- ◆ Microsoft headphones and external microphone
- ◆ NiMH battery giving option of AC or battery power
- ◆ SCSI II connector and SCSI II bay option
- ◆ Additional Software on Mega CD:-  
GSP Pressworks 2 and Designworks 2  
TurboCAD for Windows  
Pacioli 2000 Business Accounts  
Computerworks, Bodyworks and Autoworks plus many more educational and leisure programs

### Software

- ◆ Lotus 1-2-3 v5 Spread sheet
- ◆ Lotus Ami Pro v3.1 Word processor
- ◆ Lotus Approach v3 Database
- ◆ Lotus Organizer v2
- ◆ Lotus SmartPics Graphics
- ◆ Intuit Quicken v4 Personal Finance Pack
- ◆ AutoRoute Express UK v3 for Windows



**TI COMMS OFFICE 4**  
486DX2-50 455Mb, 4Mb, Dual Scan

**£49\*** Per Month

£240.15 deposit and 24 monthly payments of £79 OR  
£960.15 deposit and 24 monthly payments of £49. Total price £1799 +VAT =£2136.15 inc. delivery & VAT. \*APR 0%

**TI COMMS OFFICE 5**  
486DX4-75 455Mb, 4Mb, TFT

**£69\*** Per Month

£275.65 deposit and 24 monthly payments of £102 or  
£1067.65 deposit and 24 monthly payments of £69. Total price £2299 + VAT = £2723.65 inc. delivery + VAT \*APR 0%  
**8Mb Model £149 +VAT Extra CD ROM Dock Bundle**  
£147.65 deposit and 24 monthly payments of £29. Total price £699 +VAT =£843.65 inc delivery & VAT. \*APR 0%

**CALL NOW!**  
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME** Computer Systems Ltd.  
Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

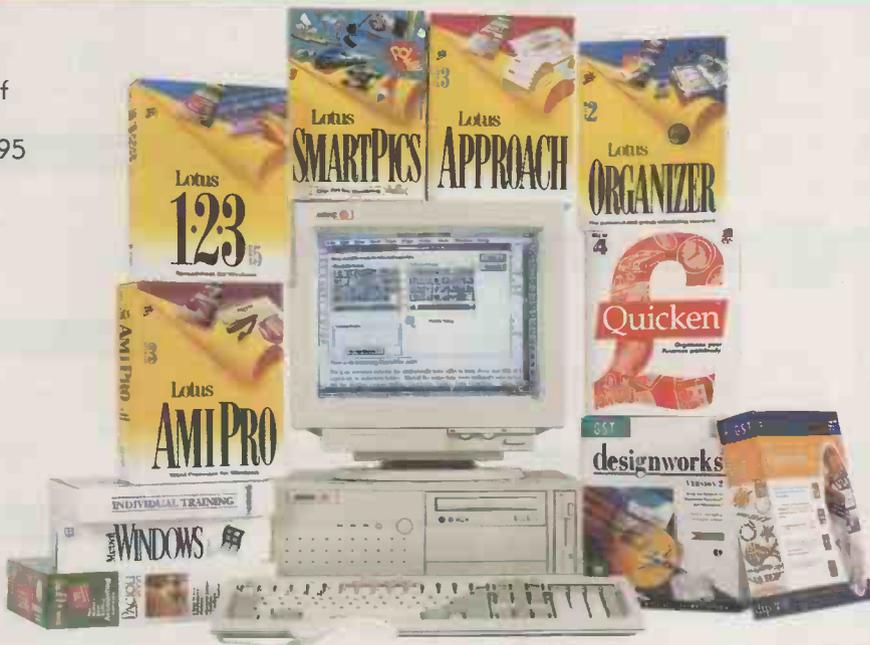
# Mitac PowerStations

The high specification 486 and Pentium systems from Mitac are preloaded with a superb collection of Windows based software from Lotus and other manufacturers. Windows 95 option is available with all 8Mb systems for only £20 extra.

These systems are available on finance from just under £36\* per month



Windows 95 option only £20 extra



486DX2-66	486DX4-100	75MHz Pentium®
-----------	------------	----------------

- ◆ 486DX2-66 processor
- ◆ 4Mb or 8Mb RAM expandable to 64Mb
- ◆ Pentium Technology upgradeable
- ◆ 540Mb IDE hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen
- ◆ IDE Hard and floppy controller
- ◆ Parallel, 2 serial & keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (2 VESA)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include Double (or Quad Speed option) CD-ROM drive, 16-bit Sound card and twin stereo speakers.
- ◆ MS DOS and Windows 3.11 (Windows 95 £20 extra)
- ◆ Software bundle including Lotus 1-2-3, Lotus Ami Pro, Lotus SmartPics, Lotus Organizer, Lotus Approach, Intuit Quicken, Pacioli Business Accounts, and GSP Designworks & Pressworks.

- ◆ 486DX4-100 processor
- ◆ Faster than most P60 systems
- ◆ 4Mb or 8Mb RAM expandable to 64Mb
- ◆ Pentium Technology upgradeable
- ◆ 540Mb or 850Mb IDE hard disk
- ◆ 3.5" 1.44Mb floppy drive
- ◆ 1Mb local bus graphics with Windows accelerator
- ◆ 14" SVGA colour screen (15" Optional)
- ◆ IDE Hard and floppy controller
- ◆ Parallel, 2 serial & keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (2 VESA)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include Double (or Quad Speed option) CD-ROM drive, 16-bit Sound card and twin stereo speakers.
- ◆ MS DOS and Windows 3.11 (Windows 95 £20 extra)
- ◆ Software bundle including Lotus 1-2-3, Lotus Ami Pro, Lotus SmartPics, Lotus Organizer, Lotus Approach, Intuit Quicken, Pacioli Business Accounts, and GSP Designworks & Pressworks.

- ◆ Intel 75MHz Pentium®
- ◆ 8Mb or 16Mb RAM expandable to 128Mb
- ◆ 540Mb, 850Mb or 1.08Gb Enhanced IDE (Fast ATA) hard disk with 256K hard disk Cache
- ◆ 256K external SRAM Cache
- ◆ 3.5" 1.44Mb floppy drive
- ◆ PCI bus with 4 PCI slots
- ◆ PCI bus graphics with 1Mb video RAM (2Mb Optional) and super-fast 64-bit s3 Windows accelerator -the best (other suppliers only offer slower cards with their Pentium systems)
- ◆ 14" SVGA colour screen (15" optional)
- ◆ Enhanced PCI IDE hard and floppy controller
- ◆ Parallel, 2 fast serial & keyboard ports
- ◆ Expandable desktop case
- ◆ 4 drive bays and 7 expansion slots (4 PCI)
- ◆ 102 Enhanced keyboard
- ◆ Multimedia models include Double (or Quad Speed option) CD-ROM drive, 16-bit Sound card and twin stereo speakers.
- ◆ MSDOS and Windows 3.11 (Windows 95 £20 extra)
- ◆ Software bundle including Lotus 1-2-3, Lotus Ami Pro, Lotus SmartPics, Lotus Organizer, Lotus Approach, Intuit Quicken, Pacioli Business Accounts, and GSP Designworks & Pressworks.

**£649** +VAT

540Mb, 8Mb RAM ..... £749  
 Double Speed CD Drive ..... +£50  
 Multimedia models ..... +£99

**£679** +VAT

540Mb, 8Mb ..... £779  
 850Mb, 8Mb ..... £829  
 Double Speed CD Drive ..... £50  
 Multimedia models ..... + £99

**£879** +VAT

850Mb, 8Mb RAM model ..... £929  
 1.08Gb model ..... £979  
 90MHz Pentium model ..... + £100  
 Double Speed CD Drive ..... + £50  
 Multimedia models ..... + £99

Finance from under **£36\*** Per Month See example

Finance from under **£37\*** Per Month See example

Finance from under **£48\*** Per Month See example

**\*APR 19.8%**

Finance Example: Cash Purchase: £599 +VAT =£726.15 inc. delivery & VAT. Credit Purchase: 10% (£72.62) deposit and 24 equal monthly payments of £32.68. Total Price £856.94 including delivery & VAT. Finance is available subject to status. Written details are available on request. Be sure you can afford the payments before entering into a credit agreement.

**CALL NOW!**  
 Sales Lines Open  
 Mon-Fri 8.30am-7.00pm  
 Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
 Computer Systems Ltd.

Granville House,  
 Blackburn Rd,  
 Simonstone,  
 Burnley, BB12 7GT

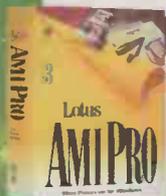


# Lotus General Business Applications

# Educational and Leisure Software

The following pages describe the software applications which may be included with your PC system. Please refer to the individual system offer to see which applications are included. In most case software is pre-loaded with on-line help with an easy to use menu system enabling you to be productive instantly. Printed manuals and backup disks are available as options. We firmly believe that the Lotus Suite of products is the best you can buy at ANY price and we recommend this range for your general business applications.

The PC is quickly becoming the ideal vehicle for education. The latest educational programs provide all the information needed by children and make learning fun. Pre-loaded software is shown here whilst the CD Multimedia educational and leisure titles are shown on page 21.



## Lotus Ami Pro for Windows

Lotus Ami v3.1 for Windows is the latest version of this superb easy to use and powerful wordprocessing package that lets you write letters, produce documents and even write books. It includes advanced features such as advanced spellchecker, Thesaurus, Grammar checker, Index/contents generation, 55 style sheets, compatibility with Wordperfect or Microsoft Word documents, outlining, drawing, charting, DTP like page layout plus much more.



## Lotus 1-2-3 for Windows

Lotus 1-2-3 Release 5 for Windows (RRP £ 365 +VAT) multi-dimensional spreadsheet is one of the most flexible applications available and will enable you to do virtually anything with numerical information. Lotus 1-2-3 is the world's most widely used spreadsheet and includes database functions as well as a wide range of scientific and financial ones. Its macro language will enable you to automate operations when performing complicated calculations and it can generate charts or graphs automatically, simply by highlighting an area of data.



## Lotus Approach for Windows

New Lotus Approach v3 for Windows is basically a computerised filing cabinet but with very advanced features which allow you to handle any information with ease. You don't have to be a programmer to use Lotus Approach. Lotus Approach includes SmartMaster templates for popular database applications and Assistants to quickly build your reports, mailing labels, forms, crosstabs and charts. Now anyone can keep comprehensive records of products, customers, members etc.



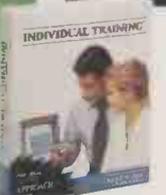
## Lotus Organizer for Windows

Lotus Organizer v2 for Windows is a full-feature Personal Information Manager that allows you to manage your time & work. It is effectively your own personal secretary with some very advanced features. The Calendar lets you arrange appointments and confirm meetings. The To Do List helps you keep track of every last detail. The Planner gives the broader picture, making it easier to plan and monitor long term projects. The Address book can store up to 65,000 names, addresses and telephone numbers - all available in an instant. The Notepad lets you jot down free-form ideas.



## Lotus SmartPics for Windows

Lotus SmartPics Graphics consist of the finest Clipart, i.e. high quality images that can cover a wide range of topics and which can be easily incorporated into documents created by a wordprocessor, Spreadsheet, Desktop Publishing or Drawing Package. Use these amazing colourful and versatile images when you need to add that extra sparkle to business presentations, or enhance memos, reports, overheads and handouts. Thirty general business categories include: realistic people, business symbols, international icons, computers, military, medical illustration, backgrounds and memorable cartoons - just to name a few.



## Training for 1-2-3, Ami Pro & Approach

Individual Training Packages are provided for Lotus 1-2-3, Lotus Approach and Lotus AmiPro. The packages cover upto the previous version of each of the Lotus products. Lotus On-Line help and Smart-text online documentation covers the latest information on the new Lotus releases.



## Computerworks

Now you can explore the universe of microchips and megabytes on your own computer. From hard disks to software, Computerworks is your high-tech tour guide. Colourful animated graphics and comprehensive information highlight each component of the computer system, including the inner workings of monitor, drives, printers, CD-ROM, mice and other peripherals.



## Autoworks

Three-dimensional animated graphics bring to life the systems, structures and functions of your car with full-view displays, including top and side angles, show entire systems and how their parts interact. -Detailed sections cover Engine; Drive train; Steering/Suspension; Exhaust/Emissions control; Fuel system; Cooling system, brakes, Electrical System and much more.



## Fun School for Windows

Fun School 4 for children aged 7 to 11, contains six of the best selling Fun School series which will entertain and educate your children in a wide variety of skills. Each of these programs has been designed by a team of educationalists following guide-lines laid down by the National Curriculum. There are three areas covered by this pack, Mathematics, Geography and History.



## Fun School Merlin Maths

Fun School Maths (Merlin's Maths) has been carefully designed to help children aged 7 and over with simple mathematical concepts and calculations whilst at the same time, having fun playing the six games. Each of the games has three difficulty levels and within each level the questions get harder the longer the child plays.



## Fun School Spelling

Fun School Spelling for 7 to 16 year olds has with the help of teachers been designed to help children learn this vital subject. Featuring six colourful games, based around a fairground theme and allows children to practice the 4,000 most commonly misspelt words.



## Fun School 5 In Time

In Fun School In Time for 8 to 11 year olds, is another in the popular childrens series which features Suki, Rik and their pet dinosaur Gloopy go through a series of adventures which are five programs, based on English, maths, physics, ecology and a painting program.



## Fun School Paint & Create

Fun School Paint & Create is designed to help children in the 5 to 11 age group, all children have a natural spark of imagination and creativity. They start learning the basics of drawing and painting and end up designing their own greetings cards which they can then print out.



## Arcade/Graphics Games

These leisure titles include some of the best shareware games available. Doom is the ultimate 3D adventure, bringing virtual reality action to your PC. This version includes 9 levels of 3D action and superb graphics. DOOM is the world's best selling graphics game! Also included are Blake Stone, Raptor and Epic Pinball.



**CALL NOW!**  
Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

# 01282 777 111

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

# Other Business Software Applications

In addition to the main-line business application (such as Word-processing, Spreadsheet, Database etc.) there are other programs

which are very useful for business and professional use. We have selected the best products to be included with some of our systems.



## GSP Designworks v2 for Windows



GSP Designworks v2 for Windows (RRP £ 149 +VAT) is a powerful drawing package like CorelDRAW that allows you to create logos and other business graphics. Drawings created can also be used in other applications such as a Desktop Publisher or a Wordprocessor. DesignWorks is the ideal design tool for adding flair and impact to your work. Whether you want to create a logo for your newsletter, add professional graphics to presentations and reports, or create a colourful poster or eye-catching invitation. DesignWorks gives you the power to do all of this quickly and easily.



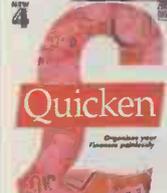
## GSP Pressworks v2 for Windows



PressWorks v2 (RRP £ 149) is a full-feature Desktop Publishing Program (DTP) with a wealth of powerful features and lets you produce full colour reports, memos, presentations, advertisements, brochures and catalogues. In fact, just about any printed page where good presentation is important. PressWorks supports OLE2, text, graphics, colour, word processing, spell check with thesaurus, paragraph styles, powertext, typefaces, templates, language support, clip art, text run-around, typography, photo CD and screen snapshots.



## NEW! Quicken UK v4 for Windows



Quicken is the fastest, easiest way to organise your home and small business finances. It manages bank and credit card accounts, mortgages, loans and investments, in any currency. It calculates VAT automatically and provides detailed analysis with its customisable reports and graphs. Quicken is easy to use and quick to update. Standing orders are entered automatically and your transactions are memorised, ensuring you never have to type an entry twice. From the records you enter, Quicken gives you the 'big picture' view of your finances, using the indicators of your choice. And with this information of your fingertips, planning your financial future is easy!



## AutoRoute Express UK v3 for Windows



Autoroute Express for Windows (RRP £ 99 +VAT) is a colourful, computerised road atlas, with simple-to-read maps and easy-to-follow directions. Forget fumbling with fold out maps or messing with mileage charts. Autoroute takes all the trouble out of travel. Just tell Autoroute when and where you're starting and where you're heading. Just set your driving style and speed. Autoroute takes it from there, showing the quickest routes, fastest routes, country routes, most economical routes - in fact, which ever route is right for you. So before you hit the road on business or head off on holiday, check the route with Autoroute.



## Pacioli 2000 Business Accounts



Pacioli 2000 is a full featured accounting software package that combines ease-of-use with the power and features required by most businesses. Help is given so that people who are not fully fledged accountants, can use this program. Pacioli features eight fully featured modules including Nominal Ledger, Stock Control, Invoicing and Budgeting. This package outperforms many accounting systems costing over £500.



## IMSI TurboCAD v2 for Windows



TurboCAD v2 for Windows (RRP £99 +VAT) is a full-featured desktop drawing and drafting (CAD) software that will have you creating professional drafting, plans and drawing with ease and with incredible speed. It is very advanced and powerful yet very easy to use. Now everyone can do Home Designs (Kitchens, Bathrooms) Business Floorplans, Landscapes and much more. Optional extra libraries of drawings are available for specialist use. Unlike other CAD programs, a maths co-processor is NOT required to run this excellent CAD program.



## IMSI Masterclips SE



Masterclips SE Intro is not an application but a collection of drawings. It includes some of the highest quality and creative clip art available. This can be used to highlight and enhance presentations, reports, proposals newsletters and other materials. Images are provided for use with most graphics software applications. The images are full colour and vector art files which allows the graphics to be recoloured, rotated, manipulated, and resized without jagged lines.



## Arts and Letters Draw



Arts & Letters Draw for Windows is another drawing package that is remarkable easy to use and which has a complete set of drawing tools, allows curve editing, 300 clipart images, 8 True Type fonts, and symbol libraries.



## Picture This! for Windows



Picture This! is the complete professional image manager and editor for anyone working with any type of images. It is the fastest, easiest way to organize and enhance your images. This one package helps you keep track of your image files; organize them into albums; convert graphics files between popular formats (E.g. BMP, GIF, JPEG, PCX, TIFF and more); capture screen images on your computer; even do professional photo retouching (overlay, edge, sculpt, emboss and adjust colour and sharpness) and special effects. It supports Photo CDs and TWAIN scanners.



## Organize Your Way



Things to Do! Places to Go! & People to See! Organize your Way v4 for Windows bridges the gap between personal information managers (e.g. Sidekick) and complex contact managers by combining both of these functions to produce an easy, yet powerful information and contact manager. It includes a database, calendar, to-do-list, and a contact manger that offers unmatched ease-of-use and flexibility.



## PFS: CV and Job Search Pro



CV & Job Search Pro for Windows enables you to tackle those job interviews with confidence. Create impressive CVs and cover letters that stand out. It incorporates a flexible CV Builder, a Job Search Manager as well as comprehensive wordprocessing features. CV Builder automatically formats entire CV and includes templates for Business, Academics, Recent Graduates and more. Job Search Manager includes prospects database and allows scheduling of interviews and follow-ups.



## PC Paintbrush for Windows



PC Paintbrush for Windows is the latest version of this classic professional painting package that includes very advanced features. This superb package is the ultimate in creativity and lets you create, edit, manipulate, colourize, texturize and Paint anything you can imagine! It ranks as No.6 on the IDC list of best selling software of all time. Other painting programs only give you a small taste of how much fun painting can be. PC Paintbrush is the ultimate and the art form of the future. Includes 87 painting tools; 14 kinds of paintbrushes, 5 kinds of air brushes, 4 spraycans, 6 pens, 4 markers, 4 crayons and much more.



## Flying Fingers Typing Tutor



Flying Fingers is an interactive typing course which operates within Windows. It is designed to improve your keyboard skills with the minimum of effort. It's built in family of tutors will give advice, encouragement so that you can develop your word processing skills.

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Bumley, BB12 7GT

**19**  
19EA

# Fax & Internet Packs

# Printer Packs <sup>APP</sup> 0%



Our Fax and Internet Packs will be very useful to all PC users and we strongly recommend this option to enable you to get the most out of your PC. We offer a choice of 4 packs. All are also available on Interest Free Credit (with IF systems only). All packs contain:-

## 1. A FAX AND DATA MODEM

- Pack 1:** Includes a V.22 bis data and fax modem. This comes complete with powerful Fax and Comms software and provides all the facilities you need.
- Pack 2:** Includes a 14.4 V.32bis internal fax and data Modem. This is faster and more suited to prolonged data communications.
- Pack 3:** Includes a 14.4 V.32bis fax and data modem with voice facilities. In addition to the fax and comms software, this also comes with voice software with automatic switching between data, fax and voice. Your PC can function as a powerful answering machine with multiple mailboxes, a mini-bulletin board as well as a fax machine and comms station.
- Pack 4:** Includes a 28.8 V.34bis superfast fax and data modem.

## 2. FAX SOFTWARE

Powerful fax software included with each modem will convert your PC into a full-feature advanced Fax machine. You can receive faxes from other modems and standard Fax machines. These faxes are saved as a file on your hard disk and the software informs you automatically which faxes have arrived. These can then be looked at, inserted into other documents, printed or deleted. You can also send faxes created on your PC to other modems and fax machines directly without printing out anything.

## 3. COMMUNICATIONS SOFTWARE

Comms software will allow you to communicate and exchange information and software with other modem users. It will also enable you to link to other computers with access to many on-line services such as CompuServe and also link to the Internet. The Internet is the name given to the Information Super-Highway which consists of many computers all over the world linked together via standard telephone lines. The Internet is essentially a public electronic mailing system but also includes other services, worldwide communications over the Internet can be very cost effective as you only pay local telephone rates.

## 4. MEMBERSHIP OF COMPUSERVE ON-LINE SERVICES WITH INTERNET MAILBOX

- a. CompuServe Introductory Membership for the first month.
- b. Usage credit of £10 to explore the chargeable services available.
- c. WinCIM Windows Software that allows linking to CompuServe and enables you to use the services easily.
- d. CompuServe user booklet (Membership Guide for Windows).

CompuServe is the leading commercial provider of on-line information for PC users and has more than 2 million users worldwide who can access a huge range of global & local services and electronic mail usually by a local phone call. The range of services is wide and as well as CompuServe commercial and support services, members can also access the InterNet (the world wide electronic mail system with mainly public domain services). Here are just some examples of the CompuServe services available:

- ◆ Electronic Mail, Communications and Bulletin Board facilities.
- ◆ Links to Internet with Internet mailbox.
- ◆ CompuServe Support Forums with free support & updates provided by major software and hardware companies such as Lotus, Microsoft, IBM and Novell.
- ◆ News, Weather and Sports Services which is updated continually and access to newspapers such as The Daily Telegraph, Guardian, Times etc.
- ◆ Travel services with updated information on Airline schedules and fares with flight booking option. Information also provided on world-wide hotel rates, Car hire, AA information on accommodation in UK, and advice on Visas, Immigration etc.
- ◆ Electronic shopping allows you to buy virtually anything.
- ◆ Money matters, markets and Information services with data on stocks, commodities and money markets. CompuServe's on-line brokerage facility allows you to buy and sell.
- ◆ Entertainment and games with access to many programs and multiplayer games.
- ◆ Research, Reference and Health with access to over 900 databases including services such as MEDLINE, and the complete Grolier's Academic Encyclopaedia.

Pack 1	Pack 2	Pack 3	Pack 4
<b>£4.29*</b> Per Month	<b>£6.50*</b> Per Month	<b>£8.75*</b> Per Month	<b>£13.00*</b> Per Month
£13.36 deposit and 24 monthly payments of £4.29	£19.07 deposit and 24 monthly payments of £6.50	£23.83 deposit and 24 monthly payments of £8.75	£39.36 deposit and 24 monthly payments of £13.00
Total price £99 + VAT = £116.33 *APR 0%	Total price £149 + VAT = £175.08 *APR 0%	Total price £199 + VAT = £233.83 *APR 0%	Total price £299 + VAT = £351.33 *APR 0%

APPROVED for connection to tele-communications systems specified in the conditions for use subject to the conditions set out in them.



## PC TV Card

A PC TV Card allows you to watch both normal Television Pictures and also teletext transmissions on your PC. Allowing you to work and watch TV at the same time.

The Hauppauge PC TV card offers the following features:

- ◆ TV watching
- ◆ Freeze frames
- ◆ Image Printing
- ◆ Teletext
- ◆ Image editing

1 2

ITV 4

**£160**  
+ VAT

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Burnley, BB12 7GT

Printer packs include leading InkJet and laser printers and come ready to use complete with PC printer cable and 3 excellent software packages. These packs are available on interest free credit from as little as £13.50\* per month.



**SimCity for Windows**  
The world's best Windows game. As the Mayor and City Planner, you control the fate of countless cities where Sims move in and build hospitals, homes, stores and factories, or move out in search for something better. This great city simulator puts you in control and features superb animation and colour graphics.



**Clipart Cartoons**  
Over 100 humorous cartoons and caricatures of people in a wide variety of work, leisure and every-day situations. Use them to enliven your presentations and documents. All original drawings in full colour - simple to install and use.



**Clipart Christmas**  
100 humorous illustrations all with a Christmas or festive season theme. Use them to enliven your presentations and documents. All original drawings in full colour - simple to install and use.



**Labels for Windows**  
Labels, envelopes and bar codes - all in one simple package that runs under Windows and supports these Windows printers. Choose from over 120 label formats or create your own in any size. A program that will be useful for all users.



## HP DeskJet 540 Pack

£44.95 deposit and 24 monthly payments of £13.50.  
Total price £299.00 + VAT = £368.95 Inc. Delivery & VAT. APR 0%\*

The new HP DeskJet 540 600 x 300 dpi InkJet printer with flexibility of the option of upgrading to colour later on. Our pack includes DeskJet 540 Printer with autosheet feeder, 3 year HP warranty, a shielded printer cable and the above software.

## HP DeskJet 540 Colour Pack

As above but with colour kit included. £50.08 deposit and 24 monthly payments of £15.00  
Total price £334.00 + VAT = £410.08 Inc Delivery & VAT. APR 0%.

HP DeskJet 600.....£Call



Interest Free Credit **£13.50\*** Per Month



## HP DeskJet 660C Pack

£69 deposit and 24 monthly payments of £19.50.  
Total price £438 + VAT = £533 Inc Delivery & VAT. APR 0%\*

The high quality colour DeskJet with resident black and colour cartridges for convenience.

New HP DeskJet 850C Pack...£564



## Epson Stylus Colour Pack

£69.00 deposit and 24 monthly payments of £25.00  
Total price £554.36 + VAT = £669 Inc Delivery & VAT. APR 0%.

The Epson Stylus Colour is the only colour InkJet to offer an amazing true 720 x 720 dpi resolution. This colour printer is simply superb, producing crisp text in solid black or colour. If you are looking for the best quality from your printer, this is the printer for you. Our includes printer with autosheet feeder, 3 year Epson warranty, a shielded printer cable and the above software.



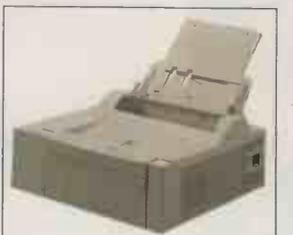
Interest Free Credit **£25.00\*** Per Month



## NEC Laser Pack

£53.95 deposit and 24 monthly payments of £19.00  
Total price £419.00 + VAT = £509.95 Inc. Delivery & VAT. APR 0%\*

The NEC SuperScript 610+ is a personal laser printer designed specifically for Windows. Incorporating leading technology in a simple, compact design, these are the first laser printers that are driven by your PC's processor rather than their own. They offer ultra fast printing, with the first page printed faster than any conventional printer because of the PC-based GDI (Graphical Device Interface - which is Windows native language). Using resolution enhancement technology, these printers produce outstanding printer quality of a virtual 600dpi with solid blacks and fine half tones. Our packs include laser printer, a shielded printer cable, and the above software.



Interest Free Credit **£19.00\*** Per Month

# Multimedia Software & Hardware



## CD ROM Multimedia Software

### Bodyworks 3 for Windows CD

Explore the system, structures and functions of the body in fascinating detail. (see Bodyworks opposite). This CD multimedia version includes 3-D rotating views with detailed animation and video clips and all the features of the disk version.



### UFO for Windows CD

UFO is the most complete guide to close encounters with over 1200 fully documented UFO sightings with actual photographs of the UFO sightings. Display, copy and print text and images through the Windows clipboard. A great tool for amateur or the expert sky watchers.



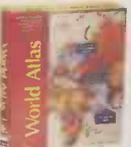
### IMSI EZ Language (6 Pack) Multimedia CD

Using pictures, words, and sound you can learn French, German, Spanish, Italian, Russian and Japanese. EZ Language is a simple vocabulary and pronunciation tutor on CD. You actually hear the correct pronunciation of word using this multimedia language product. Perfect for travellers, students and others wishing to communicate in a new language. Simple tests at the end of each section let you gauge your success.



### Zool 2 Multimedia CD

The latest CD version of this excellent platform game is better than ever. Zool 2 features the Ninja of the Nth dimension, a korate expert living on planet Loox, and his female partner Zoos. Their mission is to defeat the evil Krool who wants to conquer the known universe.



### World Atlas CD

This excellent educational encyclopaedia of the world allows you to access over 3000 topics including geography, people, education, health, government, crime, economy, agriculture, communication, travel and international organisations. Includes detailed maps, flags, anthems and much more.



### Shareware CD

The Shareware CD is packed with almost 100 of the best Shareware programs and games covering every topic. Simply install the programs you need onto your hard disk. These games are simply excellent and will provide years of entertainment. Amazing value for money.



### Play & Learn Multimedia CD

Play and learn has been developed for children between the ages of four to ten. It contains many excellent programs including ten colourful animated games and a series of learning modules covering spelling and maths.



### Software Toolworks Multimedia Encyclopaedia CD

The amazing power of multimedia CD-ROM technology has never been more evident than the Software Toolworks Grollier Multimedia Encyclopaedia. Forget printed encyclopaedias and get the best and most comprehensive multimedia encyclopaedia available. Based on the contents of a 21 volume encyclopaedia with over 33,000 articles. Five search and browse facilities enable you to source information quickly and easily.



### Dinosaur Museum CD

Transform your computer into a Time Machine with vivid sound, lavish colours and interactive games. Visit the Museum Room and learn detailed facts about dinosaurs including size, classification, behaviour and more. The Conservatory features exhibits on the biology of the Mesozoic era, and the Game Room tests your dinosaur IQ in two educational games for 1 or more players. Includes hundreds of photos plus movie clips.

### Time Almanac of the 20th Century

Experience history as it happened with this unique multimedia CD reference title. Travel through the 20th century with full-motion video covering issues and events that shaped our time. Quickly retrieve maps and search through an archive of 4000 articles. Includes Newsquest quiz, every Time 'man of the year' story, 70 full-motion videos, 12 narrated essays and over 450 photographs.

### Microsoft Encarta '95 CD

Microsoft Encarta '95 is another superb multimedia encyclopaedia based on the contents of a 28 volume encyclopaedia. It includes over interactive charts and tables, stunning animation, videos, maps, charts, sounds and pictures.

### Microsoft Works CD

Microsoft Works 3 for Windows integrates easy to use word processor, spread sheet, database, drawing module and comms in one application on CD.

### Microsoft Golf CD

Microsoft Golf for Windows allows you to tee off with upto eight golfing partners and move from driving range to practice green. It features unmatched photo-realistic scenery and stunning graphics, true golf ball flight, and easy accurate swing control.

### Microsoft Dangerous Creatures CD

Microsoft Dangerous Creatures is a superb multimedia title featuring some of the most exciting living things. Complete with high quality graphics, motion video and superb stereo sound, it provides education and enjoyment for everyone.

### Microsoft Multimedia Beethoven

This magnificent orchestral performance of masterworks by Beethoven lets you look closer into the composition in new ways highlighting the principal instruments, relates the piece to other works, and viewing the work in its social context.

### Mega CD Bundles

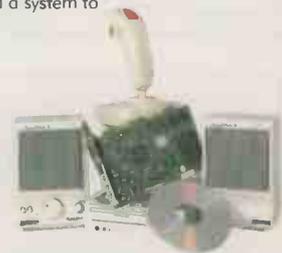
This superb bundle includes all of the programs covered on pages 12, 13 and 14 (except Microsoft Office CD bundle and AutoRoute) plus many more programs and comes loaded on CD-ROM. This CD bundle is only available bundled in with your PC system. As many of our systems already come with some of this software pre-loaded, prices of the Mega bundle vary depending on the system with which it is purchased. As well as providing extra software programs, the CD also serves as a backup of your pre-installed software should you need to re-install any applications. Please call for details.



## Multimedia Hardware

Multimedia systems come with some of the following hardware, all fitted and ready to use with a range of CD titles. These hardware items may also be added to other systems to build a system to your requirements.

- Double speed CD-ROM drive
- Quad speed CD-ROM drive
- 16-bit high quality sound card with sound software
- Standard speakers
- Large speakers
- PC joystick & microphone
- TV card with Teletext
- MPEG Video player card



**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Bumley, BB12 9GT



# Ultimate Time Machine

The PC you have always wanted. Now affordable at Just £99 per month at APR 0%!

The Ultimate Time Machine is the most powerful PC system you can buy today. This system, manufactured for Time by Colossus, comes with a truly incredible specification and high quality components that are ideal for the power user.

Take a closer look at the specification which includes the fastest Intel Pentium Processors, 1.6Gb Enhanced IDE hard drives, a minimum of 16Mb RAM, the fastest 64-bit s3 PCI Graphics with 2Mb Video RAM, Superb 17" Screen, Superfast 28.8 modem, 3.2Gb Tape Backup, Advanced PC TV system with Teletext and Quad Speed full-feature multimedia.

What makes the system truly unbeatable is the powerful range of Lotus and CD Multimedia titles - virtually everything you are ever likely to need is included.

If you could afford it, this is the machine you would buy. Now at just £99 per month on an incredible Interest Free Credit offer, you can afford it!



## System Specification

- ◆ Intel 100 or 133 MHz Pentium® processor
- ◆ Intel Triton Chipset with 256K external cache
- ◆ 16Mb or 32Mb RAM expandable to 128Mb
- ◆ 1.6Gb fast enhanced IDE hard disks with up to 256K cache
- ◆ Super fast PCI Local bus SVGA graphics controller with 2Mb Video RAM
- ◆ 17" SVGA low radiation colour screen
- ◆ Colossus Full-Tower case with 9 drive bays and heavy duty power supply
- ◆ 1.44Mb floppy drive
- ◆ 102 Keyboard and Microsoft® compatible mouse
- ◆ Microsoft Windows 95
- ◆ 12 Months warranty extendable to 5 years

### Multimedia Hardware

- ◆ Quad Speed IDE CD-ROM drive
- ◆ 16-bit high quality sound card
- ◆ Twin stereo speaker system
- ◆ PC joystick
- ◆ PC microphone

### Fax & Internet Pack

- ◆ BAPT approved 28.8 data and fax modem
- ◆ Easy to use fax software
- ◆ Communications software
- ◆ Introductory subscription to CompuServe with Internet mailbox
- ◆ Advanced PC TV system with Teletext
- ◆ 3.2Gb tape back-up system with software



## Software\*\*

See software section for details

### Business Software

- ◆ Lotus Software suite including Lotus 1-2-3, AmiPro, Approach, Organizer 2, SmartPics and Lotus Training
- ◆ GSP Pressworks and Designworks
- ◆ TurboCAD for Windows
- ◆ Organize Your Way
- ◆ CV & Job Search Pro
- ◆ Pacioli 2000 Business Accounts
- ◆ Masterclips SE and Picture This!

### Educational Software

- ◆ Fun School 4, Fun School Maths and Typing Tutor
- ◆ Computerworks, Bodyworks and Autoworks
- ◆ EZ Language French, German and Spanish

### Leisure Software

- ◆ PC Paintbrush
- ◆ Arts & Letters Draw
- ◆ Doom, Blake Stone, Pinball and Raptor Games

### CD Multimedia Software

- ◆ Microsoft Encarta Encyclopaedia CD
- ◆ Microsoft Works CD
- ◆ Microsoft Golf CD
- ◆ Microsoft Beethoven CD
- ◆ Microsoft Dangerous Creatures CD
- ◆ Time Almanac CD
- ◆ UFO for Windows CD
- ◆ Dinosaur Museum CD

## Ultimate Time Machine 3

**£99** Per Month

£416.15 deposit and 24 monthly payments of £150 OR  
£1614.15 deposit and 24 monthly payments of £99.  
Total price £3399 + VAT = £4016.15 inc delivery & VAT.  
\*APR 0%

133Mhz Pentium Model ..... +£250  
32Mb Models ..... £Call

\*APR

**0% INTEREST FREE CREDIT**

Interest Free Credit is available subject to status. Written quotations are available on request. Be sure you can afford the payments before entering into a credit agreement. See page ii for Interest Free example.

## Just Look At The Spec !

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> 100MHz, or 133MHz Pentium® CPU | <input checked="" type="checkbox"/> 16Mb or 32Mb RAM; 256K cache          | <input checked="" type="checkbox"/> Quad speed multimedia              |
| <input checked="" type="checkbox"/> 1.6Gb enhanced IDE hard disk   | <input checked="" type="checkbox"/> S3 64-bit Graphics with 2Mb video RAM | <input checked="" type="checkbox"/> 9 Bay Colossus Tower               |
| <input checked="" type="checkbox"/> 17" NI MPRII screen            | <input checked="" type="checkbox"/> 3.2Gb Tape back-up                    | <input checked="" type="checkbox"/> The best software bundle in the UK |
| <input checked="" type="checkbox"/> 28.8 Fax/data modem            | <input checked="" type="checkbox"/> Advanced PC TV with teletext          | <input checked="" type="checkbox"/> Superb CD multimedia titles        |

**CALL NOW!**

Sales Lines Open  
Mon-Fri 8.30am-7.00pm  
Sat 9.00am-5.00pm

**01282 777 111**

**TIME**  
Computer Systems Ltd.

Granville House,  
Blackburn Rd,  
Simonstone,  
Bumley, BB12 7GT

Universal Control Systems

# PC to TV Convertors

**£129**

Composite, SVHS Output

A key to display your computer screen on to TV or video recorder

**£159**

Super Video Key

With Composite, SVHS, RGB & Audio outputs

## Fully Remote Control

PC to TV Converter

No Software driver required

**£219**

- \* Composite, SVHS, RGB Outputs
- \* TV Brightness Control
- \* Flicker-free
- \* Screen Freeze/Unfreeze
- \* Horizontal/Vertical panning With Zoom feature
- \* Extensive picture Position/Attributes adjustments feature

## Multimedia TV/VIDEO Interface for your PC

Display Real-time full motion pictures and grab your chosen frame from

- \* TV (On board Tuner)
- \* Camcorder
- \* VCR
- \* Laser disk

Full Broadcast Quality Displays up to 16 Million colours  
High VGA resolution support up to 1024x 768  
Stereo Audio Output  
Optional MPEG playback and Teletext modules are also available

**£159**

Teletext Module for the above **£39**  
MPEG 1Compatible Upgrade Module for above **£139**

## VGA Splitter (1 in + out)

(Up to 50 Meter)

**£99**

VGA MULTIPLIER

## Teletext Card+Tuner

**£99**

## Fax/Data Modem

External **£79**  
Internal **£69**

14.4 Kbps/Fax 9600 Hayes Compatible.

- \* Double Speed Multi Session CDROM
- \* 16bit Stereo Sound Card & CD interface
- \* Analogue Joystick
- \* Amplified speakers
- \* 10 CD Titles

**£149**

## Quad Speed CD-ROM

600K Transfer rate, IDE Interface, Multi-Mession, KODAK PHOTO CD, VIDEO CD, CDI COMPATIBLE.

**£119**

includes :Audio/IDE Data Cables,Manuals and Drivers.



### PC INDUSTRIAL CHASSIS

19" Industrial Chassis (Passive Backplane)	495
19" Industrial Chassis (PC Motheboard ver.)	428
19" Rackmount Kit for 14" Monitor	238
19" Rackmount Keyboard and drawer	94

### PASSIVE BACKPLANE

PC-Bus Passive Backplane Board (8 Slots)*	41
PC Slot Extension Kit(XT/AT)	56
PC-Bus ISA Switch/Extension Card	140

### PLUG-IN CPU CARDS

80286 16MHz Plug-in CPU + Multi I/O	126
80286 16MHz + ROM Disk & Watchdog	170
80386SX-25 Multi I/O with Watchdog	196
80386SX-33+Multi I/O+Flash ROM Disk	200
80486SX 33 MHz+(256K Cache)+Multi I/O	355
80486DX-33 MHz (256 K Cache)+Multi I/O	379
80486DX2-50 MHz (256 K Cache)+Multi I/O	420
80486DX2-66 MHz (256 K Cache)+Multi I/O	399

### DATA ACQUISITION CONTROL CARDS

16 Ch Data Acq. & control Card (12 bit)*	219
16 Ch Data Acq. & control Card (14 bit)*	488
16 Ch Data Acq. & control Card (16 bit)*	691
6 Ch D/A Output + 16 I/O (12 bit)*	284

### INDUSTRIAL I/O CARDS

24 bit Digital I/O Card	58
32 Ch.Digital I/O & Interrupt	133
144 bit Digital I/O Card	165
8 Ch Relay Output & Isolated D/I	104
2 Ch 12 bit Isolated D/A Output	153
10 Ch 16 bit Counter/Timer Card	163
Stepping Motor Controller Card	234

### ROM/RAM/FLASH DISK CARDS

4 Mb FLASH/EPROM Disk Card	73
6 Mb FLASH/EPROM Disk Card	85
6 Mb SRAM/EPROM/FLASH + Battery	96
Dual Drive 6 Mb SRAM/EPROM/FLASH	144

### SERIAL, PARALLEL & IEEE-488

Serial/Parallel Card	15
Serial RS232 (Com 1,2,3,4 Selectable)	12
Dual RS232 16550(Com 1,2,3,4 Selectable)	35
4 Port RS232	45
8 Port RS232	119
8 Port Intelligent RS232 Card	295
Serial 16550 Chip (FIFO)	12
Dual port RS 422/485 Interface Card	61
Isolated Dual port RS422/485 Interface Card	91
IEEE-488 Interface Board	159
RS 232/422 or 485 Convertor self powered	50
RS 232/20mA Current Loop Convertor	69

### DEVICE PROGRAMMERS

EPROM Programmer (16K-1024K)	149
4 Gang EPROM Programmer (16K-1024K)	199
Universal Device Programmer (ALL- 03A)	399
Universal Device Programmer (ALL - 07)	549

Please call us for free catalogue and price list \* Full range of these products are available

## BEST BUYS

### PROGRAMMABLE I/O CARD

- \*48 programmable I/O lines
- \*3 Independent 16 bit counter
- \*Address selectable **£24**
- \*16 LED I/O indicators

### PC AD/DA CONVERTOR

- \*12 Bit resolution
- \*16 Single ended A/D input
- \*One channel analogue output **£49**
- \*Port address selectable

### PC AUTO BOOT RAM/ROM DISK CARD

- \*PC 512K Disk Card
- \*Accepts 64KEPROM(27512)
- \*Accepts 32K SRAM(62256)
- \*Rechargeable Battery
- \*Watch-dog Timer **£46**



### The power of Touch

Industrial Touch Screens Offer

Applications include-

- \* Control
- \* Training
- \* Information Kiosks

Please ask for further information



### Industrial Workstation

Complete range of Workstations & PC chassis for industrial environment. These units are designed for use where resistance to heat, corrosion, humidity, vibration, dust, and power surges is crucial.

#### Features

- \* ISA bus(PC/AT Compatible)
- \* 10" slot passive backplane
- \* 10" Colour CRT display
- \* 200-Watt power Supply
- \* Easy access to plug-in cards
- \* Card hold-down clamp



Universal Control Systems (UK) Ltd,

**TEL: 01902-28688**

Fax: 01902-28670

36 Temple Street, Wolverhampton, WV2 4AN.

Please note all prices exclude VAT and Carriage



# Discover the Universa

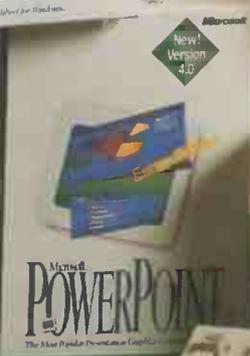
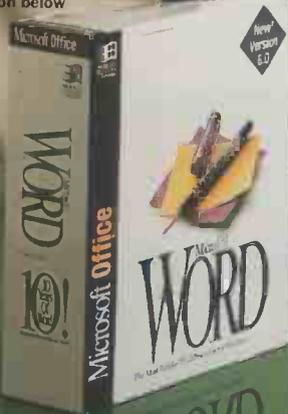
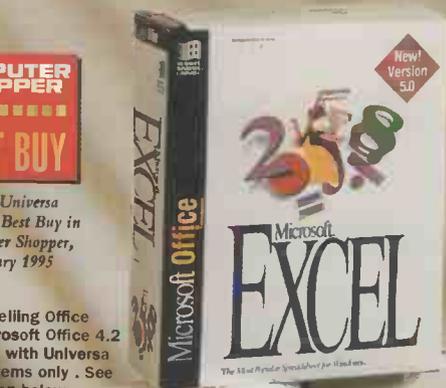
When a PC carries the Aries brand you know you are going to get the system you really want at the price you really want, without sacrificing features or quality. That's why we don't bundle loads of any old software that you'll never use. We offer you the world's best selling packages from Microsoft at a quite remarkable price.

Built to the most exacting standards, offering lots of expansion for the future and backed by the UK's premier computer dealer. You really can't buy better. Anywhere.

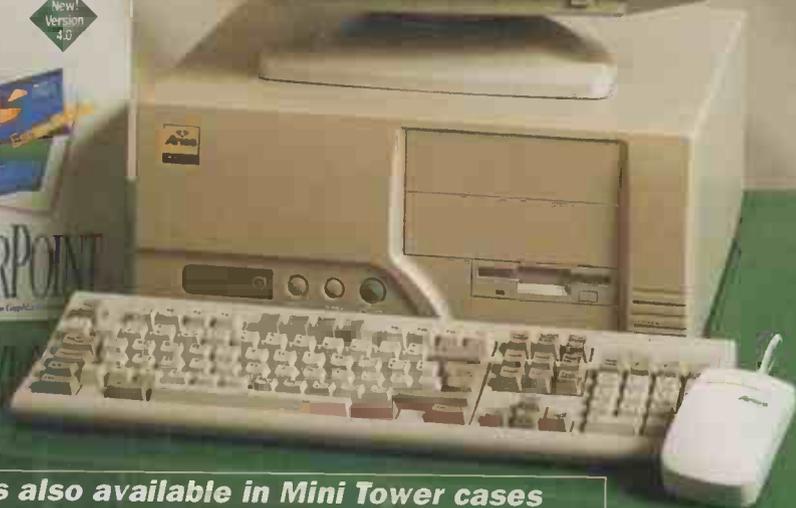
**COMPUTER SHOPPER**  
**BEST BUY**

Aries Universa  
Awarded Best Buy in  
Computer Shopper,  
January 1995

The best selling Office Suite - Microsoft Office 4.2 is included with Universa Office Systems only. See specification below



Aries Universa  
486SX2-50  
260Mb Hard Disk  
from **£599**



Systems also available in Mini Tower cases

\* Monitor/Case may be costed differently to that shown. Software shown for illustrative purposes only.

## ARIES Universa PC SYSTEMS

### 486SX2-50

- ◆ 486SX2 50MHz Processor
- ◆ Processor Upgradable VL-Bus Motherboard to Pentium® Overdrive
- ◆ 4Mb RAM expandable to 64Mb
- ◆ 260Mb Hard Disk (12ms)

**£599**

### 486DX2-66 Office

- ◆ 486DX2 66MHz Processor
- ◆ Processor Upgradable VL-Bus Motherboard to Pentium® Overdrive
- ◆ 8Mb RAM expandable to 64Mb
- ◆ 540Mb Hard Disk (12ms)
- ◆ 16 bit Super VGA Graphics Card
- ◆ Microsoft Office 4.2 for Windows\*

**£839**

## ARIES Universa MULTIMEDIA PC SYSTEMS

### 486DX2-66M

- ◆ 486DX2 66MHz Processor
- ◆ Processor Upgradable VL-Bus Motherboard to Pentium® Overdrive
- ◆ 4Mb RAM expandable to 64Mb
- ◆ 260Mb Hard Disk (12ms)
- ◆ Dual Speed CD-ROM Drive
- ◆ 16 Bit Sound Blaster/Pro Compatible Sound Card
- ◆ Quality Hi-Fi Stereo Speakers
- ◆ 30 Software titles on 24 CDs worth over £500

**£799**

### 486DX2-66M Office

- ◆ 486DX2 66MHz Processor
- ◆ Processor Upgradable VL-Bus Motherboard to Pentium® Overdrive
- ◆ 4Mb RAM expandable to 64Mb
- ◆ 420Mb Hard Disk (12ms)
- ◆ Dual Speed CD-ROM Drive
- ◆ 16 Bit Sound Blaster/Pro Compatible Sound Card
- ◆ Quality Hi-Fi Stereo Speakers
- ◆ 30 Software titles on 24 CDs worth over £500
- ◆ Microsoft Office 4.2 for Windows\*

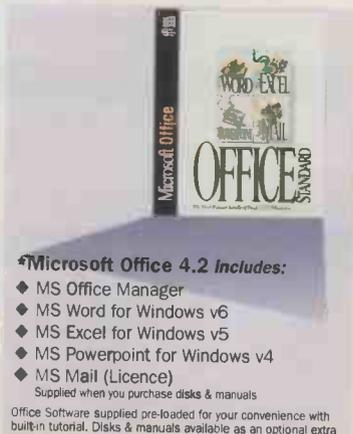
**£995**

#### All Systems Include:

- ◆ Super VGA 1024 x 768 Colour Monitor\*
- ◆ 16 bit Super VGA Graphics Card
- ◆ 3.5" 1.44Mb Floppy Drive
- ◆ 102 key enhanced keyboard
- ◆ Dual Serial, Parallel & Games Port
- ◆ MS compatible mouse
- ◆ MS DOS v6.22
- ◆ MS Windows v3.11
- ◆ Technical Support Hotline

#### OPTIONS FOR UNIVERSA SYSTEMS:

- 4Mb to 8Mb RAM upgrade **£120**
- Upgrade to 15" Aries 6000i Monitor **£89**
- 12 Months On-Site Maintenance **£29**
- 3 years On-Site Maintenance **£98**



#### \*Microsoft Office 4.2 Includes:

- ◆ MS Office Manager
- ◆ MS Word for Windows v6
- ◆ MS Excel for Windows v5
- ◆ MS Powerpoint for Windows v4
- ◆ MS Mail (Licence)

Supplied when you purchase disks & manuals  
Office Software supplied pre-loaded for your convenience with built-in tutorial. Disks & manuals available as an optional extra

#### Bundled CD software with Aries Universa Multimedia systems



- ◆ MS Works for Windows
- ◆ MS Encarta 1995
- ◆ MS Money
- ◆ MS Dangerous Creatures
- ◆ MS Golf
- ◆ MS Scenes (3.5" Disks)
- ◆ MS Multimedia Jumpstart
- ◆ Paramount Movie Select
- ◆ Home Medical Advisor
- ◆ Arts & Letters Warbirds
- ◆ TIME Man of the Year
- ◆ PC Animation festival
- ◆ World Vista Atlas
- ◆ World Fact Book
- ◆ Best of Media Clips
- ◆ Fantasia's 2000 Fonts
- ◆ Rock, Rap'N Roll
- ◆ PC Karaoke - Classic Old
- ◆ PC Karaoke - Family Fun
- ◆ DOOM : Episode One
- ◆ Sherlock Holmes - Detect
- ◆ Space Quest 4
- ◆ Battle Chess Enhanced
- ◆ Steller 7
- ◆ Sierra's Kings Quest V
- ◆ 10 out of 10 titles on 3...
- ◆ English ◆ French
- ◆ Maths Numbers
- ◆ Maths Algebra
- ◆ Junior Essentials

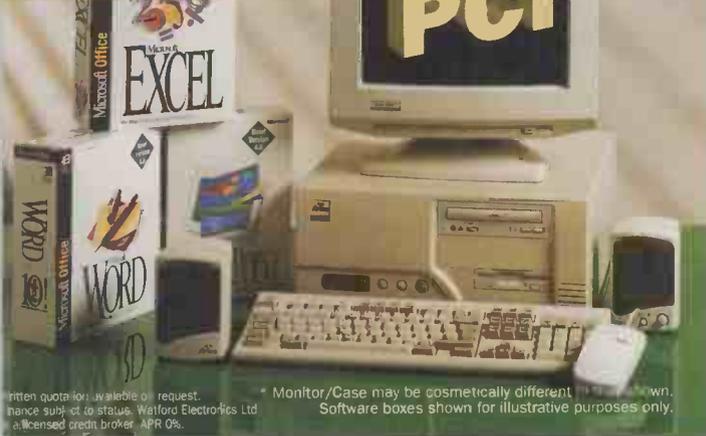
CD Titles may vary due to availability

# Universa **PCI** MultiMedia Office Systems

now available on **0% FINANCE** LIMITED PERIOD ONLY

ASK FOR THE NO COST OPTION

**Microsoft WINDOWS 95**  
Installed on your Perfecta PC at no extra charge



Written quotations available on request. Finance subject to status. Watford Electronics Ltd. Licensed credit broker. APR 0%. \* Monitor/Case may be cosmetically different. Software boxes shown for illustrative purposes only.

All PCI MultiMedia systems include:

- ◆ Advanced upgradable motherboard using Type 3 ZIF Socket (468DX) and Type 5 ZIF Socket (Pentium)
- ◆ 256K Ext. Cache RAM exp. 512K
- ◆ 9FX Vision 330 64 bit Graphics Card with 1Mb Video Memory
- ◆ 14" Super VGA Non-Interlace Colour Monitor\*
- ◆ MultiMedia kit including:
  - ◆ Dual Speed CD-ROM Drive
  - ◆ 16 bit SoundBlaster Sound Card
  - ◆ Arles HiFi Speakers
- ◆ Enhanced Parallel Port (EPP/ECP)
- ◆ Two enhanced Serial Ports using 16550 UART
- ◆ Enhanced IDE Interface
- ◆ 3.5" 1.44Mb Floppy Drive
- ◆ EPA Energy Star Compliant
- ◆ 3 x PCI & 4 x 16 bit expansion slots (1x PCI/16 bit shared slot)
- ◆ 102 key enhanced keyboard
- ◆ Microsoft compatible mouse
- ◆ Microsoft Office v4.2 (pre-loaded)
- ◆ 30 titles on 24 CD's (as listed)
- ◆ MS DOS v6.22 & MS Windows v3.11 or Windows 95
- ◆ 12 months On-Site Warranty

**Universa PCI 486DX2-66 Office MultiMedia System**

- ◆ 4Mb RAM exp. to 128MB
- ◆ 540Mb Hard Disk

**24 Monthly Payments of only £49**

Cash Price ex VAT **£1199**  
Deposit **£232.81**  
Total Price inc. VAT **£1408.81**

**Universa PCI 486DX4-100 Office MultiMedia System**

- ◆ 4Mb RAM exp. to 128MB
- ◆ 540Mb Hard Disk

**24 Monthly Payments of only £55**

Cash Price ex VAT **£1319**  
Deposit **£229.83**  
Total Price inc. VAT **£1549.83**

**Universa PCI P75 Office MultiMedia System**

- ◆ Intel Pentium 75MHz Processor
- ◆ 8Mb RAM exp. to 128MB
- ◆ 540Mb Hard Disk

**24 Monthly Payments of only £59**

Cash Price ex VAT **£1489**  
Deposit **£333.58**  
Total Price inc. VAT **£1749.58**

Upgrades (Add cost to deposit payment)  
UGA1870/A Upgrade to Pentium P90 add **£89**  
UGA1880/A Upgrade to Pentium P100 add **£159**

**Sundled CD software with Aries Universa Multimedia systems**

- MS Works for Windows
- MS Encarta 1995
- MS Money
- MS Dangerous Creatures
- MS Golf
- MS Scenes (3.5" Disks)
- MS Multimedia Jumpstart
- Paramount Movie Select
- Home Medical Advisor
- Arts & Letters Warbirds
- TIME Man of the Year
- PC Animation festival
- World Vista Atlas
- World Fact Book
- Best of Media Clips
- Fantasia's 2000 Fonts
- Rock, Rap'N Roll
- PC Karaoke - Classic Oldies
- PC Karaoke - Family Fun
- DOOM : Episode One
- Sherlock Holmes - Detective
- Space Quest 4
- Battle Chess Enhanced
- Stellar 7
- Sierra's Kings Quest V 10 out of 10 titles on 3.5"
- English ♦ French
- Maths Numbers
- Maths Algebra
- Junior Essentials

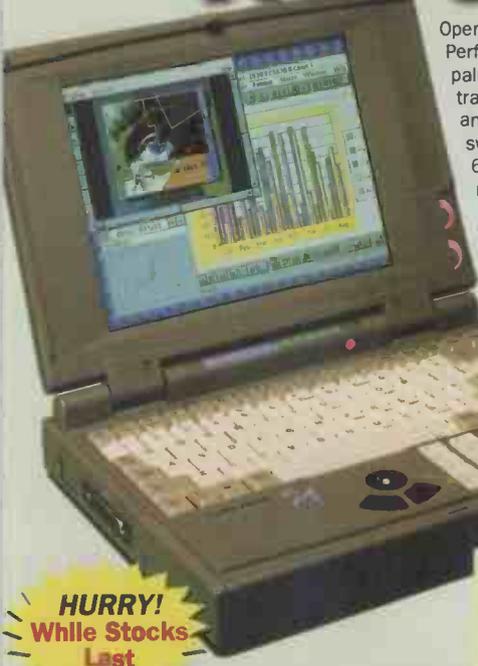
CD Titles may vary due to availability

**\*Microsoft Office 4.2 Includes:**

- ◆ MS Office Manager
- ◆ MS Word for Windows v6
- ◆ MS Excel for Windows v5
- ◆ MS Powerpoint for Windows v4
- ◆ MS Mail (Licence)

Office Software supplied pre-loaded for your convenience with built-in tutorial. Disks & manuals available as an optional extra

## AMAZING Notebook Offers



Open the lid and immediately you see what sets the Perfecta 3000 and 4000 apart. Ergonomically designed palm rests provide more comfortable use; the built-in trackball and dedicated numeric keypad allow easier and more productive work in confined spaces; then switch on and watch the display leap to life. The bright 64 greyscale mono or vivid Dual Scan colour display make using your notebook a pleasure.

But what sets these new ranges apart is the simple upgradability. As your needs grow the notebook has been designed to allow key elements of the system to be upgraded within seconds. Simply clip-in a new display, slot-in a new hard disc, plug-in extra memory and on the Intel 486 models simply drop-in a new processor.

Never has so many features, processing power, usability, convenience, flexibility and security been available in a notebook.

**Perfecta®**  
486SLC 33 Mono **£499**

**Perfecta®**  
486SLC 33 Colour **£699**

**CLEARANCE PRICES WHILST STOCKS LAST**

Display	10" Mono 64 Grey Scale	10" Colour Dual Scan
<b>3000 Series</b>	<b>3100</b>	<b>3300</b>
486SLC-33	<b>£499</b>	<b>£699</b>
<b>4000 Series</b>	<b>4100</b>	<b>4300</b>
486SX-33C	<b>£599</b>	<b>£799</b>
486DX2-66C	<b>£699</b>	<b>£899</b>

**HURRY! While Stocks Last**

- ◆ Co-Processor supported
- ◆ 1Kb Cache RAM
- ◆ 128K Cache RAM (4000 series)
- ◆ 4Mb RAM internally expandable to 20Mb (up to 8Mb on 3000 series)
- ◆ 120Mb Removable Hard Drive (250/340/540Mb options)
- ◆ 1.44Mb 3.5" Internal Floppy
- ◆ 84 Key Qwerty UK Keyboard
- ◆ 16mm Logitech Trackball
- ◆ 16 Key Built-in Separate Numeric Keypad

- ◆ 1 x 9-pin D Type Serial Port
- ◆ 2 x Parallel Port (1 enhanced bi-directional)
- ◆ Future Domain SCSI Port (3000 Series) Adaptec SCSI-II Port (4000 Series)
- ◆ 15-pin VGA D type External Monitor Port
- ◆ External Modes Supported: 800 x 600 256 colour, 1024 x 768 16 colour
- ◆ Simultaneous Display - LCD and External Video (not 3300/4300 models)
- ◆ Intelligent Power Management
- ◆ Security Password

- ◆ 5-level Power Meter
- ◆ External Keyboard Port
- ◆ Rechargeable Battery Pack
- ◆ 80-250V Universal Mains Adaptor /Charger
- ◆ 70 Minute Turbo Charge
- ◆ Car Battery Adaptor option
- ◆ Optional Fax Modem up to 28,000 baud
- ◆ Carry Case included
- ◆ Dimensions 226 x 295 x 52
- ◆ Weight (inc. battery) 3Kg
- ◆ 3 Months return to base warranty

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN

**SALES HOTLINE 01582 745555**

All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# Aries *The Sign of Quality*

The New Aries Perfecta PCI range is even by Watford's own high standards a breathtaking upgrade on the previous ranges. Designed without compromise for today's PC professional. Perfecta PCI Systems feature the hottest new local bus technology from Intel, PCI. Jointly developed by Intel and other industry leaders, PCI picks up where other bus architectures leave off,

providing greater system performance via a wider data path and increased expandability.

Incorporating a host of advanced features for improved performance, future-proof upgradability, a peace-of-mind 6 year warranty and prices you've come to expect from Watford - you could say the new range is quite simply perfect!

ASK FOR THE NO COST OPTION  
**Microsoft WINDOWS 95**  
 Installed on your Perfecta PC at no extra charge

INTERNET READY  
 with the Aries range of Modems

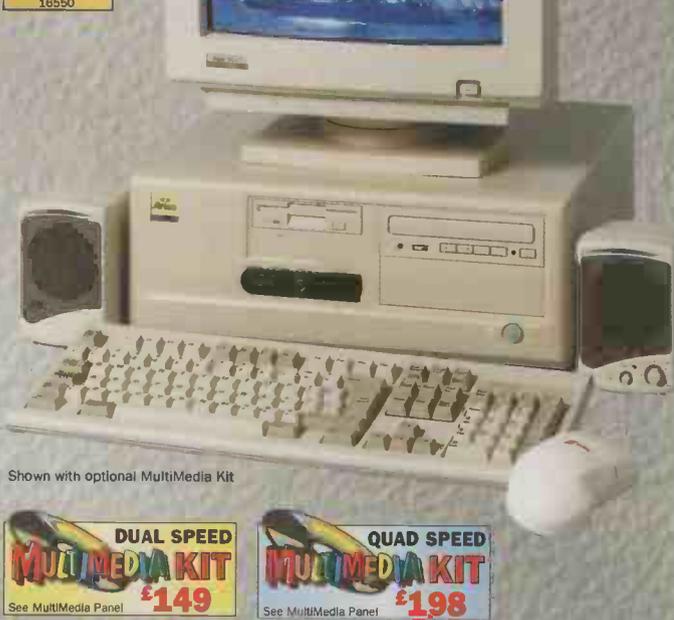
## Perfecta® PCI

Genuine PCI performance at exceptional prices. These new Perfecta PCI systems incorporate a host of advanced features for improved performance including 9FX graphics cards to unleash the full power of Windows. Choose from the popular priced standard systems or include the industry-standard Microsoft Office software package. Whichever you choose you are assured of incredible value.

- ◆ 540Mb Fast IDE Hard Disk
- ◆ 4Mb RAM expandable to 128Mb
- ◆ 256K External Cache RAM expandable to 512K
- ◆ Write back & Write through Cache supported
- ◆ Advanced integrated upgradable motherboard
- ◆ Processor upgradable to Pentium Overdrive (Type 3 ZIF Socket on board)
- ◆ EPA Energy Star Compliant
- ◆ 9FX Vision 330 64 bit Graphics Card with 1Mb Video Memory
- ◆ 3.5" 1.44Mb Floppy Drive
- ◆ Enhanced Parallel Port (EPP/ECP)
- ◆ Two enhanced Serial Ports using 16550 UART
- ◆ Enhanced IDE Interface supporting four drives
- ◆ 3 x PCI & 4 x 16 bit expansion slots (1x PCI/16 bit shared slot)
- ◆ 102 key Enhanced keyboard
- ◆ 14" Super VGA Low Radiation MPRII Non-Interlace Colour Monitor (0.28mm dot pitch)
- ◆ MS DOS v6.22 & MS Windows v3.11 OR MS Windows 95
- ◆ SIX Year Warranty consisting of: 12 months On-Site Parts & Labour Warranty Five Years (return to base) Labour Only Warranty
- ◆ Technical Support Hotline

6 YEAR WARRANTY

ENHANCED HIGH SPEED SERIAL PORTS 16550



Shown with optional MultiMedia Kit

DUAL SPEED MULTIMEDIA KIT £149  
 See MultiMedia Panel

QUAD SPEED MULTIMEDIA KIT £198  
 See MultiMedia Panel

### Aries Perfecta PCI Systems

486DX2-66MHz	<b>£759</b>
486DX2-66MHz with Microsoft Office pre-loaded	<b>£859</b>
486DX4-100MHz	<b>£799</b>
486DX4-100MHz with Microsoft Office pre-loaded	<b>£899</b>

*'In Stock' models are normally kept in stock for immediate despatch*

### Perfecta PCI Upgrade Option

Part No.	Description	Price
PCI-01	4Mb to 8Mb RAM Upgrade	£115
PCI-02	4Mb to 16Mb RAM Upgrade	£345
PCI-05	Upgrade to 9FX Vision 330 2Mb Video Graphics Card	£59
PCI-10	1Gb IDE Hard Disk Drive instead of 540Mb IDE Drive	£68
PCI-20	Upgrade to 15" Aries 6000 Digital Control, Non-Interlaced (1280x1024) Low Radiation MPRII Monitor	£65
P5-30	MS Office - Manuals & Disks	£49

## Perfecta® P5

Perfecta P5 systems make no compromises on quality or performance while continuing Aries reputation for superb value. With Pentium processors ensuring stunning speeds and a full range of options and low-cost multimedia kits you can personally customise your PC for your own needs.

- ◆ 540Mb Fast IDE Hard Disk
- ◆ 8Mb RAM expandable to 128Mb
- ◆ 256K External Cache RAM upg. to 512K
- ◆ Advanced integrated Pentium upgradable motherboard using Type 5 ZIF Socket
- ◆ EPA Energy Star Compliant
- ◆ 9FX Vision 330 64 bit Graphics Card with 1Mb Video Memory
- ◆ 3.5" 1.44Mb Floppy Drive
- ◆ Enhanced Parallel Port (EPP/ECP)
- ◆ Two enhanced Serial Ports using 16550 UART
- ◆ Enhanced IDE Interface supporting four drives
- ◆ 3 x PCI & 4 x 16 bit expansion slots (1x PCI/16 bit shared slot)
- ◆ 102 key Enhanced keyboard
- ◆ 14" Super VGA Low Radiation MPRII Non-Interlace Colour Monitor (0.28mm)
- ◆ MS DOS v6.22 & MS Windows v3.11 OR MS Windows 95
- ◆ SIX year Warranty consisting of: 12 months On-Site Parts & Labour Warranty Five Years (return to base) Labour Only Warranty
- ◆ Technical Support Hotline

### Perfecta P5 Upgrade Options

Part No.	Description	Price
P5-01	8Mb to 16Mb RAM Upgrade	£230
P5-02	8Mb to 32Mb RAM Upgrade	£690
P5-05	Upgrade to 512K External Cache RAM	£69
P5-06	Upgrade to 9FX Vision 330 2Mb DRAM Graphics Card	£59
P5-07	Upgrade to 9FX Motion 771 2Mb VRAM Graphics Card	£99
P5-10	1Gb IDE HDD instead of 540Mb IDE	£68
P5-11	2Gb IDE Hard Disk Drive instead of 540Mb IDE Drive	£258
P5-15	Upgrade to Full Tower Case	£45
P5-20	Upgrade to 15" Aries 6000 Digital Controlled Non-Interlaced (1280x1024) Low Radiation MPRII Monitor	£65
P5-21	Upgrade to 17" Panasonic PanaSync TX-D1733 Monitor (0.27mm DP)	£345
P5-22	Upgrade to 17" Panasonic PanaSync 17MM TX-D1733F with Built-in TopDome Sound & Microphone	£395
P5-30	MS Office - Manuals & Disks	£49

### Aries Perfecta P5 Systems

Pentium P75	<b>£975</b>
Pentium P75 with Microsoft Office pre-loaded	<b>£1075</b>
Pentium P90	<b>£1099</b>
Pentium P90 with Microsoft Office pre-loaded	<b>£1199</b>

*'In Stock' models are normally kept in stock for immediate despatch*

DUAL SPEED MULTIMEDIA KIT £149  
 See MultiMedia Panel

QUAD SPEED MULTIMEDIA KIT £198  
 See MultiMedia Panel

LOW COST CREDIT Available on all Perfecta PC's

Case design may vary from that shown

# Aries The Sign of Quality

## Perfecta® P5 Triton

### The Ultimate Performers

Looking for the fastest PC's around? The search is over. The Perfecta P5 Triton Ultimate Performers have arrived. Fast. Powerful. Built to run your toughest applications at staggering speeds and designed for the increasingly strenuous demands of today's business PC user. The P5 Triton systems feature the latest Intel Triton chipset designed to get the ultimate performance from the Pentium processor. Combine this with high speed EDO-RAM and a Pipeline Burst Cache upgrade and you have a system that is probably the finest example of Power Computing available anywhere.

- ◆ 8Mb EDO RAM expandable to 128Mb
- ◆ 1Gb Fast IDE Hard Disk
- ◆ 256K External Cache RAM expandable to 512K
- ◆ Pipelined Burst Cache Module supported
- ◆ 100MB/sec PCI Data Streaming
- ◆ Plug & Play (ISA) support for MS Windows 95
- ◆ Advanced integrated upgradable motherboard with Intel Triton Chipset
- ◆ Processor upgradable to Pentium 200MHz using Type 7 ZIF Socket
- ◆ EPA Energy Star Compliant
- ◆ 9FX Vision 330 64 bit Graphics Card with 2Mb Video Memory
- ◆ 3.5" 1.44Mb Floppy Drive
- ◆ Enhanced Parallel Port (EPP/ECP)
- ◆ Two enhanced Serial Ports using 16550 UART
- ◆ Enhanced IDE Interface supporting four drives
- ◆ 3 x PCI & 4 x 16 bit expansion slots (1x PCI/16 bit shared slot)
- ◆ 102 key Enhanced keyboard
- ◆ 15" Digital Controlled, Non-Interlaced (1280x1024) Low Radiation MPRII Colour Monitor (0.28mm dot pitch)
- ◆ MS DOS v6.22 & MS Windows v3.11 OR MS Windows 95
- ◆ SIX year Warranty consisting of:  
12 months On-Site Parts & Labour Warranty  
Five Years (return to base) Labour Only Warranty
- ◆ Technical Support Hotline



Shown with optional MultiMedia Kit and Aries Digital Plus 80 Watt Speakers

**6 YEAR WARRANTY**

**ENHANCED HIGH SPEED SERIAL PORTS 16550**

**2MB GRAPHICS CARD**

#### Aries Perfecta P5 Triton Systems

Pentium P90	<b>IN STOCK</b>	<b>£1299</b>
Pentium P90 with Microsoft Office pre-loaded	<b>IN STOCK</b>	<b>£1399</b>
Pentium P120		<b>£1499</b>
Pentium P120 with Microsoft Office pre-loaded		<b>£1599</b>
Pentium P133		<b>£1599</b>
Pentium P133 with Microsoft Office pre-loaded		<b>£1699</b>

\*In Stock\* models are normally kept in stock for immediate dispatch

#### Perfecta P5 Triton Upgrade Options

Part No.	Description	Price
P5-Tr01	8Mb to 16Mb EDO RAM Upgrade	£256
P5-Tr02	8Mb to 32Mb EDO RAM Upgrade	£768
P5-Tr03	8Mb to 64Mb EDO RAM Upgrade	£POA
P5-Tr04	Upgrade to 256K Pipeline-Burst Cache Module	£50
P5-Tr05	Upgrade to 512K Pipeline-Burst Cache Module	£100
P5-Tr06	Upgrade to 9FX Motion 771 2Mb VRAM Graphics Card	£78
P5-Tr10	2Gb IDE Hard Disk Drive instead of 1Gb IDE Drive	£195
P5-Tr11	2Gb SCSI Hard Disk Drive instead of 1Gb IDE Drive	£448
P5-Tr15	Upgrade to Full Tower Case	£45
P5-Tr20	Upgrade to 17" Panasonic PanaSync TX-D1733 Monitor (0.27mm DP)	£275
P5-Tr21	Upgrade to 17" Panasonic PanaSync 17MM TX-D1733F with Built-in TopDome Sound & Microphone	£325
P5-Tr22	Upgrade to 20" Panasonic PanaSync TX-D2051 Monitor	£840
P5-Tr23	Upgrade to 21" Panasonic PanaSync TX-D2131 Monitor	£1180
P5-Tr30	MS Office - Manuals & Disks	£49

Case design may vary from that shown

**LOW COST CREDIT**  
Available on all Perfecta PC's

**DUAL SPEED MULTIMEDIA KIT**  
See MultiMedia Panel **£149**

**QUAD SPEED MULTIMEDIA KIT**  
See MultiMedia Panel **£198**



## UPGRADE ANY Perfecta PC TO A COMPLETE MULTIMEDIA SYSTEM

#### Perfecta MultiMedia Kits MM2 & MM4

- ◆ Dual Speed (MM2 Kit) or Quad Speed (MM4 kit) CD ROM Drive
  - ◆ Creative Sound Blaster 16 Sound Card
  - ◆ Aries HiFi Speaker Set (10W per channel)
  - ◆ Microsoft CD Bundle Pack (see panel)
- Dual Speed Kit MM2 **£149**  
Quad Speed Kit MM4 **£198**



#### Complete Bundle Software Pack Included

- MS Encarta 1995
- MS MultiMedia Works
- MS Dangerous Creatures
- MS Money
- MS Golf
- MS Scenes (3.5" disks)

#### Optional Speaker Upgrades

(only available with Multimedia MM2 & MM4 kits)

Part No.	Description	Price
P-Spk01	Aries HiFi Plus (15W per channel)	£9
P-Spk02	Aries Digital (25W per channel)	£18
P-Spk03	Aries Digital Plus (80W per channel)	£29
P-Spk04	Aries Ultra Power (80W per channel)	£39

MultiMedia Kit prices only applicable when purchased with a Perfecta PC



#### Microsoft Office 4.2 Includes:

- ◆ MS Office Manager
  - ◆ MS Word for Windows v6
  - ◆ MS Excel for Windows v5
  - ◆ MS Powerpoint for Windows v4
  - ◆ MS Mail (Licence)
- Supplied when you purchase disks & manuals

Office Software supplied pre-loaded for your convenience with built-in tutorial. Disks & manuals available as an optional extra.

Prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN

**SALES HOTLINE**  
**01582 745555**

**VISA** **MASTERCARD**  
All Prices exclude Carriage & VAT @ 17.5%

**Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777**

# The Aries *Perfecta*® 7000 Series

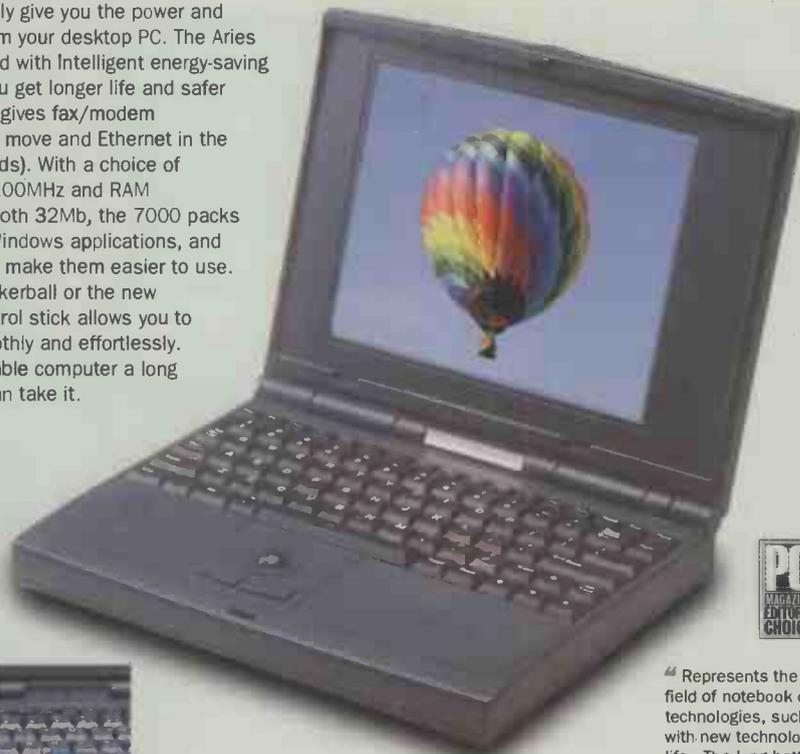
## The Most Advanced Yet!

Introducing a new range of beautifully designed notebooks that genuinely give you the power and facilities you expect from your desktop PC. The Aries Perfecta 7000 is packed with Intelligent energy-saving features that ensure you get longer life and safer data. PCMCIA flexibility gives fax/modem communications on the move and Ethernet in the office (with optional cards). With a choice of processors up to DX4 100MHz and RAM expandable to a mammoth 32Mb, the 7000 packs the power to run your Windows applications, and an ergonomic design to make them easier to use. While the standard trackball or the new optional trackpoint control stick allows you to control the cursor smoothly and effortlessly.

We've taken the portable computer a long way, think where you can take it.



SX/DX4 Models



Notebook shown here with 19mm Trackball with 2 buttons supplied as standard



Ergonomical designed sloping palm rest



Notebook shown here with Optional TrackPoint Control Stick

**FREE**  
16 bit Soundcard (fitted)  
with any purchase of a  
Notebook this month  
**WORTH £49**

i486sx™-33 Mono	<b>£999</b>
i486sx™-33 Dual Scan Colour	<b>£1299</b>
i486sx™-33 TFT Colour	<b>£1799</b>

"With plenty of processing power, (and) enough battery life to handle a transcontinental flight easily, ...a value winner." "...the lightest full-size notebook in the roundup; it also had excellent battery life..., optional audio and a good price..."  
**PC MAGAZINE, Cover Story: Notebooks**

"...A great Windows PC, and an excellent value." "...the fact that you get the amount of performance we did from a battery charge speaks highly of the engineering."  
**LAPTOP BUYERS GUIDE & HANDBOOK, First Look**



"Ranks above many famous-name notebooks. And in terms of pointing devices, it's definitely got them outnumbered." "...deserves a spot on your short list."  
**COMPUTER SHOPPER, PC Reviews**

"Represents the best kind of Innovation in the rapidly changing field of notebook computers. It keeps the best of proven technologies, such as a sharp display, and complements them with new technologies, such as those employed to stretch battery life. The long battery life makes it a good choice for anyone who needs a basic notebook that also delivers solid performance."  
**WINDOWS MAGAZINE, WinLab First Impressions**

Reviews done on identical NoteBook in the USA

<b>LOW POWER 3.3V</b> All the components in the notebook run at 3.3V, giving up to three times longer life.	<b>SOUND PLUG-IN</b> Mono/Stereo sound system with built-in speaker/microphone by adding a soundcard.	<b>SUSPEND TO DISK</b> Suspend to memory or suspend to disk ensures data is never lost when you leave the notebook.	<b>SUPERB PERFORMANCE</b> CPU Upgrade up to Intel DX4-100 and 512KB of level 2 Cache! External connectivity enhanced by use of 16C550 Serial Port and Parallel Port with support for EPP/ECP	<b>INTERNAL STATUS INDICATOR PANEL</b> 12 distinct icons will display, flash or change appearance to give you a complete report on the state of the machine including a 5 step graduated remaining charge gauge.
<b>ADVANCED POWER MANAGEMENT</b> Complete with a comprehensive set of 16 features that will allow you to customise the operation of the machine to your benefit.	<b>REPLACEABLE HARD DISK DRIVE</b> Running out of space? Replace the Hard Disk Drive easily. The system BIOS will automatically detect the new HDD	<b>EXTERNAL STATUS INDICATOR</b> "At a glance" multi colour indicator on the top cover shows if machine is charging, charged, suspended with battery charging or charged.	<b>FLEXIBLE PCMCIA</b> Compartment for two type I/II or one type III PCMCIA slot with removable cover.	<b>UP TO 32Mb RAM</b> If your applications demand it, then we can supply it.

### Aries *Perfecta* 7000 Series Notebooks

- ◆ Intel SL-Enhanced CPU
- ◆ 4Mb RAM expandable to 32Mb
- ◆ 340Mb Hard Disk Drive
- ◆ Advanced Power Management
- ◆ LCD Status Indicator
- ◆ Fully Modularised Design - Upgradable CPU, LCD, Removable Hard Disk & Keyboard
- ◆ VESA Bus Video with GUI accelerator
- ◆ Advance PMU Function
- ◆ Mono/Stereo 16 bit Sound System (Optional)
- ◆ Audio Line (In/Out) with volume control
- ◆ Built-in Speaker/Microphone (requires sound system)
- ◆ 1.44Mb 3.5" Floppy Drive
- ◆ 82 key QWERTY Keyboard
- ◆ 19mm Trackball (Optional Track-point device)
- ◆ PCMCIA slots (2 x Type II/1 x Type III)
- ◆ Hi-Speed 16C550 Serial Port
- ◆ Enhanced Parallel Port (EPP/ECP support)
- ◆ External Super VGA Monitor Port
- ◆ External Keyboard/PS/2 Mouse connector
- ◆ Optional Internal 14.4K Fax/Modem
- ◆ Rechargeable Ni-MH Battery Pack
- ◆ MS-DOS v6.22 & Windows v3.11
- ◆ Weight: 3Kg
- ◆ Carrying Case

### PERFECTA 7000 OFFICE COMMUNICATIONS UPGRADE

Turn your Aries 7000 notebook into a complete voice mail system with the Aries Office Communications Workstation Kit. Suitable for home or business, supporting multiple mail boxes, Fax on Demand, and data communications. The Aries Office Communications Workstation Kit contains high speed V32bis (14400 baud) Voice/Fax Modem and software package, providing users with remote access to voice, fax and data messages. Record and play your own voice files through the Perfecta 7000 notebook's own internal mic and speaker, or play back voice files through either the 8- or 16-bit sound card modules available as an option.

**SPECIAL OFFER £125**

All prices are for standard 340Mb Hard Disk Supplied with **FREE Carrying Case**

Display	10" Mono 64 Grey Scale	10" Colour Dual Scan	10" Colour TFT Active Matrix
<b>7000 Series</b>	<b>7100</b>	<b>7300</b>	<b>7400</b>
SL i486SX™-33	<b>£999</b>	<b>£1299</b>	<b>£1799</b>
SL 486DX2™-66	<b>£1069</b>	<b>£1369</b>	<b>£1949</b>
SL i486DX4™-75	<b>£1095</b>	<b>£1395</b>	<b>£1979</b>
SL i486DX4™-100	<b>£1145</b>	<b>£1445</b>	<b>£2029</b>

#### ADDITIONAL OPTIONS

4 to 8Mb RAM Upgrade*	£159	PCMCIA Ethernet Card	£99
4 to 16Mb RAM Upgrade*	£525	Spare NiMH Battery Pack	£69
4 to 32Mb RAM Upgrade*	£1089	Spare AC Mains Adaptor	£49
Track-point device	£25	Car Lighter Adaptor	£29
8 bit Internal Sound Card	£25	Docking Station	£339
16 bit Internal Sound Card	£49	External Keyboard	£25
Aries HiFi Speakers	£29	Internal V32bis 14.4K Fax/Modem	£125
PCMCIA 9600 Fax/Modem	£59	(non-approved) with software	£125
PCMCIA 14400 Fax/Modem	£109	*Requires module exchange	

#### 7000 Notebook Hard Disk Upgrades

(Prices valid when purchasing Notebooks only)

UGA0530/A	340Mb to 540Mb HDD	£125
UGA0540/A	340Mb to 800Mb HDD	£249

**BUSINESS LEASING** Low Cost Leasing - Call for details

#### 1 YEAR SUPPORT

All Perfecta Notebooks are covered by a **FREE 12 Months Warranty** in mainland UK.

#### 2 YEAR GOLD CARE

For 12% of the cost, we will collect, repair and return your notebook within mainland UK for the first 24 months.

#### HOTLINE SUPPORT

All Perfecta Notebooks are covered by Hotline Support. We want you to get the best from your machine, so we offer a comprehensive support package over the phone.

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR



**SALES HOTLINE**  
**01582 745555**

**VISA** **MASTERCARD**  
All Prices exclude Carriage & VAT @ 17.5%

**Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777**

# Aries Award-Winning Scanners



Optional Automatic Sheet Feeder available with all Aries Relisys Scanners

Colour Transparency reader

The Relisys Scanner has been voted the 'BEST SCANNER OF THE YEAR' by the readers of PC Direct

"better all round, and therefore a Best Buy, is Watford's Relisys...which combines value for money and good software support with quality output"

All Aries Relisys models will scan full A4 legal size

**FREE Software worth over £500**

The Relisys comes bundled with these FREE packages (requires Windows 3.1)

- Micrografx Picture Publisher v4 LE - Graphics Image Scanning/Editing
- Calera Wordscan - OCR (optical character recognition)

#### Software Options

Special upgrade pricing valid at time of purchase:

- UGA 1800 Upg Picture Publisher LE to v4 £75
- UGA 1810 Upg OmniPage Direct v2 to Omnipage Professional v5 £185

## Aries Relisys Hi-Speed SCSI II COLOUR Flatbed Scanners

Aries	RELI 2412 2400dpi	RELI 4816 4800dpi	RELI 9624 9600dpi
Flat Bed Scanner type	Colour	Colour	Colour
Scanning Process	Single Pass	Single Pass	Single Pass
Image Data Colour - 24 bit	16.7 million	16.7 million	16.7 million
Image Data mono - 8 bit	256 Greyscale	256 Greyscale	256 Greyscale
Effective Scanning Area	216 x 356mm	216 x 356mm	216 x 356mm
Zoom Out Feature	Unlimited	Unlimited	Unlimited
Scanning Resolution - Max*	2400 x 2400	4800 x 4800	9600 x 9600
Brightness/Contrast Settings	256/256	256/256	256/256
Interface	SCSI II	SCSI II	SCSI II
Auto Document Option	ADF-30	ADF-40	ADF-60
Transparency Adaptor	VMT-68S optional £295	VMT-68S optional £295	Included - Worth £500
<b>New Low Prices</b>	<b>£475</b>	<b>£599</b>	<b>£1225</b>

\* Resolution quoted is the maximum achievable using interpolation. 8Mb recommended on your PC.

With the Aries Relisys you'll open up a whole new world of possibilities. Imagine being able to scan pictures, diagrams, photographs in perfectly matched colour. To use unlimited zoom to create precisely the size you need. And then to combine them with other files to produce truly professional documents.

Aries Relisys Scanners are the perfect answer for Desk Top Publishing (DTP) and Optical Character Recognition (OCR) applications in both the PC and MAC environments. With Firmware Interpolated, they have outstanding Scanning Resolution in addition to stunning colours (16.7 million) and mono (256 greyscales) definition. Now industry standard TWAIN compliant, Aries Relisys Scanners can be used directly with Windows software.

With the new Hi-speed scanners you can scan an A4 image in colour in just minutes. And in a breathtaking 15 seconds deliver an A4 mono. It's simplicity itself to set up and use, and the new comprehensive range offers a model for every need.

### Aries Relisys Scanners

VM3420 SCSI II 256 Grey Scale **£339**

VM3520 SCSI II 16 .7 million Colours 24 bit **£379**

- Up to 1200dpi resolution
- Opt. Document Feeder
- Bundled Software
- Optional Transparency Adapter (Mono only)

### Auto Document Feeders

- Capacity: 50 pages **ADF-30 £259**
- Paper size - Max: 8.5"x14" - Min: 5.0" x 7.2" **ADF-40 £295**
- Paper Thickness .05 to .15mm sheet **ADF-60 £345**

# HIGHSPEED FAX-MODEMS

Enter the realm of high speed communications with Aries's new XLink range of fax-modems. Available in both internal PC card and external pocket versions, the XLink range will open up a whole host of national and international possibilities. Error correction and data compression are standard on all models. Fax your friends in Florida, transmit TIFFs to Turkey, enter the Internet and discover the growing world of comms with an Aries XLink Fax-Modem.

## ARIES XLink RANGE: Choose from V.32bis & V.34

All models feature:

- 28,800 (V.34) or 14,400 (V.32bis) bps top data transmission speed
- V.32, V.32bis, V.23, V.22, V.22bis & V.21
- Error Correction to MNP2-5 and V.42 standards
- Data compression to MNP5 and V.42bis standards
- Call back security
- Sync & Async Operation
- Group 3, Class 1 & II Fax at up to 14400bps V.17)
- Group 1 and 2 fax compatible (V.27ter and V.29)
- 16550 UART Buffer (Internal models only)
- Fully Hayes compatible
- 3 years warranty
- BABT Approved plus additional Six European Approvals
- Supplied complete with Delrina Winfax Lite, DOS Fax Lite plus COMit Lite for DOS and Windows

Option: High Speed Serial Card (16550 UART) £29

**Surf the Net**

with Aries XLink Modems you can connect globally using the InterNet via CompuServe or other Internet Providers like Demon. Includes FREE Introductory Subscription to

**CompuServe**



BRITISH APPROVALS BOARD FOR TELECOMMUNICATIONS



Internal Modem Card



3 YEAR WARRANTY

**14,400 BPS V.32 bis**

External Modem XL-144E **£87**

Internal Modem XL-144i **£85**

**28,800 BPS V.34 CLASS**

External Modem XL-V34-288E **£159**

Internal Modem XL-V34-288i **£149**



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# Networking Made Easy

Watford Electronics can now offer you a solution to your networking requirements, no matter how large or small. You can be confident that we will give the best advice and support that you have come to expect from Watford. We stock a wide range of Ethernet products from manufacturers such as SMC, 3Com, Intel, Genius and others, and we also have our own Aries branded products.

**WATFORD**  
the Award Winners

**PRICE  
PROMISE**

If you can find a better price call us, we'll try and beat it.

## ETHERNET ADAPTERS

16-bit ISA Bus Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
3Com Etherlink III	BNC/AUI	CNA0610	£66 CNA1900 £319
3Com Etherlink III	UTP/AUI	CNA0620	£65 CNA1910 £319
3Com Etherlink III	BNC/UTP/AUI	CNA0630	£75 CNA1920 £355
Aries NE2000 II	BNC/UTP	CNA0040	£27 CNA1710 £129
D-Link DE-220CT	BNC/UTP	CNA1570	£65 CNA1730 £379 (6pk)
Genius GE2000 II	BNC/UTP	CNA1130	£28 CNA0940 £135
Genius GE2000 PnP	BNC/UTP	CNA2130	£78 CNA2140 £78
Intel EtherExp. 16C Pro	BNC/UTP	CNA1260	£62 CNA1270 £289
Intel EtherExp. 16C Pro Flash	BNC/UTP	CNA1280	£69 CNA1290 £319
Novell NE2000 Plus	BNC	CNA1510	£48 CNA2070 £215
Novell NE2000T Plus	UTP	CNA1250	£48 CNA2080 £215
SMC Elite 16 Ultra	BNC	CNA0910	£58 CNA1200 £310 (6pk)
SMC Elite 16T Ultra	UTP	CNA0880	£54 CNA0900 £299 (6pk)
SMC Elite 16C Ultra	BNC/UTP/AUI	CNA0890	£62 CNA1210 £344 (6pk)
SMC EtherEZ	BNC	CNA2600	£58 CNA2640 £302
SMC EtherEZ	UTP	CNA2610	£58 CNA2650 £302
SMC EtherEZ	BNC/UTP	CNA2620	£66 CNA2660 £335
32-bit EISA Bus Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
3Com Etherlink III	BNC/AUI	CNA0710	£139 CNA1950 £699
3Com Etherlink III	UTP/AUI	CNA0720	£139 CNA1960 £699
Genius E1320	BNC/UTP	CNA1370	£169 CNA0960 £830
Intel EtherExpress 32 Flash	BNC/UTP/AUI	CNA1420	£155 CNA1740 £829
SMC Elite 32C Ultra	BNC/UTP/AUI	CNA1780	£143 CNA1740 £829
MCA Bus (PS/2) Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
3Com Etherlink III	BNC/AUI	CNA0730	£139 CNA1930 £709
3Com Etherlink III	UTP/AUI	CNA0740	£139 CNA1940 £709
D-Link DE-320	BNC/UTP	CNA1580	£99 CNA0960 £779
Genius E1162M	BNC/UTP	CNA1360	£159 CNA0960 £779
SMC Elite/A	BNC	CNA0350	£115 CNA0960 £779
SMC Elite 10T/A	UTP	CNA0790	£115 CNA0960 £779
VESA Local Bus Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
Aries CE3200-VL	BNC/UTP/AUI	CNA1880	£99 CNA2670 £475
D-Link DE-500CT	BNC/UTP	CNA1750	£189 CNA2670 £475
PCI Bus Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
SMC EtherPower	BNC/UTP	CNA1240	£93 CNA2700 £579
D-Link DE-530CT	BNC/UTP	CNA2710	£95 CNA2700 £579
Genius GE2500	BNC/UTP	CNA2110	£89 CNA2120 £439
3Com Etherlink III	BNC/UTP	CNA0430	£124 CNA0440 £435
Parallel Port Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
Genius E3000 II	BNC/UTP	CNA1145	£69 CNA1230 £339
D-Link DE-620CT	BNC/UTP	CNA1660	£105 CNA1230 £339
SMC EliteNote	BNC/UTP	CNA1630	£149 CNA1230 £339
PCMCIA Adapters	Connection	Single Card Pack Part No.	5 Card Pack Part No.
3Com Etherlink III	BNC/UTP	CNA1490	£130 CNA1770 £469
D-Link DE-650CT	BNC/UTP	CNA2720	£135 CNA1770 £469
Genius ME3000 II	BNC/UTP	CNA1620	£95 CNA1770 £469
SMC EliteCard	BNC/UTP	CNA2630	£144 CNA1770 £469

## Genius® Ethernet Products

### GE2000 II Ethernet Card



**£28**

The GE2000 is a 16-bit Ethernet card which is 100% NE2000 compatible. Installation is simple - just plug in and run the software.

- ◆ BNC and UTP connections as standard
- ◆ 35% faster than Novell NE2000 cards
- ◆ Support for NetWare, WFWG & TCP/IP

Single: £28 5 Pack: £135



**£69**

### E3000 II Parallel Port Adapter

The E3000 II Ethernet adapter offers higher performance than any other similarly priced model available.

- ◆ BNC and UTP connections as standard
- ◆ Through connector for local printer
- ◆ Support for bi-directional and enhanced parallel port
- ◆ PS/2 mouse port power cable included

Single: £69 5 Pack: £339



### Personal Network Card Pack

-Genius GE2000 II Ethernet card  
-Novell Personal Network  
**Special Offer Price £49**

## NOVELL NETWORK

No of Users	5	10	25	50	100	250	Manuals
Netware 3.12	£395	£965	£1445	£1942	£2540	£4560	£155
Netware 4.1 (CD)	£415	£946	£1495	£2035	£2865	£5950	£135

Call for prices on Netware Upgrades and also for Educational Discounts

### Netware 4.1 Upgrades - from any previous version

Upgrade To	5	10	25	50	100	250
5 User	£239	£879	£1429	-	-	-
10 User	-	£459	£1169	£1639	-	-
25 User	-	-	£699	£1289	£2249	-
50 User	-	-	-	£939	£1799	£4179
100 User	-	-	-	-	£1249	£3879
250 User	-	-	-	-	-	£2339

## Personal Network Networking Kits



Link up to 30 PCs with Novell's new Peer to Peer networking software, and have shared access to files, printers and CD ROM drives, all at the push of a button. With support for DOS and Windows, Personal Network is the ideal low cost solution for small scale installations.

- ◆ 2 User Pack £89
- ◆ 5 User Pack £210
- ◆ 10 User Pack £425
- ◆ Extra User Pack £55
- ◆ Notebook Pack £119
- ◆ PCMCIA Pack £179

**NOVELL**

All kits contain Ethernet card, 5m cables, software\* and connectors



## Microsoft® Windows for Workgroups Networking Kits

Now, Windows 3.1 users can have easy access to shared resources - such as printers, fax modems, CD-ROM drives and data files, all at the click of a mouse button. Send messages to other users or even have 'live' conversations over the network.

For users without Windows 3.1	For users with Windows 3.1
◆ 2 User Starter Kit £235	◆ 2 User Add-On Kit £149
◆ 5 User Starter Kit £595	◆ 5 User Add-On Kit £375
◆ Extra User Starter Kit £115	◆ Extra User Add-On Kit £69
◆ Notebook Starter Kit £155	◆ Notebook Add-On Kit £119

All packs contain Ethernet card, 5m cables, software and connectors.

## ETHERNET CABLING

Length	1m	3m	5m	10m	15m	20m	30m	50m	100m	300m
Thinnet	£3	£5	£6	£8	£10	£15	£21	£29	£35	£115
UTP	£2	£4	£6	£9	£13	£16	£22	£30	-	£149

\*Software supplied will be cosmetically different from that shown

## HUBS/REPEATERS

3 Com	UTP	BNC	AUI	SMNP	Price
LinkBuilder TP/12	12	-	1	-	£229
LinkBuilder FMS II	12	opt	1	opt	£389
Aries	UTP	BNC	AUI	SNMP	Price
EH-8	8	1	-	-	£119
EH-16	16	1	1	-	£279
EH-32	32	1	1	-	£459
Genius	UTP	BNC	AUI	SMNP	Price
GH4080	8	1	-	-	£89
GH4160	16	1	-	-	£104
GH1000	12	1	1	opt	£249
GR5050	1	3	1	-	£104
Hewlett Packard	UTP	BNC	AUI	SMNP	Price
AdvanceStack 8	8	opt	opt	opt	£135
AdvanceStack 12	12	opt	opt	opt	£369
AdvanceStack 24	24	-	1	opt	£619
AdvanceStack 48	48	-	1	opt	£1159
SMC	UTP	BNC	AUI	SMNP	Price
Elite 3812TP	12	1	1	opt	£399
Tiger TP6	6	-	1	-	£145
Tiger TP12	12	-	1	-	£259
Tiger CX3	-	3	1	-	£219

## PRINTER SERVERS

HP JetDirect	Price
JetDirect Card - LaserJet 4/4Si	£269
JetDirect Card - LaserJet III/IIID	£279
JetDirect - External	£229
Intel NetPort	Price
NetPort II - 2 printers	£249
NetPort Express EL - 2 printers	£250
NetPort Express XL - 3 printers	£299
Not suitable for Windows for Workgroups	

## UPS SYSTEMS

Upsonic Standby UPS	Price
◆ Station 28 - 280VA Backup UPS	£84
◆ Station 40 - 400VA Backup UPS	£129
◆ Station 60 - 600VA Backup UPS	£155
◆ System 60 - 600VA On-line UPS	£360
◆ System 100 - 1kVA On-line UPS	£499
American Power Conversion UPS	Price
◆ BK250i-250VA Backup UPS	£83
◆ BK600i-600VA Backup UPS	£159
◆ AP250i-250VA Smart UPS	£175
◆ AP600i-600VA Smart UPS	£219
◆ AP900i-900VA Smart UPS	£389
◆ AP1250i-1250VA Smart UPS	£510
◆ PowerChute Interface/Software (state OS)	£59

## TOOLS & CONNECTORS

◆ Thin Ethernet Crimp Tool	£17.00
◆ RJ45 Crimp Tool	£19.00
◆ Thin Ethernet Cable Stripper	£9.00
◆ Round Cable Stripper	£12.00
◆ BNC Crimp Plug	£0.75
◆ BNC T Connector	£1.75
◆ BNC In-line coupler	£1.75
◆ BNC 50ohm Terminator	£0.95
◆ BNC 50ohm Terminator & Earth	£1.25
◆ RJ45 Crimp Plug	£0.40
◆ EAD Thinwire Tap Socket System	£25.00
◆ EAD Thinwire Drop Leads - from	£17.00
◆ AMP Thinnet Tap Socket System	£17.00
◆ AMP Thinnet Drop Leads - from	£26.00
◆ Safernet Cabling System	£15.00
◆ Safernet Drop Leads - from	£15.00
◆ RJ45 24 Way Patch Panel - 19" rack mount	£145

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

**COLOUR  
SCANNER**

800dpi **£99**

# Handy Scanners from the UK's No.1 Genius Supplier

Up to true 800dpi resolution and supplied complete with OCR software, a powerful presentation graphics package and an advanced image scanning, enhancement and editing application.

## ScanMate 32 & 256

**800 dpi**

## ScanMate Colour SE

*"As perfect as a hand scanner will ever be"*

COMPUTER SHOPPER

COMPUTER SHOPPER  
**BEST BUY**

- ◆ **Powerful Image software** - PhotoFinish 3.0 software has image auto enhancement functions and 87 tools to satisfy your creativity.
- ◆ **Hi resolution** - up to 800 dpi gives you the best image quality available.
- ◆ **Powerful OCR** - Included SmartPage Direct means you'll never have to re-key data again.
- ◆ **TWAIN Compliant** - Lets you use the scanner with all TWAIN compatible programs
- ◆ **Includes:** Interface card, PhotoFinish 3.0, Media Mate presentation software, Smart Page Direct OCR software, TWAIN compliant software, User's manuals.

**ScanMate/32**  
Black and White scanner with 32 Halftones **£49**

**ScanMate/256**  
256 true grey scale & B/W scanner **£59**

### MOUSE 3+ £20 - with driver only £12

Designed for maximum comfort with a raised centre that fits the hollow of your palm. Includes powerful imaging software: PC Paintbrush for Windows, Media Mate Presentation Software, MouseMate Driver and Pad.



**SPECIAL  
OFFER  
£99**

**800 dpi  
24 bit  
Colour**

- ◆ **Brilliant colour** - add the power of brilliant 24 bit true colour images to your DTP and presentation packages
- ◆ **Powerful Image software** - PhotoFinish 3.0 software has image auto-enhancement functions and 87 tools to satisfy your creativity.
- ◆ **High resolution** - up to 800 dpi gives you superb image quality
- ◆ **Powerful OCR** - included SmartPage Direct means you'll never have to re-key data again.
- ◆ **TWAIN compliant** - Lets you use the scanner with all the TWAIN compatible products
- ◆ **Includes:** Interface card, PhotoFinish 3.0, Media Mate presentation software, SmartPage Direct OCR software, TWAIN compliant software, User's manuals

**NEW**

### ScanMate Colour Pro

**As above but 1600 dpi  
and including  
Morph Editor CD **£146****

### Smarter Input - Smarter Output

**Multi Media Products**

HiVideo frame grabber	<b>£169</b>
HiTuner TV Tuner add in card (requires video card)	<b>£58</b>
HiEncoder Record Computer graphics to VCR or TV	<b>£115</b>
Game Pad greater hand held control	<b>£9</b>

**New Sketch**

New Sketch 1212	<b>£119</b>
New Sketch 1812	<b>£185</b>
New Sketch 1812D	<b>£209</b>

**HiMouse The Advanced Mouse**

HiMouse - Serial	<b>£19</b>
HiMouse - Serial & PS/2	<b>£21</b>

**MouseOne**

MouseOne 2B PS/2	<b>£10</b>
------------------	------------

**HiTrak**

Stationary Trackball Serial & PS/2	<b>£22</b>
------------------------------------	------------

**HiPoint**

The Smart Mini-Trakerball	<b>£28</b>
---------------------------	------------

**Genius Windows Hand Scanners**

Powerful scanning for professional image processing

GS-4500 - 32 Grey scales	<b>£29</b>
GS-B105W -256 grey scales	<b>£65</b>

### EASY PAINTER £69

Amazing value graphics tablet gives you the chance to exercise your creativity. Includes PC Paintbrush for Windows that provides dozens of natural paint tools, complete Utilities Disk, Stylus Pen and keyboard power adaptor.



# The EPSON LapCAT

## Your Purrfect Companion

**NEW**

### "Turn your Personal Computer into your Personal Office"

Once the LapCAT is connected to your PC, you can scan any text or image into your PC. The LapCAT is bundled with Xerox Software Suite, which enables you to take text documents straight into your wordprocessing package (saves retyping). You can also scan spreadsheets straight into Excel or Lotus. With a fax modem attached you can use the LapCAT as a desktop fax machine - faxing paper documents. (no need to queue at the fax machine).

With a printer connected to your PC, the LapCAT works as a desktop copier (no need to queue at the photocopier).

The Epson LapCAT also works as an electronic filing cabinet. You can file all your paper documents on your PC, and as with a manual filing system you name the files and can retrieve them whenever you wish.

You can even mail your paper documents, if you are using E-Mail or CC-Mail. The Epson LapCAT is very easy to use, all functions are carried out at the click of a button.

#### With the LapCAT you can easily:-

- OCR** Avoid retyping documents - Use the LapCAT to scan them straight into your word processing package.
- FAX** With a fax modem you have a personal desktop fax machine
- COPY** With a printer you have a desktop copier.
- FILE** An electronic filing system. File all your documents on your PC. The documents can be stored and retrieved on demand.
- MAIL** Send all your paper documents across electronic mail

**A BRAND NEW WAY OF TACKLING A HOST OF EVERYDAY OFFICE TASKS**



**£359**

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE  
01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

**Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777**

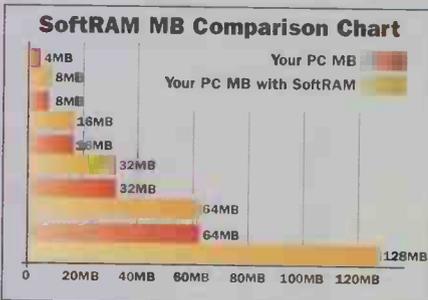
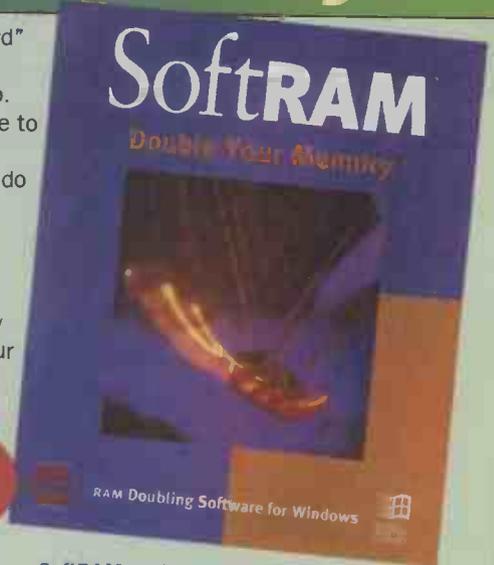
# DOUBLE Your RAM Instantly!

Twice the Windows memory without hardware. Avoid the expense and hassle of "hard" RAM! One click, one time installation! 4Mb becomes 8Mb. - 8Mb becomes 16Mb - 16Mb becomes a massive 32Mb. - and yes 32Mb transforms into a whopping 64Mb. You don't even have to open your computer! There's no training or complex software to learn - just slip in the disk and one minute later you've doubled your memory. This outstanding technology saves you money, is safe to use and gives you the power to do the high powered jobs that you need to do.

## SoftRAM Patented Technology

This innovative software solution has been carefully developed to enhance Windows by synchronising software. With memory prices remaining sky high, why not save money and achieve the speed you need to stay productive. SoftRAM technology doubles your memory with a series of patented technologies, including RAM analyst. RAM analyst reviews the memory requirements of all your applications and pre-calculates the most efficient compression method. All of this is stored in a proprietary knowledge database that is continuously updated, as RAM analyst gets to know you and provides double the RAM!

£49



### What is SoftRAM?

SoftRAM is the easiest, fastest and least expensive way to add RAM to your PC.

SoftRAM is an innovative software-only technology which approximately doubles the amount of RAM available to Windows applications.

SoftRAM incorporates innovative and proprietary (patent pending) memory management software which allocates existing physical RAM in a non-linear manner optimised for maximum space and speed.

SoftRAM works with 386, 486 and Pentium based PC's with Windows 3.0 or higher - both Desktops and Notebooks.

SoftRAM solves a key problem in personal computing: The high cost of added memory.

SoftRAM includes RAM analyst, which reviews the memory requirements of all present applications, and then uses a unique algorithm, pre-calculates the most efficient compression method and amount for each RAM page of memory.

# NEC Monitors

*The most advanced of their kind*

The MultiSync XV15 and XE17 monitors, from NEC, are the most advanced of their kind. They are the first to feature Plug and Play which dramatically improves installation and ease-of-use. Both monitors also provide On-Screen Manager, which enables easy-to-use and customised, high-quality images. Other features include Intelligent Power Management, enabling the monitor to power down to less than 8 watts when not in use.

**For every monitor sold you will receive a FREE NEC P100 Mobile Phone including FREE connection\***

\* Subject to status

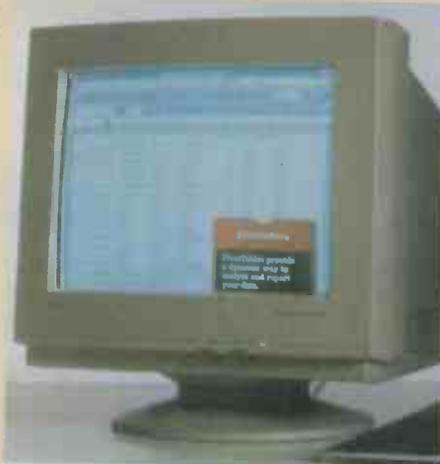
### NEC MultiSync XV15 Monitor ▶

NEC's MultiSync XV15 is targeted at the growing small office/home office market. It offers a 15" screen with a maximum resolution of 1024 x 768 at 80Hz, and a refresh rate of 55-100Hz.

The MultiSync XV15 monitor is one of three monitors in the XV Value range, the 14-inch MultiSync XV14 and the 17-inch MultiSync XV17.

- ◆ Diagonal flat screen technology CRT
- ◆ 0.28mm dot pitch, not glare & anti-static
- ◆ 1280 x 1024 @60Hz Vertical refresh
- ◆ Horizontal frequency 31-65KHz
- ◆ Vertical frequency 55-100Hz
- ◆ Intelligent power management system -
- ◆ Plug & Play compatibility

£279



### NEC MultiSync XE17 Monitor ▲

NEC's MultiSync XE17 offers a 17" screen and accompanies the 21" MultiSync XE21 and the 15" MultiSync XE15. They form the XE Efficiency range which is aimed at the corporate market requiring colour intensive applications: The MultiSync XE17 has a resolution of 1024 x 768 at 80Hz and incorporates colour-management software, allowing the user to calibrate the monitor display to match printed output as well as DPI on the fly. DPI on the fly offers users resolution switching on the fly giving greater control of colour depth and definable resolution setting for each application.

- ◆ L7" Diagonal flat screen technology CRT
- ◆ 0.28mm dot pitch
- ◆ Opticlear surface, anti-static screen
- ◆ 1280x1024 @ 60Hz (NI)
- ◆ Horizontal frequency 31-65KHz
- ◆ Vertical frequency 55-120Hz
- ◆ Digital Control, On Screen Manager
- ◆ Plug & Play compatibility

£686



All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# Sidekick 95 for Windows 95

## The Simplest Way to Stay Organised

Simple to use, easy to learn and incredibly powerful - Sidekick is already the best-selling personal organiser ever. The new 32bit Sidekick 95 uses the power and flexibility of Windows 95 to get you organised quicker. It takes up a fraction of the memory other PIMs use, so you can keep it running all the time without affecting your system's performance.

Sidekick 95 helps you simplify your life - not complicate it. With the improved drag-and-drop interface, there's no need to enter information twice or complete complicated import/export procedures. Sharing information between the Calendar, Cardfile, Wordprocessor, Expenses Tracker and Contact Manager is as easy as moving your mouse across the desktop. Sidekick 95 will even dial your phone! Using Windows 95's new "Plug-and-Play" technology, Sidekick automatically looks for and configures any installed modem.

New for Sidekick 95 is an Integrated word processor with all the features you need for day-to-day letter writing and document production. What's more it's linked directly to the Cardfile database, so writing properly addressed letters or even mail merging is just a mouse click away.

To make life easy, Sidekick will automatically print letters, schedules, notes, names and addresses in over 70 different formats including labels, envelopes and popular paper organiser formats like filofax™.



Starfish UK



Over 10 million  
copies sold!

RRP  
£49.00  
ONLY **£29**

### SIDEKICK 95 FEATURES

- NEW!** Windows 95 Plug and Play compatibility
- NEW!** Integrated, full function word processor.
- NEW!** Worldwide clock
- NEW!** TAPI standard phone support for incoming calls.
- NEW!** Now you can move your appointments, notes, and to-do items from one time to another with drag-and-drop simplicity.
- NEW!** Track your expenses and create complete summaries in seconds.
- Drag-and drop to move or copy, or merge information between cardfiles and the word processor.**
- New calendar lets you overlap appointments, any time, any place.**
- Daily, weekly, monthly or yearly views.**
- Great new label, address book and envelope printing features gets you started with more than 70 templates.**
- Alarms with snooze feature.**
- Alarms work all the time - whether or not Sidekick is running.**
- Find and replace feature.**
- Password protection keeps private information safe.**
- If you get stuck, just position your mouse over an item for quick balloon help.**
- Multiple, customisable cardfiles.**

### WHO USES SIDEKICK 95?

#### The business & home office professional

Friendly and flexible, Sidekick 95 offers all the calendar, address book and word processing features every overloaded professional needs. And thanks to integrated contact management, all dealings with prospects and customers can be easily tracked and managed.

#### The mobile professional

Sidekick 95 is the perfect portable companion - It instantly updates your files from your desktop PC to your portable and then back again.

#### The home PC and family PC

Sidekick 95 can keep track of everyone in the family - all in one place. From the kid's activities to personal errands, you'll always be in the right place at the right time. Even more, Sidekick 95 can organise your household inventory, car maintenance records - even your CD collection!

#### You!

If you've ever used a paper-based organiser or address book, then you already know how to use Sidekick 95. Imagine your current personal organiser, but with the timesaving power of your PC. Let Sidekick 95 forward unfinished tasks to the next day, sound alarms to remind you of critical appointments and help you manage important contacts.

NEW  
for  
Windows 95

# Dashboard 95 for Windows 95

## The Simplest Way to Organise Windows 95!

Like the dashboard in your car, the new native 32bit Dashboard 95 for Windows 95 helps you to get to where you want to go by keeping everything close at hand. Launch applications, check your system's memory usage, disk space and resources and at last - Windows printing made easy! Dashboard 95 makes choosing and using a new printer simple, just click an icon of the new printer and Dashboard does the rest.

New for 95 are Dashboard's Virtual Screens. This innovative and useful feature allows you to open applications on up to 9 virtual screens and then switch between them with a simple mouse click. No more cluttered screens!



- Launch Applications**  
No need to search for programs - just use Dashboard 95's Launcher!
- Virtual Screens**  
Switch between up to 9 virtual screens on your PC!
- Easy Printing**  
Just choose the printer you need by clicking an icon - easy!
- Customise**  
Customise Dashboard 95 to do exactly what YOU want it to!

ONLY **£29** RRP £49.00

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN

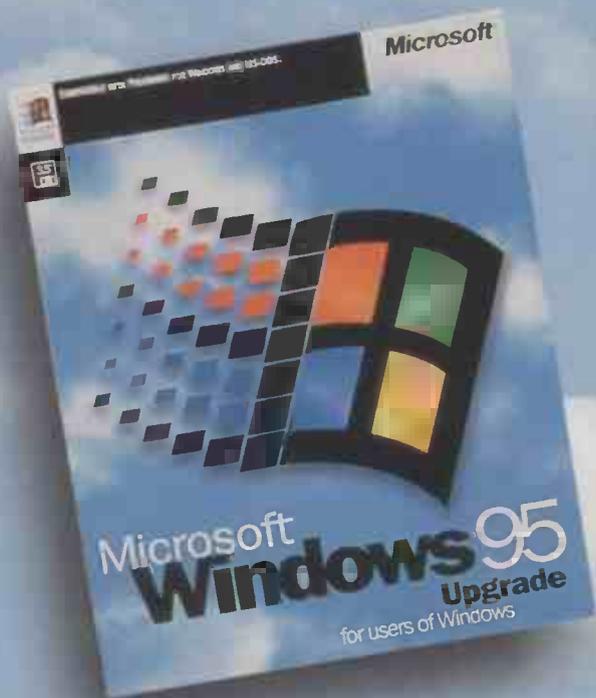


**SALES HOTLINE**  
**01582 745555**

All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# 3.5 Years to Develop... 75 Million Hours of Testing... The Biggest Launch in Computer History



**Unlock the potential of  
your PC with Microsoft  
Windows '95**

**Upgrade from Windows 3.x**

**£59**

CD or  
3.5" Disk

**Upgrade from DOS**

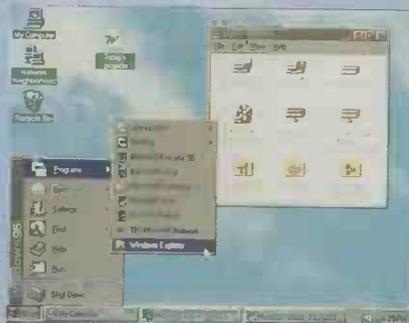
**£129**

3.5" Disk

**Call NOW for  
Special Offer Windows '95  
Bundle Prices**

**Everything you do with your Computer  
will now be Faster, Easier and more Fun!**

- ◆ **Save time with an easier-to-use interface; long file names, and one-click access to all of your programmes and documents with the Start button.**
- ◆ **Plug and Play technology automatically connects compatible disk drives, sound cards, and more.**
- ◆ **32-bit preemptive multitasking lets you run multiple programmes or perform multiple tasks simultaneously.**
- ◆ **Gain built-in access to e-mail and faxes with Microsoft Exchange, and to the Internet with The Microsoft Network.**
- ◆ **Full-motion video provides vividly realistic game play with big fast, on-screen action.**



*With the Microsoft Windows 95 operating system, you can unlock the potential of your computer. Make it work even easier and faster. Open it wide to exciting new possibilities. And even make it more fun.*

- ◆ **Easier.** Navigate your system quickly with easy-to-use tools, including the Start button, taskbar, and Windows Explorer.
- ◆ **Plug and Play.** Plug and Play frees you from manually setting up Plug and Play-compatible hardware devices such as CD-ROM drives and scanners.
- ◆ **Long File Names.** Use longer, more descriptive file names up to 250 characters long.

- ◆ **Faster.** Enjoy improved performance in all major areas, including faster file and disk access, and faster printing thanks to the 32-bit architecture of Windows 95.
- ◆ **Compatible.** Works with your current software - 16-bit programmes and drivers for Windows, Windows for Workgroups and MS-Dos are compatible with Windows 95.

**A world of new possibilities.**

- ◆ **Multitask.** Work on several tasks at once with fast new 32-bit programmes that support preemptive multitasking and multithreading.
- ◆ **The Microsoft Network.** Sign on to The Microsoft Network. It's an easy-to-use online service with e-mail, news, internet access, and more.
- ◆ **One-Stop In-box.** Microsoft Exchange is your one-stop in-box that makes it easy to view and work with such things as electronic mail from multiple sources, faxes, documents, and bulletin boards.
- ◆ **Network-Ready.** Windows 95 is network-ready, providing easy 32-bit access to network resources.
- ◆ **Mobile.** Get the most from your portable PC with features such as Dial-up networking, Battery Monitor and Plug and Play support for PCMCIA cards and docking stations.

**Whatever you do, you'll enjoy it more**

- ◆ **More Fun.** Your entire computing experience will be more enjoyable because you can accomplish everything more quickly, easily, and directly.
- ◆ **Better Games.** Play today's hottest games on Windows 95, thanks to better, faster graphics support for Windows-based action games.
- ◆ **Better Video.** Enjoy larger, smoother video than ever before for more fun multimedia experiences.

**To run Microsoft Windows 95 you need:**

- ◆ Personal computer with a 386DX or higher processor.
- ◆ 4Mb of memory (8Mb recommended).
- ◆ Typical available hard disk space required 50-55 Mb (actual requirements will vary based on features you choose to install)
- ◆ 3.5" high density disk drive or CD-ROM disk drive.
- ◆ VGA or higher resolution graphics card.

# New Launches from Microsoft

## New versions designed to get the full potential from Windows '95

### Microsoft® Plus!

for the Windows® 95 operating system

Give Windows® 95 even more space and speed, add new Microsoft® Plus!

An intelligent new System Agent makes your PC self-maintaining.

Microsoft® Plus! has an enhanced version of DriveSpace™ that allows up to 50 percent more compression than Windows® 95 and more free disk space without any performance penalty.

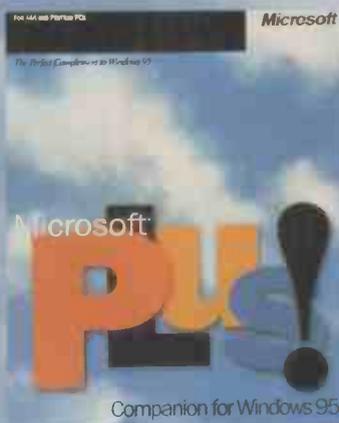
Themes - 11 colourful themes, each with new fonts, icons, backgrounds, sounds, screen savers, and colours.

For Internet users Microsoft Plus! includes an enhanced Internet Browser.

Pinball - a 3-D game designed for Windows 95 that looks, sounds, and plays like the real thing.

Turn your computer into a Dial-Up Networking server that lets your small office or workgroup share data or send and receive mail remotely.

Font Smoothing makes fonts easier to read.



**Microsoft Plus!**  
**£27** CD or 3.5" Disk

### Microsoft® Office Standard for the Windows® 95 operating system

In Microsoft® Office for Windows® 95 you get these full featured applications: Microsoft Excel, Word, PowerPoint and a new addition - Microsoft Schedule+.

- ◆ IntelliSense™ technology does routine tasks for you with enhanced AutoCorrect and much more.
- ◆ Type a help request in your own words and the Answer Wizard gives you the answer you need.
- ◆ Share information easier with Improved OfficeLinks, including the Office Binder feature that groups files automatically, so you can use them like a single file.
- ◆ Gain one-click access to files and programmes with the Microsoft® Office Shortcut Bar.



- ◆ Manage and organise files quickly with high-performance Find Fast indexing tools.
- ◆ Get your work done faster with full 32-bit performance

**Microsoft Office Standard**  
 Version Upgrade CCP **£139**  
 Competitive Upgrade **£199**  
 Full Package **£332**  
 CD or 3.5" Disk

### Microsoft® Works 4.0 for the Windows® 95 operating system

Microsoft Works for Windows 95 provides the easy-to-use, integrated tools you need - a word processor, spreadsheet, database, drawing and communication tools - to make everyday computing tasks easier and create professional documents for your business or home.

- ◆ Works has a brand new look. Besides the new 3D look, Works sports a new interface called the Task Launcher. The Task Launcher makes common tasks the primary entry point into the product.
- ◆ New Step-by-Step Help puts context-sensitive assistance right where you need it, when you need it.
- ◆ Features like Easy Formats and Easy Text, an envelope and label checklist, a ReportCreator, and Easy Calc, Auto Fill spreadsheet tools make it easier for the Works user to produce the professional results they are trying achieve.



**£54** CD or 3.5" Disk

### Microsoft® Office Professional for the Windows® 95 operating system

In Microsoft® Office Professional for Windows® 95 you get these full featured applications: Microsoft Excel, Word, PowerPoint Access, and Microsoft Schedule+.

**Microsoft Office Professional**  
 Version Upgrade CCP **£205**  
 Competitive Upgrade **£245**  
 Full Package **£429**  
 CD or 3.5" Disk



Available October

### Microsoft® Publisher for the Windows® 95 operating system

The all-time best-selling desktop publishing programme for Windows®, Microsoft® Publisher is the natural choice for Windows 95.

PageWizards™ are the fastest and easiest way to make customised, professional quality publications because they guide you through the design process.

The Design Gallery allows you to easily customise and personalise your publication, all the while keeping it's professional look and feel.

Online User Assistance is always on hand to intelligently tutor and advise you as you work.

Visit the Publisher Forum on the Microsoft Network directly from Publisher.



**Microsoft Publisher**  
**£62** CD or 3.5" Disk

### Microsoft® Excel for Windows® 95

Microsoft Excel for Windows® 95 operating system was designed based on your needs and requests. Whether you're working on a simple summary, charting sales trends, or performing advanced analysis, Microsoft Excel helps you work the way you want to get your job done easily.



**Microsoft Excel**  
 Version Upgrade CCP **£82**  
 Competitive Upgrade **£122**  
 Full Package **£225**  
 CD or 3.5" Disk

### Microsoft® Word for the Windows® 95 operating system

Microsoft® Word for Windows® 95 helps make everyday writing tasks more automatic and complex tasks simple. It also provides tools to create and distribute documents in an increasingly connected world.

**Microsoft Word**  
 Version Upgrade CCP **£82**  
 Competitive Upgrade **£122**  
 Full Package **£225**  
 CD or 3.5" Disk



### Microsoft® Mouse 2 for the Windows® 95 operating system

Extensive ergonomic research and new IntelliPoint software features make the Mouse 2 one of the most comfortable, accurate and versatile pointing devices you can use to enhance the Microsoft Operating system.

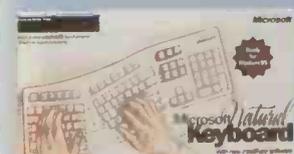


**Microsoft Mouse 2**  
**£35**

### Microsoft® Natural Keyboard for the Windows® 95 operating system

Responsibly designed for greater comfort, following extensive ergonomic and usability research, the Microsoft® Natural Keyboard™ lets you work more comfortably by helping you type with your hands, wrists, and forearms in a more relaxed posture.

- ◆ Type with your hands and wrists in a relaxed posture
- ◆ Rest your hands on the built-in palm
- ◆ Most users adapt to the split keyboard within a few hours
- ◆ Windows® logo function keys and IntelliType software simplify access to the Windows 95 operating system with 20 new shortcut commands



**Microsoft Keyboard**  
**£59**

Offers and all items are subject to availability. Prices may have to change for reasons beyond our control. Specifications of all products are correct at time of going to press and given in good faith, but may change without notice. All trademarks acknowledged. Goods are sold subject to our standard Terms & Conditions of Sale available on request. E&OE. Phone for the very latest prices and the quickest delivery options. Software supplied will be cosmetically different from that shown. All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
 Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
 Showroom only: 250 Lower High Street, Watford, WD1 2AN

**SALES HOTLINE**  
**01582 745555**

VISA  
 All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# SOFTWARE

ONCE AGAIN WATFORD IS ACCLAIMED AS THE UK'S PREMIER SOFTWARE SUPPLIER



**SPECIALY DISCOUNTED PRICES**  
available for non-profit making organisations, educational establishments, charities, teachers, students and other educational users.  
Call now for Prices

**KEYS**  
CCP = Compliance Checking Product  
LLP = Lotus Licence Pack  
MLP = Microsoft Licence Pack  
Comp = Competitive (or U/G sidegrade) upgrade  
U/G = Upgrade  
DOS = Program designed to work in DOS environment  
WIN = Program designed for MS Windows 3.1 or later

## ACCOUNTING

GST Business Expenses	£20
GST Motoring Expenses	£9
GST Purchasing Manager	£20
Intuit QuickBooks v3.0 for Windows	£84
Intuit Quick Invoice for Windows	£25
Intuit Quicken DOS v6.0	£32
Intuit Quicken for Windows v4.0	£28
Intuit Quicken UK Deluxe Business Pack v4.0	£45
Intuit Quicken UK Deluxe Home Pack v4.0	£45
Intuit Quick Tax Return 1995	£25
MS Money for Windows v3.0	£25
Pegasus Solo Accounts	£62
Pegasus Solo Payroll	£41
RMG BusinessPlan Builder	£85
Sage Instant Accounting WIN	£79
Sage Instant Payroll WIN	£85
Sage Instant Business Pack	£119
Sage Invoicing for MoneyWin	£24
Sage Moneywise for Windows v2	£24
Sage Sterling +2 Accountant Plus WIN v3	£271
Sage Sterling +2 Accountant WIN v3	£190
Sage Sterling +2 Bookkeeper WIN v3	£84
Sage Sterling +2 Financial Controller WIN v3	£349
Sage Sterling A/C Plus WIN LAN	£463
Sage Sterling Accountant DOS v7	£159
Sage Sterling Accountant Plus DOS v7	£241
Sage Sterling Bookkeeper DOS v7	£55
Sage Sterling Fin. Controller LAN DOS v7	£497
Sage Sterling Financial Controller DOS v7	£318
Sage Sterling Job Costing	£106
Sage Sterling Job Costing LAN	£175
Sage Sterling Moneywise + Invoicing	£36
Sage Sterling Payroll for Windows	£129
Sage Sterling Payroll II DOS v5.0	£166
Sage Sterling Payroll II DOS v5.0	£127
Stanford Epsilon DOS Plus v1.3 Single User	£249
Stanford Epsilon DOS v1.3 Single User	£149
Stanford Epsilon Plus v1.3 Network	£309
TAS Books	£76
TAS Books Multi User LAN	£170
TAS Books Payroll	£78
TAS Books Payroll Multi User	£185
TAS Books II	£499
TAS Books II Multi User	£989
Tax Calc for WIN	£29

## BUSINESS TOOLS

Borland ReportSmith WIN v2.0	£59
Corel Office Companion	£69
Delrina PerForm	£45
Delrina PerForm Pro Plus WIN	£180
Gulldsoft allClear III	£89
IMSI Formtool Gold WIN	£59
Longman Logotron Pinpoint WIN	£239
Lotus MarketPower CD	£295
Lotus Organizer WIN R2.01	£79
Lotus Organizer R2.01 Upgrade	£45

Lotus Organizer WIN R2.0 14-LLP	£75
Lotus Organizer WIN R2.0 20-LLP	£1,580
MS Office Assistant WIN	£55
MS Schedule+ WIN v1.0 Starter Pack Dual Media	£87
MS Schedule+ WIN 95	£68
Polaris PackRat v5.0	£189
RMG Ecco Simplicity WIN	£45
RMG Ecco Professional WIN	£125
RMG Sidekick for Windows	£28
RMG Sidekick 95 for WIN 95	£28
RMG Org Plus WIN v3	£85
Sage Telemagic S/USER DOS	£169
Softkey Calendar Plus DOS	£29
Softkey Form Designer Plus DOS	£29
Spinaker Address Book Plus DOS	£29
Spinaker Calendar Creator WIN	£29
Spinaker Labels Unlimited DOS	£29
Spinaker Labels Unlimited WIN	£29
Superior Pro (Addstar)	£29
Symantec ACT! WIN v2.0	£129
WP MainStreet InfoCentral for Windows	£38

## CAD

Autodesk AutoCAD LT R2 WIN	£355
Autodesk AutoCAD LT R2 upg from R1	£95
Autodesk AutoCAD LT R2 upg from Autodesk	£299
Autodesk AutoCAD LT R2 upg from Generic CAD	£95
Autodesk AutoCAD LT R2	£145
Autodesk Generic CAD DOS v6.1	£345
ComputerEasy Estimator Plus DOS	£44
ComputerEasy Floor Plan Landscaping	£29
ComputerEasy Floor Plan Office Symbols	£29
ComputerEasy Floor Plan Plus 3D WIN	£50
ComputerEasy Floor Plan Plus DOS	£45
ComputerEasy Floor Plan Plus WIN	£47
Heyes Smartcom WIN	£89
Lantastic Winport v5	£355
Lantastic Winport v5 for 1 Modem	£87
Lantastic Winport v5 for 2 Modem	£83
Lantastic Winport v5 for 4 Modem	£335
Lotus Cocx v1.2	£1,049
Microcom Carbon Copy Plus v6.2 DOS	£73
Microcom Carbon Copy v2 WIN	£73
MS Mail PC 3.2 Post Office Upg WIN for Wkgrps	£220
Persoft Smartemr 320 DOS v3.0	£89
Persoft Smartemr 340 WIN v3.0	£159
Shapeware Trio Datafax v4	£49
Stac Reachout Modern Host/View WIN	£79
Stac Reachout Modern Host WIN	£57
Stac Reachout Modern View WIN	£58
Stac Reachout Modern 4 User LAN add on	£110
SoftKone Mirror II DOS	£130
Symantec PC Anywhere DOS v5.0	£89
Symantec PC Anywhere DOS v5.0 Host	£58
Symantec PC Anywhere DOS v5.0 Remote	£65
Symantec PC Anywhere WIN Host v2	£55
Symantec PC Anywhere WIN Remote v2	£65
Symantec PC Anywhere WIN v2	£89
Symantec PC Anywhere WIN 95	£89
Travelling Software Commworks WIN	£95
Travelling Software Laplink V DOS	£58

## CLIP ART IMAGES & SOUND CLIPS

Corel Artshow 3 Book & CD	£15
Corel Artshow 4 Book & CD	£19
Corel Artshow 5 Book & CD	£20
Corel Gallery CD	£26
Corel Gallery Clip Art v2	£44
Corel Prof. Photos CD-ROMS (Various)	£13

GST Pictures 1 WIN	£17
GST Pictures 2 WIN	£15
IMSI MasterClips CD	£61
Lotus SmartPics Clip Art WIN	£84
MS Sound Bits WIN Classic Hollywood Movies	£14
MS Sound Bits WIN Hanna Barbera Dual Media	£14
SPC Clip Art Borders & Backgrounds	£17
SPC Clip Art Business	£17
SPC Clip Art Cartoons	£17
SPC Clip Art Education	£17
SPC Clip Art Food & Drink	£17
SPC Clip Art Maps	£17
SPC Harvard Clip Art CD Collection	£22
Visual 3D for Windows CD	£45
Visual 3D Clipart Architects	£45
Visual 3D Clipart Library	£45
Spinaker PFS: WIN Power Album	£29
WP MainStreet Clip Art: Klds	£19
WP MainStreet Clip Art: Premium CD	£35

## COMMUNICATIONS

CompuServe Value Pack	£16
DataSoft DataTalk 4 v1.1	£70
DataStorm ProComm Plus EC DOS	£54
DataStorm ProComm Plus NW 5-User	£269
DataStorm ProComm Plus WIN	£55
DCA Crosstalk Mk IV DOS v2.1	£163
DCA Crosstalk WIN v2.2	£105
Delrina Commaulte	£75
Delrina DoxFax Pro v2	£39
Delrina WinComm Pro	£54
Delrina WinFax Pro Ntwk Starter Pk (1 server 2 Users)	£176
Delrina WinFax Pro v4	£54
Delrina WinFax Pro v4 Upgrade	£32
Heyes Smartcom WIN	£89
Lantastic Winport v5	£355
Lantastic Winport v5 for 1 Modem	£87
Lantastic Winport v5 for 2 Modem	£83
Lantastic Winport v5 for 4 Modem	£335
Lotus Cocx v1.2	£1,049
Microcom Carbon Copy Plus v6.2 DOS	£73
Microcom Carbon Copy v2 WIN	£73
MS Mail PC 3.2 Post Office Upg WIN for Wkgrps	£220
Persoft Smartemr 320 DOS v3.0	£89
Persoft Smartemr 340 WIN v3.0	£159
Shapeware Trio Datafax v4	£49
Stac Reachout Modern Host/View WIN	£79
Stac Reachout Modern Host WIN	£57
Stac Reachout Modern View WIN	£58
Stac Reachout Modern 4 User LAN add on	£110
SoftKone Mirror II DOS	£130
Symantec PC Anywhere DOS v5.0	£89
Symantec PC Anywhere DOS v5.0 Host	£58
Symantec PC Anywhere DOS v5.0 Remote	£65
Symantec PC Anywhere WIN Host v2	£55
Symantec PC Anywhere WIN Remote v2	£65
Symantec PC Anywhere WIN v2	£89
Symantec PC Anywhere WIN 95	£89
Travelling Software Commworks WIN	£95
Travelling Software Laplink V DOS	£58

Travelling Software Laplink V Net 1-Node	£59
Travelling Software Laplink WIN v6	£80
WP MainStreet ExpressFax+ WIN	£29

## DATABASES

Alpha 5 WIN	£69
Alpha 5 Home & Business Edition	£42
Borland dBase 5.0 DOS	£299
Borland dBase 5.0 DOS LAN Licence	£189
Borland dBase 5.0 Upg DOS to WIN	£109
Borland dBase 5.0 WIN LAN Licence	£189
Borland dBase IV v2.0 & Compiler Upg from v1.5	£139
Borland Paradox v5.0 WIN	£219.00
Borland RapidFile DOS v1.2	£187.00
Borland Reflex DOS v2.0	£172.00
Borland Visual dBase for WIN v5.5	£209.00
Borland Visual dBase Upg for WIN v5.5	£55.00
Bus. Sim. Cardbox for Windows	£192.00
Bus. Sim. Cardbox Plus DOS R4.1	£176.00
CA Clipper Tools III DOS v1.0	£259.00
CA Clipper v5.2 DOS	£269.00
Claris Filemaker Pro v2.1 WIN	£84.00
Claris Filemaker Pro v2.1	£63.00
Compsort Delta Five File	£298.00
Compsort Delta Five File	£245.00
DataEase Equinox WIN v1.0	£245.00
DataEase Developers Edition v4.53	£699.00
DataEase Execs 5 pack	£595
DataEase v4.53 LAN Pack 3-User	£525
DataEase v5.0 DOS	£370
DataEase v5.0 WIN	£98
DataEase v5.1 User N/Work Lic.	£235
Lotus Agenda v2 (Dual Format)	£265
Lotus Approach R3 1-LLP	£75
Lotus Approach WIN R3	£81
Lotus 1-2-3 upg & Approach	£109
MS Access WIN v2.0	£220
MS Access WIN 95	£229
MS Access WIN 95 CCP Upgrade	£107
MS Access WIN v2.0 1-MLP	£122
MS Access WIN v2.0 Professional Edition	£195
MS Access WIN v2.0 CCP Upgrade	£85
MS Access WIN v2.0 Developer Toolkit	£225
MS FoxPro DOS v2.6 Professional Edition	£175
MS FoxPro DOS v2.6 Standard Edition	£71
MS FoxPro WIN v2.6 Professional Edition	£285
MS FoxPro WIN v2.6 Standard Edition	£71
MS Visual FoxPro WIN v3 Standard Edition	£132
MS Visual FoxPro WIN v3 Prof. Edition	£142
SPI Open Access II v4 Single User	£29
WP DataPerfect DOS v2.3	£79

## DESKTOP PUBLISHING

Aldus Pagemaker Classic WIN	£52
Aldus Pagemaker v5 WIN	£379
Aldus Pagemaker v5 WIN 5-User	£1,375
Corel Ventura Comp Upg to v5 (3.5" & CD)	£1,115
Corel Ventura Comp Upg to v5 (CD)	£60
Corel Ventura v4.2 WIN (3.5" & CD)	£115
Corel Ventura v4.2 WIN (CD only)	£79

Corel Ventura v5.0 (3.5" & CD)	£235
Corel Ventura v5.0 CD Version	£199
GST 1st Press DOS	£22
GST TNetworks V3 DOS	£89
GST Pressworks2 WIN	£25
GST Pressworks2 Power Pack	£55
MS Publisher v2.0 WIN	£68
MS Publisher v2.0 WIN 1-MLP	£63
MS Publisher v2.0 WIN Design Pack	£57
Quark XPress WIN v3.3	£560
Serif PagePlus Publishing Suite CD	£75
Serif PagePlus Plus WIN v3	£45
Softkey Publisher DOS	£33
Spinaker PFS: DOS First Publisher	£69
Spinaker PFS: WIN First Publisher	£28

## EDUCATION & TYPING TUTORS

10 out of 10 Dinosaurs	£22
10 out of 10 Driving Test	£22
10 out of 10 Early Essentials	£22
10 out of 10 English	£22
10 out of 10 French	£22
10 out of 10 10 Junior Essentials	£22
10 out of 10 Maths (Algebra)	£22
10 out of 10 Maths (Number)	£22
10 out of 10 Maths (Statistics)	£22
Corel Wildcards CD	£25
Corel Adventures with Edison CD	£29
Corel Nikalov's Trains CD	£25
Corel Wild Board Games CD	£25
Corel Blue Tortoise CD	£25
EA Kid Pix WIN	£23
Europress ADU GCSE - English	£27
Europress ADU GCSE - French	£27
Europress ADU GCSE - Maths	£27
Europress Flying Fingers - Typing Tutor	£26
Europress Fun School 4 5-7's	£15
Europress Fun School 4 Over 7's	£15
Europress Fun School 4 Under 5's	£15
Europress FunSchool in Dreamland 4 - 7	£18
Europress FunSchool in Spaceland 6 - 9	£18
Europress FunSchool in Timeland 8 - 11	£18
Mavis Beacon Teaches Typing v2 DOS	£22
Mavis Beacon Teaches Typing v2 WIN	£20
MS Creative Writer WIN CD	£27
MS Creative Writer WIN v1.0	£27
MS Fine Artist WIN CD	£27
MS Fine Artist WIN v1.0	£27
MS School Bus Human Body CD	£27
MS School Bus Solar System CD	£27
Nextbase A/Route Explorer DOS v1.2	£46
WP MainStreet Mickey's Memory DOS	£19
WP MainStreet Read With Me Vol 1	£21
WP MainStreet Write With Me	£34

## FONTS & FONT MANAGERS

Adobe Acrobat Pro v2	£295
Adobe Plus Pack	£105
Adobe Streamline WIN v3	£135
Adobe Type Align v2.1	£59

### CLEAR OrgCharts - it draws organisational charts

When was the last time you created an organisational chart that never needed updating? Don't spend wasteful time redrawing your organisation when your company restructures. With CLEAR OrgCharts you produce and edit your companies entire org charts - just by writing it down - cutting charting time by as much as 50%. CLEAR OrgCharts is the only product that automatically converts your text into dynamic organisational charts. Make a change and with one key stroke your diagram is instantly updated with all your boxes are correctly shaped and sized and the text properly aligned. Of course you can still draw your charts if you want. With over 180 different shapes, multiple layouts, line styles and style sheets. You can choose the way you want to work.

**£75**

**allCLEAR**  
IT DRAWS FLOW CHARTS FOR YOU

**SPECIAL PURCHASE OFFER**

FloorPlan Plus 3D	£50
FloorPlan Plus 3D Design Plus	£89
FloorPlan Plus with Estimator	£75

Simply tell us which CAD or Drawing program you own when you return your registration card

### ABC GRAPHICS SUITE from MICROGRAFX

The complete graphics package for the Windows 95 user

Micrografx has merged ABC FlowCharter, Designer, Picture Publisher and the revolutionary new ABC Media Manager into the ABC Graphics Suite. It combines superior diagramming, flowcharting, drawing, technical illustration, image editing, painting and a huge library of useful clipart whilst using the familiar Microsoft Office for Windows 95 interface. All the components of this product have been written to take full advantage of the exciting new features of Windows 95.

**Features:**

- ◆ True 32Bit - multi threading
- ◆ 20,000+ pieces of ClipArt
- ◆ 7,500+ Photographs
- ◆ 2,000+ diagramming symbols
- ◆ 250+ fonts
- ◆ 50+ file formats, including TIFF, BMP, DXF and CorelDraw!
- ◆ Microsoft Office Compatible
- ◆ Looks and Works Like Microsoft Office
- ◆ On two CD-Roms

**NEW FOR WINDOWS 95**

**£189**

Finally, complete graphics for every office!

# DELPHI - The Next Generation Windows Development Tool

NEW Delphi, winner of BYTE's Best Technology of Comdex is here!

Delphi provides users with RADical performance never seen before in the industry. Delphi facilitates rapid application development (RAD), allowing programmers to smoothly progress from prototype to production. Delphi is the only Windows development tool that combines a high-performance optimising native code compiler with a visual design environment and integrated database access.

## Delphi RAD Pack

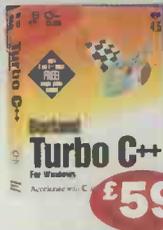
Rapid Application Development Tools

A collection of companion products to enrich Delphi. The RAD Pack includes:

- ◆ VCL source code;
- ◆ Delphi Language Reference;
- ◆ Turbo Debugger;
- ◆ Visual Solutions Pack 1.1;
- ◆ Resource Workshop;
- ◆ Resource Expert

Borland Delphi for Windows

£155  
Comp U/G £125



Turbo C++  
For Windows  
Accelerated C  
£59

## Turbo C++ The fast, fun way into C and C++

Looking for a fast, easy and cost-effective way to get into C and C++ Programming? You've found it in award winning Turbo C++. You get the same tools the professionals use at low, low price. With great sample games and a multimedia Introduction.

- ◆ Only Turbo C++ includes 3 games free! Plus you get the source code, so you can see how games work and change them to make your own versions!
- ◆ The same technology the professionals use.
- ◆ Turbo C++ doesn't leave out the important features you need to learn the C++ language

## Visual dBase for Windows

Visual dBASE combines leading edge visual tools with a sophisticated, yet easy, programming language. From interactive use of local data, to deployment of advanced client-server applications, it's all done in one highly productive environment. Using the unique Two-Way-Tools one can switch back and forth between visual design and programming, making it easier than ever to become familiar with Visual dBASE programming. This is the best database on the market for business professionals and applications developers.

Upgrade  
£55

Adobe Type Manager WIN v2.5	£45
Adobe Typeset 1	£59
Adobe Typeset 2	£59
Adobe Typeset 3	£105
Agfa Discovery TrueType Pack WIN	£68
Bitstream Facelit WIN v2.0	£49
Bitstream L'IT Bits Flintstone Font Pk	£15
Bitstream L'IT Bits Winter Holiday	£15
Bitstream Makeup WIN	£65
Bitstream TrueType Essentials	£85
Fontware Face Pack 1	£18
Fontware Face Pack 2	£19
Fontware Font Fountain WIN	£58
Fontware TrueType DOS	£59
GST Headline Font Collection	£16
GST TrueType Fonts Collection 1	£12
MS TrueType Font Pack Vol 1 WIN Dual Media	£45
MS TrueType Font Pack Vol 2 WIN Dual Media	£46
MS TrueType HP Font Pack WIN Dual Media	£40
Softkey Key Fonts DOS	£29
Softkey Key Fonts Pro WIN	£29
Softkey Key Fonts WIN	£29
Softkey More Key Fonts DOS	£29
Softkey More Key Fonts WIN	£29
WP Bitstream Fontware for WordPerfect	£49

## GRAPHICS - DRAWING & DESIGN

Adobe Illustrator PS WIN v4	£345
Adobe Photoshop WIN v3.0	£395
Adobe Photostyler v2	£360
ComputerEasy Draw WIN	£45
Corel Draw v3 Upgrade to v5	£254
Corel Draw v3 Upgrade to v5 CD only	£198
Corel Draw v3 WIN (3.5" + CD)	£62
Corel Draw v3 CD only	£42
Corel Draw v4 Upgrade to v5	£145
Corel Draw v4 Upgrade to v5 CD only	£115
Corel Draw v4 WIN 1-User	£95
Corel Draw v4 WIN (3.5" + 2 x CD)	£105
Corel Draw v4 WIN CD	£84
Corel Draw v5 WIN (3.5" + CD)	£365
Corel Draw v5 WIN CD	£278
Corel Draw v6 WIN 95 CD	£289
Corel Draw v6 Win 95 CD	£245
Corel Draw v7/4 Upgrade to v6 CD	£169
Corel Draw v5 Upgrade to v6 CD	£45
CorelFlow for Windows (3.5" + CD)	£45
Corel Photopaint v5 Plus CD	£45
Leaming Corel Draw v3 CD	£25
Leaming Corel Draw v4 CD	£25
Leaming Corel Draw v5 CD	£25
EL Hanna Barbera Animation Workshop	£26
Gold Disk Animation Works Interface WIN	£88
Gold Disk Professional Draw WIN v1	£69
GST 1st Design WIN	£25
GST DesignWorks v2 & Pressworks WIN	£79
GST DesignWorks v2 WIN	£59
GST DesignWorks v2 CD	£64
Infograms Disney Animation Studio	£39
IMSI Graphics Converter Gold WIN	£59
Micrograf ABC Flowcharter v4	£215
Micrograf Charisma WIN	£181
Micrograf Designer v4.1	£269
Micrograf Graphics Works	£75
Micrograf Photomagic	£58
Micrograf Picture Publisher v5	£265
Micrograf Picture Publisher v4	£199
Micrograf U/G to Picture Publish v4 from LE	£69

## GRAPHICS - PRESENTATION

Aldus Persuasion v3 WIN	£233
Borland Applause II v1.5 DOS	£269
Borland Applause II v1.5 Network Ready	£697
Gold Disk Add Impact WIN	£75
Gold Disk Astound 2 WIN	£235
Lotus Freelance Graphics DOS R4	£258
Lotus Freelance Graphics WIN R2.1	£49
Lotus ScreenCam v1.1 WIN	£379
Micrograf ABC Toolkit	£185
Micrograf Charisma v4 3.5"	£289
Micrograf Designer v4.1	£49
Micrograf Snaggraf WIN	£85
MS Powerpoint v4 CCP Upgrade	£122
MS Powerpoint WIN 95 Trade Upgrade	£82
MS Powerpoint WIN 95 CCP Upgrade	£229
MS Powerpoint WIN 95	£224
MS Powerpoint WIN v4 1-MLP	£199
SPC Harvard Graphics DOS v3.0	£275
SPC Harvard Graphics Upg v2.3 to v3.0	£93
SPC Harvard Graphics WIN v3 Comp.Upgrade	£119
SPC Harvard Graphics WIN v3.0	£149
SPC Harvard Graphics WIN v1.0	£89
SPC Harvard Spotlight WIN v3.0	£145
SPC HGW v2.0 Power Graphics Pack	£79
WP Presentations DOS 2.0	£79
WP Presentations WIN 2.0	£79
WP Presentations WIN v2 Comp U/G	£85
Visual Textures for Professional	£89

## HOME INTEREST & LIFESTYLE

Adobe Premiere V4 WIN	£399
Europress BBC Gardeners World	£14

Micrograf Windows Draw v3	£66
RMG Arts & Letters Apprentice WIN v1.2	£47
RMG Easyflow WIN	£95
RMG Inspiration for Windows	£95
Scrif DrawPlus v2.0	£21
Softkey 3D Design DOS	£29
Softkey DrawPlus DOS	£29
Softkey DrawPlus WIN	£29
SPC Harvard ChartXL	£82
SPC Harvard Draw WIN	£289
Visio Shapes - Adv. Elec. Engineering	£29
Visio Shapes - Adv. Flowcharting	£39
Visio Shapes - Adv. Network Diagrams	£39
Visio Shapes - Adv. Space Planning	£39
Visio Shapes - Biotechnology/Medicine	£39
Visio Shapes - Chemical Engineering	£39
Visio Shapes - Home Planning	£29
Visio Shapes - Insurance	£39
Visio Shapes - Marketing	£39
Visio Shapes - Mechanical Engineering	£39
Visio Shapes - Petroleum Engineering	£39
Visio Shapes - Software Diagrams	£39
Visio v3.0 WIN 10 Pack Lic.	£39
Visio v3.0 WIN (Shareware)	£58
Visio Upgrade to v3.0	£86
Visio v4 for WIN95	£99
Visio v4 WIN 95 Upgrade	£59
Visio Express For Office WIN	£19
Visio Express For SmartSuite	£19
Visual Reality for Windows	£240
Z-Soft PC Paintbrush SE	£27
Z-Soft Photofinish WIN v3	£49

## INTEGRA ED PACKAGES & BUNDLES

Aldus PC Collection 2.0 WIN	£795
Angus Smartware v2.6 DOS	£357
Borland Framework IV v1.0 DOS	£374
Borland Office V2 Competitive Upg.	£59
CA Simply Business WIN	£59
CA Super Office	£99
Corel Office Companion CD	£65
Claris Works v3 WIN (Inc. Quicken)	£61
Lotus SmartSuite R3 (Inc Approach)	£275
Lotus SmartSuite WIN R3 1-1LP	£285
Lotus SmartSuite R3 CD	£320
Lotus SmartSuite R3 CD Upgrade	£158
Lotus Symphony R3 CD	£373
Lotus Works DOS R3	£79
MS Office for Windows 95 3.5" or CD	£332
MS Office CCP Upgrade for WIN 95	£139
MS Office Competitive Upgrade for Windows 95	£164
MS Office Bonus v4.2	£320
MS Office Bonus CCP Upg	£159
MS Office Bonus CD	£322
MS Office Bonus CD Upg Voucher Box	£218
MS Office Pro for Windows 95 3.5" or CD	£429
MS Office Pro CCP Upgrade for Windows 95	£205
MS Office Pro Competitive Upgrade for Windows 95	£245
MS Office Pro Bonus v4.3	£411
MS Office Pro Bonus CCP Upg	£245
MS Office Pro Bonus CD	£420
MS Office Pro Bonus Compet Upg voucher Box	£265
MS Office Pro WIN v4.3 1-MLP	£274
MS Office Pro WIN v4.3 20-MMLP	£7,142
MS Office Pro WIN v4.3 CCP CD Upg	£224
MS Office WIN v4.2 1-MLP	£285
MS Office WIN v4.2 20-MLP	£5,179
MS Works for DOS v3.0	£82
MS Works for DOS v3.0 1-MLP	£74
MS Works for v4.0 Windows 95 3.5" or CD	£82
MS Works for WIN v3.0	£54
MS Works for WIN 95	£74
MS Works for WIN v3.0 1-MLP	£74
MS Works for WIN v3.0 20-MMLP	£1,329
MS Works for WIN v3.0 CCP Upgrade	£69
MS Works for WIN v3.0 CD	£69
Novell PerfectOffice WIN v3.0	£153
Novell PerfectOffice WIN v3.0 CD	£263
Novell PerfectOffice v3.0 Version Upgrade	£115
Novell PerfectOffice v3.0 Version Upgrade CD	£119
Novell PerfectOffice v3.0 Comp Upgrade	£155
Novell PerfectOffice v3.0 Professional	£345
Novell PerfectOffice v3.0 Professional CD	£349
Novell PerfectOffice v3.0 Pro ver upg	£175
Novell PerfectOffice v3.0 Pro ver upg, CD	£170

## LANGUAGE TRANSLATORS

Globalink Language Assistant Spanish WIN	£45
Globalink Language Assistant Italian WIN	£45
Softkey Translator English/Spanish DOS	£29

Novell PerfectOffice v3.0 Pro Trade upg	£205
Sage Accountant & MS Office	£549
Spinnaker PFS: DOS First Choice	£29
Spinnaker Window Works v2	£29
Spinnaker Windows Works CD	£29
Symantec Q&A DOS v4.0	£215
Symantec Q&A WIN v4.0	£121
TopLevel Complete Works	£69
WP MainStreet Works DOS	£45

## LANGUAGES & DEVELOPMENT TOOLS

Borland C++ v4.0 CD	£218
Borland C++ v4.0 Competitive Upg	£129
Borland C++ v4.0 Upg C++ v3.1/C++ v3.1A	£92
Borland C++ v4.0 Visual Solutions WIN v1	£62
Borland dBase for DOS	£55
Borland Debugger Plus Tools	£91
Borland Delphi CD	£155
Borland Delphi Client Server CD	£685
Borland Delphi Competitive Upgrade	£125
Borland Visual Basic Converter for Delphi	£49
Borland RAD Pack for Delphi	£125
Borland Notes Add on for Delphi	£49
Borland Object Vision 2.1 WIN	£94
Borland Pascal & Objects v7.0	£179
Borland Powerpack DOS	£65
Borland Turbo Assembler DOS/WIN	£58
Borland Turbo C++ DOS v3	£55
Borland Turbo C++ WIN v4.5	£59
Borland Turbo C++ WIN v3.1 Visual Ed.	£73
Borland Turbo Pascal DOS v7	£45
Borland Turbo Pascal DOS v7 + Object upg	£169
Borland Turbo Pascal WIN v1.5	£78
Borland Visual Solutions	£49
Borland Visual Tools v1.1	£48
CA Visual Objects	£429
MS Fortran P'Station 32 for NT v1.0	£325
MS Fortran P'Station DOS v1.0	£210
MS Fortran P'Station WIN v5.1	£210
MS Fortran WIN/DOS v5.1	£119
MS Macro Assembler DOS v6.11	£95
MS Test WIN v3.0	£399
MS Visual Basic DOS v1.0 Pro Ed Dual Media	£192
MS Visual Basic DOS v1.0 Std Ed Dual Media	£79
MS Visual Basic WIN v3.0 Pro Ed (3.5" + CD)	£192
MS Visual Basic WIN v3.0 Std Ed	£79
MS Visual C++ WIN v1.5 Std Edition CD	£55
MS Visual C++ WIN v2.0 Pro CD	£245
MS Visual Control Pack WIN v1.0	£69
MS Visual Tools Suite WIN v1.5	£185
Symantec C++ Pro Edition v6.1	£229
Symantec C++ Std Edition v6.1	£79

## LANGUAGE TRANSLATORS

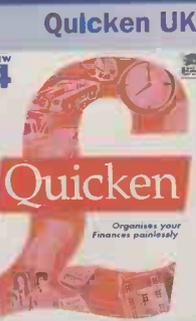
Globalink Power Translator French DOS	£55
Globalink Power Translator French WIN	£99
Globalink Power Translator German DOS	£55
Globalink Power Translator German WIN	£99
Globalink Power Translator Spanish WIN	£99
Globalink Pwr. Trans. Pro French DOS	£175
Globalink Pwr. Trans. Pro German DOS	£175
Globalink Pwr. Trans. Pro Russian DOS	£175
Globalink Pwr. Trans. Pro Spanish DOS	£175
Globalink Language Assistant German WIN	£45
Globalink Language Assistant French WIN	£45

Globalink Language Assistant Spanish WIN	£45
Globalink Language Assistant Italian WIN	£45
Softkey Translator English/Spanish DOS	£29

## LEISURE & ENTERTAINMENT

AdventureSoft Simon The Sorcerer	£22
Arthur's Birthday CD	£35
British Birds CD	£135
Camren Sandiego World Deluxe CD	£36
Corell Adventures with Edison CD	£29
Corell Arcade Mania CD	£29
Corell Bernard of Hollywood's Marlyn CD	£29
Corell World's Greatest Classic Books CD	£29
Corell All-Movie Video CD	£49
EA Fifa International Soccer	£18
EA PGA Golf for WIN	£19
EA PGA Golf & Courses DOS	£25
EA Privateer	£19
EA Star Trek 25th Anniversary	£15
EA Strike Commander Speech Pack	£19
Europress RAC Network-Q Rally	£19
Flight Sim DOS v5.1 (MS)	£24
Flight Simulator DOS v5.1 (MS) CD	£24
Flight Sim Scenery - New York (MS)	£14
Flight Sim Scenery - Paris (MS)	£14
Flight Sim Scenery-Caribbean (MS)	£17
Flight Sim Scenery-Japan (MS)	£17
Frontier Elite 2	£35
Full Throttle CD	£22
IS Software Doom II	£29
Infograms Alone In The Dark II	£24
Infograms Alone In The Dark III	£35
Interplay Star Trek II	£25
Lucas Arts Tie Fighter 3.5"	£27
Mad Dog McCreed II	£25
Mediavision Quantum Gate CD	£20
Microprose F15 Strike Eagle III & Falcon III	£22
Microprose Reef Defender/Subwar 2050	£30
Infograms Star Trek The Next Generation	£31
Microprose Subwars 2050	£35
Microprose TaskForce 1942	£24
Microprose Transport Tycoon	£35
Microprose Transport Tycoon World Editor	£21
Microprose UFO: Air War Gold	£30
Microprose UFO: Enemy Unknown	£22
Mindscape Sensible Soccer (92/3)	£17
Mirage Rise of the Robots (92/3)	£29
MS Arcade WIN 1.0	£15
MS Best of Windows Entertainment Pack	£15
MS Golf Add-on Courses - Banff Springs	£12
MS Golf Add-on Courses - Mauna Kea	£20
MS Golf Add-on Courses - Pinehurst	£19
MS Golf WIN v1.0	£10
MS Golf WIN v1.0 CD	£17
MS Golf WIN v2.0	£28
MS Space Simulator DOS	£24
MS Ultimate Haunted House WIN CD	£24
Myst CD	£35
Ocean Jurassic Park	£19
Pinball Fantasies Deluxe CD	£33
Pinball Dreams Deluxe CD	£25
Psychonosis Lemmings 3	£29
Sales Curve Lawnmower Man	£25
Sierra Betrayal at Mondor	£26
Sierra Kings Quest V CD	£15
Sierra Leisure Suit Larry 6 (Adult) CD	£25

# 3 GREAT PACKAGES FOR HOME AND BUSINESS ACCOUNTS



NEW 4  
Quicken  
Organises your finances painlessly

The fastest, easiest way to organise home and small business finances

Quicken organises all your finances in one place. It's easy to use, provides insight into your spending habits and helps you plan a better financial future.

£28

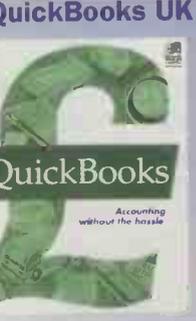


NEW 95  
QuickTax  
Completes your Tax Returns painlessly

Completes your Tax Return Painlessly

With QuickTax return 1995, planning, completing and printing out your personal tax return has never been easier.

£28



NEW 13  
QuickBooks  
Accounting without the hassle

Accounting without the hassle

QuickBooks UK 3 for Windows - includes fully integrated stock control, customisable invoices and audit trail.

£84

New! Quicken Deluxe Home Pack for Windows £45 Organises more of your home finances

New! Quicken Deluxe Business Pack for Windows £45 Organises more of your home finances

All Software supplied on 3.5" disks unless otherwise specified. For Windows Software we would recommend a minimum hardware requirement of a 386SX PC compatible with 4Mb RAM. Please check with the software publisher for suitability and system requirements before ordering. Software is not sold on trial basis. Special and bonus offer products may differ cosmetically from the standard product.

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN

**SALES HOTLINE 01582 745555**

Accepted: VISA, MASTERCARD

All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# TextBridge Professional Edition

## True document understanding



TextBridge Professional Edition not only delivers the highest quality accuracy but does much more. It actually re-constructs your documents in your word processor and are fully editable. Just as if they had been re-typed - that goes for cell tables, columns and graphics as well as text. An exclusive from Xerox.

**TextBridge Professional Edition delivers;**

◆ Award winning accuracy on normal, faxed and dot matrix text.

◆ Exclusive DocRT™ technology re-constructs cell tables that can be edited as if you created them

◆ Pages layouts with columns and pictures are maintained for true text flow editing

◆ Instant Access OCR™ from within your windows™ application

◆ On-line word training and user dictionaries

Call now to determine what will best fit your needs -

TextBridge 3.0 or TextBridge Professional Edition, they both have the same superior accuracy.

Buy TextBridge Pro NOW and receive a FREE Upgrade to the Windows 95 Version

TextBridge 3.0 **£65**

TextBridge Professional Edition **£275**

Competitive Upgrade **£199**

Sim City 2000 DOS	£24
Space Quest 5 - Sierra	£24
Team 17 Alien Breed	£15
Theme Park CD	£25
Tuneland (Longman) CD	£29
US Gold Commanche Maximum Overkill	£22
US Gold Indiana Jones Fate of Atlantis	£19
US Gold Rebel Assault CD	£24
US Gold Sam & Max Hit the Road	£29
US Gold Street Fighter 2	£15
US Gold Under a Killing Moon 3 CDs	£34
Virgin Beneath A Steel Sky	£22
Virgin Cannon Fodder	£24
Virgin Mortal Combat	£25
WP Walooee Jack - Bingi Burra Stone CD	£21
WP Walooee Jack - Thai Sun Adventure CD	£21

### MIDI & MUSIC

Goldstar Proceon WIN	£42
MS Windows Sound Sys v2.0 S/W & Mic only	£34

### MICE & INPUT DEVICES

MS IntelliMouse	£35
MS Home Mouse & IntelliPoint Home	£24
MS Mouse v2.0 5 Pack with Int. Serial & PS/2	£169
MS Mouse v2.0 with IntelliPoint Serial / PS/2	£35
MS Natural Keyboard	£59

### MULTIMEDIA WIN APPLICATIONS

All supplied on CD unless stated otherwise

MS 500 Nations WIN CD	£25
MS Ancient Lands CD	£25
MS Arc Gallery CD	£29
MS Beethoven: The 9th Symphony CD	£25
MS Bookshelf 1995 CD	£59
MS Chemenia 1995 WIN CD	£31
MS Complete Baseball CD	£28
MS Dangerous Creatures WIN CD	£25
MS Dogs CD	£29
MS Dinosaurs CD	£18
MS Encarta Encyclopedia 1995 WIN CD	£54
MS Exploradia : The World Of Nature CD	£23
MS Flight Simulator v5.1 CD	£24
MS Isaac Asimov's Ultimate Robot CD	£22
MS Mozart: The Dissonant Quartet CD	£30
MS Musical Instruments CD	£18
MS Schubert: The Trout Quintet WIN CD	£25
MS Strauss: Three Tone Poems CD	£25
MS Stravinsky: The Rite Of Spring CD	£25
MS How The Leopard Got His Spots CD	£25
MS Wine Guide CD	£22

### MULTIMEDIA TOOLS

Asymetric Multimedia Toolkit v1.5 CD	£429
Asymetric Multimedia Toolkit v3.0 CD	£499
Corel CD Power Pak	£24
Corel CD Creator	£169
Kodak Photo CD Access	£14
MS Multimedia Publishing Toolkit v2.0 CD	£235

### NETWORKING

Corel SCSI v2	£65
Novell Netware v3.12 5 User 3.5"	£395
Novell Netware v3.12 10 User 3.5"	£965
Novell Netware v3.12 25 User 3.5"	£1,445
Novell Netware v3.12 50 User 3.5"	£1,942
Novell Netware v3.12 100 User 3.5"	£2,540
Novell Netware v3.12 250 User 3.5"	£4,560
Novell Netware v4.1 5-User CD	£415
Novell Netware v4.1 10-User CD	£946
Novell Netware v4.1 25-User CD	£1,495

Novell Netware v4.1 50-User CD	£2,035
Novell Netware v4.1 100-User CD	£2,865
Novell Netware v4.1 250-User CD	£5,950
Novell Netware v4.1 500-User CD	POA
Novell Netware v4.1 1000-User CD	POA
Novell Personal Expansion Kit (Extra User)	£59
Novell Personal Netware 2 User Pack	£89
Novell Personal Netware 5 User Pack	£195
Novell Personal Netware 1.0	£44
Novell Personal Netware 10 User Pack	£519
Novell Personal Netware Add Notebook Pack	£119
Novell Personal Netware Add PCMCIA Pack	£199
Sage Mainlan v4 Software Only	£49
XTree Tools for Networks	£259
XTree Tools Server Extension	£149

### OCR & SCANNING SOFTWARE

Caere OmniPage Direct WIN v2	£72
Caere OmniPage Pro WIN v5	£325
Caere OmniScan WIN	£270
Caere PageKeeper Network WIN 1-User	£399
Caere Personal PageKeeper WIN	£120
Calera Wordscan Plus WIN v3.0	£385
Calera Wordscan WIN v3.0	£129
Calera Wordscan WIN v3.0 U/G	£175
Globalink Scamaster OCR	£125
Xerox TextBridge WIN v3	£65
Xerox TextBridge Professional	£269

### OPERATING SYSTEMS

Lotus NotesSuite R3.2	£865
Lotus NotesSuite R3.2 1-LLP	£453
Lotus NotesSuite R3.2 20-LLP	POA
Lotus NotesSuite Starter Pack Win	£585
Lotus NotesSuite R3.2 Express	£133
MS Plus! for Windows 95 CD	£29
MS Plus! for Windows 95 MLP	POA
MS-DOS to WIN 95 Upgrade 3.5"	£119
MS-DOS to WIN 95 Upgrade 3.5" MLP	£109
MS-DOS to WIN 95 Upgrade 3.5" MLP Education	POA
WIN to WIN 95 Version Upgrade CD	£59
WIN to WIN 95 Version Upgrade MLP	POA
WIN to WIN v6.22 Upgrade 1-MLP	£35
MS DOS v6.22 Upgrade 20-MLP	£569
MS DOS v6.22 Upgrade 100-MMLP	£2,899
MS DOS v6.22 Upgrade 3.5"	£36
MS WFVG v3.11	£89
MS WFVG v3.11 1-MLP	£86
MS WFVG v3.11 20-MMLP	£1,625
MS WFVG v3.11 Add-on/DOS	£43
MS WFVG v3.11 Add-on/DOS 1-MLP	£42
MS WFVG v3.11 Add-on/WIN	£41
MS WFVG v3.11 Add-on/WIN 20-MMLP	£671
MS Windows NT 1-MLP (3.5" & CD)	£366
MS Windows NT 20-MMLP (3.5" & CD)	£4,020
MS Windows NT Stand Alone (3.5" & CD)	£225
MS Windows v3.11 1-MLP	£55
MS Windows v3.11 20-MMLP	£1,100
MS Windows v3.11 3.5"	£64
Novell DR DOS v7	£49

### OS/2

Borland C++ OS/2	£295
IBM OS/2 Warp CD	£42
IBM OS/2 Warp 3.5"	£50
IBM Person to Person for OS/2	£139
IBM Works for OS/2	£71
S&S Dr.Solomons AV Toolkit OS/2 Monthly	£255
S&S Dr.Solomons AV Toolkit OS/2 Quarterly	£139
Star Stackers OS/2	£119

### PROJECT MANAGEMENT

CA SuperProject DOS v2.1	£458
CA SuperProject WIN v3	£479
Computer/Easy Estimator Plus DOS	£75
MS Project DOS v4 Dual Media	£230
MS Project WIN v3 1-MLP	£245
MS Project WIN v4.0	£282
MS Project WIN v4.0 1-MLP	£244
MS Project WIN v4.0 CCP Upgrade	£85
Softkey Project Manager WIN	£39
SPC Harvard Project Manager v3.0	£399
Symantec On Target WIN v1.0	£69
Symantec Timeline DOS v6.1	£319
Symantec Timeline WIN v6.0	£329
WP PlanPerfect DOS v5.1	£249

### ROUTE PLANNERS

MS A'Route Express Europe v4 WIN 3.5"	£64
MS A'Route Express Europe v4 WIN CD	£69
MS A'Route Express WIN v4 (UK & Eire) 3.5"	£38
MS A'Route Express WIN v4 (UK & Eire) CD	£49
Nextbase A'Route+ (UK & Ireland) DOS v7.0	£214
Nextbase A'Route+ Database Editor	£92
Nextbase A'Route+ DOS v7.0 Network 5-User Pack	£349
Nextbase A'Route+ Europe DOS v6.0	£214
Nextbase A'Route+ WIN (UK & Ireland)	£275
Nextbase MapBase DOS v5 (UK & Eire)	£288
Nextbase MapBase Postcode Boundaries	£297
Nextbase MapVision WIN London CD	£115
Nextbase MapVision WIN UK CD	£125

### SPREADSHEETS

Borland Quattro Pro v5.0 WIN Wkgrp Edition	£197
CA Supercalc v5.5 3-User LAN	£171
CA Supercalc v5.5 DOS	£68
CA Supercalc WIN	£68
Infomix Wingz v1.1	£279
Lotus 1-2-3 DOS R4	£287
Lotus 1-2-3 R3.4 1-LLP	£256
Lotus 1-2-3 WIN R4.1 1-LLP	£195
Lotus 1-2-3 WIN R5 1-LLP	£219
Lotus 1-2-3 WIN R5.0	£32
Lotus Improv WIN R2.1	£22
MS Excel v5.0 CCP Upgrade	£85
MS Excel WIN v5.0 CCP Upgrade	£82
MS Excel for Windows 95 3.5" or CD	£225
MS Excel WIN v5.0 Trade Upgrade	£122
MS Excel WIN v5.0	£221
MS Excel WIN v5.0 1-MLP	£197
Novell Quattro Pro v6 WIN (3.5" & CD)	£149
Novell Quattro Pro Version upgrade to 6.0 WIN	£35
Novell Quattro Pro Trade Upgrade to 6.0 WIN	£89
Softkey Spreadsheet Plus	£35

### SPREA SHEET ADD-ONS

RMG Crystal Ball Add-on for MS Excel	£220
--------------------------------------	------

### UPGR DE VOUCHER PACKS

All upgrades are from previous version	
Lotus Application Competitive Trade Up	£129
Lotus Application Upgrade Pack	£85
Lotus SmartSuite R3.0 Competitive Trade Up	£159
Lotus SmartSuite R3.0 SLP Trade Up	£155
MS Access Competitive Upg	£128
MS Application Trade-in Pack	£129
MS Excel Competitive Upg	£128
MS Powerpoint Competitive Upg	£128
MS Project Competitive Upg	£128
MS Word Competitive Upg	£128
See individual sections for product upgrades.	
unless marked "Competitive or Trade-Up"	

### UTILITIES - GENERAL

Central Point Backup WIN v2	£59
Central Point PC Tools Pro v9 DOS	£74
Central Point PC Tools v2 WIN	£49
Central Point More PC Tools WIN	£45
Central Point XTree Gold for Windows v4	£58
Central Point XTree Gold v3 DOS	£69
Corel Raid	£449
Corel SCSI Network Manager	£247
Hop New Wave 4.1 WIN	£92
IMSI WinDelete v2	£26
Longman Monty Pythons Complete Waste of Time	£35
Qualitas 386 Max v7	£32
Qualitas RAM Exam	£15
Quarterdeck Cleansweep	£26
Quarterdeck Desqview 386 v2.6	£105
Quarterdeck Games PAQ	£88
Quarterdeck Qemm 386 v7.5	£44
Quarterdeck QRAM 286 v2.0	£37
Quarterdeck SideBar WIN	£29
RMG First Aid for Windows	£33
RMG Dashboard WIN v2	£29
S&S Check-It Analyst	£52
S&S Check-It Pro	£59
S&S Dr. Solomons PC Security Toolkit DOS	£139
S&S PC Armour	£49
Star Stackers v4.0 DOS/WIN	£59
Stacker & Cleansweep Bundle	£53
Star Strategy	POA
Star Stackers v4.0 Upg DOS/WIN	£36
Symantec Direct Access DOS v5.1	£49
Symantec Direct Access WIN v1.0	£69
Symantec Fastback Plus WIN	£99
Symantec Navigator WIN 95	£69
Symantec Navigator WIN 95 CD	£75
Symantec Navigator WIN 95 CCP Upgrade	£34
Symantec Norton Backup DOS v2.2	£89
Symantec Norton Backup WIN v3.0	£89
Symantec Norton Commander v5.0	£54
Symantec Disklock for Windows v3	£72
Symantec Norton Desktop DOS v1.0	£89
Symantec Norton Desktop WIN v3.0	£89
Symantec Norton Editor DOS v2.2	£45
Symantec Norton First Aid	£19
Symantec Norton Speedview DOS v4.0	£47
Symantec Norton Utilities v6.0	£83
Symantec Norton Utilities for WIN 95	£89
Symantec Norton Utilities for WIN 95 CD	£95
Symantec Norton Utilities for WIN 95 CCP Upg	£48
Transfer Software PCcopy	£49
Xtree WIN v4	£69

### UTILITIES - SCREEN SAVERS

Berkley Systems Complete After Dark CD	£39
Berkley Systems After Dark WIN v3	£24
Berkley Systems Star Trek Poster	£35
Berkley Systems Star Trek Screen Saver	£26
Borland Screenery	£5
Clans Imaginaria WIN	£25
Delrina Opus 'N Bill On The Road Again	£23
Delrina Opus 'N Bill Screensaver	£20
Delrina The Far Side Collection	£26
Gold Disk ScreenCraze II WIN	£14
MS Scenes Brain Twister	£15
MS Scenes Flight	£15
MS Scenes Hollywood	£15
MS Scenes Impressionist Collection	£15
MS Scenes Outer Space	£15
MS Scenes Sierra Club	£15
MS Scenes Sports Extreme	£15
MS Scenes Undersea	£15
Visual The Northern Castles Scenes	£45

### UTILITIES - ANTI-VIRUS & SECURITY

S&S Dr.Solomons Audit	£299
S&S Dr.Solomons AV Toolkit DOS Monthly Upg	£135
S&S Dr.Solomons AV Toolkit DOS Quarterly Upg	£62
S&S Dr.Solomons AV Toolkit WIN Monthly Upg	£145
S&S Dr.Solomons AV Toolkit WIN Quarterly Upg	£70
Symantec Norton Anti-Virus DOS v3	£85
Symantec Norton Anti-Virus WIN v3	£75
Symantec Norton Anti-Virus for WIN 95	£53
Symantec Norton Anti-Virus for WIN 95 CCP Upg	£28
Symantec Norton Anti-Virus for Network	£460
Portcullis F-Port Professional Anti-Virus Toolkit Qty Upgrade	£90
Portcullis F-Port Professional Anti-Virus Toolkit Monthly Upgrade	£145
Portcullis Total Security	£145

### UTILITIES - SCREEN SAVERS

Berkley Systems Complete After Dark CD	£39
Berkley Systems After Dark WIN v3	£24
Berkley Systems Star Trek Poster	£35
Berkley Systems Star Trek Screen Saver	£26
Borland Screenery	£5
Clans Imaginaria WIN	£25
Delrina Opus 'N Bill On The Road Again	£23
Delrina Opus 'N Bill Screensaver	£20
Delrina The Far Side Collection	£26
Gold Disk ScreenCraze II WIN	£14
MS Scenes Brain Twister	£15
MS Scenes Flight	£15
MS Scenes Hollywood	£15
MS Scenes Impressionist Collection	£15
MS Scenes Outer Space	£15
MS Scenes Sierra Club	£15
MS Scenes Sports Extreme	£15
MS Scenes Undersea	£15
Visual The Northern Castles Scenes	£45

### WINDOWS ENHANCEMENT PRODUCTS

MS Windows Printing System (HPLJ II/III only)	£83
MS Windows Sound System v2.0 Inc soundcard	£130
MS Windows Sound System v2.0 s'ware only	£39
Super Printer	£49

### WORD PROCESSING

Accent Pro	£189
Borland Multimate v4.0 DOS	£270
Borland Sprint DOS	£179
CA Textor WIN v6.0	£49
IBM Displaywrite v5	£25
Lotus Ami Pro R3.1	£84
Lotus Ami Pro R3.1 1-LLP	£84
Lotus Write WIN R2.0	£92
MS Word for DOS v6.0	£172
MS Word for DOS v6.0 1-MLP	£162
MS Word for DOS v6.0 20-MLP	£3,250
MS Word for Windows 95 3.5" or CD	£225
MS Word for WIN 95 CCP Upgrade	£82
MS Word for WIN 95 Trade Upgrade	£122
MS Word for WIN v6.0	£224
MS Word for WIN v6.0 1-MLP	£195
MS Word for WIN v6.0 CCP Upgrade	£85
Toplevel Fine Words WIN	£25
Wordstar for Windows v2	£26
Wordstar v7 DOS	£223
WP MainStreet Letter Perfect	£92
WP WordPerfect DOS 5.1+	£19
WP WordPerfect DOS 5.1+ 1-User	£215
WP WordPerfect DOS v6 5-User	£175
WP WordPerfect DOS v6 20-User	£3,485
WP WordPerfect DOS v6 Competitive Upg.	£110
WP WordPerfect DOS v6 Upgrade	£72
WP WordPerfect DOS v6.0b	£211
WP WordPerfect WIN 5.2	£210
WP WordPerfect WIN v6.1 Trade Upg	£75
WP WordPerfect WIN v6.1 Version Upg	£59
WP WordPerfect WIN v6.1 1-User	£129
WP Wordperfect WIN v6.1 5 User	£589

### WRITING AIDS

Future Spellwrite	£12
WP MainStreet Grammatik DOS v5	£22
WP MainStreet Grammatik WIN	£28

# CREATE DATABASE APPLICATIONS

## Without Programming



**Alpha 5** New Alpha 5 Home & Business is a powerful Windows database that allows you to automate your business with point & click ease. You'll be creating real database applications in no time and all without programming.

- ◆ No programming
- ◆ Point & click ease of use
- ◆ Interactive Genies walk you through tasks so you learn by doing
- ◆ Built in word processor, create letters, reports & mail merges without leaving the programme
- ◆ Powerful yet easy to use field rules for accurate data entry

**£42**

# COMMUNICATE WITH THE WORLD

## Language Assistant Series - The World's Best Selling Translation Software



**£45 each**

**THE COMPLETE TRANSLATION SOLUTION**  
In today's global economy, the ability to communicate in other languages is invaluable. Whether you want to produce business and personal correspondence or improve your foreign language skills, the Language Assistant Series makes it easy.  
The Language Assistants translate documents from English to the foreign language or vice versa. They produce understandable translations quickly and easily using sophisticated expert system technology. They're great for composing or translating letters, faxes, e-mail and other foreign language documents.

ALSO AVAILABLE ON CD-ROM

# COMPATIBLE WITH



## NEW VISIO 4.0

The Smartest Way to Create all Your Business Diagrams

### NEW FEATURES

- ◆ Smarter Smartshapes
- ◆ Improved Drawing Tools
- ◆ Smarter Database Connectivity
- ◆ New Microsoft Office Binder Support
- ◆ Enhanced OLE Automation
- ◆ Custom Properties
- ◆ New Diagram Types ◆ Wizards

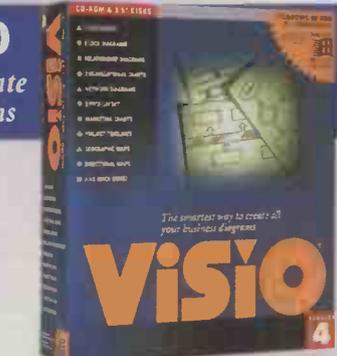
### What's New In 4.0

Now, more than ever, Visio is the smartest way to create all your business diagrams. It has been enhanced in virtually every area, and boasts several new productivity features, such as wizards that help you automatically create diagrams. And, this new-generation program is ready for the future, with full Windows 95 compatibility and support for Microsoft Office for Windows 95.

### Unrivalled Consistency With Windows '95

Visio 4.0 includes both Windows 95 (32-bit) and Windows 3.1 (16-bit) versions. The 32-bit version fully exploits the advanced capabilities of Windows 95 and also runs on Windows NT 3.51 systems.

- ◆ Faster 32-bit performance
- ◆ Descriptive long file names
- ◆ Quick View lets you preview diagrams
- ◆ Drag work from a diagram to the desktop to create a Scrap file, then incorporate into different documents by dragging and dropping.
- ◆ Stencils float or can be docked to any side of the Visio Window
- ◆ Work more efficiently with Windows 95 right mouse button menus and actions, including a new Pop-up Help system



**VISIO 3.0 with Free Upgrade to 4.0** £86  
**VISIO 4.0** £99  
**Upgrade** £59

### Wizards Automatically Generate Diagrams

The wizards in Visio 4.0 help you diagram more efficiently, whether you're experienced or new to Visio.

### Smarter more effective diagramming tools

While Visio's SmartShapes take care of most of your diagramming for you, these new tools give you more flexibility when you want to refine your diagrams.

### Smarter integration with Microsoft office

4.0 is fully compatible with Microsoft Office for Windows 95, allowing you to take full advantage of this integrated application suite.

### Even Smarter Smartshapes

Visio SmartShapes have always been a more useful way to work than ordinary clip art. And now Visio includes over 29 task-specific stencils with 1,000 Smart-Shapes-smarter and better than ever.

## New CoreIDRAW 6

CoreIDRAW 6 is the world's premier 32-bit Windows 95 graphics application. With the speed and accuracy of 32-bit architecture, CoreIDRAW 6 provides:

- ◆ Increased speed and power
- ◆ Multiple Document Interface (MDI)
- ◆ Fully-customisable toolbars, hot keys, status bar
- ◆ Greater ease of use with Wizards and Tutor Notes
- ◆ Precision to 0.1 micron
- ◆ Large page size support, over 150 feet by 150 feet OLE 2.0 in-place editing and OLE automation
- ◆ OPI (Open Press Interface)

CoreIDRAW 6 has a fully-customisable user interface allowing easy organisation of toolbars, hotkeys, roll-ups and status bars, plus illustration, photo-editing and bitmap creation, business and multimedia presentations and 3D rendering.

### Plus:

- ◆ 25,000 clipart and symbol images
- ◆ 1,000 high-resolution photos
- ◆ 1,000 True Type and type 1 fonts
- ◆ Over 500 3D models

### CoreIDRAW 6 Includes:

- ◆ CoreIDRAW 6
- ◆ Core PHOTO-PAINT
- ◆ Core DREAM 3D
- ◆ Core PRESENTS
- ◆ Plus 9 powerful utilities

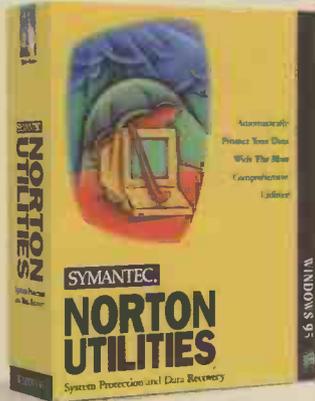


**COREL v.6 Win '95 CD** £289  
**COREL v.3/4 Upg. to v.6 CD** £245  
**COREL v.5 Upg. to v.6 CD** £245

## THREE GREAT UTILITIES FROM SYMANTEC

### NORTON UTILITIES

System Protection and Data Recovery



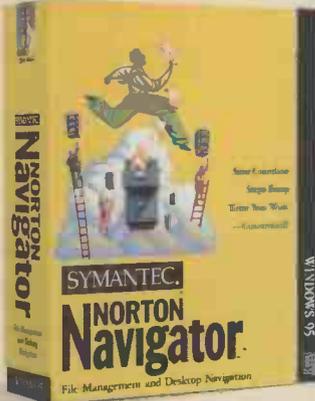
Norton Utilities is essential protection for your Windows 95 system, running continuously in the background to ensure stability and reliability, and automatically taking corrective action when needed. In the event of a crash, a rescue disk gets you up and running quickly, automatically repairing damaged resources and restoring your data.

Norton Utilities is essential for any user making the transition to Windows 95. In addition to the most effective 32-bit tools available for system protection, performance optimisation and data recovery, Norton Utilities includes new features specifically designed to prepare your PC for your new operating system.

£89 CD £95  
 Upgrade £48

### NORTON NAVIGATOR

File Management and Desktop Navigation



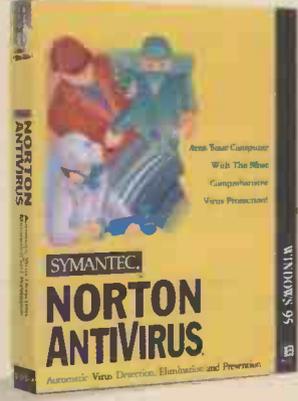
Norton Navigator saves countless steps every time you use your computer - letting you open any folder, or work with any file, with a single click. Powerful file management tools make working in Windows 95 significantly faster and easier.

You can find, copy, move, zip or unzip any file, or launch any application, instantly. Access Norton Navigator's file management tools from the open/save dialogue box of any application, or from the Windows 95 Explorer. Keep frequently used items (files, folders, applications) right on the taskbar for one-click access. You can even access Internet FTP sites directly from the Norton File Manager.

£69 CD £75  
 Upgrade £34

### NORTON ANTIVIRUS

Virus Detection, Elimination and Protection



Norton AntiVirus provides the most complete Windows 95 virus protection - one simple, easy to use package that detects, destroys and prevents virus infections. Norton's true 32-bit virus protection installs easily on your system, then works automatically in the background, watching for suspicious disk activity that could indicate a virus.

Norton AntiVirus detects and eliminates every common virus, every class of virus, every type of viral activity - even the most destructive polymorphic viruses. And Norton's exclusive, patent-pending technology used rule-based Integrity checking to provide the best safeguard available against new and unknown viruses.

£53 Upgrade £28

All Software supplied on 3.5" disks unless otherwise specified. For Windows Software we would recommend a minimum hardware requirement of a 386SX PC compatible with 4Mb RAM. Please check with the software publisher for suitability and system requirements before ordering. Software is not sold on trial basis. Special and bonus offer products may differ cosmetically from the standard product.

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
 Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
 Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# AMAZING MULTIMEDIA OFFERS

**New Low Prices**

Choose one of these special offer CD-ROM drives which comes complete with the Solution Kit

## Solution Kits:

Aries ATAPI IDE Dual Speed	£179
Toshiba Quad Speed 4X-IDE	£229
NEC Quad Speed 4X-IDE	£225
TEAC Six Speed 6X	£299

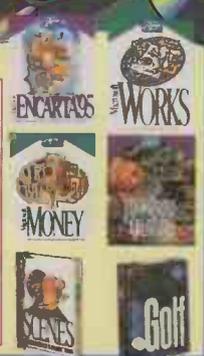
## Microsoft Solution Kit includes:

- ◆ SoundBlaster 16 Stereo Soundcard
- ◆ Aries Stereo Speakers (Opt. Upgrade to Aries HiFi Pro Speakers Only £18 + VAT)
- ◆ Complete Solution Bundle Software Pack
- ◆ **MS Encarta 95** Encyclopaedia
- ◆ MS MultiMedia Works
- ◆ MS Dangerous Creatures
- ◆ MS Money
- ◆ MS Golf
- ◆ MS Scenes (3.5" disks)

### Plus FREE

## Legend Pack CD Bundle

- Robocop 3D
- F29
- Mega Race
- Pushover
- Epic
- Might and Magic II
- D/Generation
- Contraption Zack
- ChessMaster 2100
- Life & Death II - The Brain
- Klds can Read - Cinderella
- Mud Puddle
- Thomas Snowsuit
- Paper Bag Princess
- Spiders - National Geographic



## CD-ROM DRIVE OFFERS

**Aries ATAPI IDE Dual Speed CD-ROM** **Sound BLASTER**

WEAr Kit 1: CD-ROM with Audio Lead **£59**  
 WEAr Kit 2: CD-ROM with SoundBlaster 16 Stereo Soundcard **£119**  
 WEAr Kit 4: CD-ROM with SoundBlaster 16 Stereo Soundcard, MegaPAK 2 with 11 CDs, Stereo Speakers **£139**

**Creative CR-563 Dual Speed CD-ROM** **Sound BLASTER**

WECr Kit 1: CR563 with Audio/Data Leads **£59**  
 Includes Aldus PhotoStyler & Grolier's Encyclopedia  
 WECr Kit 3: CR563 with SoundBlaster 16 Stereo Soundcard **£129**  
 WECr Kit 4: CR563 with SoundBlaster 16 Stereo Soundcard, MegaPAK 2 with 11 CDs, Stereo Speakers **£155**

**NEC 4X IDE Quad Speed CD-ROM Drive** **Sound BLASTER**

WENc Kit 1: NEC 4X IDE Drive only **£115**  
 WENc Kit 3: NEC 4X with SoundBlaster 16 IDE Stereo Soundcard **£159**  
 WENc Kit 4: NEC 4X with SoundBlaster 16 Stereo Soundcard, MegaPAK 2 with 11 CDs, Stereo Speakers **£185**

**Mitsumi FX400 Quad Speed CD-ROM** **Sound BLASTER**

WEMt Kit 1: FX400 IDE Drive only **£104**  
 WEMt Kit 3: FX400 with SoundBlaster 16 Stereo Soundcard **£148**  
 WEMt Kit 4: FX400 with SoundBlaster 16 Stereo Soundcard, MegaPAK 2 with 11 CDs, Stereo Speakers **£174**

**Teac 6X CD56e Six Speed CD-ROM** **Sound BLASTER**

WETe Kit 1: CD56e IDE Drive only **£179**  
 WETe Kit 3: CD56e with Soundblaster 16 Sound Card **£229**  
 WETe Kit 4: CD56e with Soundblaster 16 Sound Card, MegaPak 2 with 11 CD's, Stereo Speakers **£255**

**MegaPAK 2 - The Ultimate CD Bundle with 11 CDs** **Included in Kit 4's above or available for £28**

- ◆ Jurassic Park
- ◆ Compuserve Starter CD
- ◆ Bodyworks
- ◆ Voyager
- ◆ Sleepwalker
- ◆ Return to Ringworld
- ◆ Shadowlands
- ◆ Spectre VR
- ◆ The Psychotron
- ◆ Jutland
- ◆ The Cyberplasm Formula
- ◆ Microcosm

**STOP PRESS**

**Aztech Quad Speed IDE CD ROM Drive**  
**£98**

**Aries Quality Speakers**  
 Ideal for PC Multimedia System - Magnetically Shielded

Aries Stereo Speakers	£6
Aries Hi-Fi Speakers 10W	£19
Aries Hi-Fi Pro Speakers 25W	£28
Aries Digital Plus Speakers 25W	£39
Aries Ultra Power Speakers 80W	£48
Aries Screen Microphone	£4.50
Aries Stereo Headphones	£4.50
Aries Internal Speakers (Fits 5.25" bay)	£12

HiFi and Digital series speakers have builtin Power Amplifier, Base, Treble and Volume controls.

## CREATIVE MULTIMEDIA KITS

**CREATIVE BUNDLE KIT OFFERS**

**CREATIVE BUNDLE 1**

- ◆ Creative CR-563 Dual Speed CD-ROM
- ◆ Creative SoundBlaster 16 Sound Card
- ◆ Aries Stereo Speakers (Upp. to HiFi Pro Speakers for only £18 + VAT)
- ◆ **MSBundle CD Software -worth £300+**
- MS Encarta 1995 MS Golf
- MS MultiMedia Works MS Scenes (3.5")
- MS Dangerous Creatures **£179**
- MS Money

**CREATIVE/ARIES BUNDLE 3**

- ◆ Aries Dual Speed IDE CD-ROM Drive
- ◆ Creative SoundBlaster 16 IDE Sound Card
- ◆ Stereo Speakers
- ◆ **MSBundle CD Software -worth £300+**
- MS Encarta 1995 MS Golf
- MS MultiMedia Works MS Scenes (3.5")
- MS Dangerous Creatures **£169**
- MS Money

**CREATIVE/MIITSUMI BUNDLE 4**

- ◆ Mitsumi FX400 Quad Speed CD-ROM
- ◆ Creative SoundBlaster 16 IDE Sound Card
- ◆ Stereo Speakers
- ◆ **MSBundle CD Software -worth £300+**
- MS Encarta 1995 MS Golf
- MS MultiMedia Works MS Scenes (3.5")
- MS Dangerous Creatures **£198**
- MS Money

**CREATIVE/TOSHIBA BUNDLE 5**

- ◆ Toshiba XM5302B Quad Speed CD-ROM
- ◆ Creative SoundBlaster 16 IDE Sound Card
- ◆ Stereo Speakers
- ◆ **MSBundle CD Software -worth £300+**
- MS Encarta 1995 MS Golf
- MS MultiMedia Works MS Scenes (3.5")
- MS Dangerous Creatures **£198**
- MS Money

**CREATIVE/TEAC 6X BUNDLE 6**

- ◆ Teac CD56e Six Speed IDE Drive
- ◆ Creative SoundBlaster 16 IDE Sound Card
- ◆ Stereo Speakers
- ◆ **MSBundle CD Software -worth £300+**
- MS Encarta 1995 MS Golf
- MS MultiMedia Works MS Scenes (3.5")
- MS Dangerous Creatures **£279**
- MS Money

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

**Watford Electronics Ltd**  
 Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
 Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**

All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# CREATIVE

Now Available  
**ShareVision**  
Desktop video conferencing over  
a regular telephone line  
**£995** on demonstration  
in our showroom  
by appointment

**"Whether you want to Work, Learn or Play,  
Creative have the MultiMedia solution for you"**

## Sound Blaster 4x MultiMedia Home CD

This high quality kit was designed specifically for your home and office, and allows you to work, learn and play. The kit includes a quad speed drive, 16 bit sound card with Advanced Signal Processing, stereo speakers and a complete range of Microsoft titles that makes this kit both versatile and invaluable. It is perfect for the home as well as an excellent choice for games and education applications for all the family.



CPA0950

**£275**

## FREE Software Bundle

Included with SoundBlaster MultiMedia Home CD Kit



Boxes shown for illustration only

## Sound Blaster 16 Value IDE CD-Interface

A true 16 bit sound card that fits effortlessly into your PC and gives CD quality audio at a price you can afford. The card features 16 bit stereo sampling and playback, an enhanced FM OPL3 stereo music synthesiser, MIDI / joystick interface and 4W per channel amplifier. It has the new IDE interface system that allows simple connection to any compatible CD-ROM drive, and includes a whole host of audio software.

**£61**

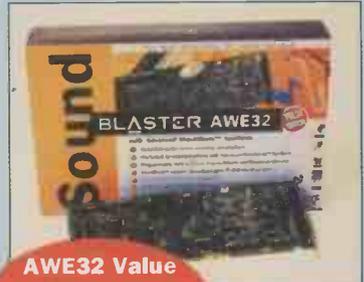


CEA1960

## Sound Blaster AWE32 & AWE32 Value

This top of the range sound card features Advanced WavEffects™ Synthesis which offers real instrument sound stored on the card to make MIDI and games sound more realistic. The card supports Qsound and the E-mu Soundfont library. The value edition includes an upgrade socket for the Advanced Signal processing chip and IDE interface.

The full edition includes an upgradable onboard RAM capability for sampling, a connector for the Wave Blaster and the Advanced Signal Processor chip on the card.



AWE32 Value

**£121**  
CEA1980

**AWE32**  
**£165**  
CEA3350

## Sound Blaster 16 pro IDE CD-Interface (Also available with Advanced Signal Processing)



CEA1970

**£83**

This 16 bit sound card is ideal for the multimedia enthusiast who wants to upgrade at a later stage. It offers all the functionality of the value edition plus a whole host of upgrade options, including a Panasonic/Creative and IDE interface for CD-Rom drive upgrade, a connector for the Wave Blaster MIDI music daughterboard and a socket for Advanced Signal Processor chip. This card also includes Voice Assist and Text Assist software.

**With ADSP**  
**£103** CEA1990

## NEW Sound Blaster MultiMedia Kits

### Sound Blaster Discovery Kit

This low cost upgrade kit has everything you need to transform your home PC into a full multimedia PC. It features a Sound Blaster 16, Dual speed (2x) or Quad speed (4x) CD-ROM drive and stereo speakers. The bundled CD-ROM titles include a multimedia encyclopaedia, computer learning software and a whole host of games for the multimedia beginner.

**Discovery 2x** **£139**  
Dual Speed CD-ROM Drive CPA0920

**Discovery 4x** **£265**  
Quad Speed CD-ROM Drive CPA0930

### CD-ROM titles include:

- ◆ Groliers Encyclopaedia ◆ How To Computers ◆ The Savage Empire
- ◆ Hong Kong Mah-jong ◆ Yeagers Air Combat ◆ Wing Commander Academy
- ◆ Ultima 7 ◆ Ultima Underworld
- ◆ Populous 2 ◆ Seven Cities of Gold
- ◆ Shadowcaster ◆ Space Hulk.

### Games Blaster AWE 32 Kit **£287**

This awesome multimedia kit for the serious games player features the hottest CD based games available today. The kit features cutting edge multimedia technology with an ultra fast Quad speed CD-ROM drive and Sound Blaster AWE32 value with Advanced WavEffects™ music capability, a high performance joystick and stereo speakers for a new dimension in games playing.

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.



**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777



# MULTIMEDIA ▸ SCANNERS ▸ INPUT DEVICES

## MULTIMEDIA (VIDEO)

- ANON**
- n RC260 Camera PC Kit **£475**
  - n RC560 Camera only **£1995**
  - n RC560 Camera PC Kit **£2495**
  - n RC560 Camera Macintosh Kit **£2525**
- CREATIVE LABS**
- relevision PC3000 **£995**
  - deo Blaster MP400 **£175**
  - deo Blaster SE100 **£165**
  - deo Blaster RT300 **£240**
  - ' Coder External **£119**

## Hauppauge



- Win TV CELEBRITY **£259**
- Win TV Cinema **£189**
- Win TV Prisma Card **£149**

- ARCHID**
- Win MPEG Playback card **£90A**
- FB**
- ationCD MPEG Playback Card **£189**

## Fast Multimedia

- Movie Machine II **£495**
- Movie Machine Pro **£299**
- MPEG Extension for Movie Machine **£249**
- MJPEG Extension for Movie Machine **£299**
- Aviator **£199**
- Screen Machine II - ISA **£659**

## Videologic

- MPEG Player **£218**
- Captivator Pro **£189**
- Captivator Pro TV **£209**
- 1Mb 928 Movie **£129**
- 1Mb 928 Movie with Sound **£159**
- 1Mb 928 Movie with MPEG **£345**
- 2Mb PCI Movie **£239**
- MediaSpace **£90A**

## CREATIVE MULTIMEDIA KITS

### CREATIVE

- Discover 2X Value **£158**
- Discovery CD 16 Dual Speed **£205**
- Discovery 4X Kit **£265**
- GameBlaster CD16 Dual Speed **£209**
- GameBlaster AWE32 **£298**
- Multimedia Home CD 4X **£275**
- Digital Edge 3X Multimedia Pack Offer whilst stocks last **£248**

## SPEAKERS & ACCESSORIES



Aries Ultra Power Speakers

- Ideal for Multimedia PC's**
- Aries Stereo Speakers **£6**
  - Aries HiFi Speakers **10W £19**
  - Aries HiFi Pro Speakers **25W £25**
  - Aries Digital Speakers **25W £29**
  - Aries Digital Plus Speakers **80W £48**
  - Aries Ultra Power Speakers **160W £59**
  - Aries Screen Microphone **£4.50**
  - Aries Stereo Headphones **£4.50**
  - Aries Internal Speakers (fits 5.25" bay) **£12**



Aries Digital Plus Speakers

## SCANNERS

### Aries Relysis Flatbed Scanners

- All supplied complete with SCSI interface, Micrografx Picture Publisher LE and Caere Omnipage Direct OCR software.
- VM3420 1200dpi 256 Grey scale **£339**
  - VM3520 1200dpi 24-bit Colour **£379**
  - RELI 2412 2400dpi 24-bit Colour **£475**
  - RELI 4816 4800dpi 24-bit Colour **£599**
  - RELI 9624 9600dpi 24-bit Colour **£1225**

### Canon

- Canon IX-4015 Colour Scanner with AT-SCSI Interface & OFOTO Software **£550**

### Epson

- Epson A4, 24 bit colour Flatbed Scanner: Supplied complete with Plc. Publisher LE, Omni Direct OCR, Interface Card & Cables
- GTX8500 Parallel **£497**
  - GTX8500 SCSI **£576**
  - GTX9000 Parallel **£599**
  - GTX9000 SCSI **£678**

### Genius

- ScanMate 32 - mono **£49**
- ScanMate 256 - 256 greyscale **£59**
- ScanMate Colour SE 24-bit 800dpi **£99**
- ScanMate Colour Pro 1600dpi **£146**

### Hewlett-Packard

- A4 Flatbed Scanner supplied with Adobe Photoshop software, interfaces & cables.
- ScanJet 3P Mono **£245**
  - ScanJet 3C Colour **£629**
  - ADF 3P **£145** ADF 3C **£265**

### Logitech

- ScanMan Colour **£165**
- ScanMan EasyTouch - Parallel **£98**
- ScanMan PowerPage **£298**
- Scanman 256 for Windows **£77**

## TRACKERBALLS

- Genius HiPointTrackerball - Serial & PS/2 **£19**
- HiTrak Trackerball - Serial & PS/2 **£22**
- Logitech Pilot TrackMan **£27**
- Trackman Voyager **£43**
- TrackMan II Combo - Serial & PS/2 **£42**
- Trackman Portable - Serial & PS/2 **£32**

## DIGITISING TABLETS

- Genius Easy Painter **£65**
- New Sketch 1212 - 12"x12" **£119**
- New Sketch 1812 - 18"x12" **£185**
- New Sketch 1812D - 18"x12" **£209**

## MICE

- Aries Excel MK3 2 Button Serial Mouse **£8**
  - Creative Aero Mouse **£65**
  - Aero Pen **£65**
  - Aero Duet **£83**
  - Genius MouseOne 2B - PS/2 **£10**
  - Mouse 3 **£12**
  - Mouse 3+ **£20**
- Includes powerful imaging software: PC Paintbrush for Windows, Media Mate Presentation Software, MouseMate Driver and Pad.
- HiMouse - Serial **£19**
  - HiMouse - Serial & PS/2 **£21**
  - Logitech Chroma Mouse - Serial & PS/2 **£24**
  - MouseMan Sensa - Serial & PS/2 **£38**
  - MouseMan - Bus **£33**
  - MouseMan Cordless - Serial & PS/2 **£49**
  - Pilot Mouse - Serial & PS/2 **£17**
  - Microsoft MS Mouse v2 - Serial or PS/2 **£35**
  - MS Mouse v2 - Bus **£48**
  - MS Home Mouse **£27**

## JOYSTICKS

- CH Products Flightstick **£29**
- Flightstick Pro **£54**
- Virtual Pilot Yoke **£62**
- Virtual Pilot Pro Yoke **£75**
- Gravis Analog **£24**
- Analog Professional **£32**
- Advanced Game Pad **£17**
- Suncom Wingman **£24**
- Wingman Extreme **£30**
- Suncom FX3000 **£26**
- Command Control Pad **£16**
- G-Force Flight Yoke **£37**

- Excel CS200 PC Joystick**  
A high quality analogue PC joystick with Turbo Switch  
**Special Offer Price £12**

## KEYBOARDS

- EntryLevel (ELV) Keyboard **£12**
  - Aries Click-Action Alps Keys Professional **£29**
  - KeyPro a Programmable Keyboard with LCD Calculator, Diagonal Cursor keys and Keylock, Professional **£35**
  - KeyTrack Keyboard with built-in Trackerball, Alps Keys **£39**
  - Cherry G83-6000 Membrane **£18**
  - Cherry G83-3210 Membrane **£20**
  - Cherry G80-3000 Click-Action **£36**
  - Cherry G81-3000 Soft-Touch **£22**
  - MS Natural Keyboard **£59**
- All Keyboards have 102 Keys

## HP Deskjet 660C

Professional quality black & white and colour printing at an affordable price

The HP DeskJet 660 colour inkjet printer offers unmatched performance and reliability with HP's industry-leading 3-year warranty. HP's easy, automatic ColorSmart technology gives you vivid optimal colour selection at the touch of a button.



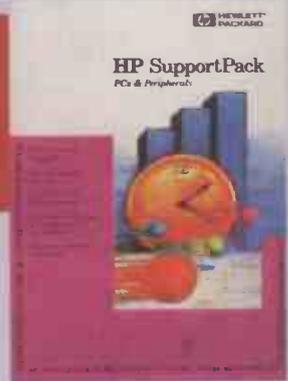
- 600dpi x 600dpi Black print resolution
- 300dpi x 300dpi Colour print resolution
- Built in A4 Sheet Feeder
- 3-year Return to HP warranty
- Optional 3-year On-Site warranty

**£279**

Also available DeskWriter 660C for Macintosh **£315**

## GET AN HP SUPPORT PACK from as little as 26p per week

Purchase a new HP Printer and have peace of mind by choosing the appropriate HP Support Pack to go with it. This enhanced warranty cover is the perfect way to ensure that your equipment will always be available for use.



PART No.	PRODUCTS COVERED	PRICE
GUA1011	DeskJet 320	£40
GUA1012	Mono DeskJet/Deskwriter	£40
GUA1015	Colour DeskJet/Deskwriter	£65
GUA1022	LaserJet 4L/4ML	£96
GUA1025	LaserJet 5P/5MP	£132
GUA1028	LaserJet 4+/4M+	£166
GUA1031	LaserJet 4V/4MV	£199
GUA1041	LaserJet 4Si/4Si MX	£199
GUA1050	LaserJet Colour	£1199

Prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns are subject to a handling charge. Goods not sold on a trial basis. Sales subject to our terms and conditions available on request. Prices exclude VAT @ 17.5%. E & OE.

Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777

# The New Kyocera FS-400

## The Advanced Personal Page Printer that Saves on Print Costs

A compact 4ppm personal page printer that also offers full system printer capabilities and savings on print costs due to its cartridge-free design.

From the company that introduced low cost printing, the FS-400 is a low cost printer that offers unrivalled potential for small businesses or organisations needing a low volume centralised printing resource.

As standard, this printer is an advanced personal page printer that has a wealth of features, including 300dpi resolution enhanced to 300 x 1200 dpi by Kyocera resolution technology. 13 scalable in-built fonts, and for additional cost savings, Energy Star compliance and draft print mode.

Other features include Industry standard Laserjet III and optional PostScript emulations, single and multi-protocol network connectivity expansion and full compatibility with Windows applications.

- ◆ Fully expandable
- ◆ Resolution enhancement
- ◆ Sleep mode
- ◆ Soft touch control panel
- ◆ Universal paper tray
- ◆ Small footprint
- ◆ Industry-standard emulations

**FS-400** Single Bin **£369** Dual Bin **£499**

Also Available

**FS-1550** **£874** **FS-1600** **£1079**



**Ecosys**

### STANDARD FEATURES:

<b>Output:</b>	4ppm
<b>Emulations:</b>	HPLIII, IBM X24E, Epson LQ-850
<b>RAM:</b>	1MB
<b>Resolution:</b>	300 x 300dpi/ 300 x virtual 1200 lrt
<b>Interfaces:</b>	Centronics Parallel plus high speed option I/O port
<b>Fonts:</b>	79 bitmapped, 13 scalable
<b>Dimensions:</b>	353W x 350D x 173Hmm
<b>Warranty:</b>	12 months (return to base)
<b>Input Trays:</b>	1 x 100 sheet Universal
<b>Output Trays:</b>	1 x 100 sheet face down

# Affordable Business Printing From OKI

## OL400ex - LED Page Printer



The ideal personal printer for use at home, in small businesses and large corporations, HPIIP™ compatible

- ◆ Serial and parallel Interfaces
- ◆ 0.5Mb memory upgrades to 4.5Mb
- ◆ Optional 2nd paper tray and multi bin feeder
- ◆ Works in DOS applications where GDI printers fail
- ◆ Offers better print quality and lower running costs than Inkjets
- ◆ Small footprint
- ◆ 4 pages per minute
- ◆ 1 Year on-site warranty

**£279**

Also Available

### OL410ex - LED Page Printer

Ideal for business users in both the home and working environment.

- ◆ 600dpi from Oki's MicroRes 600
- ◆ 1Mb memory upgrades to 5Mb

**£385**

## OL810ex - LED Page Printer

The OL810ex is the new high quality, professional personal page printer, from Oki, offering excellent print quality with high speed printing and superb paper handling capabilities.

The 8 ppm OL810ex is the desktop page printer offering a true 600 dpi LED array to produce the very best print quality text and graphical images.

- ◆ HPLJ4P™ compatible (PCLe)
- ◆ 600 x 600dpi resolution for outstanding print quality
- ◆ 8 ppm printing speed with a fast RISC based microprocessor
- ◆ 35 Intellifont fonts, 10 Truetype fonts
- ◆ 2Mb as standard. User upgradeable to 34 Mb
- ◆ Bi-directional parallel and RS232C serial with auto switching

**£649**



**NEW**

## Okijet 300c - Colour Inkjet

Oki's first colour capable inkjet printer. The OKIJET 300c is a general purpose printer providing high quality text and graphics printing on envelopes, single sheet paper, labels, index cards and transparencies.

- ◆ Colour printing with the colour print cartridge or low cost mono with the mono cartridge
- ◆ 3 pages per minute equivalent
- ◆ 300 x 300dpi text and graphics resolution and high resolution mode for transparencies
- ◆ 167cps letter quality, 300cps draft mode
- ◆ Ink saver mode for both text and graphics when printing with either the colour print cartridge or a black print cartridge
- ◆ Special OKI drivers available for easy Windows installation

**£232**

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns subject to handling charge. Goods not sold on a trial basis. Sales subject to our Terms & Conditions available on request. E & OE.

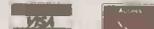


**Watford Electronics Ltd**

Mail Order & Showroom: Jessa House, Finway, off Dallow Rd, Luton LU1 1TR  
Showroom only: 250 Lower High Street, Watford, WD1 2AN



**SALES HOTLINE**  
**01582 745555**



All Prices exclude Carriage & VAT @ 17.5%

**Credit Card/Sales Order Line: 01582 745555 • Technical Support: 01582 745500 • Switchboard: 01582 487777**

# PRINTERS & ACCESSORIES

## LASER PRINTERS

Brother HL630	6ppm	£324
Brother HL660	6ppm	£464
Brother HL 1260*	12ppm	£910
Canon LBP430W	4ppm	£363
Canon LBP1260	12ppm	£909
Epson EPL3000*	4ppm	£389
Epson EPL5200+	5ppm	£471
Epson EPL9000	8ppm	£1199
Epson EPL9000PS	8ppm	£1362
HP LaserJet 4L	4ppm	£375
HP LaserJet 4MV	16ppm	£1989
HP LaserJet 4V	16ppm	£1368
HP LaserJet 4+	12ppm	£989
HP LaserJet 4M+	12ppm	£1299
HP LaserJet 4Si	16ppm	£2085
HP LaserJet 4SI MX	16ppm	£2967
HP LaserJet 5P	6ppm	£587
HP LaserJet 5MP	6ppm	£735
HP LaserJet Colour	8ppm	£4199
Kyocera FS400 S/Bin	4ppm	£398
Kyocera FS400 D/Bin	4ppm	£545
NEC SuperScript 610+*	6ppm	£289
NEC SuperScript 660i*	6ppm	£565
NEC SuperScript Colour 3000*	6ppm	£649
OKI OL400ex*	4ppm	£279
OKI OL410ex*	4ppm	£385
OKI OL810ex*	8ppm	£649
OKI OL850 PS*	8ppm	£1199
OKI OL1200ex*	12ppm	£966
Panasonic KX-P4430**	5ppm	£479
Panasonic KX-P4440**	10ppm	£679
Panasonic KX-P6100	5ppm	£265
Panasonic KX-P6150	6ppm	£325
Star Win Type 4000	4ppm	£288
On-site warranty: ** = 1 Year ** = 2 Years		

## LASER RAM UPGRADES

Type	1M	2M	4M	8M
Brother HL630	£85	-	-	-
Brother HL631	£70	-	-	-
Canon LBP4+	£139	-	-	-
Canon LBP4i	£109	-	£279	-
Canon LBP8 IV	£119	-	£299	-
EPL4100/4300	£62	£110	£205	-
EPL5200/5600	£49	£115	£199	-
HP III/IIIP/IIID	£59	£95	£150	-
HP I/II/D	£65	£95	-	-
HP II/Si	£85	£158	£229	-
HP 4/4M/4P/4MP	£84	£115	£229	-
HP 4L/4ML	£65	-	-	-
KX-P4410/4430	£89	£129	-	-
KX-P4420/4450i	£89	£109	£165	-
KX-P4400/5400	£75	£109	£175	-
OKI OL400e	£99	£118	-	-
Star LPB	£138	£225	-	-
Star LS5	£75	-	-	-

## LASER CONSUMABLES

Type	Toner	Drum	Dev
Brother HL600 Series	£22	£99	-
Canon/Star 4s	£51	-	-
Canon LBP-8 IV	£70	-	-
Canon LBP-8III	£46	-	-
EPL4000/4100/4300	£64	£89	-
EPL5200	£82	-	-
EPL7100/7500/8100	£117	-	-
Fujitsu VM600	£85	-	-
Fujitsu VM800	£115	-	-
Fujitsu VM4	£29	£149	£89
HP II/IIIP/IIID	£47	-	-
HP IIP/IIIP	£51	-	-
HP III/Si/4Si/MX	£77	-	-
HP 4/4+/4M	£65	-	-
HP 4L/4ML/4P/4MP	£45	-	-
HP 4V/MV	£109	-	-
HP 5P/5MP	£60	-	-
NEC 610	£75	-	-
NEC S60/60P/62P/90/95	£105	-	-
OKI OL400/800	£19	£189	-
OKI OL400e	£17	£129	-
KX-P4410/30	£28	£80	£90
KX-P4440	£32	£108	£115
KX-P4420	£24	£57	£55
KX-P4450/50i/51/55	£18	£75	£60
KX-P4400/5400	£14	£55	-
KX-P6100	£12	£98	-
Qume Crystalprint	£99	£189	-
Star LS-5	£83	-	-
Star Wintype	£68	-	-

## LASER ACCESSORIES

JetPage Postscript Cartridge - IIP/IIIP	£169
Postscript Upgrade for LaserJet 4	£270
Postscript Upgrade for LaserJet 4P	£225
LaserJet 4 Lower Paper Cassette	£205
LaserJet 4 JetDirect Ethemet Card	£339
LaserJet IIIP Lowe Paper Cassette	£115
Ozone filter for KX-P4420	£9
Ozone filter for KX-P4450/4455	£20
LaserJet 4Si Duplex Unit	£475
Envelope Feeder for LaserJet 4	£199
LaserJet III FX/IBM Emulation Cart	£79
Lower Paper Tray for Canon LBP-4	£98
A5 Paper Feeder for LaserJet 4P	£85

## 9PIN MATRIX PRINTERS

Citizen 1200+Parallel	80col	£90
Citizen 120D+Serial	80col	£105
Epson LX300	80col	£98
Epson LX1050	132col	£187
Epson FX870	80col	£245
Epson FX1170	132col	£304
Epson DFX5000+	132col	£1188
Panasonic KX-P1150	80col	£89
Panasonic KX-P3696	80col	£259
Star LC15	132col	£177
Star LC100C	80col	£89
Star LC90	80col	£78
Star ZA200	80col	£265
Star ZA250	132col	£329

## 24PIN MATRIX PRINTERS

Citizen ABC Mono	80col	£103
Citizen ABC Colour	80col	£125
Citizen Swift 200 Mono	80col	£138
Citizen Swift 200 Colour	80col	£146
Citizen Swift 330X	132col	£309
Epson LQ300	80col	£150
Epson LQ570+	80col	£217
Epson LQ870	80col	£381
Epson LQ1070+	132col	£303
Epson LQ1170	132col	£441
Epson DLQ3000	132col	£805
NEC P2Q	80col	£98
NEC P3Q	132col	£178
NEC P62	80col	£315
NEC P72	132col	£372
Panasonic KX-P2023	80col	£108
Panasonic KX-P2124	80col	£198
Panasonic KX-P2135 Colour	80col	£124
Panasonic KX-P3626	132col	£252
Star LC24-15 II	132col	£232
Star LC240 Mono	80col	£90
Star LC240 Colour	80col	£103
Star XB24-200 Colour	80col	£329
Star XB24-250 Colour	132col	£395

## RIBBONS/INK CARTRIDGES

### Manufacturers Original Ribbons Only

Type	Black	Colour
Canon BJ10ex/BJ10sx	£14	-
Canon BJ30	£10	-
Canon BJ200/BJ230	£16	-
Canon BJ300/BJ330	£11	-
Canon BJC70	£9	£14
Canon BJC600	£7	£8
Canon BJC800	£6	£22
Canon BJC4000 Ink Tank	£7	£13
Citizen 120D+	£4	-
Citizen Swift 200/240/ABC	£4	£13
Citizen Swift 24X	£8	£18
Epson LX100	£4	-
Epson LX400/LX850/FX870	£4	-
Epson LX1050/FX1170	£5	-
Epson LQ100	£4	-
Epson LQ150	£4	£12
Epson LQ570/870	£5	-
Epson LQ1070/1170	£8	-
Epson LQ2550	£8	£16
Epson SQ870/SQ1170	£23	-
Epson Stylus Colour	£12	£27
Epson Stylus 300	£12	-
Epson Stylus 800/1000	£10	-
Fujitsu DL1150/DL1250	£5	£7
Fujitsu DL3600	£6	£12
Fujitsu B100/B200	£18	-
HP DeskJet 500 Series	£19	£21
HP DeskJet 660	£20	£23
HP DeskJet 850	£22	£20
HP DeskJet 310/320	£13	£21
HP DeskJet 1200C	£19	£21
HP PaintJet	£16	£18
HP PaintJet XL300	£16	£18
Kaga/Taxan KP810/815	£5	-
NEC P3Q/P32Q	£8	-
NEC P62/72/90	£8	£14
Panasonic 1150/1170/1180	£7	-
Panasonic 2180/23/24/35	£7	£14
Panasonic 1624/2624	£8	-
Panasonic KXP3626/3696	£11	-
Star LC10/LC20/LC100	£5	£9
Star LC100/200	£5	£11
Star LC24-20/24-100/24-200	£5	£12
Star LC24-30	£8	£12
Star XB24/ZA200/ZA250	£5	£12
Star SJ48	£15	-
Star SJ144 Thermal	£6	£8

## INKJET PRINTERS

Canon BJ200ex	80col	£160
Canon BJ30	80col	£143
Canon BJ230	132col	£239
Canon BJ300	80col	£351
Canon BJ330	132col	£390
Canon BJC70	80col	£223
Canon BJC600e	80col	£323
Canon BJC800	32col	£1065
Canon BJC820 (Mac)	132col	£1228
Canon BJC4000	80col	£222
Citizen Projct IIC	80col	£198
Epson Stylus 1000	132col	£311
Epson Stylus Colour	80col	£350
Epson Stylus Colour Pro A4	80col	£P0A
Epson Stylus Colour Pro XL	132col	£P0A
Epson SQ870	80col	£453
Epson SQ1170	132col	£609
HP DeskJet 320	80col	£164
HP DeskJet 320 & CSF	80col	£180
HP DeskJet 540	80col	£225
HP DeskJet 660C	80col	£279
HP DeskJet 850C	80col	£369
HP DeskJet 1200C	80col	£630
HP DeskJet 1200C PS	80col	£985
HP DeskJet 1600C	80col	£830
HP PaintJet XL300+ A4	80col	£1599
Lexmark ExecJet IIC	80col	£199
Lexmark WinWriter 100	80col	£269
OKI OJ300 Colour	80col	£225
Star SJ144	80col	£178
Star Wintype 800C Thermal	80col	£592

## SHEET FEEDERS

Canon BJ10ex/BJ10sx	£40
Canon BJ300	£86
Canon BJ330	£96
Citizen Swift 24/200/240	£75
Epson LX400	£69
Epson LQ570/LQ870	£47
Epson LQ1070/LQ1170	£48
HP DeskJet 310/320	£59
NEC P20/P220	£85
NEC P3Q/P32Q	£85
Panasonic 1170/1180/1123	£59
Panasonic 1124i/1124/2124	£79
Panasonic 1824/2824	£128
Panasonic KX-P2135	£30
Star LC100	£69
Star LC240	£69
Star LC200/LC24-200	£69

### INKJET REFILL PACKS FOR

◆ Canon BJ10ex/BJ10sx - 2 pack	£10
◆ Canon BJ10ex/BJ10sx - 5 pack	£24
◆ Canon BJ10ex/BJ10sx 1 Original Cart & 3 refills	£36
◆ Canon BJ200 2 refills	£34
◆ Epson SQ870/1170 - 2 refills	£9
◆ HP DeskJet Std capacity - 2 pack	£8
◆ HP DeskJet Std capacity - 5 pack	£20
◆ HP DeskJet Std capacity black Cart +3 Std capacity refills	£30
◆ HP DeskJet Hi-capacity - 2 pack	£17
◆ HP DeskJet Hi-capacity - 5 pack	£35
◆ HP DeskJet Colour Cart & 1 each (3) colour refills	£39

## ACCESSORIES

Citizen Swift 200/240/ABC Colour it	£32
Canon BJ10sx Battery Pack	£32
Epson OK Serial Interface	£29
Epson 8K Serial Interface	£75
Epson 32K Serial Interface	£95
Epson LQ100 Tractor Unit	£29
Epson LX300 Colour Kit	£29
HP DeskJet FX Emulation Cartridge	£49
HP DeskJet IBM Emulation Cartridge	£57
HP DeskJet 500 256K RAM Cartridge	£75
HP DeskJet 320 Battery Pack	£33
HP DeskJet 320 CarryCase	£49
HP DeskJet 320/540 Colour Kit	£28
HP DeskJet 320 Parallel Cable	£12
HP DeskJet 1200 Postscript Upgrade	£499
HP DeskJet Prestige Elite Fonts	£55
HP DeskJet Letter Gothic Fonts	£56
Panasonic Serial Interface	£49
Panasonic 32K Buffer	£16
Panasonic 2180/2123 Colour Kit	£30
Star 8K Serial Interface - LC Range	£52
Star 8K Serial Interface - XB Range	£39
Star 32K Buffer - LC24/XB24	£52
Dustcovers for 80col printers	£6
Dustcovers for 132col printers	£9

### SPECIAL OFFERS

◆ 80 col Perspex Printer Stand	£7
◆ 132 col Perspex Printer Stand	£10
◆ 80 col Printer Stand	£8
◆ 132 col Printer Stand	£12

## LUTON STORE

Finway, Dallow Road, Luton, Beds  
Tel: 01582 745555

## WATFORD STORE

250 Lower High Street, Watford, Herts.  
Tel: 01923 237774

## HP On-Site Warranty Packs

Model	1yr	3yr
Mono DeskJet/Deskwriter	£32	£40
Colour DeskJet/Deskwriter	£45	£65
LaserJet 4L/ML DJ1200/1600	£78	£90
LaserJet 4+/4M+	£135	£160
LaserJet 4V/4MV	-	£200
LaserJet 5P/5MP	-	£130

## PRINTER SHARER/BUFFER

### Manual Printer Sharers

Type	Serial	Parallel
2in/1out	£12	£13
2in/2out	£28	£29
3in/1out	£15	£17
4in/1out	£24	£26

### Auto Parallel Printer Sharer Buffers

Type	OK	256K	1Mb
2in/1out	£29	-	-
2in/2out	-	£105	£134
4in/1out	£45	-	-
4in/2out	£69	£124	£149
8in/1out	£79	-	-

### Auto Serial Printer Sharer Buffers

Type	OK	256K	1Mb
2in/1out	£27	-	-
2in/2out	-	£124	-
4in/1out	£44	-	-
4in/2out	£69	£147	-
8in/1out	£62	-	-

### RAM Expansion for above Auto Sharers

RAM Module	256K	1Mb	2Mb
	£59	£78	£124

### Pocket Buffers

	256K	1Mb	2Mb
Parallel Flash Buffer	£65	£98	£119
Parallel Fast Flash Buffer	£85	£125	£158
RS232 Plotter Buffer	£155	£184	£330

## COMPACT CONVERTER

Serial to Parallel & Parallel to Serial	£49
As above with 256K buffer	£55
IEEE-488/Centronics Converter	£49
RS232 to RS422 Converter	£37
Parallel Line Extender	£37

## PRINTER LEADS

	1.8m	5m	10m
--	------	----	-----

# MONITORS • VIDEO CARDS • MODEMS • HARD DRIVES

## MONITORS

**Aries VGA Monitors**  
 14" Mono VGA - Paper White **£85**  
**EnergyPro 14" LR SuperVGA**  
 0.28mm dot pitch, EnergyStar compliant,  
 supports up to 1024x768 resolution **£159**

### Aries Multiscan Monitors



The NEW Aries Multiscan monitors with Horizontal Frequency ranging from 29KHz to 75KHz providing rock solid images at resolutions of upto 1280 x 1024. Non-interlaced, coupled with the 0.28mm dot pitch Picture Tube provides the Ultra High Image that is expected from the Aries range of Low Radiation Swedish MPRII Standard Monitors Supplied complete with tilt and swivel base.

**Aries Alphascan Pro LR**  
 1024 x 768/72Hz (NI) H-Sync 70KHz,  
 Front Mounted user controls. **£189**

**Aries EnergyPro 6000I LR**  
 15" Colour Display, 0.28mm dot  
 pitch, 1280 x 1024/60Hz NI,  
 Microprocessor Control with digital display,  
 inc. Pincushion, Trapezoid, Rotation  
 settings. EPA EnergyStar Compliant. **£239**

**Aries EnergyPro 7500I LR**  
 17" Flat Screen 0.26mm, 1280 x  
 1024/70Hz (NI) H-Sync 80 KHz  
 Microprocessor Controls include,  
 Pincushion, Trapezoid, Rotation & individual  
 RGB Colours, EnergyStar Compliant. **£419**

### CTX Multiscan Monitors

1451LR 14" **£169**  
 1565GN 15" **£235**  
 1765GM 17" **£449**  
 1785GM 17" **£495**

### Hitachi Multiscan Monitors

17MXV 17" **£495**  
 20CM2096 20" **£1025**

### NEC Multiscan Monitors

XV15 15" **£279**  
 XV17 17" **£559**  
 XE17 17" **£686**  
 XE21 21" **£1329**

### Panasonic Monitors - 2yr On-site warranty

TX-D1562 15" **£260**  
 TX-D1733 17" **£449**  
 TX-D1733F 17" **£499**  
 TX-D1751 17" **£625**  
 TX-D2051 20" **£1019**  
 TX-D2151 21" **£1316**

### Sony Multiscan Monitors

CPD-15SF1 15" **£295**  
 GDM-17SE1 17" **£815**  
 GDM-20SE1VT 20" **£1295**  
 GDM-20SE1 20" **£1425**

### Taxan Ergovision Monitors

EV 410LR 14" **£185**  
 EV 580LR 15" **£265**  
 EV 895LR 17" **£799**  
 EV 1080LR 20" **£879**  
 EV 2100LR 21" **£1489**

### Viewsonic Multiscan Monitors

15ES 15" **£245**  
 17G 17" **£549**  
 20G 20" **£989**

All prices, specifications and offers subject to change without notice. Please ensure suitability with manufacturer before ordering. All returns are subject to a handling charge. Goods not sold on a trial basis. Sales subject to our terms and conditions available on request. Prices exclude VAT @ 17.5%. E & OE.

## GRAPHICS CARDS

**Generic**  
 256K VGA Card ISA **£18**  
 512K SVGA Card ISA **£24**  
 1Mb Super VGA ISA **£39**  
 1Mb SuperVGA VLB **£58**

**Diamond**  
 1Mb Stealth SE VLB **£78**  
 1Mb Stealth 64 DRAM VLB **£84**  
 2Mb Stealth 64 DRAM VLB **£124**  
 1Mb Stealth 64 Video DRAM VLB **£98**  
 2Mb Stealth 64 Video VRAM VLB **£213**  
 4Mb Stealth 64 Video VRAM VLB **£308**  
 1Mb Stealth SE PCI **£77**  
 1Mb Stealth 64 DRAM PCI **£86**  
 2Mb Stealth 64 DRAM PCI **£124**  
 1Mb Stealth 64 Video DRAM PCI **£98**  
 2Mb Stealth 64 Video VRAM PCI **£216**  
 4Mb Stealth 64 Video VRAM PCI **£308**

**Matrox**  
 2Mb Impression+ ISA **£259**  
 2Mb Millennium PCI **£239**  
 4Mb Millennium PCI **£349**

**Number Nine**  
 1Mb 9FX Vision 330 **£99**  
 2Mb 9FX Vision 330 **£145**  
 1Mb 9FX Motion 531 **£139**  
 2Mb 9FX Motion 771 **£279**  
 4Mb 9FX Motion 771 **£399**  
 Please specify PCI or VL Bus when ordering

**Orchid**  
 2Mb Kelvin 64 ISA **£118**  
 1Mb Kelvin EZ VLB **£79**  
 1Mb Kelvin 64 VLB **£94**  
 2Mb Kelvin 64 VLB **£119**  
 1Mb Fahrenheit 64 VLB **£99**  
 2Mb Fahrenheit 64 VLB **£149**  
 2Mb Fahrenheit Pro 64 VLB **£218**  
 4Mb Fahrenheit Pro 64 VLB **£329**  
 1Mb Kelvin 64 PCI **£89**  
 2Mb Kelvin 64 PCI **£129**  
 1Mb Fahrenheit 64 PCI **£109**  
 2Mb Fahrenheit 64 PCI **£149**  
 2Mb Fahrenheit Pro 64 PCI **£218**  
 4Mb Fahrenheit Pro 64 PCI **£319**



2Mb Velocity 64V S3 968 **£219**  
 4Mb Velocity 64V S3 968 **£319**  
 2Mb Powergraph 64V S3 Trio **£135**  
 Please specify VL or PCI bus when ordering

**Taxan**  
 2Mb WinTurbo **£194**  
 4Mb WinTurbo Plus **£338**  
 Please specify ISA, VL or PCI bus  
 when ordering

## Videologic



1Mb GrafixStar 300 **£97**  
 2Mb GrafixStar 300 **£135**  
 1Mb GrafixStar 500 **£132**  
 2Mb GrafixStar 500 **£185**  
 2Mb GrafixStar 700 **£235**  
 4Mb GrafixStar 700 **£379**  
 VMC Controller **£45**  
 Please specify PCI or VL Bus when ordering

## MODEMS

### Aries X-Link Fax/Modems



XL-144i Internal 14400bps,  
 V32bis, V42bis, MNP5 **£85**

XL-144E External 14400bps  
 V32 bis V42bis MNP5 **£87**

XL-V34i Internal 28800 bps V34,  
 V32bis V42bis, MNP5 **£149**

XL-V34E External 28800bps V34  
 V32 bis V42bis MNP5 **£159**

All above Modems are BABT approved  
 carry 3 years warranty & are supplied  
 complete with cables & Winfax  
 Life Software.

**Creative Labs**  
 Phone Blaster v32 **£POA**  
 Phone Blaster v34 **£POA**

**IBM PCMCIA Fax/Modems**  
 Ideal for Thinkpads 14.4 **£129**

**PACE Fax/Modems**  
 Manufacturer's 5 Year no-quibble  
 guarantee

GOA0670 Mobilfax Quad Pocket **£75**  
 GOA0900 Mobilfax 14.4 Pocket **£92**  
 GOA1010 Linnet Message Desk **£209**  
 GOA0780 Linnet 34 FX **£264**  
 GOA0270 Microlin FX Pocket **£89**  
 GOA0020 Microlin FX Internal **£79**  
 GOA0420 Microlin FX32+ Pocket **£147**  
 GOA290 Microlin FX32+ Internal **£134**  
 GOA1020 Microlin FX34 Pocket **£235**  
 GOA1070 Microlin FX34 Internal **£229**  
 GOA0510 Microlin NB32+ PCMCIA **£189**  
 GOA1030 Microlin NB34 PCMCIA **£275**  
 GOA0260 Ultralink 32 **£330**

All Pace modems, except Linnet & Microlin  
 FX34 come supplied with DosFax, WinFax  
 & Comit software and connecting cables.

### US Robotics Modems

	Ext	Int
Sportster 14.4 Fax/Modem	<b>£107</b>	<b>£107</b>
Sportster 28.8 V34 Fax/Modem	<b>£158</b>	<b>£159</b>
Worldport Dual Cellular	-	<b>£122</b>
Courier v34 Fax/Modem	<b>£249</b>	<b>£249</b>
Worldport PCMCIA 2496 Fx/Md	-	<b>£129</b>
Worldport Dual standard cellular PCMCIA	-	<b>£193</b>
Worldport v34 PCMCIA	-	<b>£159</b>
Connecting Cable 9/25	-	<b>£8</b>

### Dataflex Fax/Modems

Rapier Plus Desktop **£338**  
 3 year warranty. Complete with  
 cables & software

### Motorola Fax/Modems

3400 On-Line Internet Solution **£178**  
 3400 PRO Desk Top **£164**

**OPEN DAY**  
**Sunday September 10th**  
**At our Luton Showroom**  
**10am - 4.30pm**

## IDE HARD DRIVES



**Conner**  
 CFS540A 540Mb 12ms 3.5" **£105**  
 CFS850A 850Mb 12ms 3.5" **£139**  
 CFS1275A 1.27Gb 11ms 3.5" **£184**

**IBM**  
 84G8998 **1.05Gb 10ms 3.5" £199**

**Maxtor**  
 7540AV 540Mb 12ms 3.5" **£109**  
 7850AV 850Mb 12ms 3.5" **£139**  
 71260AT 1.26Gb 12ms 3.5" **£179**

## Maxtor®

### Maxtor/Watford Upgrade Kits

Supplied complete with: Drive, mounting  
 kit, installation Software and user  
 friendly installation guide. Supported  
 directly by the manufacturer with No  
 Quibble Guarantee and FREE Technical  
 support Hotline

MxWE540 540Mb 12ms 3.5" **£129**  
 MxWE850 850Mb 12ms 3.5" **£159**  
 MxWE1260 1.26Gb 12ms 3.5" **£229**  
 MxWE1600 1.6Gb 11ms 3.5" **£POA**

### Quantum

Fireball 540Mb 12ms 3.5" **£109**  
 Trailblazer 850Mb 12ms 3.5" **£149**  
**Fireball 1.08Gb 12ms 3.5" £189**

### Seagate

ST3660A 545Mb 12ms 3.5" **£103**  
 ST5850A 850Mb 12ms 3.5" **£142**  
 ST31220A 1.08Gb 12ms 3.5" **£172**

### Western Digital

AC2635 635Mb 10ms 3.5" **£129**  
 AC2850 850Mb 10ms 3.5" **£139**  
 AC31000 1.1Gb 10ms 3.5" **£209**  
**AC31600 1.62Gb 10ms 3.5" £399**

## 2.5" HARD DISK DRIVES

### Hitachi

DK221A-34 340Mb 11ms 2.5" **£149**  
 DK211A-51 510Mb 11ms 2.5" **£199**  
 DK212A-81 810Mb 11ms 2.5" **£329**  
 DK212A-10 1.0Gb 10ms 2.5" **£479**

### Seagate

ST9385AG 341Mb 16ms 2.5" **£209**  
 ST9655AG 524Mb 16ms 2.5" **£309**

### Toshiba

MK1924FC 540Mb 12ms 2.5" **£209**  
 MK2628FC 810Mb 12ms 2.5" **£329**

## SCSI HARD DRIVES

### Conner

CFP1080S 1.0Gb 10ms 3.5" **£299**  
 CFP2105S 2.15Gb 9ms 3.5" **£549**  
 CFP4207S 4.22Gb 9ms 3.5" **£895**

### Fujitsu (2 year Warranty - 2Gb+ - 5 year Warranty)

M2684S **532Mb 12ms 3.5" £125**  
 M1606SA 1.1Gb 10ms 3.5" **£315**  
 M2903SA 2.0Gb 12ms 3.5" **£615**  
 M2909S 3.0Gb 11ms 3.5" **£849**

### IBM (5 year warranty)

84G9001 1.0Gb 10ms 3.5" **£299**  
 74G7044 2.0Gb 8ms 3.5" **£769**  
 74G7045 4.0Gb 8ms 3.5" **£999**  
 74G7073 5.25Gb 8ms 3.5" **£1249**

### Quantum

Maverick 540Mb 12ms 3.5" **£143**  
 Fireball 1.08Gb 9ms 3.5" **£355**  
 Atlas 2.1Gb 9ms 3.5" **£699**

### Seagate

ST31230N 1.05Gb 9ms 3.5" **£305**  
 ST32430N 2.1Gb 9ms 3.5" **£599**  
 ST15230N 4.2Gb 11ms 3.5" **£999**

## miro...Smart Multimedia Solutions

**miro VIDEO DC1**  
 Digital Video Editing on your PCI

Awards for Outstanding Performance, Affordability and Ease of Use  
 Super VHS quality, PAL, NTSC and SECAM. On-board Motion  
 JPEG compressor. Compatible with all graphic boards.  
 With U-lead VideoStudio **£325** With Adobe Premiere **£396**

**miro VIDEO 20TD live!**  
 Watch TV/cable channel on your PCI

Capture, store and edit video from any external  
 source and play back in full image, full speed.  
 Graphics accelerator, video overlay  
 and TV reception all in one board!  
 With U-lead VideoStudio **£345**

**miro VIDEO 12 PD**  
 Incredibly low-cost graphics  
 accelerator and AVI movie board!

1 Mb DRAM, plug and play full screen AVI playback.  
 Ideal for CD-ROM users, Bundled U-lead VideoStudio  
 Upgradeable to 2MB DRAM.

miroVIDEO 12PD 1Mb **£95** 2Mb **£129**

**miroSOUND PCM1 pro**  
 Precision sound for music & games  
 Advanced wave/tablet power, Yamaha OPL4 with  
 128 original instruments in General MIDI standard,  
 parallel recording and playback, easy to install.  
 miroSOUND PCM1 pro **£125**

**NEW**  
**miro**  
**Connect34**  
**Wave**  
 Call for details

# MEMORY • DATA-STORAGE • FAX • PSION • SPARES

## TAPE STREAMERS

<b>HP Colorado Tape Drives</b>	
DJ-35 350Mb Internal	£79
DJ-25 680Mb Internal	£115
DJ-50 1.4Gb Internal	£225
T1000 800Mb Internal	£135
JT-35 350Mb External	£152
JT-25 680Mb External	£198

<b>Accessories</b>	
KE-10 ISA External Kit	£59
KE-15 PC/2 External Kit	£77
FC-20 Fast Tape Controller	£49
TC-15 Fast Cont. with H'Ware Comp	£99
SK7 Windows Backup Software	£39
SK1 OS/2 Backup Software	£72

<b>Iomega Storage Solutions</b>	
Tape700 680Mb Internal	£136
Tape700 680Mb External	£189
Ditto420 420Mb Internal	£95
Ditto800 800Mb Internal	£135

<b>Backpack Tape Drives</b>	
350Mb External	£189
800Mb Travan External	£255

<b>HP SureStore Tape Drives</b>	
SureStore 2000 2Gb Internal	£599
SureStore 2000 2Gb External	£699
SureStore 5000 4Gb Internal	£679
SureStore 5000 4Gb External	£779

<b>Data Cartridges</b>			
DC2000	£12	DC2120	£9
DC6250	£16	DC2120XL	£14
MC3000 XL	£15	Travan TR1	£23
4mm 1.3Gb 5pk	£39	4mm 2Gb 5pk	£47

## CABLES & ACCESSORIES

Single 40w Internal IDE cable	£6
Dual 40w Internal IDE cable	£8
Single 50w Internal SCSI cable	£8
Dual 50w Internal SCSI cable	£9
50w - 50w Amphenol SCSI cable	£16
25w - 50w Amphenol SCSI cable	£16
SCSI-2 cable	£25
Removable SCSI Drive Rack	£29
5.25" Power Splitter cable	£5

## REMOVABLE DRIVES

<b>Syquest</b>	
SQ3105S 105Mb SCSI Internal	£235
SQ3270A 270Mb IDE Internal	£258
SQ3270S 270Mb SCSI Internal	£290
SQ400 44Mb Cartridge	£44
SQ310 105Mb Cartridge	£41
SQ327 270Mb Cartridge	£51

## PARALLEL PORT DRIVES

<b>BackPack Hard Disk Drives</b>					
420Mb	£326	850Mb	£495	1Gb	£615

## FLOPPY DISK DRIVES

<b>Standard Internal Bare Drives</b>	
UC600 5.25" 1.2Mb Drive	£35
UC35/6 3.5" 1.44Mb Drive	£21
UC35/55 - Combined 2 In 1 - 3.5" 1.44Mb & 5.25" 1.2 Mb Drive	£85
5 Head Floppy Cable	£5
5.25" Fixing Kit for 3.5" Drives.	£5
<b>BackPack External Parallel Port Drives</b>	
3.5" 1.44Mb	£115
5.25" 1.2Mb	£131

## MOTHERBOARDS

<b>CEA1800:</b> 486 VL Bus, 256K Cache, ZIF Socket, 3 VESA, 4 ISA - 2 x 72 & 4 x 30 pin SIMM	£62
<b>CEA5040:</b> 486 VL Bus, 128K Cache, ZIF Socket, 3 VESA, 4 ISA - 4 x 72 pin SIMM	£59
<b>CEA5030:</b> 486 VL Bus, 256K Cache, ZIF Socket, 3 VESA, 4 ISA - 4 x 72 pin SIMM	£66
<b>CEA5000:</b> 486 PCI, 256K Cache, ZIF, Enh. IDE, Enh. Parallel/Hi-Speed 16550 Serial	£96
<b>CEA5060:</b> 486 PCI, 256K Cache, ZIF, SCSI II I/FACE Multi I/O (IDE/Serial & Enh. Parallel)	£109
<b>CEA5080:</b> Pentium P75/90/100, 256K Cache, Enh. IDE/Enh. Parallel/Hi-Speed 16550 Serial	£129
<b>CEA5070:</b> Pentium P75/90/100/120/133, 256K Intel Triton, EDO RAM & Pipeline Cache opt.	£159
<b>CEA5075:</b> Pentium P75/90/100/120/133, 256K Intel Triton, EDO RAM with 256K Pipeline Cache fitted	£199

## PROCESSORS (CPU)

<b>INTEL</b>		
i486DX2-66	5V	£85
i486DX4-75	3V	£99
i486DX4-100	3V	£139
Pentium P75		£135
Pentium P90		£216
Pentium P100		£279
Pentium P120		£409
Pentium P133		£496
<b>OTHERS</b>		
SGS 486DX2-50	5V	£45
SGS 486DX2-66	5V	£48
SGS 486DX2-80	3V	£85
AMD 486DX2-80	3V	£79
AMD 486DX4-100	3V	£85

DX4 Adapter Board enables you to plug in any 486 DX4 processor chip into any standard DX Motherboard.  
**Special Introductory Offer £35**

## MEMORY (RAM) SIMMS

			
<b>TOP QUALITY SIMMS AT LOW PRICES</b>			
256K	3 chip		£10
1Mb x 9	3 chip		£27
1Mb x 9	9 chip		£29
4Mb x 9	3 chip		£98
1Mb x 32	4Mb		£92
2Mb x 32	8Mb		£185
4Mb x 32	16Mb		£315
8Mb x 32	32Mb		£649
1Mb x 36	4Mb		£105
2Mb x 36	8Mb		£209
4Mb x 36	16Mb		£349
8Mb x 36	32Mb		£689
1Mb x 32	4Mb	EDO 5v	£112
2Mb x 32	8Mb	EDO 5v	£220
4Mb x 32	16Mb	EDO 5v	£355

### SIMM Converter

- On board de-coupling for greater stability
- Uses 8 or 9 chip SIMMS to give 32/36bit SIMM
- Uses tough metal latch sockets
- Instruction manual supplied
- Converts 4 x 30pin SIMM to 1 x 72pin SIMM

**Special Introductory Offer £29**

## MATHS CO-PROCESSORS

8087 4 77MHz	£87
80387DX-80287-20MHz	£45
20/25/33MHz	£42
80387SX-16/20MHz	£38
80387DX-40MHz	£45
80387SX-25MHz	£38
80487SX-25MHz	£275
80307SX-33MHz	£42
Overdrive 486SX-80387SX-40MHz	£44
25MHz-50M	£188

## CONTROLLER CARDS

<b>ISA</b>	
CEA0190 Multi I/O - 2S/1P/G	£9
CEA 0290 Multi I/O -IDE/FDD/2S/1P/G	£11
CEA 1910 Enhanced I/O - IDE/FDD/2S/1P	£32
CEA2400 Multi I/O - 2S (16550) /1P	£32
CEA0230 2 x IDE/2x FDD Controller	£9
CEA0100 Dual RS232 Serial Port Card	£8
CEA2410 Enhanced 16550 Serial Card	£29
CEA0110 Parallel Port Card	£9
CEA0300 Game Port Card	£11

<b>ISA IDE Caching Controllers</b>	
Promise DC-100 OK	£49
Promise DC-100 1Mb	£95
Promise DC-200 OK	£59

<b>VESA Local Bus</b>	
CEA1610 Multi I/O-IDE/FDD/2S/1P/G	£19
CEA1900 Multi I/O-IDE/FDD/2S(16550)/1P	£36
CEA2060 Multi I/O-IDE/FDD/2S/1P	£14

<b>SCSI Controllers</b>	
Adaptec 1542 Controller Kit ISA	£159
Adaptec 1542 Controller ISA	£119
Adaptec 2842 Controller Kit VLB	£159
Adaptec 2940 Controller Kit PCI	£185
Adaptec 2742 Controller Kit EISA	£239
Adaptec 460 PCMCIA SCSI Controller	£165
Promise DC2040 ISA	£79
Future Domain TMC1610 ISA - 16 bit	£52
Future Domain TMC850 ISA - 8 bit	£35
Future Domain PCMCIA SCSI Controller	£179

## COMPUTER CASES-CHIC

Mini Tower Case with PSU	£33
Midi Tower case with PSU	£58
Full Tower Case with PSU	£74
Slim Line (Desk) Case with PSU	£44
Desk Top Std Case with PSU	£33
200W PSU Unit (Desk/MiniTower)	£25
230W PSU Unit (Full Tower)	£39
Workstation Case	£39

## FAX MACHINES

HP Fax 900	£449	HP Fax 950	£620
Pana UFV40	£259	Pana UFV60	£339
Pana UF315	£549	Pana UF322E	£675
Fax PaperRoll	£5		

## PCMCIA GAME CARDS II

Play PC games on portable computers  
One or two joysticks as standard  
No software modification needed  
Simple installation and configuration  
100% British designed & manufactured £45

## 3.5" EXCEL DISKS

<b>Pre-formatted Lifetime Warranty High Quality (65 Clip Rate Disks)</b>	
10 x DSHD Black	£5
10 x DSHD Multicolour	£6
50 x DSHD	£22

## PSION COMPUTERS

Ser 3A 256K	£175	Ser 3A 512K	£205
Ser 3A 1Mb	£249	Ser 3A 2Mb	£299

<b>RAM Solid State Disks (SSD)</b>			
128K	£37	512K	£89
1Mb	£188		

<b>Flash Solid State Disks (SSD)</b>			
128K	£26	256K	£39
512K	£64	1Mb	£88
2Mb	£138	4Mb	£255
Parallel Interface Link			£23
RS 232 Serial Link for PC			£48
for Mac			£55
Winlink 2 for PC Serial Link			£24
Fax Modem for Series 3A			£158
Mains Adapter 9V AC			£11
Professional Finance			£38
Spelling Checker/Thesaurus			£29
Spreadsheet			£24
Chess			£24
Leather Case			£18
Desk Stand			£14
Finance Pack			£49
Games Pack 3			£32
VT 100 Emulator			£49
Comcard Compute-a-diet			£59



Leasing finance at very attractive rates now available to Businesses (subject to status), Schools, Colleges, Universities, Government Depts, and Local Councils. Minimum order £1,000. Please telephone for details.

- Official orders accepted from government educational establishments and PLCs.
- Showroom and shop hours: 9am to 5.30pm, Monday to Saturday, Late night Thursday until 8pm. Free Customer Car park.
- Mail Order inquiries: 9am - 6pm Monday to Friday only
- Technical enquiries: 9.30am to 5.00pm, Monday to Friday only
- VAT: EC Customers please add 17.5% VAT to value of order including carriage.

### Carriage (Incl. Insurance) Charges

	1st item	2nd & subsequent item
Software	£6.00	£2.00
Hardware	£8.00	£5.00
Lasers	£9.00	£7.00
Accessories	£6.00	£2.00
Small items	£6.00	£2.00

Please note that £6.00 is our minimum carriage charge.

Standard Delivery Charges shown above for delivery within 2-4 working days after despatch for Express Delivery (next working day) double the total carriage. All delivery charges subject to VAT. Please allow 7 working days for delivery of orders and 28 days for non-stock orders. Above carriage charges apply to most of the UK mainland except for certain outlying areas. Please confirm when placing your order. On export orders, carriage is charged at cost.

Offers and all items are subject to availability. Prices may have to change for reasons beyond our control. Specifications on products are correct at time of going to press and given in good faith, but may have to change without notice. Please check suitability of products with your systems and/or manufacturers, before ordering. All trademarks are acknowledged. Goods are sold subject to our standard terms and conditions of sale and are available on request. Goods are not sold on a cash basis. E&OE

## Watford Electronics

Jessa Group of Companies - Established 1972

### Mail Order & Showroom: ▶

Finway, off Dallow Rd., LUTON, LU1 1TR.  
Tel: 01582 487777; Fax: 01582 488588

### ◀ Showroom Only:

250 Lower High Street, WATFORD, WD1 2AN.  
Tel: 01923 237774; Fax: 01923 233642



Retail Showroom & Sales



Headquarters, Mail Order, Retail Showroom & Sales



# TECHNOMATIC

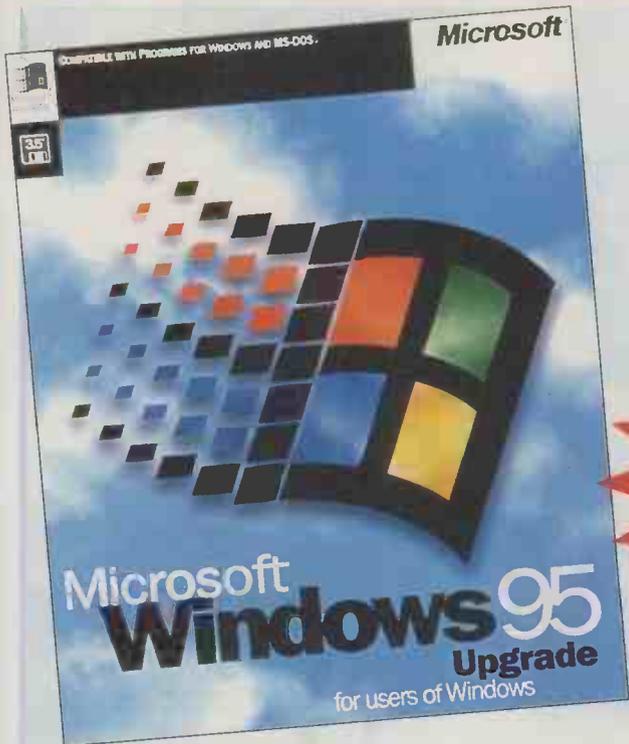
Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Microsoft Windows 95 Hotline 0181 358 8095



# Microsoft Windows 95

UNLOCK THE POTENTIAL OF YOUR PC FOR ONLY

# £55

When you purchase any other product. (Value must be greater than £25)  
Price applies to upgrade version

ORDER NOW 0181 358 8095

The new standard in DeskTop Operating Systems redefines PC performance and ease-of-use and opens a whole new world of possibilities. It's a great leap forward.

### Windows 95 Brings you all this & More

- 32-bit performance with Multitasking
- Ease of use with a New intuitive user interface
- Plus & Play technology, long file names & MORE!
- Ability to run DOS, Windows 3.1 & Windows 95 Applications
- Integrated faxing, E-Mail, News, Internet Access & more through the on-line Microsoft Network
- Network ready 32-bit access to network resources
- Mobile Dial-up networking
- Games with better/faster graphics & Video

We already have Windows 95 versions of Microsoft Applications, Symantec, Corel, Visio & More!

**Work on several tasks at once with fast, new 32-bit programs that support preemptive multitasking and multi-threading**

*Windows Explorer provides a single view of the PC with details about files, folders, drives and print jobs.*

*Longer filenames make it easy to find what you're looking for.*



*The single point of access to the system is the Start button. The Start button and the taskbar are always visible.*

*The taskbar makes switching between multiple applications easy - every new screen you open automatically gets its own button.*

### System Requirements

- Personal Computer with a 386DX or higher processor
- 4MB of memory (8MB recommended)
- Typical available hard disk space required: 50-55MB (actual requirement will vary based on features you choose to install)
- 3.5" high-density disk drive or CD-ROM disk drive.
- VGA or higher resolution graphics card

### Options

- Microsoft Mouse or compatible pointing device
- Modem/Fax modem
- Audio card/speakers for sound

## FREE! 10-Pack Software Bundle (CD-ROM)

with every Windows 95 you purchase from Technomatic

### Includes:

1. THE HIVE, a 32-bit game for Windows 95 (episodes 1&2) from Trimark Interactive
2. Micrografx Picture Publisher Preview for Windows 95
3. Micrografx Crayola Art (Kids Drawing program for Windows)
4. **Quick Start Tutorial for Windows 95 (PTS)**
5. Royalty Free Images & Screen Savers Engine from Hammerhead Interactive
6. Kodak Photo CD Player
7. Kodak Photo CD Access
8. Kodak Photo CD Shoebox Browser
9. Kodak Picture Placer
10. Adobe Photoshop, PageMaker, Premier (Tryout Editions)

Offer Valid while stocks last.

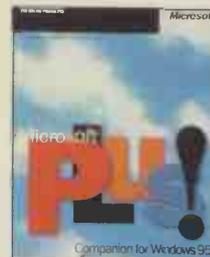
(Promotional packaging)

### Microsoft PLUS!

Add even more space & Style to Windows 95

Microsoft Plus! makes your computer self-maintaining & customisable. Choose from 11 colourful themes (Science, The 60's, Leonardo Da Vinci, Windows 95, Dangerous Creatures, Sports, Modern, Inside your Computer, Mystery, Nature, & Travel, each with new fonts, photo realistic icons, backgrounds, cursors, sounds & screen savers. A new enhanced version of DriveSpace gives you outstanding data compression whether you have a 486 or a Pentium computer. As an added bonus, you get fast easy access to browse, e-mail & fax in the Internet.

£29 (3.5") £29 (CD-ROM)



**Microsoft Windows 95 Upgrade** (Requires WINDOWS 3.1)  
3.5"..... £59 CD-ROM.....£59

£55 when purchased with any other Package (minimum value £25).

**Microsoft Windows 95 Full Version** (Requires DOS)  
3.5"..... £112



**EXCLUSIVE OFFER!**  
**FREE 10 PACK BUNDLE CD**  
**WITH EVERY WINDOWS 95**



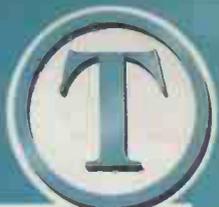
Amex Surcharge 1%

**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



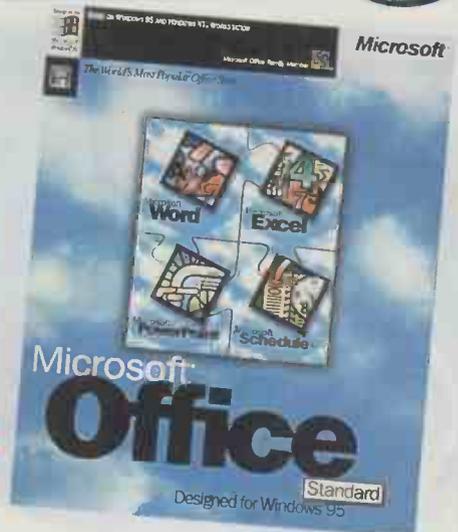
Microsoft

# Microsoft Office for Windows 95

## NEW! 32-bit Windows 95 Technology

**YOU GET ALL THIS WITH THE STANDARD VERSION**

**UPGRADE AS LOW AS £139**



No matter which version of Microsoft Office for Windows 95 you select - Microsoft Office Standard or Professional - you get full-featured programs that work together like one. With long file names of up to 250 characters, more intuitive control buttons, and time- and drudgery-saving desktop shortcuts, Microsoft Office takes full advantage of the new Windows 95 32-bit technology.

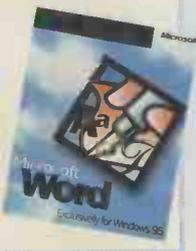
### Computing for the Next Generation!

Microsoft Office gives you next generation integrated tools, easy access to their full power, and freedom to focus on your job. Use OfficeLinks to make the most of your data by just dragging text, numbers, and graphics from program to program. The New Office Binder features groups files automatically, so you can use them as one single file with one file name. This technology has established Microsoft Office as the leader in its category for years. And, with Windows 95, this excellence can only continue ... for years to come!

### MICROSOFT WORD FOR WINDOWS 95

Everyday tasks are automatic and complex tasks are made easier by use of Windows 95's exclusive 32-bit technology. Word offers IntelliSense Innovations, such as AutoCorrect, which automatically corrects misspelled words and typos. Also write and send formatted e-mail within Word using the WordMail editor.

Full Version **£225** Competitive Upgrade **£107**  
 Upgrade **£82** 1-Licence **£195**



### MICROSOFT EXCEL FOR WINDOWS 95

The pinnacle of data access and analysis is Microsoft Excel for Windows 95. Format and use spreadsheets easily with AutoFormat subtotal, and more. Recalculates up to 50 percent faster than before, using 32-bit power. Automatically exchanges data with Microsoft Access using the PivotTable Wizard.

Full Version **£225** Competitive Upgrade **£107**  
 Upgrade **£82** 1-Licence **£195**



### MICROSOFT POWERPOINT FOR WINDOWS 95

Whether you're presenting to a small team or to a large audience, Microsoft PowerPoint makes it easy to communicate your ideas easily to get the results you want in any situation. You can create great-looking output for any situation, from 35mm slides and colour overheads to black-and-white paper output. AutoClip Art automatically adds great visuals to your presentations, and Presentation Conferencing lets you review presentations with your team via your network.

Full Version **£225** Competitive Upgrade **£107**  
 Upgrade **£82** 1-Licence **£195**



### MICROSOFT SCHEDULE+ FOR WINDOWS 95

Microsoft Schedule+ for Windows 95 is the easy, flexible way for individuals and networked groups to manage and share calendars, tasks, and contacts for better personal and team productivity. Schedule and view appointments quickly, stay current with associates, and keep on top of tasks all the time. Attach documents to meeting requests, and reschedule appointments easily by dragging and dropping them to other slots. Schedule+ provides all of the above and so much more!

Full Version **£79**  
 1-Licence **£69**



## 8 GREAT REASONS TO UPGRADE

- New Interface Consistent with Windows 95**  
Take full advantage of drag-and-drop capability, even between applications, documents, and files! Seamless networking between users and all the Microsoft Office 95 components.
- Long Filenames!**  
Break free of the Dos filenames restrictions! Now use file names up to 250 characters to quickly recall a file's contents.
- Now includes Microsoft Schedule+!**  
Perform scheduling and appointment functions by using simple drag-and-drop methods. Attach documents to meeting requests with a click! Manage group meetings easier.
- Completely 32-bit!**  
All of the programs in Office take full advantage of Windows 95 32-bit technology. You'll work faster and easier!
- Enhanced IntelliSense Technology!**  
IntelliSense completes routine tasks for you and make complex jobs simple. It learns your style as you work!
- Full OLE 2.0 Support Throughout Office!**  
Object Linking and Embedding (OLE 2.0) automatically updates all related files which are affected by your change.
- New Office Binder Organises Files From Different Applications!**  
Make the most of your data by filing it automatically in one single file name. Office Binder keeps track and does all the work for you!
- Improved OfficeLinks Speeds You Through Your Project!**  
Make the most of your data by just dragging text, numbers and graphics from program to program. OfficeLinks makes all of the Microsoft Office for Windows 95 components work as one file.

### MICROSOFT OFFICE FOR WINDOWS 95

	INTRODUCTORY LOW PRICES ON UPGRADES	UPGRADE	COMPETITIVE UPGRADE	FULL VERSION
STANDARD 3.5" OR CD-ROM		<b>£139</b>	<b>£163</b>	<b>£332</b>
PROFESSIONAL 3.5" OR CD-ROM		<b>£204</b>	<b>£245</b>	<b>£429</b>

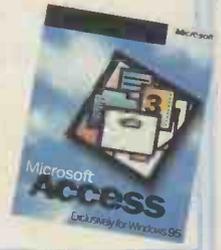
CALL FOR GREAT VALUE LICENCE OPTIONS

OFFICE PROFESSIONAL INCLUDES ALL SOFTWARE IN STANDARD VERSION PLUS ACCESS DATABASE

### MICROSOFT ACCESS FOR WINDOWS 95

Choose or create one relational database for all levels of users. Wizards guide beginners through complex tasks, and enhanced OLE allows more advanced users to easily integrate and share information. Access provides the user with the luxury of pulling data from any of the Microsoft Office products. A resourceful and wonderful tool in business situations.

Full Version **£225** Competitive Upgrade **£107**  
 Upgrade **£82** 1-Licence **£195**



To run Office 95 (Standard or Professional) you need: MS Windows 95 or Windows NT 3.51, 386DX or Higher PC, 8MB memory for Windows 95, 16MB memory for Windows NT. **Call us for memory upgrades.**



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

## HEWLETT-PACKARD - THE FINEST PRINTERS

### HP DESKJET 600

NEW



NEW PRINTER, SAME PRICE

600 dpi<sup>2</sup> plus HP REt  
NEW Colour Option  
3 year RT-HP warranty  
NEW INKS - V Sharper, denser print

£207

TAKE COVER  
Buy HP Support Pack  
£40

### HP LASERJET 4Plus

★ 12ppm, A4

- ★ Highly expandable paper handling
- ★ 600 dpi<sup>2</sup> plus HP REt
- ★ Auto Power Saving
- ★ Postscript & N/W options (M)



£979

TAKE COVER  
Buy HP Support Pack  
£180

HP LaserJet 4MPlus £1285

### HP DESKJET 850c



Excellent Quality Colour  
6ppm Black & 2ppm (Colour)  
HP REt & HP C-REt  
600dpi<sup>2</sup> Black & 300dpi Colour  
PC & Mac if std  
New inks - sharper, denser print

£333

TAKE COVER  
Buy HP Support Pack  
£65

TAKE COVER  
Buy HP Support Pack  
£142

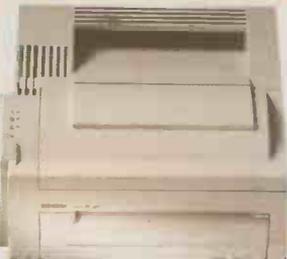
### HP LASERJET 5MP

- ★ 6ppm, Flexible Paper Handling
- ★ 600 dpi<sup>2</sup> plus HP REt
- ★ 3Mb RAM + Adobe Memory Booster
- ★ Adobe PostScript Level 2
- ★ PC, MAC & IRda I/F
- ★ 1 yr RT-HP warranty



£725

### HP LASERJET 4L



£365  
PERSONAL  
DESKTOP  
PRINTER

A4

4ppm, 300 dpi<sup>2</sup> plus HP REt  
1MB RAM, PCL5e, Parallel I/F

### HP DESKJET 660C



£275

GREAT PRICES

Looking Good, DJ!

### HP DESKJET 320



£166

Portable  
Battery option  
CSF option

600x300 dpi black  
colour upgradeable

BUNDLE WITH COLOUR KIT  
WHILE STOCKS LAST

£193

### HP LASERJET 4Si



£2090

16ppm, 600,  
dpi<sup>2</sup> plus HP  
REt, Twin trays,  
PCL5e, high  
network  
expansion  
options. 1 yr OSM

HP LaserJet 4SiMX (PC,NW) £2959

### HP DESKJET 1600C

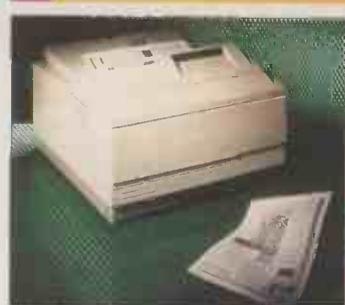


£829

FAST  
COLOUR  
NETWORK  
CAPABLE

Black (8ppm) & Colour (4ppm), high capacity, outstanding  
quality, Mac & Network options (CM)

### HP LASERJET 4V



£1370

16ppm, 600dpi<sup>2</sup>  
plus HP REt. 2  
trays, PCL5e

A3

HP LaserJet 4MV (PC,Mac,NW) £1985

### CLEARANCE OFFER

HP DeskJet 540  
+  
Colour Upgrade Kit  
+  
1.8m Parallel Cable  
While  
Stocks  
Last  
Only £232

### HP ACCESSORIES AND MEDIA

#### Network Connectivity

HP JetDirect MIO Internal J2552A £289  
Combo Ethernet & LocalTalk £249  
HP JetDirect EX external J2382B £219  
HP JetDirect EX Plus 3 J2593A

Special Offer While Stocks Last

Adobe PostScript Level 2

Note: PostScript requires extra memory

PostScript Level 2 for HP LJ4P £190

PostScript Level 2 for HP LJ4Plus £229

PostScript Level 2 for HP LJ4V £325

PostScript Level 2 for HP LJ4Si £245

PostScript Level 2 + 1MB RAM for HP LJ5P £225

PostScript Upgrade kit for HP DJ1600C £225

#### High Quality Media

HP Premium Inkjet Paper - A4, 200 shts 51634Z £16

HP Premium Glossy Paper - A4, 50 shts C3837A £43

HP Premium Transparency - A4, 50 shts C3835A £40

HP JetSeries CX coated - A4, 200 shts 51630Z £16

HP LaserJet Labels - various from £13

HP DeskJet Labels - various from £23

#### Paper Handling

Duplex unit HP LJ4Plus £345

Duplex unit HP LJ4SiMX £375

Note: Duplexing requires extra RAM

A5 Paper Feeder - HP LJ4L £59

A5 Paper Feeder - HP LJ4Si £75

1000 sht output stacker - HP LJ4Plus £219

2000 sht output stacker - HP LJ4Si £845

500 sht Lower Paper Cassette - HP LJ4Plus £190

1500 sht Hi Capacity Feeder - HP LF4Si £319

#### Flash SIMM Kit

Flash SIMM memory allows the printer to store templates, forms  
and logos. The kit contains the memory, manual and controlling  
software.

1MB for HP LJ4/LJ4Plus/LJ4Si £250

2MB for HP LJ4/LJ4Plus/LJ4Si £399

4MB for HP LJ4/LJ4Plus/LJ4Si £599

# No 1 for HP

HEWLETT  
PACKARD  
Premier Reseller  
Personal Computer  
Products



Amex Surcharge 1%

**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



Hewlett-Packard

## MOBILE PCs



- ★ Lightest - 3.3-3.8lbs
- ★ Full size keyboard
- ★ 8.5" DSTN or 9.5" TFT screen
- ★ 486DX2-50 or 486DX4-75 CPU

HP have a mobile PC to suit every need; from the HP Palmtop 200LX, complete with DOS, Lotus 1-2-3 & HP PIM, through the world's lightest colour notebook, the HP Omnibook 600, to the class leading HP Omnibook 5000, offering Intel Pentium™-90 processor and PCI architecture.

- ★ Intel Pentium™-90, 2.9v
- ★ PCI architecture with 256kb cache
- ★ 10.4" VGA or SVGA-TFT
- ★ Instant ON, Lithium ION Battery, up to 3hr life



Model	CPU/RAM/HD/SCREEN	Price
HP Omnibook 600C	4-50/4//170/DSTN	£1485(a)
HP Omnibook 600CT	4-75/8//260/TFT	£2370(a)
HP Omnibook 4000	486 A4 range from	£1770(a)
HP Omnibook 5000CT	P-90/8/1GB/VGA-TFT	£3975(a)
HP Omnibook 5000CTS	P-90/8/1GB/SVGA-TFT	£4495(a)

## PERFORMANCE PCs

As Intel phases out the 486 CPU, the Pentium™-75 processor is becoming the entry-level CPU. MS Windows 95 and it's applications will soon require Pentium™/PCI performance.



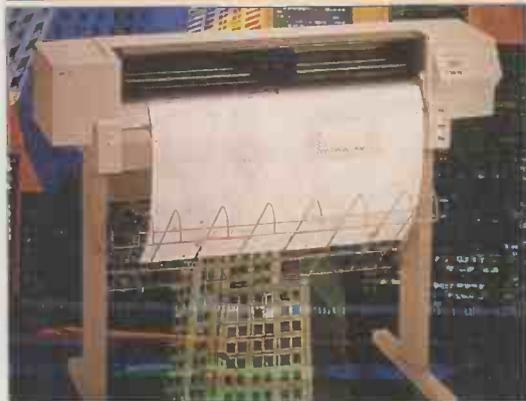
- ★ Intel Pentium™ Processor : 75, 90, 100 or 120MHz
- ★ PCI architecture with local bus IDE & video
- ★ MS Windows for WorkGroups 3.11
- VE : 270MB or 540MB HD, VL : 420MB or 840MB HD,
- ISA slots, fast IDE on LB PCI/ISA slots, Enh. IDE on LB

Model	CPU/RAM/HD//I/O Slots	Price
HP Vectra VE	P/75/8/270/4	£1039(a)
HP Vectra VE	P/75/8/540/4	£1099(a)
HP Vectra VE	P/90/8/540/4	£1289(a)
HP Vectra VL	P/75/8/420/2+2	£1195(a)
HP Vectra VL	P/90/16/840/2+2	£1689(a)
HP Vectra VL	P/90/8/420/2+2	£1379(a)

Note: Systems include Keyboard, Mouse, DOS & Windows for Workgroups. Monitor Optional.



## PERFORMANCE PLOTTERS



- No Pens
- No Mess
- No Fuss

# just plot!

## Sharper, faster every time

Monochrome or Colour,  
Single Sheet or Roll  
A0 or A1, HPGL/2  
AutoCad or Windows

**IDEAL  
FOR  
POSTERS**

Model	Price
HP DesignJet 230 A0 (Mono) Single	£1975(a)
HP DesignJet 230 A1 (Mono) Single	£1489(a)
HP DesignJet 250c A0 (Colour) Single	£2449(a)
HP DesignJet 250c A1 (Colour) Single	£1845(a)
HP DesignJet 650c A0 (Colour) Roll	£4425(a)
HP DesignJet 230/250c Legs & Bin	£250(a)

## FLATBED SCANNERS

### HP ScanJet 3P

- ★ Monochrome - 1024 shades
- ★ 300dpi enh. to 1200dpi
- ★ Up to 12ppm scanning



### HP PicturePlace

- an image editor

### Calera WordScan 3.0

- an OCR package

Fantastic value scanners and software bundles - complete with SCSI I/F card and cable. Fast A4 scanning, OCR with Calera Wordscan 3.0 and Image Editing with HP Picture Place (mono scanner) or Corel PhotoPaint (colour scanner).

### HP ScanJet 3C

- ★ Colour (brilliant)
- ★ 600dpi enh. to 2400dpi
- ★ HP ColorSmart Support



### HP DeskScan II

- easy to use scanning utility

### Corel PhotoPaint

- Image editing software

### Calera WordScan 3.0

- an OCR package

Model	Price
HP ScanJet 3P Auto Document Feeder	£129(a)
HP ScanJet 3C Auto Document Feeder	£309(a)
HP ScanJet 3P 3yr OSM Next Day Response	£85(a)
HP ScanJet 3C 3yr OSM Next Day Response	£140(a)

Government, Colleges, Schools, Hospitals, Local Councils, Large PLC etc, official orders welcome. Minimum credit card order value £20 (ex P&P & VAT). Goods are not sold on a trial basis. Please ensure the suitability of products with the manufacturer before ordering. All trademarks are acknowledged. Errors & omissions excepted.



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

Hewlett-Packard

## PERFORMANCE WITH RELIABILITY - HP OFFERS IT ALL

### FILESERVERS



Fileserver computers are the heart of today's networks. As with any critical equipment, they should be very reliable, from a strong company with expertise in design and manufacturing and, perhaps most crucially, be supported by outstanding warranty and repair terms.

**Q:** HP Quality and reliability is undoubtedly the best and they charge for it!  
**A:** HP build & design is to very high standards and HP Fileservers are now very competitive against the other premium brands, both in performance and price.

- LF:** Intel 486DX2 & Pentium Processors (Single). PCI/EISA and SCSI-2 interface. High internal storage capacity. Drive array (RAID) options with HOT-SWAP.
- LH:** Intel Pentium Processors (Single). PCI architecture and Fast-SCSI-2 interface. ECC memory expandable to 192MB RAM. HOT-SWAP READY - 6 bays (up to 24GB)
- LS:** Intel Pentium Multi-processor (Scaleable). PCI architecture and Fast + Wide - SCSI-2 interface. 32MB ECC RAM exp to 768MB. HOT-SWAP Bays for Fast-Wide SCSI-2 drives.

All HP Netserver carry a 3 year OS-next day warranty which can be upgraded to same day 4 hour response. Additionally, all HP Servers come with manageability tools and the option to have remote diagnostic tools.

	CPU/RAM/HD	Price
HP Netserver LF	4-66/8/1GB/CD	£2299(2a)
HP Netserver LH	5-75/16/1GB/CD	£4095(2a)
HP Netserver LH	5-100/32/Chassis/CD	£5995(2a)
HP Netserver LS	5-100/32/2GB/CD	£6825(2a)
HP Netserver LS	5-100*2/64MB/Chassis/CD	£11,000(3a)

### NETWORKING

#### HP Networking - Affordable Pricing

Instrumental in establishing the 10Base-T ethernet standard, HP has now paved the way for the next standard, using 100VG-AnyLAN - offering a 10-fold increase in bandwidth using existing 10Base-T twisted pair cabling.



In the field of management, HP has strong integration in products such as the AdvanceStack

range, HP OpenView management application with SNMP protocol support and the Desktop Management Initiative.

From connecting PCs and printers using Infra-red to connecting remote sites,

**HP has it all - at affordable pricing.**

#### PC Adapter Cards

PC LAN Adapter NC/16 TP (ISA)	£59
PC LAN Adapter/16 TP Plus (ISA)	£67
HP 10/100VG Adapter (ISA)	£97
HP 10/100VG Adapter (EISA)	£147
HP 10/100VG Adapter (PCI)	£130

#### Intelligent Hubs

HP AdvanceStack 100VG Hub15	£1750
HP AdvanceStack 100VG SNMP - Bridge Module	£825
HP AdvanceStack Hub 8U (RJ45)	£129
HP AdvanceStack Hub 16U (RJ45)	£249
HP AdvanceStack Hub 24	£699
HP AdvanceStack SNMP module	£370
HP AdvanceStack Dial-A-Lan 4A module	£1,330

### HIGH CAPACITY BACKUP

#### WORLD LEADER IN DAT BACKUP



PROTECT YOUR INFORMATION

**IT'S YOUR BUSINESS**

DAT technology offers one of the fastest means of safely backing up large amounts of data. Native capacities up to 8GB, autoloader mechanisms and scheduling software makes it fuss-free

**- WHY TAKE A CHANCE??**

**BACK IT UP**

☆2GB up to 48GB ☆Stand-alone or networked

Model	Ext	Int
HP SureStore 2000 2GB (DDS)	£729	£625
HP SureStore 5000 4GB (DDS)	£799	£695
HP SureStore 6000 8GB (DDS-2)	£899	£799
SCSI card (ISA)	£125	
SCSI card (PCI)	£189	

DATA STORAGE  
DATA PROCESSING  
DATA COMMUNICATION

HEWLETT PACKARD

### PERSONAL BACKUP

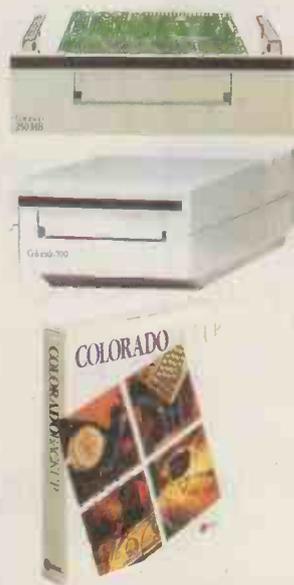
Form Factor	Jumbo			Trakker		Travan
	350	700	1400	350	700	T1000
Software	✓	✓	✓	✓	✓	✓
QIC-40	R/O	R/O	R/O	R/O		R/O
QIC-80/XL	R/W	R/O	R/O	R/W		R/W
QIC-3010			R/W			R/W
QIC-3020			R/W			
QIC-Travan						R/W
Max.Cap (Comp)	340	680	1.3GB	340	680	800
Warranty	1yr	2yr	2yr	1yr	2yr	2yr
Price	£80	£115	£179	£155	£199	£123

#### The Tapes(b)

Colorado 3-pk 3M		each	5-pk
DT-350 fme'd	£52	DC2120XL	unfme'd £14
DT-740 fme'd	£66	MC3000XL	unfme'd £21
DT-1000fme'd	£85		£100
DT-1400fme'd	£70		

**The Software** - Colorado Backup for Windows  
Every current HP Colorado & HP Surestore drive ships with this easy to use yet powerful back up application. It supports QIC and DDS formats and most popular PC networks.

- Automation capability
- Runs in background
- Data Compression
- Library facility



**TRAVAN** The next generation QIC format, retaining backward compatibility and providing forward path up to 4GB. Developed by 3M, Travan offers 3.5" low profile form.

HEWLETT PACKARD  
**TAKE COVER**  
Buy HP Support Pack  
**£285**

## SHAPE DATA SECURE DATA SHARE DATA - SUCCEED with HP

Postage & Packing for UK mainland: (a) £8 (b) £1 (c) £3 (VAT @ 17.5%) All prices exclude carriage & VAT. All prices & specifications subject to change without notice. Our standard terms and conditions of sale apply to all sales (available on request). Returned goods may be liable to a restocking charge

**TECHNOMATIC IS AN  
AUTHORISED DEALER FOR  
COMPAQ, IBM & TOSHIBA**



**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



Compaq

**The No. 1 Personal Computer maker**



**DESKPRO**



**Asset Management  
Capable Desktop**

- ★ ADVANCED ARCHITECTURE
- ★ NETWORK READY

The Compaq DeskPro is the intelligent choice for your network. Features include Asset Control, Fault & Security Management, Power Saving modes and Plug & Play Capability.

- ★ Choice of cases
- ★ High performance

Model	CPU/RAM/HD/Case	Price	Code
4/66-270	486/8/270/3x3	<b>£999(a)</b>	EURCP0600
4/100-270	486-100/8/270/3x3	<b>£1165(a)</b>	EURCP0453
5/75-420	5/75/8/420/3x3	<b>£1455(a)</b>	EURCP0608
5/90-420	5/90/8/420/4x4	<b>£1555(a)</b>	EURCP0619

**PROLINEA**



**High Performance  
Low Price Point**

- ★ Best selling desktop
  - ★ User-friendly Design
- The Compaq Prolinea offers a choice of fast, flexible configurations at outstanding prices. Boasting technology such as Intel Pentium™ processor, PCI architecture, LBIDE & Video etc, the Prolinea will run the most demanding applications.
- ★ Choice of specification
  - ★ Extended Warranty Option

Model	CPU/RAM/HD/Case	Price	Code
4/66-270	4-66/8/270/3x3	<b>£899(a)</b>	EURCP0602
4/100-420	486-100/8/420/4x4	<b>£1099(a)</b>	EURCP0609
5/75-420	5-75/8/420/3x3	<b>£1275(a)</b>	EURCP0612
5/90-420	5-90/8/420/4x4	<b>£1375(a)</b>	EURCP0622

**FREE  
MICROSOFT  
WINDOWS  
95  
UPG**

**PROSIGNIA  
300**

**ENTRY-LEVEL  
SERVER**

- ★ Intel Pentium™ Processors
- ★ PCI, Ethernet, Fast-SCSI-2
- ★ 16MB RAM, min-1GB HD, CD (MS Win 95 offer does not apply)



from **£2455**

**CONTURA  
420**

- ★ Highly Portable
- ★ 486DX4-75 CPU
- ★ 10.4" Colour Screen
- ★ Up to 5.5 hours life

The Contura 420 sets the standard for entry-level mobile computing. It offers PCMCIA slots and a range of docking options for office use.



**COMPAQ WARRANTY**

3yr OSM	486 Desktops	£200
3yr OSM	Pentium Desktops	£300
3yr OSM	Mono Notebooks	£200
3yr OSM	Colour Notebooks	£300

**MONITORS**

All monitors listed are Asset Management Capable.

14" 1024 up to 1024 x 768	£250(a)
15" 151FS up to 1024 x 768	£345(a)
17" QV172 up to 1280 x 1024	£799(a)

Model	CPU/RAM/HD/Screen	Price	Code
Contura 420C	4-75/4/350/DSTN	<b>£1565(a)</b>	EURCP2474
Contura 420C	4-75/8/420/DSTN	<b>£1755(a)</b>	EURCP2475
Contura 420CX	4-75/8/420/TFT	<b>£2275(a)</b>	EURCP2476

**INCREDIBLE  
PRICE  
CUTS**

**AS MUCH  
AS 25%!**

**THE BEST TECHNOLOGY**

- NEW: TP755CV range** - As TP755CE plus a detachable screen which can be used as an OHP tablet offering 64k colours.
- NEW: TP755DV range** - A combination of the TP755CD and CV, offering integral 5.25" CD-ROM drive and OHP screen.
- NEW: TP755CX range** - Probably the BEST notebook on the market: Intel Pentium processor, SVGA 64k colour 10.4" TFT screen, Lithium ion battery and all standard TP755 features.
- NEW: TP701C range** - The amazing, full size, folding keyboard sub-notebook ThinkPad with the 10.4" TFT screen.

**THE SMARTEST NOTEBOOKS**

Model	CPU/RAM/Screen/HD	Price
TP370c	4/75/4/10.4" TFT/340	<b>£2315(a)</b>
TP755c	4/75/4/10.4" TFT/340	<b>£3339(a)</b>
TP755CE	4/100/8/10.4" TFT/540	<b>£3845(2a)</b>
TP755CD	4/100/8/10.4" TFT/810,CD	<b>£4495(2a)</b>
TP755CV	4/100/8/10.4" OHP/540	<b>£4785(2a)</b>
TP755DV	4/100/8/10.4" OHP/810,CD	<b>£5455(2a)</b>
TP755CX	5/75/8/10.4" SVGA/1.2GB	<b>£4600(2a)</b>
TP701Cs	4/50/4/10.3" DSC/340	<b>£1885(2a)</b>
TP701C	4/75/8/10.4" TFT/540	<b>£2995(2a)</b>



**IT'S HOT TECHNOLOGY**

**IT'S  
WHATEVER  
YOU  
WANT**

IT SHOUTS

**IT'S CRYSTAL CLEAR**



Complete system computer, monitor, software, keyboard, mouse and support

**IT  
EXISTS  
PAPA**

**IT'S A  
FAMILY  
AFFAIR**

IT'S OUTSTANDING



<b>APTIVA 910</b> 4/66,4,540,14" STANDARD <b>£775(ab)</b> <b>BAMBINO</b>	<b>APTIVA 911</b> 4/66,4,540,14" MULTI-MEDIA <b>£944(ab)</b> <b>RUNABOUT</b>	<b>APTIVA 914</b> 4/66,8,540,14" MULTI-MEDIA <b>£999(ab)</b> <b>LIL' SISTER</b>	<b>APTIVA 914</b> 4/100,8,540,14" MULTI-MEDIA <b>£1098(ab)</b> <b>BIG BROTHER</b>	<b>APTIVA 930</b> P/75,8,540,14" STANDARD <b>£1059(ab)</b> <b>UNCLE HARVEY</b>	<b>APTIVA 931</b> P/75,8,540,14" MULTI-MEDIA <b>£1270(ab)</b> <b>BIG MAMA</b>	<b>APTIVA 941</b> P/100,8,850,15" MULTI-MEDIA <b>£1750(ab)</b> <b>SCARLETT</b>
--	--	---	---	--	---	--

Government, Colleges, Schools, Hospitals, Local Councils, Large PLC etc, official orders welcome. Minimum credit card order value £20 (ex P&P & VAT). Goods are not sold on a trial basis. Please ensure the suitability of products with the manufacturer before ordering. All trademarks are acknowledged. Errors & omissions excepted.

IBM



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Taxan

## TAXAN

### No 1 for Monitors in Europe



### ERGOVISION 580+LR

- ◆ 15" FST Multiscanning Monitor
- ◆ Up to 1280 x 1024 Non-interlaced
- ◆ Horizontal Freq 30-65KHz
- ◆ 0.28mm Dot Pitch

£285



### ERGOVISION 880LR

- ◆ 17" FST Multiscanning Monitor
- ◆ Up to 1280 x 1024 Non-interlaced
- ◆ Horizontal Freq 30-64KHz
- ◆ 0.28mm Dot Pitch

£515



### ERGOVISION 885LR

- ◆ 17" FST Multiscanning Monitor
- ◆ Up to 1600 x 1200 Non-interlaced
- ◆ Horizontal Freq 30-82KHz
- ◆ 0.26mm Dot Pitch

£589

### THE LEAN, MEAN



### GRAPHICS MACHINE

### GTS WINTURBO(a)

NEW  
LOW PRICES

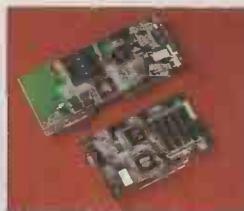
- ◆ Super Fast 64 Bit Windows Accelerator
- ◆ Powered by ATi Mach 64 Processor
- ◆ VESA DPMS Compatible
- ◆ 2MB & 4MB VRAM Versions Available
- ◆ Up to 1280 x 1024 Resolution
- ◆ Up to 100Hz Refresh Rate
- ◆ On-Screen Colour Calibration

2MB ISA £194 VLB £195 PCI £196

GTS WinTurbo Plus

4MB ISA £338 VLB £339 PCI £340

GTS WINTURBO  
POWERED BY



### COMMON FEATURES FOR ABOVE MONITORS

- ◆ Microprocessor Control
- ◆ Flicker Free Operation
- ◆ Low Radiation & Anti-Static CRT (MPR2)
- ◆ EPA ENERGY STAR Compliant
- ◆ VESA DPMS Compatible
- ◆ 2 year RTB warranty

3 YEARS  
ON SITE MAINTENANCE  
£49

NEW 400LR 14" SVGA Colour Monitor £185(a)



### PCMCIA ME3000II-2 BNC/TP ETHERNET ADAPTER £99(a)

ETHERNET POCKET LAN ADAPTER

### E3000II



- ◆ Superior performance using EPP mode
- ◆ Allows printing and networking together

- ◆ Dual media with AutoDirect
- ◆ Power from mains or PS/2 mouse port
- ◆ Supports switchless hardware configuration
- ◆ Drivers for: ODI for Netware, NDIS 2.0 & 3.0 for Lan Manager & WFWG, Packet for TCP/IP
- ◆ Diagnostic using s/w & LED
- ◆ Power cable & mains PSU included

### £69(a)

BNC & TP  
ON CONNECTORS

ETHERNET COMBO ADAPTER



- ◆ Fully Novell NE2000 compatible
- ◆ Drivers for: IPX & ODI for Netware Windows for Workgroups NDIS for Lan Manager Packet for TCP/IP
- ◆ BNC & RJ45 connectors

### GE2000D

### £28(b)

5 PACK £135(a)

- ◆ Jumper & Jumperless
- ◆ Auto-Setup hardware using software
- ◆ Auto-Detect media type
- ◆ Auto-Detect 8 bit or 16 bit Bus
- ◆ Includes diagnostic software
- ◆ Up to 35% performance improvement

Genius

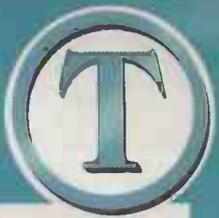
7

Postage & Packing for UK mainland: (a) £1 (b) £6 (c) £3 (d) VAT @ 17.5% All prices exclude carriage & VAT. All prices & specifications subject to change without notice. Our standard terms and conditions of sale apply to all sales (available on request). Returned goods may be liable to a restocking charge

**UNRIVALLED 24 YEARS  
OF EXPERIENCE**  
Part of MicroWarehouse Group



**SALES 0181-205 9558**  
**FAX 0181-205 0190**  
**ADMIN 0181-358 8100**  
**PRICES EXCLUDE VAT @ 17.5%**



**Robotics : Number 1 FOR HIGH SPEED MODEMS (Dataquest 93)**

# WORLDPORT



**WORLDPORT MOBILE RANGE(a)**  
PCMCIA Dual Standard (28.8 + HST + Fax) **£165**  
Pocket Dual Standard (14.4 + HST + Fax) **£129**

**USR HIGH SPEED DUAL SERIAL PORT**  
Essential for all windows users faster than 9,600. 2 yr warranty **£49 (a)\***

\*While stocks last, free S/W must be requested at time of purchase



# Sportster®

**14.4 + FAX DESKTOP**

**£105** **LOW PRICE**

**28.8 + FAX EXTERNAL**

**£159** **FREE DATATALK 4 DOS\***

### AMAZING VALUE BUNDLE

Sportster 14.4 Fax Modem + Panasonic CD-ROM Drive + IBM OS/2 32 bit operating system (CD) + Internet s/w + Internet Connection + IBM 32bit wordprocessor + IBM 32 bit spreadsheet + IBM Faxworks + CompuServe Information Manager + Modem Cable + CD-ROM Interface & Cable **£199**  
Carr £12

- Sportster Range (a)
- 28.8 + Fax Desktop (Ext) **£159**
- 28.8 + Fax PC Card (Int) **£161**
- 14.4 + Fax Desktop (Ext) **£105**
- 14.4 + Fax PC Card (Int) **£106**
- 28.8 + Fax Mac & Fax **£165**
- 14.4 + Fax Mac & Fax **£109**
- PC/AT Modem Cable 9/25 **£8**

**Robotics**  
AUTHORISED RESELLER

**5 year WARRANTY**

MODEL	SPEED						ERROR COR.	DATA COMP.	FAX	ASYNCHRONOUS	DIAL UP	FORMAT					
	28800 (V34)	19200 (V32 turbo)	14400 (V32bis)	9600 (V23)	2400 (V22bis)	1200 (V23)						V42	MNP 2-4	V42bis	MNP 5	9600	14400 (V17)
SPORTSTER 28.8 + FAX	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPORTSTER 14.4 + FAX																	
COURIER V34	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WORLDPORT 28.8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WORLDPORT HST DUAL STD CELLULAR																	✓

APPROVED for Connection to telecommunication systems specified in the instruction for use subject to the Conditions set out in them.

**FREE DIRECT TECHNICAL SUPPORT**

**5 YEAR WARRANTY**

**Robotics**

The Intelligent Choice in Data Communications

# Courier

**LIMITED OFFER SPECIAL COMMS BUNDLE**

**FROM £245**



**COURIER PROFESSIONAL RANGE(a)**  
V34 + Fax Desktop Bundle (USR/MD/E250) **£285\***  
inc **FREE** USR High speed Dual Serial Port  
**FREE** 25/9 Modem Cable  
**FREE** Datatalk 4 DOS (Full Version) DS Fax (Win)  
**FREE** Quiclink II Fax & Coms s/w  
V34 + Fax Desktop Modem only **£245**  
V34 + Fax PC Card modem **£249**

# MICROTEK ScanMaker II

# ScanMaker Scooter

**New Low Price!**



The ScanMaker II is simply the most affordable way to bring photographs into your DTP and/or graphic design applications. It captures 24-bit colour, 8-bit greyscale, and black-and-white images, at resolutions up to 1200 dpi. And it comes with OCR (Optical Character Recognition), TWAIN compliant. 3-pass, 24-bit colour, 300 x 300 dpi.

**£369**

ScanMaker® Scooter™ by Microtek is a low-cost, colour, hand-sized scanner that moves by itself across images to eliminate the "jitters" that are common with most hand-held scanners. Turn off the Auto Scan feature and you can still make manual scans. The high-quality colour and flexible resolution is great for images of up to 8.5" x 11". Scooter also captures greyscale images, line art, and text.



**First Motorized Hand Scanner**

Requires: 386 PC or higher, 4 MB RAM, Windows 3.1.

**£210**

IN3760: ScanMaker Scooter.....



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

**Hours of Business:**

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

S M C

## SMC® :EZ NETWORKING



### EtherEZ: BEYOND PLUG & PLAY

- ◆ EZ Configuration : Auto or one step configuration
- ◆ EZ Installation : Simple driver installation
- ◆ EZ Desktop Management : SNMP PC agent
- ◆ Compatible : Driver support for most popular nos
- ◆ Outstanding Performance : Unique multitasking data transfer
- ◆ Reliable : SMC lifetime warranty, MTBF of 400 years



### LOW COST HUBS & REPEATERS

- ◆ Plug and Play, No configuration required
- ◆ Desktop models & Rack mountable, segmentable models
- ◆ Small footprint, compact
- ◆ Exceptional value and reliability

			1pk(b)	5pk(a)
EtherEZ	ISA BNC	£58		£275
EtherEZ	ISA TP	£58		£249
EtherEZ	ISA BNC/TP	£65		£299
Also available			1pk(b)	5pk
EtherPower	PCI BNC/TP	£95		£449
Ultra 32c	EISA BNC/TP	£125		-
EtherPower 10/100	PCI BNC/TP	£159		£739
EtherPower 10/100	EISA BNC/TP	£179		£789

Call for PCMCIA & Pocket Adapters

Model	TP	BNC	AUI	Price
Tiger TP12	12	1	1	£249(a)
Tiger TP6	6	0	1	£124(a)
Tiger TP6B	6	1	0	£126(a)
Tiger CX3	0	3	1	£219(a)

Hayes • Cyrix

### Hayes **LOW PRICES**

2.8.8K V.34  
**£175**



FREE MODEM CABLE

ACCURA 288 + FAX **£175(a)**  
- up to 28,800 bps **NOW V34**

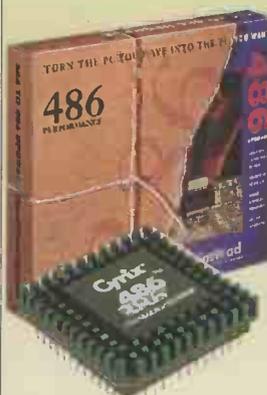
ACCURA 144 + FAX **£135(a)**  
- up to 14,400 bps (V32 bis)

#### Common Features

- Full error correction & data compression
- Up to 14,400 (V17) fax incl. Group 3 fax
- FREE Hayes Smartcom LE data & fax Windows S/W
- AutoFax Detect between fax & data calls

**CALL NOW FOR NEW MODEMS WITH VOICE TECHNOLOGY**

### Cyrix **POWER UP TO 486** MAKE YOUR 386DX OR 386SX FLY!



- ◆ Single chip upgrade for 386SX & 386DX PCs
- ◆ Clock doubling technology for up to 70% increased performance
- ◆ 1K on-chip cache
- ◆ Easy installation - up and running within 15 minutes
- ◆ Limited Lifetime Warranty
- ◆ Compatible with Microsoft Windows & Novell Netware

CYR/CP/U010	386SX 16MHZ to 486SX 32MHZ	£125(a)
CYR/CP/U010	386SX 20MHZ to 486SX 40MHZ	£125(a)
CYR/CP/U020	386SX 25MHZ to 486SX 50MHZ	£135(a)
CYR/CP/U030	386DX 16MHZ to 486DX 32MHZ	£125(a)
CYR/CP/U030	386DX 20MHZ to 486DX 40MHZ	£125(a)
CYR/CP/U050	386DX 25MHZ to 486DX 50MHZ	£135(a)
CYR/CP/U060	386DX 33MHZ to 486DX 66MHZ	£149(a)*

\*Limited stocks offer



## DON'T FORGET SPARE CARTRIDGES

Canon	BJ-30	BJC-70	BJ-200ex	BJC-600c	BJC-4000
Black	£10.75	£9.29	£16	£6	£7
Colour	-	£14	-	£7*	£14

\*specify C/M/Y Cartridges



Amex Surcharge 1%

**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



# THE INTERNET SOLUTION

## 3400 PRO DESKTOP MODEM

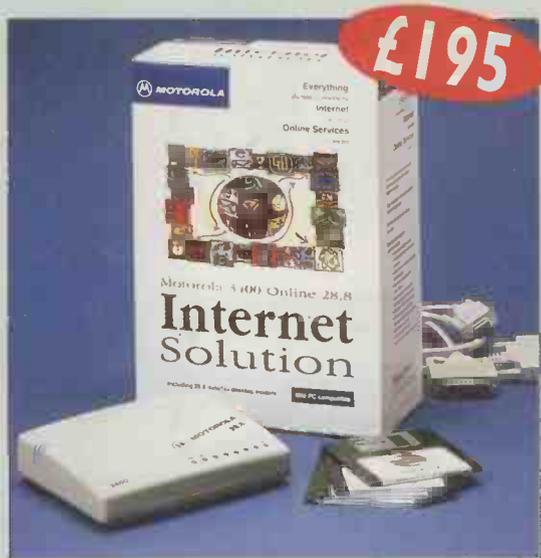
- ◆ Data: V34 (28.8Kb/s) to V21 (300bps)
- ◆ Fax: 14.4Kb/s to 2.4Kb/s
- ◆ Compression: V42bis & MNP5
- ◆ Correction: V42 & MNP2-4
- ◆ Command Set: Hayes AT compatible

### Package includes:

- ◆ Modem
- ◆ Telephone & power cables
- ◆ IBM PC/AT compatible modem cable
- ◆ Windows fax and comms software
- ◆ Easy install disk & user software
- ◆ Motorola telephone support
- ◆ 2 Year Motorola warranty

## 3400 ONLINE INTERNET SOLUTION

- ◆ 3400 PRO desktop modem (see left)
- ◆ Internet Software
  - Protocol software
  - File transfer software (FTP)
  - Worldwide web browser s/w
  - E-Mail s/w
  - Newsgroup s/w
- ◆ Internet phone software (Vocaltec)
  - Make cheaper international calls to other Vocaltec users
- ◆ Internet membership option for instant access



**£195**

**3400 ONLINE INTERNET SOLUTION £195**

- EVERYTHING YOU NEED TO CONNECT TO THE INTERNET

**3400 PRO DESKTOP MODEM £165**



APPROVED for Connection to telecommunication systems specified in the instruction for use subject to the Conditions set out in them.

**EASY INSTALL**  
INCLUDES ANIMATED INSTRUCTION DISK

# INCREDIBLE CANON BUBBLE-JET PRINTERS!

**BJC-4000 Colour**  
**£234!**



**The brilliant choice for full-colour printing**

- 720 x 360 dpi B&W on plain paper
- Colour text output at 360 x 360 dpi
- Five pages per minute
- 70 scaleable TrueType fonts - 7 resident bitmapped fonts

### Other Canon BubbleJet Printers

BJ-30 portable monochrome printer	only <b>£152</b>
BJC-70 portable colour printer	only <b>£225</b>
BJC-600e colour printer	only <b>£335</b>
BJC-800 A3 colour printer	only <b>£1049</b>

**BJC-200ex Monochrome**  
**£175**



**The professional monochrome printer**

- 720 x 360 dpi resolution
- Laser-quality text and graphics
- Compact design
- 20 Truetype fonts included
- Auto feeds 100 sheets, 50 transparencies or 13 envelopes
- One year warranty
- Four pages per minute

**BJ-200ex Monochrome Bubble Jet Printer £175**

**BJ-230 A3 Monochrome Bubble Jet Printer £239**

**FREE**  
Avery Label Pro for  
Win s/w  
RRP £56

Motorola

Canon



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

**PRICES EXCLUDE VAT @ 17.5%**

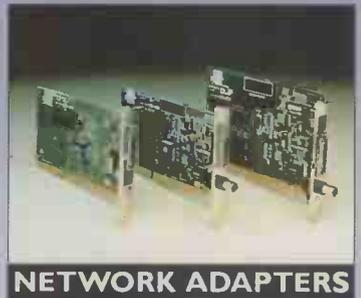
**Hours of Business:**  
 Mon-Fri: 8am to 7pm  
 Sat: 9am to 5pm  
 Callers welcome, please check availability.  
 Prices valid from 4/9/95

Epson • Nokia • Lyra • 3Com



## NETWORKING THE WORLD

**\* STOP PRESS \* ALL B VERSIONS ARE PLUG & PLAY**



**NETWORK ADAPTERS**



**LINKBUILDER FMS II HUBS**

### ETHERLINK III: THE PRICE PERFORMANCE ADVANTAGE

- ◆ Parallel Tasking Ethernet Adapters
  - Performing multiple tasks at the same time
- ◆ Automatic self-tuning during operation
  - To set and maintain optimum performance
- ◆ High level of component integration
  - Improves reliability and reduces cost
- ◆ One step auto configuration utility
  - Trouble free installation
- ◆ Lifetime 3Com warranty

Full range of 3Com products, including LinkBuilder FMSII Hubs, available. Call for details

Adapter		1Pk(b)	5Pk(a)
3C509 B BNC	ISA	£65	£315
3C509 B TP	ISA	£66	£309
3C509 B Combo	ISA	£75	£349
3C579 B BNC	EISA	£145	£699
3C579 B TP	EISA	£144	£699
3C590 B Combo	PCI <b>NEW</b>	£99	£479
3C529 B BNC	MCA	£142	£699
3C529 B TP	MCA	£139	£685
3C589 B Combo	PCMCIA	£139	£695

### CALL FOR 20 PACK PRICES & VOLUME DISCOUNTS

LinkBuilder FMS II 12 TP Port Hub	£375(a)
LinkBuilder FMS II 24 TP Port Hub	£675(a)
LinkBuilder TP/12	£259(a)

## NEW! EPSON LAPCAT

- AN OFFICE ON YOUR DESKTOP -



**ONLY £375 (pc)**

LapCAT offers personal users, an easy to use, easily affordable, desktop alternative to a whole range of 'essential' office equipment.

That's because LapCAT is a complete solution, combining the stylish and very compact Epson

GT-300 monochrome scanner with Xerox Desktop Document Management Suite - a truly comprehensive document handling software package.

Enabling you to scan everything from business documents and reports, to product literature, even press clippings - there's virtually no limit to the material LapCAT can handle. And once it's scanned into your PC, just ...

- |  |   |   |  |
|--|---|---|--|
| ... add a printer - and you've got an instant desktop copier ... | ... add a fax modem - and you've got a personal fax machine ... | ... avoid retyping - scan documents straight into your WP package ... | ... you can even send your documents over E-mail ... |
|--|---|---|--|

Document size from business card to A4; 300dpi scanning resolution; 50-600dpi output resolution, 256 greyscale levels; scanning speed 4ppm (A4, 300dpi, BW).



**MULTIMEDIA READY**

## VALUEGRAPH 447V MONITOR



- ◆ 17" flat, square tube
- ◆ 0.28mm dot pitch
- ◆ 1024 x 768 at 80HZ
- ◆ Integral 2 watt speakers
- ◆ Digital controls
- ◆ Power saving
- ◆ MPR II

**CALL FOR FULL RANGE**

**£475 (a)**



## The Tray Cradle II

Want to improve the quality of your hand scans by about 100%? Get TheTray Cradle II. It enables accurate full-page scanning of both sides of a 21.25 cm document to produce the same high-quality image that you could only get otherwise from a full-page scanner. TheTray is compatible with all 10 cm black-and-white, greyscale, and colour hand scanners. An alignment grid is included to help square up small documents, photos, and more. If you do any regular amount of scanning at all, but just don't have the budget for a flatbed scanner, this is what you've been waiting for!



**AC18374 £19.95**

Manufacturer: Lyra Group

**GREAT PRICES  
SAVE £££'s**



**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



# At Last .. A Multi-Tech Modem For The Home Office And Small Business

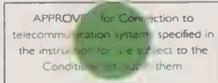
**Announcing the amazing value packed Multimodem 2834ZDX from Multi-Tech Systems.**

**Superior Performance.** With blazing V34 data rates up to 28,800bps and fax speeds of 14,400bps, and with V42bis data compression data transfer rates of up to 115,200bps are achievable. Multi-Tech also gives you full backward compatibility to all ITU standards including V32bis (14,400bps) and the V32 turbo (19,200bps) standard.

**Fully Featured.** 10 LED indicators to monitor every aspect of your connection. Plus help screens, non-volatile memory and windows communications and fax software you need.

**Unmatched Warranty.** A 10-year warranty direct from Multi-Tech eliminates worry and makes the MultiModemZDX ideal for the home or small business.

**BABT Approved - And it's a Multi-Tech!**



**28,800bps (V34) £165**  
**19,200bps (V32turbo) £109**

**TECHNO  
VALUE**

**ZDX 2834 £165(a)**  
**ZDX 1932 £109(a)**  
INCLUDES MULTIPRESS  
FAX SOFTWARE  
FOR WINDOWS



**MULTI-TECH HIGH SPEED  
SERIAL PORT £49(b)**  
**PC/AT MODEM CABLE 9/25 £8**  
**FOR THE PROFESSIONAL COMMS USERS**

**MT2834 BLK DESKTOP NEW £395(a)**  
**FREE HIGH SPEED SERIAL PORT**

**MT1432 BLK DESKTOP £309(a)**  
**MT1432 MK POCKET £345(a)**  
**MT1432 LTI PCMCIA £199(a)**

Multi-Tech

## MicroSolutions backpack® PORTABLE SOLUTIONS

**PARALLEL PORT DEVICES:** Ideal for mobile user, convenient for desktop PCs, simple installation, just connect Backpack to your printer port and your printer to the Backpack. You don't lose print capability.

### backpack® TAPE DRIVES

- Industry Standard Formats
- Supports EPP & IEEE 1284 ports
- DOS & Windows Backup s/w included
- Unattended backups • 2 yr manuf warranty
- Compact design and easily portable

Backpack TD 900MB **£309(a)**  
Backpack TD 800MB Travan **£275(a)**  
Backpack TD 340MB **£199(a)**

### backpack® CD-ROM DRIVES

- 250ms access time (4x) • Photo CD comp
- Quad speed (4x), up to 600KB/S transfer rate
- Audio sockets for headphones & line out
- MPC II compliant with EPP
- CD-S Models available with 16bit built-in sound

Backpack CD-S 4X inc sound **£319(a)**  
Backpack CD-S 2X inc sound **£285(a)**  
Backpack CD 4X **£259(a)**  
Backpack CD 2X **£225(a)**

**NEW  
HIGH CAPACITY  
TRAVAN DRIVE**



### backpack® HARD DRIVES

- Compatible with DOS v3.1 and above
- Supplied device driver uses 5K
- Supports EPP & IEEE 1284 parallel ports
- Full drive single partition under all DOS versions
- Transfer speeds up to 600KB/S
- Can be daisy chained with other Backpacks

Backpack HD 420MB **£325(a)**  
Backpack HD 850MB **£399(a)**  
Backpack HD 1200MB **£515(a)**

### backpack® FLOPPY DRIVES

- Windows and Dos support
  - Software drives supplied
- Backpack FD 35 1.44MB **£115(a)**  
Backpack FD 525 1.2MB **£125(a)**

**NO FREE SLOT? NO PROBLEM** **MicroSolutions**

MicroSolutions



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

Printers

## LASER PRINTERS (a)

HEWLETT-PACKARD	SPEED/RES	RAM/FONTS	LANG.	I/F	1 Year RHP	3 Year OSM	CANON 1 year OSM	Speed/Res	RAM	Lang	I/F	Price
HP LaserJet 4L	4ppm/	1Mb/	PCL5e	B	£365	£460	LBP-430W	A4 4ppm 300	1/2MB	P4	B	£369
HP LaserJet 5P New	6ppm/	2Mb/	PCL5e	B,A,I,R	£580	£710	LBP-1260	A4 12ppm 600	3MB	P5	B	£925
HP LaserJet 5MP New	6ppm/	3Mb/	PCL5e	B,A,I,R	£725	£855	EPSON 1 year OSM					
HP LaserJet 4 Plus	12ppm/	2Mb/	PCL5e	B,S	£979	£1140	EPL3000 New	A4 4ppm 300	1MB	P5	B	£375
HP LaserJet 4M Plus	12ppm/	6Mb/	PCL5e	B,S,A,N	£1285	£1455	EPL5200+	A4 6ppm 300	1MB	P5	P	£469
HP LaserJet 4V	16ppm/	4Mb/	PCL5e	B,S	£1370(3xa)	£1595(3xa)	EPL9000	8ppm 600	2MB	P5	B,S	£1199
HP LaserJet 4MV	16ppm/	12Mb/	PCL5e	B,S,A,N	£1985(3xa)	£2210(3xa)	EPL9000PS	8ppm 600	6MB	P5,PS	B,S,A	£1359
HP LaserJet 4Si	1yr OSM 600dpi	2Mb/	PCL5e	B	£2090(3xa)	£2590(3xa)	NEC					
HP LaserJet 4Si MX	1yr OSM 600dpi	10Mb/	PCL5e	B,A,N	£2969(3xa)	£3459(3xa)	SuperScript 660	A4 6ppm 1200x600	256KB	G	B	£425
		80S	PS L2				SuperScript 660i	A4 6ppm 1200x600	256KB	G,PS	B	£569
							PANASONIC					
							KXP4430 2yr OSM	A4 5ppm 300	1MB	P5	P,S	£449
							KXP4440 2yr OSM	A4 10ppm 300	1MB	P4	P,S	£695
							KXP6100 NEW	A4 6ppm 300	256KB	G	B	£269
							KXP6150 NEW	A4 6ppm 300	1MB	P4	B	£309

I/F:- P=Parallel, B=Bi-directional Parallel, S=Serial, A=AppleTalk, N-Ethernet  
Lang:- G=GDI (Win 3.1), P4=HP PCL4, P5=HP PCL5e, PS=PostScript, S2=PostScript Level 2

### MEMORY UPGRADES?

We can offer a large range of memory upgrades - SEE PAGE 13

### FLASH SIMM KITS

For HP LJ 4/4Plus/4Si

Download and store logos and template forms in your printer. Dramatically improve speed and return-to-app time. These kits contain: flash SIMM module, manual and software (Win).

1MB £250 2MB £399 4MB £599

### SWITCHES

SWITCHES (b)			
<b>AUTODATA SWITCHES</b>			
2:1 2 PCs to 1 PRN	£19	4:1 4 PCs to 1 PRN	£29
8:1 8 PCs to 1 PRN	£75(a)		
<b>MANUAL DATA SWITCHES</b>			
Reversible & Inexpensive Par Ser	Par	Ser	
2 In > 1 out	£10	£10	3 in > 1 out £16 £16
4 In > 1 out	£20	£21	2 way cross over £24 £24
<b>AUTO CROSSOVER SWITCHES</b>			
4PCs > 2PRN Parallel Once a data path has been set it can be switched by soft code. £85(b)			
<b>Bi-Directional Converters Par&gt;Ser/Ser&gt;Par</b> £65(b)			

### TONER CARTRIDGES (b)

HEWLETT-PACKARD	4410/4430 Developer	£90
LaserJet IIIP/III/IIIP	4420	£26
LaserJet IIID/IIH/D	4420 Drum	£57
LaserJet 4V/4V4M+	4420 Developer	£57
LaserJet 4V/4V4M+	4400/5400 Drum	£55
LaserJet IIIS/IIIS/MX	NEC	
LaserJet 4L/4L/4L/4L/4M/4P	560/60P/62P/102/102P	£109
EPSON	610	£79
EPL 7100/7500/8100	LEXMARK	
EPL 1000/1004/4300	4039 Toner	£165
EPL 5000/5200	Optra (7K)	£139
EPL 5600	Optra (14K)	£189
PANASONIC	CANON	
4410/4430	LBP 4	£49
4410/4430 Drum	LBP 8 MKII/III	£54

### COLOUR PRINTERS (a)

Model	Price	Cartridges	Blk	Colour
Canon BJC4000 (A4)	£234	£7	£14	
Canon BJC600e (A4) NEW	£335	£6	£7*	
Canon BJC800 (A3)	£1049	£14	£18*	
Canon BJC-70 NEW	£225	£9.29	£14	
Epson Stylus Pro XL (A3)	£1539	£12	£23	
Epson Stylus Colour (A4)	£355	£12	£23	
HP Deskjet 320** (A4 Port)	£166	£13	-	
HP DJ320 + CSF (A4 Port)	£185	£13	-	
HP Deskjet 600 (A4) NEW	£207	£20	£22	
**Colour kit only £27 if purchased with DJ540/DJ320**				
HP Deskjet 660C (A4) NEW	£275	£20	£22	
HP Deskjet 850C (A4) NEW	£333	£18	£17.50	
HP Deskjet 1200C (A4)	£630	£17	£19.50*	
HP Deskjet 1200C/PS (A4)	£995	£17	£19.50*	
HP Deskjet 1600C NEW	£829	£18	£19.50	
HP Deskjet 1600CM NEW	£1219	£18	£19.50	
HP PaintJet XL300 (A3)	£1599	£14	£15*	

\*\*Requires optional colour kit \*Specify CMY Cart

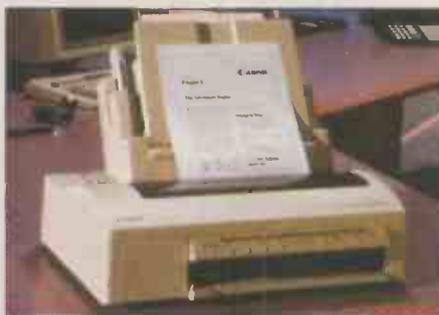
### HEWLETT-PACKARD COLOUR LASERJET £4195(3xa)

### TEKTRONIX PHASER 340

The revolutionary low-cost colour printer offering up to 4ppm in full colour. Ideal for PC & Mac environments £3650 (2a)

### BLACK PRINTERS (a)

Model	Price	Cartridges
Canon BJ-30	£152	£10.79
Canon BJ-200ex	£175	£16
Canon BJ230 (A3)	£239	£16
Canon BJ300 (A4)	£352	£11
Canon BJ330 TF (A3)	£395	£11
Epson Stylus 1000 (A3)	£325	£8.50
Epson SQ870 (A4,Cont)	£429	£17
Epson SQ1170 (A3,Cont)	£595	£17



### DOT MATRIX PRINTERS

EPSON			
Model	PIN	Colm	Price
FX870	9	80	£249
FX1170	9	136	£315
LX300	9	80	£101
LQ100	24	80	£105
LQ300 NEW			£155

### PRINTER MEDIA (b)

EPSON	EPSON EPL5000/5200
STYLUS COLOUR COATED PAPER	PostScript £249
360 dpi A4 200 sheets	Local Talk Kit £379
720 dpi A4 200 sheets	
Transparencies A4	
<b>CANON SHEET FEEDERS</b>	
	BJ300 1st £87 2nd £65
	BJ330 1st £90 2nd £65
See Page 3 for HP Media	

### PRINTER CABLES (c)

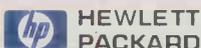
Length	25M/36M	36M/36M	25M/25M
1.8m	£4	£6	£4
3m	£6	£8	£6
5m	£7	£10	£7
10m	£15	£17	£18

25M/36M is standard PC parallel cable 25/25 & 36/36 are for use with printer switches

Plotters

## PLOTTERS AND DIGITISING TABLETS

### HP PLOTTERS



Size	A1	A0
DesignJet 230	C4694A £1485*	C4695A £1975*
DesignJet 250C	C3190A £1845*	C3191A £2449*
DesignJet 650C Col	C2858B £3749*	C2859B £4425*
DraftPro Plus	C3170A £2339*	C3171A £3129*

Draft Pro comes with three years On Site maintenance.  
DesignJet prices includes one year OSM. 3 Year OSM option £420, £390 if bought with Plotter. Full range of accessories, including legs or bins, available. \*Carriage on request.

### PLOTTER MEDIA (a)

### HP PLOTTER PENS (c)

HP Paper A0 150 sheets	£64	17825P, 17826P, 17725T, 17726T	£6.30
HP Paper A1 200 sheets	£42		
HP Paper 36" Roll	£29		
HP DJ650C Paper 24"x150ft	£23	Ink Cartridges (c) Blk/CMY	
HP DJ650C Paper 36"x150ft	£29	DesignJet 200/220	£16
HP DJ650C Paper A1 100 sheets	£43	DesignJet 600	£16
HP DJ650C Paper A0 100 sheets	£83	DesignJet 650	£20.40/£20.40

## Summagraphics

### INKJET PLOTTERS

	A1	A0
SummaJet Mono	£1819*	£2345*
SummaJet Colour	£2345*	£2625*
LEGS	£220*	£320*

Call for cartridges & paper, \*Call for carriage

### DIGITISERS (S=Stand Opt)

	A4	A3
SummaSketch III	£225(a)	£435(a)
SummaSketch FX	£275(a)	£495(a)
Summa Grid IV 1824 A2 Tablet (S)	£959*	
Summa Grid IV 2436 A1 Tablet (S)	£1279*	
Summa Grid IV 3648 A0 Tablet (S)	£1695*	
Manual A1/A0 Tablet Floor Stand	£195(a)	
Cursor: 4 Button	£99(a)	16 Button £125(a)
MicroGrid Ultra 1724 A2	£2199*	
MicroGrid Ultra 2436 A1	£2649*	
MicroGrid Ultra 3648 A0	£2999*	

### GENIUS TABLETS



HiSketch SP Model	Price
1212 SP (12"x12")	£120(a)
1812 SP (18"x12")	£185(a)
1812D SP (18"x12") LCD coord disp	£210(a)

- Features:-**
- Windows 3.1 & ADI drivers • Up to 19,200 bps data rate
  - 5 to 90 pairs/sec sampling rate
  - 1000 lines per inch resolution
  - ± 0.01 inch accuracy • Proximity sensing
  - AutoCAD R10/11/12 compatible templates
  - Multi-directional puck • 3 button stylus

# ESSENTIAL FOR MODEM USERS

High speed serial card 2 x 16550 serial ports, 256 greyscales, 1 x enhanced parallel port, 1 x game port **£29 (b)**



**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



## A4 FLAT BED SCANNERS

### NEW HP SCANJET 3C

Now 600dpi enhanced to 2400dpi, 30bit colour & 10bit greyscale includes Corel PhotoPaint, Calera Wordscan & Deskscan II.

<b>HP SCANJET 3P NEW</b>	PC/AT	<b>£239*</b>	<b>HP SCANJET 3C</b>	PC/AT	<b>£629(a)</b>
- 256 greyscales	PS/2	<b>£246*</b>		PS/2	<b>£630(a)</b>
- 300 dpi, enhanced to 1200 dpi	Mac	<b>£247</b>		Mac	<b>£631(a)</b>
			<b>NEW</b>		
			<b>HP SCANNER OPTIONS 3C</b>		
SupportPack (3 yrs OSM)		<b>£135</b>	<b>3P</b>		
Auto Document Feeder:		<b>£309 (50 shts)</b>			
Transparency Adapter (3C ONLY)		<b>£449</b>			
PC/AT or PS/2 interface kit (inc. s/w)	POA				

## EPSON A4, 24/30 BIT COLOUR SCANNERS

All bundles, except scanner only, come complete with software, interface (PC), cables and drivers.

**GTX Bundle:** Omnipage Direct, Photoshop LE

**GTI Bundle:** Photoshop V3.00 (full version).

Please specify clearly model and bundle when ordering.

Model	6500S	8500P	8500S	9000P	9000S
Scan Res.	300dpi	400dpi	400dpi	600dpi	600dpi
Output Res.	1200dpi	1600dpi	1600dpi	2400dpi	2400dpi
Colour Depth	24bit	30bit	30bit	30bit	30bit
Interface	SCSI	Parallel	SCSI	Parallel	SCSI
Scanner only	-	<b>£429</b>	-	<b>£529</b>	-
GTX-PC	<b>£465</b>	<b>£495</b>	<b>£575</b>	<b>£599</b>	<b>£678</b>
GTI-PC	-	-	<b>£759</b>	-	<b>£859</b>
GTX-MAC	<b>£395</b>	-	<b>£509</b>	-	<b>£615</b>
GTI-MAC	<b>£565</b>	-	<b>£695</b>	-	<b>£799</b>

Auto Document Feeder **£349(a)** Transparency Unit (up to 5"x5") **£439(a)**

**Omnipage PRO £325(a) Direct Win £72 Textbridge V3 PRO WIN £269(a) STD WIN £65**

## HAND and A4 SCANNERS

### GENIUS SCANMATE SERIES

Suitable for Windows 3.1x systems

#### Scanmate Colour

24 bit, 16.7m colours TWAIN compliant  
PhotoFinish 3.0 & SmartPage direct OCR  
Complete with manuals & ISA bus card

**Scanmate Color SE (800 dpi) £139(a)**

**Scanmate Color Pro (1600) £155(a)**

(ColorPro includes Morph Editor CD)

#### Scanmate 256

True 256 Grey Scales, 800 dpi resolution, TWAIN compliant  
DTP & OCR software included  
Complete with manuals & ISA bus card

### TRUST A4 Flatbed Scanners

CALL FOR FULL SPEC

**Imagery 1200 @ £305(a)**

**Imagery 2400 @ £395(a)**



### HP OFFICEJET LX £499

Best selling all-in-one solution for the small business and the home.

- ◆ High quality printer
- ◆ Group 3, Paper + PC Fax
- ◆ Complete with Fax s/w
- ◆ Convenience copier

**1 YR EXPRESS WARRANTY**

**FAX COPY SCAN PRINT**

## MOBILE COMMUNICATIONS

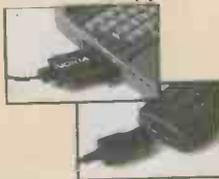
### NOKIA CELLULAR DATA CARD £499(a)

"Until the other mobile phone manufacturers release a similar product, the 2110 is the only solution" PCW March 1995

Nokia Cellular Data Card features:

- PCMCIA Type II card, compatible with most notebooks
- Data rates up to 9600 bps □ Fax up to 9600 bps
- Connects directly to Nokia 2100 series cellphone
- Future-proofed upgradeable software □ Hayes AT command set

Now you can fax, E-mail, remote access directly from your notebook using your cellphone



## MODEMS (Carr a)

Please indicate internal or external when ordering

APPROXIMATE connection to telecommunications subject to the conditions in terms.	V22bis	V32	V32bis	V32terbo	V34MFC	Voice	V42	V42bis	FAX	Internal	External
--	--------	-----	--------	----------	--------	-------	-----	--------	-----	----------	----------

### IBM OEM MODEM SPECIAL OFFER WHILE STOCKS LAST

IBM PCMCIA Fax/Modem Quad Speed **49**

### Robotics

5 yr. Manuf. warr., Free Hot Line Support. Sportster & Worldport have fax & comms software. Call for Mac models

Sportster 28.8 +Fax	✓✓✓	✓	✓✓✓	✓✓✓	<b>161</b>	<b>159</b>
Sportster 14.4 +Fax	✓✓✓				<b>106</b>	<b>105</b>
Courier V34 Modem only	✓✓✓✓				<b>249</b>	<b>245</b>
Worldport DS Cell Pckt	✓✓✓				---	<b>129</b>
WP PCMCIA 28.8 + Fax	✓✓✓✓				---	<b>165</b>
USR High Speed Dual Serial Port - 16550 AF 2 yr warr. (9F)						<b>49*</b>

2 yr. Manuf. warr., Free Hot Line Support. WinFax Lite s/w & Compuserve

Goldcard v34+Fax PCMCIA	✓✓✓	✓	✓✓✓	---	<b>189</b>
Goldcard v32bis+Fax PCMCIA	✓✓✓			✓✓✓	<b>157</b>

### MOTOROLA

3400 Online is an Internet in a box solution including modem cable and all software.

Motorola 3400 Pro	✓✓✓	✓	✓✓✓	---	<b>165</b>
Motorola 3400 Online	✓✓✓	✓	✓✓✓	---	<b>195</b>

### Hayes

FREE ULTRA 24 WITH EVERY OPTIMA 28.8

Accura 14.4 + Fax	✓✓✓		✓✓✓	---	<b>135</b>
Accura 28.8 + Fax v34	✓✓✓	✓	✓✓✓	---	<b>175</b>
Optima 144 + Fax	✓✓✓		✓✓✓	---	<b>249</b>
Optima 28.8 + Fax v34	✓✓✓		✓✓✓	---	<b>339</b>
Optima PCMCIA 144 + Fax	✓✓✓		✓✓✓	---	<b>199</b>

LIMITED STOCKS - NOW V34, 5YR WARRANTY

Bundle Offer 2 x Optima 288 + 2 x ESP II card **645\***

Ultra 96	✓✓		✓✓	---	<b>429</b>
Ultra 144	✓✓✓		✓✓	---	<b>489</b>

Hayes ESP card - High speed Serial port card with processor:

PC/AT ESP II card 1 port **£59** 2 port **£89** MCA ESP card **£199**

### MultiTech Systems

2 yr. manuf. warr., Free Hot Line Support  
Free MultiExpress fax software

ZDX 2834 Desktop	✓✓✓✓	✓✓✓	---	<b>165</b>	
ZDX 1932 Desktop	✓✓✓	✓✓✓	---	<b>109</b>	
MT 2834 BLK Desktop	✓✓✓	✓	✓✓✓	---	<b>395</b>

- FREE Multitech High Speed Serial Card While Stocks Last

MT 1432BLK Desktop	✓✓✓	✓✓✓	---	<b>299</b>
MT 1432 MK Pocket	✓✓✓	✓✓✓	---	<b>345</b>
MT 1432LTI PCMCIA	✓✓✓	✓✓✓	---	<b>199</b>

### PAGE

SPECIAL OFFERS WHILE STOCKS LAST

MobiFax 32+ Pocket	✓✓✓	✓✓✓	<b>89</b>
Microlin FX34 Pocket	✓✓✓	✓✓✓	<b>168</b>
Microlin FX34 PC Card	✓✓✓	✓✓✓	<b>169</b>
Microlin NB 34 PCMCIA	✓✓✓	✓✓✓	<b>199</b>
Linnet Message Desk VFX	✓✓✓	✓✓✓	<b>209</b>
Linnet 34 FX Desktop	✓✓✓	✓✓✓	<b>199</b>

### MODEM ACCESSORIES

PC Modem Cables 2M 9F to 25M (COM1 card below) **£8**

PC Modem Cables 2M 25F to 25M (COM2 card below) **£9**

### WOW! Multi I/O High Speed Card £29

2 X 16550 SER, 1 x EPP, 1 x Game **£29**

Compuserve Information Manager Windows Software **£19(b)**

\*Special offer while stocks last

SEE SOFTWARE PAGES FOR COMMUNICATION S/W



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Intel

## UPGRADE YOUR 486 TO A PENTIUM™ PROCESSOR

**Boost Your System Performance as Much as 200%**



FROM ONLY  
**£79**



### Intel Pentium™ OverDrive Processor

The Intel Pentium™ OverDrive processor, with advanced microprocessor technologies, will make your software run faster than ever before. It's our most powerful CPU upgrade for boosting the performance of your existing Intel 486SX or DX and IntelSX2 or IntelDX2 processor-based PCs. With superior upgrade option features, you'll experience a significant performance gain across a wide variety of software applications. Just install an OverDrive processor in place of your current i486 CPU, or plug it into an upgrade socket, depending upon your system design.

Item No	Description	Socket Needed	Price
INT/DP/P24T	INTEL PENTIUM™ OVERDRIVE 63 MHz	Yes	£199
INT/CP/R066	INTEL DX2 OVERDRIVE 25-50 MHz	Yes	£79
INT/CP/R075	INTEL DX2 OVERDRIVE 25-50 MHz	No	£79
INT/CP/R086	INTEL DX2 OVERDRIVE 33-66 MHz	Yes	£99
INT/CP/R088	INTEL DX2 OVERDRIVE 33-66 MHz	No	£99
INT/CP/R202	INTEL DX4 OVERDRIVE 25-75 MHz	Yes	£105
INT/CP/R204	INTEL DX4 OVERDRIVE 25-75 MHz	No	£105
INT/CP/R212	INTEL DX4 OVERDRIVE 25-75 MHz	Yes	£135
INT/CP/R214	INTEL DX2 OVERDRIVE 33-100 MHz	No	£135

Improve

## UPGRADE YOUR OLD 386 - MAKE-IT 486!

### Quick and Easy 386 to 486 upgrade!

Now it's easier and more affordable than ever to convert your 386 to a full-powered 486! Gain faster speed, dramatically enhance memory management (such as loading TSRs and device drivers into high memory), increase Windows performance, and more, just pull out the old 386 chip and plug in the new Make-it-486, and your upgrade is complete! You don't have to add or change anything else. Your new system is instantly recognised as a 486 by all the latest software you've been wanting to run. Unlike some 386 upgrades with only 1K of cache, Make-it 4896 includes a full 8K cache for twice the performance in those cities.



**Make-It 386 SX 16/20/25 MHz to 486 32/40/50 MHz:**

**EUREX0901 £99**

**Make-It 386 DX 16/20/25 MHz to 486 32/40/50 MHz:**

**EUREX0900 £99**

### 486 → DX4

Upgrade your 486PC for the ultimate performance. Utilising clock tripling technology the upgrade will triple the speed of a 25 or 33MHz processor or double the speed of a 40 and 50MHz processor. This easy to install chip comes complete with an extractor tool, cooling fan, and 8K internal cache.

**486SX or DX 25/33 to 4986DX4 75/100: EUREX0902 £275**

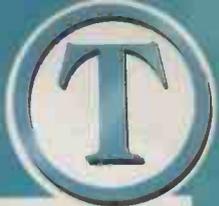
**486SX or DX 40/50 to 4986DX4 80/100: EUREX0903 £275**



**SAVE £££ ON 72PIN SIMMS**  
**WIN95 U/G + 4MB 32BIT £159 SAVE £10**  
**WIN95 U/G + 4MB 36BIT £169 SAVE £10**  
**WIN95 U/G + 8MB 32BIT £264 SAVE £15**  
**WIN95 U/G + 8MB 36BIT £273 SAVE £15**



**SALES 0181-205 9558**  
**FAX 0181-205 0190**  
**ADMIN 0181-358 8100**



**PRICES EXCLUDE VAT @ 17.5%**

**MEMORY FOR LASER PRINTERS<sup>(b)</sup>**

1MB 2MB 3MB 4MB 8MB

**HEWLETT PACKARD Original Memory**

LASERJET 4L	£73			
LJET 4/4M/4S1/4SIMX,IIISI,				
D/JET 1200C	£139	£225	£415	
LJET 4P/4MP/4+4M+/4V/4MV/				
5P/5MP/COLOR,DJ1600C/CM	£139	£205	£385	

**HEWLETT PACKARD 3rd party memory**

LASERJET IIIP/IIIP+,IIII/IIID/IIIP	£59	£89	£155	
LASERJET III/II	£65	£95	£159	
DESIGNJET 200/600/650C			£129	£259
PAINTJET XL300 (NEED				
EXPBOARD 069.00)	£49	£85	£129	£259
LJET 4/4M/4S1/4SIMX,IIISI,D/JET				
1200C	£49	£85	£129	£259
LASERJET 4L	£59			
LJET 4P/4MP/4+4M+/4V/4MV/				
5P/5MP/COLOR,DJ1600C/CM	£45	£85	£129	£255

**BROTHER 3rd party memory**

HL4/PS/V/E	£79	£125	£185	
HL6 SERIES		£119	£195	
HLB-D/E/V	£79	£115		
HL10-V/D/V/PS/DPS		£102	£179	
HL10-H	£49	£89	£129	£259

**CANON 3rd party memory**

LBP-4, LBP-4+, LBP-4Lite	£89	£125		
LBP-8II, 8IIR, 8IIT	£65	£95	£159	
LBP-8III/III+/IIIIR	£99	£129	£169	
LBP-8IV/LBP-4U/LBP-4i	£49		£119	

**EPSON 3rd party memory**

EPL-4000/4100/4300,ACTION				
LASER II	£62	£109	£159	£229
EPL-5000/5200	£55	£89	£210	
EPL5200+		£85		
EPL 5600 (2 SOCKETS),1600	£45	£85	£119	£249
EPL7500			£249	
EPL8000/EPL8100	£70	£111	£155	£205

**KYOCERA 3rd party memory**

F-800/A/T	£75	£109	£179	
F820/850/1800/A/5000/1500	£65			
F1000A	£79			
F1200S/2000S/2200S/3000A/3300	£79	£115		
F51500A (ECOSYS)	£79			

**PANASONIC 3rd party memory**

KXP-4410/4430	£89	£129	£199	
KXP-4420/4450/4451	£69	£109	£179	
KXP-4455		£119		
KXP-4450	£69			
KXP-4440/5410 EXP+MEMORY	£72	£109	£193	
KXP-4440/5410 ADD ON	£47	£84		
KXP-4400,(KXP-5400 2MB ONLY)	£65	£95	£175	

**STAR 3rd party memory**

LP4	£79	£119	£199	
LP8	£79	£115	£195	
LS-5/5EX/5TT EXPBOARD+ MEMORY	£76	£131		
LS-5/5EX/5TT ADD ON MEMORY	£55	£99		

**SHARP 3rd party memory**

JX-9500PS	£59			
JX-9500/E/H/9700			£195	
JX-9400,9460,9600,9600PS,				
JX-9660,9700E	£65	£99	£179	

**OKI 3rd party memory**

OL400	£69	£99		
OL400E/EX,410E/EX	£69	£109	£179	
OL410,OL810	£75	£115	£185	
OL800,OL820	£69	£109	£179	
OL830,OL840		£89		

**PCMCLA<sup>(b)</sup>**

Type I Version 1.0 SRAM 1Mb/2Mb **£125/£175**

**CO-PROCESSORS<sup>(b)</sup>**

**Performance accelerator for CAD, spreadsheets, graphics & DTP**

80287-8 to 20MHz **£59**  
80387SX-16/20/25MHz **£58**  
80387SL-16/20/25MHz **£58**  
80387SX-33MHz **£65**  
80387-DX-16 to 33MHz **£58**

**72 PIN 70NS**

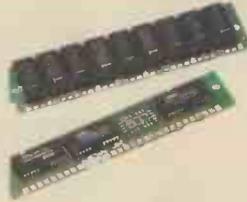
Type	Size	Price
1x32	4Mb	£110
1x32 (EDO)	4Mb	£145
1x36	4Mb	£120
2x32	8Mb	£220
2x32 (EDO)	8Mb	£279
2x36	8Mb	£229
4x32	16Mb	£370
4x36	16Mb	£399

Call for 60 & 80NS

**DRAMs**

44256-70NS (256K x 4)	£5.40
1Mb x 1-80/70NS	£4.90
1Mb x 4-80/70NS	£25
256K x 16-70 SOJ	£22

**SIMMS<sup>(b)</sup>**



**30 PIN**

1Mb x 9-70/80N (9 chip)	£31
1Mb x 9-70 (3 chip)	£30
4Mb x 9-70/80NS	£115
4Mb x 9-60NS	£119
256K x 9-80NS/70NS	£15

**CACHE RAM & TAG RAM (SRAMS)**

8K x 8 20NS cache	£4.50
32K x 8 20NS cache	£7.00
32K x 8 15NS cache	£7.50
128K x 8-20 cache	£26

All generic memory supplied is made by reputable manufacturers such as Toshiba, Samsung, Goldstar, Fujitsu, TI, NEC, OKI etc.

**FREE** Anti-Static wrist strap for each order on memories except DRAM and Cache RAM.

Just give us a call with your system details and we do the rest

intel Pentium™ Motherboard designed and made by Intel supports EDO & FPM memory

Advanced EV	Zappa
P90MHz £499	P90MHz £429
P100MHz £599	Order any of these Motherboards and save £20 on (2x4MB) and £30 on (2x8MB) memory
P120MHz £829	

**MEMORY FOR COMPUTERS<sup>(b)</sup>**

2MB 4MB 8MB 16MB

**IBM Original memory**

THINKPAD 360/700/20/50/55	£130	£225	£450	
THINKPAD 755 DIMM		£225	£655	£1145
PS1/VP/2		£190	£375	
PS/2 95/XPI/AMF/AMT		£295		
THINKPAD 750/755 DRAM				£1145
THINKPAD 340/360		£199	£399	£999
PS/NOTE	£95	£380		
APTIVA PC300		£180	£360	£720
Perf/PC700		£190	£375	£750
PS/2 SERVERS ONLY (ECC MEMORY)		£205	£415	£835

**IBM 3rd party memory**

T/PAD 700,720,750,755,CL575X	£169	£299		
T/PAD 330/340/355/360/730C/370	£159	£289	£489	
T/PAD 701 SERIES	£149	£275	£479	
PS/2 L40SX,PS/NOTE 182,T/PAD 350	£89	£149	£285	£459
PS/2 N51 5LC,SX	£89	£159	£299	
PS/2 N33 SX	£89	£149		
PS/2 90/95,95XP 486 OMFOMT (ECC)	£85	£129	£259	
PS/2 56,85,75LC,56,85,75SX,M575LC	£85	£129	£259	
PS/VP 6381-FY1/FYE/KYO/MYO/MI/YVO	£119	£429		
PS/VP 6382, (C/K/F/W)	£129	£259	£429	
PS/VP 6384 F/M/W/(EXCEPT F00/F20/F23/F40/				
F43/M00/M20/M40/M43/M50/M53/VW40/W53)	£129	£259	£429	
PS/VP 6384 F00/F20/F23/F40/F43/				
M00/M20/M40/M43/M50/M53/VW40/W53	£136	£499		
PS/VP C00/C2A/C20/C4A/C40	£85	£139	£259	
PS/1 2133-G,S,W43/174/154,2155-G,S,W44	£136	£499		
PS/1 2133-G,S,W31/1/G,S,W13/81/111/145/1/				
461/1471/1483/551,2168-452/473/1493/573,				
2155-G,S,W14	£85	£129	£259	
PS/1 2133-571/642/652,2155-582/592/593				
PS/1 2168-574/584/594/653/873	£119	£249	£439	
PS/1 PRO 386SX,2123 (EXCEPT E31/E81)	£85	£129	£259	
PS/1 PRO 386SX,2123 E31/E81	£85	£139	£259	
APTIVA TREKA	£87	£119	£249	
HURDLA 486,SPRINTA 486DX/DX2/5X	£136	£476		

**COMPAQ 3rd party memory**

CONTURA 3120,3125,3125C	£75	£155	£259	
CONTURA 400/410 SERIES		£149	£275	
CONTURA 4125,CX,EX		£155	£250	£549
CONTURA AERO		£140	£329	
CONCERTO ,LTE ELITE		£159	£309	£579
LTE LITE 4125,4125C,4125E,4133C	£159	£299	£499	
LITE 386 LITE/20,25,25C,25E	£89	£185	£299	
SPILT/M & V PROSIGNIA PC (NEED EXP. BOARD)	£85	£129	£259	
DP 3125i, 3133i,4125i,4133i,4166i	£85	£129	£259	
DP 386/20E,25E,20,25		£155		
DP 386/33L,486/25/33L/50L/5P 486/E SERIES	£95	£295	£495	
D/PRO M&SPLIT (NOT LT486/33) EXPBD	£215	£249	£375	
PROLINEA 3125S,325Z	£68	£238		
PROLINEA 4125S,4133,4150,4166,CDS				
PRESARIO,PROLIANT 1000 486DX2-66	£85	£129	£259	
PROLINEA MT 4133S,MT 4150,MT 466	£85	£129	£259	
NEV PROLINEA FAMILY (PENTIUM X 2)	119	249	399	
PROSIGNIA PC SERVERS	£129	£259	£439	
SYSTEM PRO XL 486/50				
P486,P486/66,P486C,P486C	£85	£129	£259	
DESKPRO XE 433S,450,466	£85	£129	£259	
DESKPRO XE 560,5166M,5160M				£495
PROLINEA MT	£85	£129	£259	£439
PROLINEA NET 1-25S/E/TR	£85	£129	£259	
PRESARIO CDS 633,CDS 860,660				£439
DESKPRO XL 450,466				£258

**COMPAQ Original memory**

Contura 386	£80	£155	£255	
Contura 486		£155	£265	£995
Contura Aero		£140	£280	
Contura 400		£190	£370	£880
LTE Lite 386	£140	£275	£515	£1575
LTE Lite 486		£220	£440	£1575
LTE Elite/CONCETO		£220	£440	£880
PROLINEA 486	£110	£190	£309	
PROSIGNIA/DESKPRO	£120	£195	£309	£765
DESKPRO XL 486		£360	£685	
NEW PROLINEA/DESKPRO		£185	£355	£655

**TOSHIBA 3rd party memory**

T2000/SX/SXE,T2200SX,T1800,T1850/C,				
T1000LE	£85	£159	£295	
T2100 SERIES,T2150		£149	£295	
T3100SX	£85	£159		
T3200SX	£85	£159		
T3200SX/C				
T2400/T2450/T3600		£169	£299	£559
T3400		£169	£299	£569
T4400/C/SX/SXC,T6400,T6600	£85	£159	£289	£539
1900,1910,1950/C,1960,4500,4600,				
4700,4800,4850,4900,DYNAPAD T200		£169	£299	£599
DYNAPAD T100X		£159		
T5200/T5200C/T8500	£89		£345	

Memories for AST, Olivetti, Canon, NEC, Gateway are available, please call if the upgrade you require is not listed.

**DELL 3rd party memory**

320N/N+,212N LAPTOP	£95			
325N/NC NOTEBOOK	£99			
NL25,NL20 NOTEBOOK	£110			
316SX/LT,325SX,320LX/LT	£68			
LATITUDE 433M/MC,450M/MCX		£149	£279	£449
LATITUDE XP 450C/CX,475C,4100CX		£149		
320SX,325P,325D,333D/P		£129		
486P&D/66/50/33/25/20/16		£129		
PERFORMANCE ME SERIES		£129	£258	£429
PERFORMANCE T/L/M SER,466i,433/Si		£119		£399
SYSTEM 320SLI,325SLI	£115		£439	
POWERLINE 466/450/433/425i/				
420 TE/DE, DE/25E,466SE/DSA	£95	£158	£258	£518
325D/325P/333/333D/333P/433/433P		£129		
200/210/300 SERIES	£68	£136		
VECTRA 486S-20 PC/25T/33T	£85	£129	£259	

**HEWLETT PACKARD 3rd party memory**

VECTRA 486 VL	£85	£129	£259	
VECTRA VL2 (NOT PENTIUM)		£119	£249	£429
VECTRA 486-25N/33N/50N/66N,				
NETSERVER LEXM	£85	£129	£259	£429

**Original Memory**

VECTRA VL,N,NI,M,MI,XM		£185		
VECTRA VL2,XPL,LFLM</				



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

Networking

## Xircom PCMCIA ETHERNET + MODEM II

Modem: V32TER, V32bis, V22bis + more } IN ONE  
Fac: V17, V29, V27TER } TYPE II  
Ethernet: BNC, TP, Combo } CARD  
Supports all popular PCMCIA 2.0 & 2.1 PCs  
Supports all popular networks inc Novell  
CEM-10BC - BNC + TP £369 While stocks last  
BABT APPROVED

## NETWORK BACKUP SEE STORAGE PAGE

## ETHERNET PRODUCTS (a)

### GENIUS COMBO CARD

GE2000D Lifetime warranty, BNC & TP, NE2000 compatible, s/w & h/w configure, T Piece. See Taxan/Genius page for more info.

**£28 (b)**  
5 pack £135(a)



B = BNC, A = AUI, T = TP, I = ISA, M = MCA, E = EISA, V = VLB, P = PCI

### NETWORK BUS

3COM		IPK	5PK	20PK	
3C509B	B A -	1-16	£65	£315	£1199
3C509BTP	- - T	1-16	£66	£309	£1149
3C509B-Combo	B A T	1-16	£75	£349	£1299
3C529B	B A -	M-32	£142	£709	-
3C529B-TP	- A T	M-32	£139	£709	-
3C579	B A -	E-32	£145	£699	-
3C579-TP	- A T	E-32	£144	£699	-
3C590	B - T	P-32	£99	£479	-

SMC Ethercard Plus		IPK	5PK	20PK	
Ether EZ BNC	B - -	1-8/16	£58	£275	£979
Ether EZ TP	- - T	1-8/16	£58	£249	£849
Ether EZ Combo	B - T	1-8/16	£65	£299	£1059
EtherPower EISA 10/100	B - T	E-32	£179	£789	£2899
EtherPower PCI 10/100	B - T	P-32	£159	£739	£2599
Ultra Boot Rom Multi-Protocol					£29

Novell - Genuine Cards		IPK	5PK	20PK	
NE2000 +	B - -	1-16	£49	£219	POA
NE2000T +	- - T	1-16	£49*	£219	POA
NE2000+3	B - T	1-16	£59	£279	POA

D-Link Ethernet		IPK	6PK	50PK	
DE220C	B - -	1-8/16	£39	£209	£1599
DE220T	- - T	1-8/16	£39	£209	£1599
DE220CT	B A T	1-8/16	£45	£245	£1899
DE510CAT VLB	B A T	V-32	£199	-	-
DE320CT MCA	B - T	M-32	£99	-	-
DE400 EISA	B - T	E-32	£149	-	-
DE530 PCI	B - T	P-32	£99	-	-
DEDE220X Novell Boot Rom			£19	-	-

Intel EtherExpress (E.XP)		IPK	5PK	20PK	
E.XP PRO 16C	B - T	1-8/16	£59	£285	POA
E.XP PRO Flash 16C	B - T	1-8/16	£69	£319	POA

### Ethernet for Portables

Parallel Port	BNC	TP	DUAL
Genius E3000D-II with printer Multiplexer built-in & EPP support			£69

Xircom Pocket III	£185	£186	£199
SMC Elite Note	-	-	£159
D-Link DE600	-	-	£99
D-Link DE620 EPP Support	-	-	£129

PCMCIA	BNC	TP	DUAL
3COM 3C589B	-	£115	£139
Xircom PCMCIA - Performance range	£129	£135	£149
SMC Elite Card	-	-	£115
Genius ME3000II - LOW PRICE	-	-	£85
D-Link DE650	-	-	£99

\*While stocks last  
Boot ROM for NE2000 & clones TEC/NK/R09R £10(c)

Cables & Accessories	Length (m)	3	5	10	15	20	25	30	50
Thin	£6	£8	£12	£16	£20	-	£27	£35	-
TP	£9	£12	£17	£22	-	£30	-	-	-
100M Reel	Thin	£45(2xa)		300M TP		£169(2a)			

BNC T-Piece 5 Pack	£15(c)	BNC F-F Barrel 5 Pack	£15(c)
BNC 50ohm Earthen Terminator 2 Pack	£4(c)	BNC M-M Barrel 5 Pack	£17(c)
BNC Crimp Tool	£19(b)		
RJ45 TP Connectors 20PK	£20(b)		
RJ45 TP Crimp Tool	£19(b)		

## NETWORKING

FREE NETWORK SOFTWARE WITH EVERY NETWORK 3.12 OR 4.1

NOVELL NETWORKE	5 User	10	25	50	100	250
Netware 4.1 CD ROM (a)	413	944	1493	2033	Call	Call
Netware 3.12 (a)	395	963	1443	1940	Call	Call

## PRINTER SERVER (a)

Please verify exact version of protocol supported with manufacturer

CONNECTION	PROTOCOL										PRICE
	PARALLEL	SERIAL	NO/HP	NOVELL (IPX)	NETBIOS	WWWG	WINDOW NT	TCP/IP (UNIX)	APPLE TALK	DEC LAT	
Intel Netport Express XL BNC/TP											£299
Intel Netport Express XL Token Ring											£449
2 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Intel Netport Express EL BNC/TP											£255
Intel Netport Express EL Token Ring											£389
2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HP JetDirect Ex Plus 3 - Special Offer while stocks last											£219
3 0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HP JetDirect Ex											£249
IP JetDirect J2552A MIO Lj4 Series											£289
EMULEX NetQue BNC/TP											£399
EMULEX NetJet MIO Lj4 Series											£369

## UPS PROTECT AGAINST POWER FAILURE



FREE WITH EVERY TRIPPLITE SMART 600

SMART Series  
• Microprocessor Controlled  
• Made in USA  
• SMNP Option  
• Battery Saver  
• 2 year swap out warranty



SU 600 VA	£219(a)	BC250 VA	£79(a)
-Free Surge Bar		BC400 VA	£115(a)
SU 750 VA	£229(a)	BC600 VA	£149(a)
SU 900 VA	£349(a)	BC900 VA	£250(a)
SU 1250 VA	£499(+)		

PowerAlert For: Netware £49 Unix £89 Dos/Win £55

### American Power Conversion (APC) 2yr swap-out.

Smart-UPS (Line-interactive)	Back-UPS (off-line)		
SU250	£169(a)	BK250	£83(a)
SU600	£210(a)	BK400	£119(a)
SU900	£369(a)	BK600	£159(a)
SU1250	£510(+)	BK900	£275(+)
SU2000	£910(+)	BK1250	£349(+)

Powerchute for Netware £55 For Unix £95 For Win £59  
For VMS (Tape) £195 For Win NT £95 For HP/UX £119  
+ = Call for carriage, volume discounts available

## HUBS & REPEATERS

Model carr (a)	Ports	TP	BNC	AUI	SMNP	Stackable	Price
HP ADVANCE STACK HUBS							+ = 5 YEAR OSM
Advance Stack 8U 8					Yes	No	£99
Advance Stack 16U 16					Yes	No	£249
Advance Stack 12+ 12		1			Yes	Yes	£399
Advance Stack 24+ 24		1			Yes	Yes	£699
Advance Stack 48+ 48		1			Yes	Yes	£1249
3COM							
LBuild FMS II	12	OPT			Yes	Yes	£375
LBuild FMS II	24	OPT			Yes	Yes	£675
SMC							
Tiger TP6	6	OPT			No	No	£124
Tiger TP6B	6	1			No	No	£126
Tiger TP12	12				No	No	£249
Tiger CX3		3			No	No	£219
Elite 3812TP	12	OPT	2		Yes	Yes	£399
Genius 1000/D	12	1	2		Yes	No	£199
Techno							
8TP Port	8		1		No	No	£99
4 Port Repeater		4	2		No	No	£339
2 Port Repeater		2	2		No	No	£185

## COMMUNICATION SERVER (a)

US Robotics Fax Server 1 Port	£929	2 Port	£1149
US Robotics Comms Server			£999
Comm Server Software			
WinPort V5 1 modem			£135
FaxPort V5 5 user			£275
Novell Connect 2 port			£279

## PEER TO PEER NETWORKS

All Techno starter kits contain 5M BNC cable & terminators.  
All Techno add-on kits contain 3M BNC cable. All starter kits contain everything necessary to connect stated no of PCs.

### Microsoft Windows for Workgroups

Item Description	Full Product	MLP
Windows for WG 3.11	£89	£86
Add-on for Win 3.1/W4WG 3.1	£42	£39
Add-on for MS-DOS	£41	£40

**Techno W4WG Add-on Kits**  
For those users with MS Windows 3.1 installed  
Techno W4WG 2 Stn Starter Kit £149(a)  
Techno W4WG 1 Stn Add-on Kit £69(a)

**Techno Hardware only Kits**  
For those users with MS W4WG 3.11 installed  
Techno 5 Stn Starter Kit H/W only £175(a)  
Techno 2 Stn Starter Kit H/W only £66(a)  
Techno 1 Stn Add-on Kit H/W only £35(a)

## NOVELL Personal Netware

- Share files, directories, printers & CD-ROMs in Dos & Windows
  - Universal network client
  - Single Login to all resources
- |                                     |         |
|-------------------------------------|---------|
| Personal Netware (PNW)              | £44(b)  |
| Personal Netware 5 Pack             | £195(a) |
| Novell Dos 7 inc PNW                | £49(b)  |
| <b>Techno Personal Netware Kits</b> |         |
| Techno PNW 5 Stn Starter Kits       | £209(a) |
| Techno PNW 2 Stn Starter Kits       | £89(a)  |
| Techno PNW 1 Stn Add-on Kit         | £55(a)  |

## LANtastic v6.0 EASY - SAFE AFFORDABLE



LANtastic is the most awarded networking in the world (over 100 awards) with 2.5 million users.

The LANtastic Starter Kit has everything you need to connect your first 2 PC's, and when you want to grow an Add-On Kit will add 1 user, alternatively you can use software on it's own with any NE2000 compatible card. What could be easier?

LANtastic works with all major platforms including the latest product LANtastic for OS/2 - the only network for WARP.

Installation is exceptionally easy, and if you are not fully satisfied Artisoft offers a 30 day money back guarantee.

Get networked with LANtastic and get the most from your PC investment.

LANtastic - Powerfully Simple Networking

NodeRunner 2000SI 1 node kit	£99	2 node kit	£180
AI software Win + Dos only	£65	5 pack	£245
NodeRunner 2000Si card only	£69	5 pack	£265
AI upgrade 1 user	£29	5 user	£79
LANtastic for OS/2 1 user	£69	5 user	£299
LANtastic Central Station II			£Call
LANtastic Utility Pack			£199
LANtastic Powersuite			£Call

## AMAZING! HARD DRIVE PRICES

SEAGATE	1GB	IDE	£175
CONNER	2GB	SCSI	£525
MICROPOLIS	4GB	SCSI	£825



Amex Surcharge 1%

SALES 0181-205 9558

FAX 0181-205 0190

ADMIN 0181-358 8100

PRICES EXCLUDE VAT @ 17.5%



STORAGE

### PCMCIA DEVICES(a)

HARD DRIVES TYPE III		
CALLUNA HD		
10MB	£219	130MB £POA
170MB	£325	260MB £399

#### PCMCIA FOR DESKTOPS(a)

<b>Cardport ISA</b>	£159
• 2 x Type III slots	
• 1 x ISA half card with rear slot	
• 1 x drive bay with front slot	
• Full s/w suite for card & socket	
<b>Cardport Solo</b>	£99
• 1 x Type III slot	
• 1 x drive bay with front slot	
• Full s/w suite for card & socket	
<b>Cardport Uno</b>	£89
• 1 x Type III slot	
• 1 x ISA half card with rear slot	
• Full s/w suite for card & socket	

### PC PARTS (b)



#### Hi Speed Multi I/O Cards

- Enhanced IDE mode 3 (ATA-2) for VLB card
- Standard IDE mode for ISA card
- 2 x 16550 UART buffered serial ports
- 2 x 2.88Mb floppy disk support
- Multi-mode parallel port (standard, B0Dir, ECP, EPP)

IDE-4 ISA	£39(b)	IDE-5 VLB	£59(b)
-----------	--------	-----------	--------

IDE-2 AT HD/FD/2S/1P inc cables	£14
IDE-3 VLB HD/FD/2S/1P card	£17
I/O-1 AT 2S/1P/IG	£14
I/O-2 XT/AT Dual Serial Port	£14
I/O-4 XT/AT Dual Parallel Port	£14

### FLOPPY DRIVES(b)

Teac 1.44Mb 3 1/2" FD + 5 1/4" Kit	£36
Teac 1.2Mb 5 1/4" Floppy Drive	£42
2 IN 1 : Dual Floppy Drive	£89
3 1/2" + 5 1/4" in half height frame	

### CACHING CONTROLLERS(b)

IDE - 0MB fitted

- Support for Dos, Windows, NT, OS/2 Netware, SCO AT&T UNIX
- Hardware disk mirroring (RAD 1)
- Up to 4 drives supported • Fast ATA support, 4 x 30 pin Simm sockets (1.6MB max)
- Auto configure & drive select

TIC 10I	ISA	0Mb	£59
TIC 20V	VLB	0Mb	£65
TIC 30E	EISA	0Mb	£159
TIC 40P	PCI	0Mb	£99

SCSI - 0MB fitted

- Support for Dos, Windows, NT, OS/2 Netware, SCO AT&T UNIX
- AHA 154X compatible
- Supported by Corel SCSI (approved)
- Hardware disk mirroring • s/w configuration
- 4 x 30 pin Simm sockets (1.6MB max)

TSC 10I	ISA	0Mb	£125
TSC 20V	VLB	0Mb	£249
TSC 30E	EISA	0Mb	£289
TSC 40P	PCI	0Mb	£POA

### SUPER IDE CONTROLLER

### FUTURE DOMAIN ISA IDE CONTROLLER WITH BIOS

- Supports Drives > 528MB
- Supports up to 4 Devices Including CD-ROM Drives

**ONLY £45**

### IOMEGA ZIP DRIVES

Store 100MB on one 3.5" disk!

- Expand your data storage inexpensively
  - Each 3.5" disk holds 100MB
  - Zip Drive is compact and weighs 1lb
  - 1.25MB/s transfer rate
  - 29MS seek time
  - Drive comes complete with manual & s/w
- |                                   |         |
|-----------------------------------|---------|
| Zip Drive 100MB (SCSI)            | £149(a) |
| Zip Drive 100MB (Parallel)        | £150(a) |
| Zip-Zoom PC SCSI Interface        | £69(a)  |
| Zip PC Disks, 100MB formatted 5pk | £55(a)  |

### PANASONIC 5.25" OPTICAL DRIVES

LF7304 1.5Gb SCSI int drv	£1477(a)
LF7300B 1.5Gb SCSI ext drv	£1539(a)

### PARALLEL PORT DRIVES(a)

<b>BackPack Hard Disk Drives</b>	
420Mb £325 850Mb £399 1.2Gb £515	
<b>BackPack Floppy Disk Drives</b>	
1.44Mb £115 2.88Mb £169 1.2Mb £125	
<b>BackPack CD-ROM Quad speed</b>	£259
<b>Tape Drives - Also see Colorado section</b>	
<b>BackPack 1080 250Mb (QIC-80)</b>	£219
<b>BackPack 900 Up to 900Mb (QIC-3010)</b>	£349

### SCSI CONTROLLERS(b)

**COREL SCSI** - Support the widest range of SCSI card & devices in Dos, Windows & Netware.

**COREL SCSI! S/w for Dos/Win v2** £65

**COREL SCSI! Network Manager** £267

### ADAPTEC - INDUSTRY STANDARD SCSI

BUS TYPE	CARD ONLY	ASPI S/W KIT	
		LOW PRICES	
1505	ISA	-	£42
1515	ISA	-	£62
1542C	ISA	£125	£165
1640	MCA	-	£235
2742T	EISA	£209*	£245
2842	VLB	-	£165
2940	PCI	-	£189

\*Single Channel

### ADAPTEC PARALLEL PORT ADAPTERS

T358 MiniSCSI EPP (1Mb/sec) £125

### PCMCIA SCSI CONTROLLERS

ADAPTEC PCMCIA SCSI card £169

### FUTURE DOMAIN PCMCIA SCSI 2GO £185

<b>DPT FAST SCSI-2</b> Ideal for Servers	
<b>CACHING CONTROLLERS</b>	
<b>DPT ISA 16 Bus Mastering kit</b>	£199
<b>DPT EISA 32 High Performance kit</b>	0MB £329
<b>DPT PCI High Performance kit</b>	0MB £299
<b>DPT Caching Module Upgrade</b>	0MB £299
<b>DPT Disk Array Module Upgrade</b>	£299

### SCSI ACCESSORIES

**SCSI DEVICE CASES WITH PSU(a)**

Includes: 50-way Centronics input & output, PSU, mains cable, fan, activity LED, SCSI ID switch, mounting screws.

	Single	Dual	Quad
3.5" HH	£79	-	-
5.25" HH	£65	£99	£189

### SCSI CABLES(c)

INTERNAL (50-way IDC-IDC)	Length	
1 device 28cm	£6	2 devices 45cm £9
4 devices 1m	£22	6 devices 1.4m £32
EXTERNAL		
50-way Centronics each end	1m	£18
50-way Micro-D each end	1m	£45
50-way Centronics to Micro-D	1m	£38
25-way D to 50-way Centronics	1m	£25
TERMINATORS (50-way Centronics)		
Passive	£9	Active £29 Forced Perfect £69

### TAPE BACKUP

**COLORADO BACKUP SYSTEMS (a)**

**NEW LARGER CAPACITIES**

Internal Tape Backup Solutions

<b>TRAVAN T1000</b> 400MB/800MB	£123
<b>Jumbo 350</b> 170/340MB (QIC-80XL)	£80
<b>Jumbo 680</b> 340/680MB (QIC-3010)	£115
<b>Jumbo 1360MB NEW</b>	£179
<b>KE-10</b> External Mounting Kit	£61
<b>FC-20</b> Fast Controller card	£49
Full range of accessories & mounting kit - Call	
Parallel Port Backup Solutions	
<b>Trakker 350</b> 170/340MB (QIC-80XL)	£155
<b>Trakker 680</b> 340/680MB (QIC-3010)	£199
<b>Trakker Carrying Case</b>	£39

<b>Colorado Backup Software Win v2</b>	£39
<b>SK35</b> Colorado Backup for OS/2	£60
<b>SU53J</b> Unix/Xenix Backup s/w	£79

### NEW HP SURESTORE DAT BACKUP (a)

HP's new Surestore range of drives gives the system user the flexibility to choose the correct drive and options to suit all needs. All netware kits contain Chyenenne backup software, call for full details. Unix solutions also available.

Drive	Int	Ext	Netware Bundle
<b>Surestore 2000 2Gb</b>	£625	£729	£935
<b>Surestore 5000 4Gb</b>	£695	£799	£1759
<b>Surestore 6000 8Gb</b>	£799	£899	£1849

### NEW HP AUTOLOADER 48GB SURESTORE I2000e

CALL FOR FULL DETAILS **£1999**

HP Support Pack for Surestore £210(b)

(Provides 3 years OS/2 direct from HP)

TECHNO DAT Drives Kits (a) 1 yr RTB warranty	
Leading DAT Drives (HP)	INT
<b>TEC 2Gb DAT (C35470)</b>	£489
<b>TEC 2-8Gb DAT (C35480)</b>	£589
<b>TEC 4-16Gb DAT (C1533)</b>	£699
<b>TEC 24-48Gb DAT Autoloader (C1553)</b>	£1549

### Chyenenne Backup Software (a)

<b>Arcsilo DOS</b>	£89	Win	£95	OS/2	£135	
<b>Arserver NLM</b>						
No. of Users	5	10	25	50	100	250
v4 for DOS	174	289	489	619	699	815
v5 for Win	174	335	575	695	795	995

### EXABYTE HIGH PERFORMANCE TAPE DRIVES

- SCSI-2 interface • Mini cartridge (DC2000 format)
  - 1Gb native, 2Gb compressed
  - 567Kb/sec data transfer rate, faster than DAT
  - Kits complete with PC card, s/w, cable & 1 cartridge
- |  |         |
|--|---------|
| <b>EXABYTE 2501 FS1Gi Internal Kit</b> | £539(a) |
| <b>EXABYTE 2501 FS1Ge External Kit</b> | £649(a) |
| <b>EXABYTE 2501 Bare drive only</b>    | £399(a) |

### TAPE CARTRIDGES

<b>Colorado Formatted - 3 Pack(c)</b>	
DT-120 (QIC-40) £49 DT-250 (QIC-80) £42	
DT-350 (QIC-80XL) £52 DT-740 (QIC-3010) £66	

### 3M QUALITY TAPE CARTRIDGES

Unformatted	1(c)	5pk (b)
DC2120 (QIC-80)	£9	£40
DC2120XL (QIC-80XL)	£14	£66
MC3000XL (QIC-3010)	£20	£95
DC6150	£12	£55
DC6250	£15	£70
DC6525	£17	£80
Exabyte DC3000XL (1Gb)	£23	£105
<b>4mm DDS DAT tapes - 5 tapes per pack</b>		
<b>3M(1Tape)</b>	<b>SONY</b>	<b>HP</b>
1.3Gb 60m	-	£45
2Gb 90m	£9	£55
4Gb 120m DDS-2	-	£75
HP DDS DAT Cleaning Kit - 2 tapes	-	£24

### DISKETTES (c)

<b>3M</b>	<b>3.5" DISCS (10/PACK)</b>	
HD	£6.00	HD Formatted £7.00
<b>BULK DISCS 3.5" HD (1.44MB) FORMATTED</b>		
50:	£25.00	100: £44.00
200:	£82.00	(b)
Floptical Diskettes 2 1/2" 5pk	£70	10pk £130
Magneto Optical Diskettes		
128Mb	£17	10pk £155
230Mb	£24	10pk £219
1.5Gb	£99	5pk £475

CALL FOR HIGH VOLUME DISCOUNTS

**JVC/Sony 5.25" HD Discs**

100	£20(b)	200	£38(b)
-----	--------	-----	--------

### HARD DISKS (a)

**BAD BLOCK - EMERGENCY!!**

Recover lost data on hard disk or floppy with **SPINRITE 3.1** - the most comprehensive data recovery package available. If you can't get your data back with this, you're in trouble! PC PRO April 95. No PC should be without it.

CE80 523 Spinrite 3.1 Data Recovery £99

MODEL	SIZE (Mb)	PRICE
Fast - SCSI-2 Drives (a)		
<b>HP 1GB</b>	OEM	£319
<b>HP 2GB</b>	OEM	£599
<b>IBM 1GB</b>	Pegasus	£309

PLEASE CALL FOR LATEST PRICES & AVAILABILITY

### CONNER

IDE		
<b>CF-425A</b>	425	£95
<b>CF-540A</b>	540	£109
<b>CF-635A</b>	635	£125
<b>CF-850A</b>	850	£139
<b>CF-1275A</b>	1200	£195
Fast SCSI-2		
<b>CFA540S</b>	540	£149
<b>CFP1080S</b>	1080	£299
<b>CFP2105S</b>	2GB	£525
<b>CFP4207S</b>	4GB	£849

### SEAGATE

IDE		
<b>ST3491A</b>	428	£99
<b>ST3660A</b>	545	£109
<b>ST5850A</b>	850	£145
<b>ST31220A</b>	1050	£175
FAST SCSI-2		
<b>ST5660N</b>	528	£199
<b>ST31230N</b>	1050	£325
<b>ST32430N Hawk</b>	2100	£635
<b>ST32550N B/cud</b>	2100	£715
<b>ST15230N Hawk</b>	4000	£839
<b>ST15150N B/cud</b>	4000	£1049
<b>ST410800N</b>	9090	£1699

### FUJITSU (a)

IDE		
<b>M1603T</b>	545MB	£115
<b>M1606T</b>	1090MB	£209
FAST SCSI-2		
<b>M2637SA (2.5")</b>	240MB	£175
<b>M1603S</b>	545MB	£145
<b>M1606S</b>	1090MB	£269
<b>M2932S</b>	2017MB	£575
<b>M2934S</b>	4350MB	£799

### MICROPOLIS (a)

FAST SCSI-2		
<b>4221S (LP) 3.5"</b>	2050	£619
<b>3243S (HH) 3.5"</b>	4294	£825
<b>1991S (FH) 5.75"</b>	9100	£1549

### AKHTER Caddi

Reliable, Low cost, removable disk system

Over 20,000 units sold

- IDE or SCSI configuration
- Withstand mechanical shocks up to 150G
- Reliable insert/removal up to 25,000 cycles
- Ideal for securing data overnight
- Housing fits standard 3.25 drive bay
- IDE & SCSI controllers available as options
- Full compatibility with Dos, Windows, OS/2 Unix & Novell Netware

**Housing Chassis (a)** IDE: £49 SCSI: £69

**Caddi Drives (a)**

IDE 525MB	£169	850MB	£235	1GB	£315
SCSI 545MB	£249	1GB	£399	2.1GB	£799

5.25" ADAPTOR KIT FOR 3.5" HARD DRIVES £12(c)

"Y" POWER SPLITTER (YCB/DSW101) £8(c)

CUSTOMERS ARE RESPONSIBLE FOR ENSURING THAT PRODUCTS WILL BE COMPATIBLE WITH THEIR SYSTEMS BEFORE ORDERING.

PLEASE CHECK CURRENT PRICE AND AVAILABILITY BEFORE ORDERING. ALL DRIVES ARE 3.5" FORMAT UNLESS OTHERWISE SHOWN.



# MICROSOFT WINDOWS 95 (PROMO)

1. Get Windows 95 for £35 when you purchase any other product over £80
2. FREE 10-Pack software bundle (CD-ROM) with every Windows 95 order (see page 7)
3. Order Now on our Windows 95 Hotline 0181 358 0095



Amex Surcharge 1%

**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



## QUICKCAM

Take Pictures and make movies with your PC



Quickcam is the simplest and most affordable way to add image input to a windows-based PC. Users can immediately create movies and take pictures after simply plugging it into the standard parallel port of virtually any PC. In business, Quickcams are used for low cost video conferencing, live World Wide Web Pages, video mail composition, and the creation of standard Video for Windows movies for presentations. As a still camera QuickCam takes quality snapshots for print or electronic reproduction in the full range of PC-generated documents such as letters, faxes, e-mail messages. Quickcam for Windows provides both still and video images at up to 320x240 pixels in size in six-bit grayscale. Video images typically are captured at 12 frames per second or more.

## AZTECH

External double speed drive multimedia upgrades with 16bit sound + Wavetable synthesizer from only £199. Fully Plug & Play Windows 95.

PERSONAL SYSTEM MULTIMEDIA UPGRADE (ext)	£199(a)
PERSONAL DELUXE MULTIMEDIA UPGRADE (ext)	£249(a)
SOUND GALAXY WAVERIDER 32+ (AZ)	£93(a)
AZTECH CDA 268 DRIVE (AZ)	£73(a)
AZTECH CDA 468 DRIVE (AZ)	£135(a)

## SOUND CARDS

Gravis Ultrasound Max Sound Card	£134(b)
Portable Sound Plus, for Notebooks Par Port	£105(b)



## TECHNOSOUND 16 PLUS

A High quality 16bit sound card, fully compatible with the SoundBlaster Pro and ADLIB sound standards. Complete with a secondary IDE CD-ROM interface, Panasonic CD-ROM interface, and a MIDI interface/joystick port. This highly specified card is fully wavetable upgradeable, and is able to sample at 48KHz in stereo with a 4W per channel power amplifier. Complete with high quality 10W stereo battery powered active speakers.

TECHNOSOUND 16 PLUS WITH SPEAKERS ONLY £49 (a)

## MIDI

TRUST PRO FULL LENGTH MIDI KEYBOARD	£115(a)
MIDI CABLE FOR CREATIVE SOUND CARDS (CT)	£21(b)
SB WINDOWS MIDI KIT + RECORDING SESSION (CT)	£51(b)
CUBASE SEQUENCER	£399(a)
(full package for professional music makers)	

## FREE CD'S

## FREE CD'S

Choose a FREE CD with every multimedia order\* (P20-23)

- Key Fonts**  
A great collection of over 300 high quality TrueType fonts. State Code: YCDFREE01-
- Video Cube**  
The Video puzzle game. State code: YCDFREE02-
- UFO**  
This CD provides the most complete guide to close encounters and offers evidence that we are not alone. State code: YCDFREE03-
- Game Empire**  
Features 250 great shareware games, including DOOM, Wolfenstein 3D, Jetpack and Biomenace. State code: YCDFREE04-
- World Cup 1994**  
Check on the players, coaches, teams and qualifying rounds in full colour imagery and exciting video. Includes football simulation game. State code: YCDFREE05-
- Stereo Headphones**  
High quality stereo headphones, designed for sound cards and CD-ROM drives. State code: YCDFREE06-
- \*Minimum order value £25, titles subject to change and availability Please have your offer code ready when placing your order, only available at time of order.



## VIDEO EDITING

Video for Windows Real Time Video Compression	£399(a)
Adobe Premiere for Windows V4.00	£285(a)
Intel Smart Recorder Pro (IN)	£298(a)
Miro 20TD Live (MO) *PCI OR VLB vers*	£265(a)
Video Blaster RT300 (CT)	
<b>Desktop Video Editing MJPEG Compression</b>	
Miro DCI + VideoStudio (SVHS In & Out) (MO)	£339(a)
Miro DCI + Premiere (SVHS In & Out) (MO)	£439(a)
Miro DCI Pro + VITC Controller (SVHS In & Out)	£799(a)
Miro MPEG-1 encoding s/w (MO)	£185(a)
Screen Machine II + MJPEG option (MO)	£899(a)
Black Widow Pal Encoder Professional Plus (BW)	£219(a)
Black Widow Pal Encoder Professional Remote Control	£195(a)

## HAUPPAUGE

WIN-TV CELEBRITY (HP)	£259(a)
Amazing combination of television/teletext card.	
WIN-TV CELEBRITY+OS/2 WARP OFFER(HP)	£295(a)
WIN-TV CELEBRITY VIDEO OUT MODULE (HP)	£149(b)
WIN-TV CELEBRITY + UPDATA SHARES (HP)	£349(a)
Amazing combination of television/teletext card and Updata share capture software.	
Please call for details. C4, current share data supplied on request.	
WIN-TV CELEBRITY + VIDEO OUT+VIDEO DIRECTOR V2	£449(a)
Desktop video editing based on WIN-TV CELEBRITY requires compatible Video Camera & Recorder.	

## TECHNO OPTORIAN SYSTEM PAT APP



SYSTEM CONSISTS OF: ONLY £1999(3a) (Ex VAT)

<b>REF CODA 7 SPEAKERS (5 OFF)</b> <p>*This speaker has nothing like general and stereo, but encompasses and includes all the features of any... For big sound effects... (Small print omitted for brevity)</p>	<b>SANWON KLARION AVIUM AMP</b> <p>This is a modern and vertically orientated... (Small print omitted for brevity)</p>	<b>TV ENCODER</b> <p>All models are supported all the... (Small print omitted for brevity)</p>	<b>COLOUR PAL PROJECTOR</b> <p>Picture size 80" to 96" and 100" to 120"... (Small print omitted for brevity)</p>	<b>CONNECTING CABLES</b> <p>30 meters of high quality cables... (Small print omitted for brevity)</p>
--	---	---	---	--

We are proposing the first multimedia computer controlled presentation/entertainment center for the next century, capable of multimedia presentations, playing games like DOOM, Video Cds\* like startrek, films from TV\* and audio CD's\* all with heartstopping effects and cinema style pictures. \*Options

Techno Optorian produces a highly effective 3-Dimensional soundfield, when used with PRO-LOGIC encoded films or a simulated 3D soundfield with conventional audio soundtracks. Optorian can project fantastic rock-steady 24bit colour images up to 100' inches in a dark room. With remote controlled features like pan/freeze and zoom for multimedia presentations.

Optorian is truly breathtaking when being used with the latest simulators like Flight Unlimited, or racing games like Hi-Octane.

Multimedia Features



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Multimedia - Hardware

## CD-ROM DRIVES (a)

### SCSI DRIVES

SCSI CD-ROM drives are an easy way of attaching a CD-ROM to a wide range of operating systems. Drivers for SCSI CD-ROM drives are supplied with SCSI controller card.

#### NEC (NE)

6X CD-ROM Drive

The latest in CD-ROM technology with a transfer rate of 900kb/s (6X), and an access time of 200ms. Video CD compatible with caddy loading.

NEC 6Xi (internal)	£240
NEC 6Xi Kit (internal)	£282
NEC 6Xe (external)	£329
NEC 3Xp 450kb/s (3X), 250ms	£242
NEC AT SCSI I/F (16bit)	£42
NEC PAR SCSI I/F (16bit)	£90



FROM £240

#### TOSHIBA (TS)

XM3601B (int) 660kb/s (4.4X), 150ms	£210
XM3601BA (int kit) 660kb/s (4.4X), 150ms	£264
XM3601S (ext) 660kb/s (4.4X), 150ms	£285
XM3601SA (ext kit) 660kb/s (4.4X), 150ms	£341
XM5201B (int) 510kb/s (3.4X), 190ms	£119
XM5201BA (int kit) 510kb/s (3.4X), 190ms	£195
XM5301B (int) 600kb/s (4X), 190ms	£135
XM5301BA (int kit) 600kb/s (4X), 190ms	£209



FROM £119

#### PANASONIC (PA)

Panasonic LF1004 PD writer system, combined 4X CD-ROM drive and optical disk drive. CD-ROM part 600kb/s transfer rate, 195ms

access time. Optical disk size 650Mb re-writable. LF1004PD int bare £499  
LF1004PD int kit £569



FROM £499

### IDE DRIVES

IDE drives are the most cost effective way of adding a CD-ROM drive to a computer, using the same I/F as the hard disk drive. Dual IDE cable (CB) £8 or a secondary IDE I/F (MT) £11 (b) may be needed.

#### MITSUMI (MT)

Mitsumi FX400 (int) 600kb/s (4X), 230ms	£105
Mitsumi FX400 kit (int) 600kb/s (4X), 230ms	£116
Mitsumi FX300 (int) 450kb/s (3X), 250ms	£65
Mitsumi FX300 kit (int) 450kb/s (3X), 250ms	£76
Mitsum FX300 + OS/2 Warp	£95



FROM £65

#### NEC (NE)

NEC QUADX (CDR272)	
NEC QUADX (int) 600kb/s (4X), 220ms	£115
NEC QUADX kit (int) 600kb/s (4X), 220ms	£126

#### AZTECH (AZ)

Aztech CDA268-01	
CDA268-01 (int) 300kb/s (2X), 320ms	£65
CDA268-01 kit (int) 300kb/s (2X), 320ms	£76
CDA468-01 (int) 600kb/s (4X), 235ms	£108
CDA468-01 kit (int) 600kb/s (4X), 235ms	£119

### LOW COST DOUBLE SPEED CD-ROM DRIVES

Due to a bulk purchase we can offer two of the best available double speed CD-ROM drives, with a free shareware CD-ROM. The Aztech CDA268-01 IDE CD-ROM drive is PC/WORLD mag Best Buy CD-ROM drive, complete with SB audio cable and a dual IDE cable. This CD-ROM drive is fully VIDEO-CD (Whitebook) compatible (and all current standards) with an access time of only 320ms. The Panasonic CR562 drive is one of the best selling CD-ROM drives ever made, with an access time of 320ms and a transfer rate of 300kb/s. The drive comes complete with a data cable and an audio cable.

CDA268-01 (int) 300kb/s (2X), 320ms	£65
CDA268-01 kit (int) 300kb/s (2X), 320m	£76
Panasonic CR562 (int) 300kb/s (2X), 320ms	£59
CDA268-01 kit (int) 300kb/s (2X), 320ms	£69



FROM £65

FREE CD-ROM

### RECORDERS

CDR is ideal as a low cost data backup, or due to its non-erasable nature archiving, security and distribution of data.



#### DYNATECH

Dynatech breaks the price barrier, low cost internal double speed recorder kit. Dynatech 2XCDR Kit £1049(2a)

FROM £1049

#### PHILIPS (PH)

Latest Philips recorder, double speed write, quad speed read. The kit is complete with I/F, Win-On-CD to go s/w and all necessary cables. Philips CDD2000 Recorder Kit £1299(2a)



FROM £1299

#### YAMAHA (YA)

Four speed CD-Recorder, may require an AV hard drive. This kit is complete with I/F, Corel Creator s/w and all necessary cables. Yamaha CDR100 int bare £1749(2a)  
Yamaha CDR100 int kit £1875(2a)  
Yamaha CDR100 ext bare £1949(2a)  
Yamaha CDR100 ext kit £2075(2a)



FROM £1749

### ACCESSORIES

Corel Creator mastering software £115(a)  
TDK quality recordable media, 1-4 speed 74 mins  
10 off £58(b)  
100 off £490(a)



## PIONEER

The Pioneer DRU-A124X is one of the fastest IDE based quad speed CD-ROM drive's currently available with a random access time of only 150ms. The transfer rate is an equally impressive 614kb/s. A free shareware CD-ROM has been included free of charge.



ONLY £129(a)

#### DRU-A124X ONLY

DRU-A124X + SB16 Value IDE Kit	£189
DRU-A124X + SB AWE32 Value IDE Kit	£249
Secondary IDE I/F card	£11(b)
Dual IDE cable	£8(b)
DRU-124X SCSI version (4.4X)	£185

### CybermanCD - 'The Portable CD ROM drive for Windows 95'

Innovative Communications

CYBERMAN CD 2X PCMCIA CD ROM DRIVE £265  
The Cyberman CD (CM2-SX) is designed for the newest generation of 'sound ready' computers. Can play Audio CD's, comes complete with headphones and is fully Windows 95 compatible



ONLY £265(a)

#### MICROSOFT AUTOROUTE EXPRESS/CYBERMAN CD PROMOTION

Plan all your trips while on the moe using the Cyberman CD and Microsoft Autoroute Express. This special price when buying the Cyberman CD with Microsoft Autoroute Express. QUAD SPEED (4X) DRIVE £399

Portable Multimedia

Panasonic Dual Speed Par Port £160(a) Backpack Quad Speed Par Port £259(a)

## SPECIAL OFFER

Buy a CD-ROM drive from us and select an Incredible CD-ROM at an amazing price.



Encarta 95  
An easy to use encyclopedia for all the family, 26,000 articles with video, pictures and sounds.  
Grolier 95  
An easy to use encyclopedia designed for academia, 29,000 articles with video, pictures and sounds.  
Works 3  
Popular integrated wordprocessor/spreadsheet package, with multimedia training/help

## ATTICA 95 OFFER

Five of the best educational CD-ROMS!

- 1) HUTCHINSON MULTIMEDIA ENCYCLOPEDIA 95 (MPC). This single volume encyclopedia contains over 27,000 articles, 2000 images and 250 audio clips.
- 2) INTRODUCTION TO CLASSICAL MUSIC (MPC), explore classical music with this indispensable guide. Contains more than 3 hours of excerpts from over 200 pieces.
- 3) THE DAILY TELEGRAPH 1992 (MPC), contains a full year's edition of the Daily & Sunday Telegraph 1992. Complete with sophisticated search facility using words, dates and subjects.
- 4) THE INTERACTIVE PERIODIC TABLE (MPC), examine the elements through animations and pictures.
- 5) WORLD WAR II ARCHIVES (MPC), re-live the the events of World War II through the actual sites and sounds of history. Film, photos and documents are sourced from the Imperial War Museum.

Available purchased with hardware

ONLY £92

## GROLIER 95 BUNDLE

- 1) MPC GROLIER ENCYCLOPEDIA 95 CD-ROM, this contains 21 volumes of a true multimedia encyclopedia including Video for windows films (AVI), pictures and sounds
- 2) MPC WORLD ATLAS V5.0, new maps of the world, with detailed statistics, AVI films and photographs.
- 3) MPC GUINNESS DISK OF RECORDS 94, the latest records, a multimedia guide.
- 4) MPC ANIMALS, 1300 photos, 2500 pages of 200 animal descriptions.
- 5) MEGARACE! Award winning 3D race game.
- 6) MPC PREHISTORIA, investigate ancient animals, 100's drawings.
- 7) CD SAMPLER, Mindscapes product sampler on CD-ROM.

ONLY £59

# WORLD WAR II 50 YEARS

Investigate using military archives what happened 50 years ago.  
 D-DAY special edition (MPC) "The war in Europe"  
 The World War II Archives (MPC) "complete war archives"  
 World War II Encyclopedia "European Theatre" (MPC)

£20  
£75  
£39



Amex Surcharge 1%

**SALES 0181-205 9558**

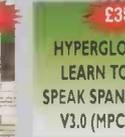
**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



Only Technomatic can offer you the best full retail CD-ROMS at a fraction of their RRP.

 <b>Attica Interactive French Tutor (MPC)</b> £79	 <b>Bioforge</b> rated 4.5/5" £25	 <b>Classical Library (MPC)</b> £15	 <b>DIGITAL LOVE</b> "relax & meditation" ONLY £13	 <b>GIFS-Galore (MPC)</b> 11000's GIFS! £9	 <b>Hutchinsons Encyclopedia 1995 (MPC)</b> £29	 <b>HYPERGLOT LEARN TO SPEAK SPANISH V3.0 (MPC)</b> Hyperglot Learn To Speak Spanish V3.0 (MPC) £35	 <b>Illustrated Sherlock Holmes</b> £10
 <b>Interactive Space Encyclopedia (MPC)</b> £15	 <b>Jupiter Impact (MPC)</b> £10	 <b>Magic Carpet Game "rated 5/5"</b> £19	 <b>MegaRace game</b> £6	 <b>MS Encarta 95 (MPC)</b> £53	 <b>RANDOM HOUSE KIDS ENCYCLOPEDIA</b> £28	 <b>SO MUCH SPACE</b> £9	 <b>Warplanes Vol II (MPC)</b> £19

## 95 BUNDLE SPECIALS

Buy a CD-Drive or multimedia kit from Technomatic, and choose from a selection of top class CD-ROM titles

7th Guest	£12
Animals of San Diego Zoo(MPC)	£12
Arthur's Teachers Troubles (MPC)	£14
Authorware Star iMultimedia authoring(MPC)	£25
Beethoven's 5th Symphony (MPC)	£14
ChessMaster 4000 (MPC)	£14
Compton's Encyclopedia 1995 (MPC)	£23
Family Doctor V3.00 (MPC)	£16
Grolier V7 encyclopedia 95 (MPC) NEW	£15
Guinness Book Of Records 93(MPC)	£16
Indy Car Racing	£12
Just Grandma & Me (MPC)	£14
Library Of The World(MPC)	£40
Lotus 123 (MPC)	£40
Macromedia Action (MPC)	£25
Mario Is Missing CD Deluxe	£14
Mario's Playschool	£14
Mario Teaches Sums	£14
Mavis Beacon Teaches Typing(MPC)	£16
Mayo Family Clinic (MPC)	£16
Mega Race	£6
Prehistoria (MPC)	£16
World Atlas V5.00 (MPC)	£16

Multimedia - CD-ROMS

### CHILDREN CD-ROMS

3D Body Adventure "ages 7+, rated 4.5/5"	£26
3D Dinosaur Adventure "ages 4-11"	£26
Arthur's Teacher Trouble "ages 3+"	£24
BodyWorks Voyager "Human body for young children"	£26
Bugs! An Insect Adventure	£27
DK Incredible Cross-Section Stowaway (MPC) "4+"	£25
DK My First Amazing Dictionary (MPC)	£25
DK P B Bears Birthday Party (MPC)	£24
DK The Way Things Work (MPC) "ages 4+"	£33
Fatty Bear's Birthday Surprise "rated 5/5"	£27
Freddi Fish "rated 5/5"	£27
Harry and The Haunted House "rated 4.5/5"	£26
How Things Work in Busytown "rated 4.5/5"	£29
jungle Book	£27
Just Grandma And Me	£25
Magic Theatre "children create their own plays, 5+"	£27
Mario Teaches Sums (MPC) "rated 4.5/5"	£17
Mario Teaches Words (MPC)	£17
Mavis Teaches Typing for kids (MPC)	£17
MS Creative Writer (MPC)	£27
MS Exploradia The World Of Nature (MPC)	£23
MS Fine Artist (MPC)	£27
MS Gahan Haunted House (MPC)	£28
MS Magic Bus - Human Body (MPC)	£27
MS Magic Bus - Solar System (MPC)	£27
PAWMS "rated 4.5/5"	£27
Ruffin Bone "ages 3+, rated 4.5/5"	£29
Sesame Street Letters "ages 3-6"	£26
Sesame Street Numbers "ages 3-6"	£26
Sesame Street Words "ages 3-6"	£29
Simtown	£29
TimeLined "Great Musical Cartoon ages 3+"	£29
Where In The World is Carmen Deluxe	£36
Word World for children (Fr, Ger, Eng langs combined)	£29
Britannica Family Choice (Educate Games)	£15
Don Quixote (MPC)	£6
Kaas Hunting (MPC/Jungle Book)	£6
The Star Child (MPC)	£6

### DTP AND IMAGES

Corel Artshow 3 + book (MPC/CO)	£13
Corel Artshow 4 + book (MPC/CO)	£19
Corel Artshow 5 + book (MPC/CO)	£20
Corel CD Power Pack (MPC/CO)	£24
Corel Draw V4 (MPC/CD ONLY/CO)	£86
Corel Draw V5 (MPC/CD ONLY/CO)	£279
Corel Gallery V1.00 (MPC, UK Clipart/CO)	£26
Corel Gallery V2.00 (MPC, UK+ Clipart/CO)	£45
Garden Of Unearthly Delights "William Latham IBM" £25	
Great Artists (MPC) "Wonderful art guide, rated 4.5/5"	£29
Hulton Deutsch People Disk (MPC)	£78
11000's famous photographs, from the past fifty years	
Investigating 20th Century Art (MPC) "Tate Gallery"	£79
MS 500 Nations (MPC)	£31
MS Ancient Lands (MPC)	£31
MS National Art Gallery (MPC)	£31
Passion For Art (MPC) "Herman Hiller collection, rated 5/5"	£49
The Louvre (MPC) "rated 4.5/5"	£29
Walkthroughs & Flybys (500MB Animations+book)	£19
Business Backgrounds (Media Clips)	£6
C19 (19th Century, Clipart)	£6
Colour Magic Clip-Art	£10
Deep Voyage (Media Clips)	£6
Font Fun House	£6
Fractals (Walnut Creek)	£10
Fractals (Nimbus)	£10

**E.A. BUY ONE GET ONE FREE OFFER**  
 FIFA Soccer(EA), Theme Park(EA) & Magic Carpet (EA) please call for details  
 High Octane "Brilliant, brilliant 3D game" (EA) £33  
 Magic Carpet-Hidden Worlds extra disk (EA) £19  
 We stock the following- System Shock (EA), US Navy Fighters(EA)

### Full Bloom (Media Clips) £6

Island Designs (Media Clips)	£6
Laser Printer Companion (fonts etc.)	£10
Majestic Places (Media Clips)	£6
Money 1 (Media Clips)	£6
Picture Library Vol 1	£6
Publishers Paradise (>150 truetype fonts)	£10
Sentimental Wings (MPC) "Old aircraft pics/info"	£10
So Much Screenware 1	£10
Travel Adventure (395 Good travel photos)	£10
Tropical Rain Forest (Media Clips)	£6
Virtual Reality Starter Kit (DOS)	£15
Welcome To Africa (450 pics)	£10
Wild Places (Media Clips/AE)	£6
World View (Media Clips)	£6

### DICTIONARIES & ENCYCLOPEDIA

CIA World Factbook 1995 (MPC)	£15
Compton's Interactive Encyclopedia 95 (MPC)	£38
Grolier Encyclopedia 1995 V7 (MPC)	£49
Guinness Disc Of Records 1994 (MPC)	£31
Hutchinsons Encyclopedia 1995 (MPC)	£29
InfoIndia (MPC) "budget comprehensive encyclopedia"	£16
Mindscape Reference Library (MPC)	£49
MS Bookshelf 95 (MPC)	£59
MS Encarta Encyclopedia 95(MPC)	£53
Oxford Compendium (MPC)	£45
Oxford Concise Dictionary (MPC)	£31
Oxford Dictionary Of Quotations (MPC)	£31
Oxford English Dictionary V2 "499 RRP" (MPC)	£359
Oxford Reference Shelf (MPC)	£45
"Includes Writers, Business, Language, and science shelf"	
Oxford Study Shelf (MPC)	£25
Oxford Textbook Of Medicine (DOS)	£280
Oxford Thesaurus (MPC)	£31

### CHESSMASTER 4000 TURBO (MPC, ST, i386+)

DI ZONE (100 extra Doom 1 & 2 levels)	£13
Dark Forces	£28
DOOM 2 game	£34
DOOM the Ultimate Flight Unlimited	£18
Full Throttle	£35
Lemmings 1&2	ONLY £12
MS Flight Sim 5.1 (MPC)	£22
MS Golf (MS)	£24
Myst (X) BEST SELLER	£26
PGA Golf 486	£31
Populous II & Powermonger (EA)	ONLY £10
Rebel Assault(CD Starwars)	£28
Sim City 2000 for windows	£25
Strike Commander (EA)	ONLY £10
Syndicate (EA)	ONLY £10
Wing Commander II (EA)	ONLY £10
Wing Commander Privateer (EA)	ONLY £10
Elite II Frontier	£6
Estatica	£19
Journeysman Project (MPC)	£15
Sherlock Holmes Consulting Det. III (ST)	£15
System Shock	£19
Victor C the (MPC)	£10

### ENTERTAINMENT

CHESSMASTER 4000 TURBO (MPC, ST, i386+)	£25
DI ZONE (100 extra Doom 1 & 2 levels)	£13
Dark Forces	£28
DOOM 2 game	£34
DOOM the Ultimate Flight Unlimited	£18
Full Throttle	£35
Lemmings 1&2	ONLY £12
MS Flight Sim 5.1 (MPC)	£22
MS Golf (MS)	£24
Myst (X) BEST SELLER	£26
PGA Golf 486	£31
Populous II & Powermonger (EA)	ONLY £10
Rebel Assault(CD Starwars)	£28
Sim City 2000 for windows	£25
Strike Commander (EA)	ONLY £10
Syndicate (EA)	ONLY £10
Wing Commander II (EA)	ONLY £10
Wing Commander Privateer (EA)	ONLY £10
Elite II Frontier	£6
Estatica	£19
Journeysman Project (MPC)	£15
Sherlock Holmes Consulting Det. III (ST)	£15
System Shock	£19
Victor C the (MPC)	£10

### E.A. BUY ONE GET ONE FREE OFFER

FIFA Soccer(EA), Theme Park(EA) & Magic Carpet (EA) please call for details  
 High Octane "Brilliant, brilliant 3D game" (EA) £33  
 Magic Carpet-Hidden Worlds extra disk (EA) £19  
 We stock the following- System Shock (EA), US Navy Fighters(EA)

### GEOGRAPHY

3D World Atlas (MPC) "3D flights, rated 4.5/5"	£31
DK World Reference Atlas (MPC)	£33
Global Explorer "detailed maps of countries"	£41
ITN European Atlas (MPC)	£31
London Multimedia Tour (MPC)	£25
MS Autoroute Express (MPC)	£47
Precision Mapping USA+USA Phone CD)	£49
Toolworks World Atlas V5.00 (MPC)	£27
America Alive (MPC)	£15
Toolworks World Atlas V4.00 (DOS)	£10

### HISTORY

20th Century Almanac (VESA required, 5CD's)	£95
Chronology of world history	£124
Complete History (3CD) Consists -	£99
"US History, History Of The World, Countries Of The World"	
Discoverers "The age of discovery, US, AUS etc."	£27
DK History Of The World (MPC)	£33
Medieval Realms (MPC)	£149
Medio Vietnam (MPC)	£26
Story Of Civilization (MPC) "W & A Durant"	£33
The Anglo-Saxons (MPC)	£18
The Holocaust "VDisturbing, 18+" (MPC)	£25
The World War II Archives (MPC) "complete war archives"	£75
World War II Encyclopedia "European Theatre" (MPC)	£39
Great Wonders Of The World Vol 1 (MPC)	£6
Grolier Prehistoria (MPC)	£30
Timeline Of History Arts & Entertainment	£30
Timetable Of History Science & Technology	£10
USA Wars-Civil War	£15
USA Wars-Korea	£15
USA Wars-Vietnam	£15
USA Wars-VWVII + Mediablitz (MPC)	£15
USA Wars-VWVII (DOS)	£15

### LANGUAGE

Attica Interactive French Tutor (MPC) "GCSE" £79	
Hyperglot Learn To Speak French(MPC) V3.0	£45 (each)
Hyperglot Learn To Speak Spanish, French(MPC)	V4.0 £69 (each)
Beritz Think And Talk German, French, Italian, Spanish (MPC)	£84 (each)

### LEISURE GUIDES

MS Cinerama 95(MPC)	£31
MS Cooking For Windows (MPC)	£31
MS Wine-Guides (MPC)	£31
ADVENTURES (MPC) "Adventure Holiday Guide" £10	
Food Analyst "Analyze your diet, fat, proteins etc"	£6
Ghosts (MPC) "Reference on Ghosts and ghoul's"	£21
Grammy Awards "Famous music awards on CD"	£25
Internet INFO "The CD Net guide, 12K docs"	£10
Wines Of The World (MPC) "Guide to Wine" £10	

### LIFE SCIENCES

Animals (San Diego Zoo, DOS)	£17
Animals (San Diego Zoo, MPC)	£17
BodyWorks V3.00(MPC)	£22
BodyWorks V4.00(MPC) "human bodyfor students"	£31
British Birds(MPC) "RSPB Encyclopedia"	£135
Butterflies Of The World (MPC)	£39
DK Encyclopedia Of Nature (MPC)	£39

### LITERATURE & BOOKS

Library Of The Future 3rd Ed (MPC) NEW	£99
MS Issac Asimovs Ultimate Robot (MPC)	£30
Oxford Shakespeare "Complete Works" (MPC)	£14
Complete Works Of Twain (MPC)	£25
Factomatic: Executive, Sales Manager (MPC)	£20
each	
Factomatic: Business Library (Executive, Sales Manager, Negotiators) (MPC)	£29
Great Literature + (MPC) "500 classic books"	£24
Illustrated Shakespeare "Shakespeare's complete works"	£10
Infomatic Standards "ANSI/ISO etc. for engineers"	£15
Jane Austen "Life and complete works"	£10
Lewis Carroll "Life and complete works"	£10
Living poetry "Great Works Of Poetry"	£16
Macbeth - Karaoke windows (MPC)	£15
Midsommers Night Dream - Karaoke (MPC)	£15
Monarch Notes "for windows (MPC) "Exam study guides"	£25
Monarch Notes (DOS) "Exam study guides"	£25
Project Gutenberg "text of great books"	£8
Romeo and Juliet (MPC) "rated 4.5/5"	£29
The Bronte Sisters "Life & complete works"	£15

### MAGAZINES & NEWSPAPERS

ITN World News 93 (MPC)	£19
Time Mag Almanac 1994 (MPC)	£69
(Mindscape+Attica+Microsoft) Sampler Trio	£6
Time Mag Almanac 92 + CIA factbook (DOS)	£20
Time Mag Almanac 1993 (DOS)	£30

### MUSIC

Beethoven's 5th (MPC) "rated 4/5"	£19
Ebook: Mozart (MPC)	£19
MS Beethoven (MPC) "9th Symphony"	£31
MS Composer Collection (MPC)	£47
Introduction To Classical Music (MPC)	£30
MS Soundbits (MPC, cartoon, world/teach)	£21
Soundbits are floppy based	
MS Mozart (MPC) "The String Quartet"	£26
MS Musical Instruments (MPC)	£31
MS Schubert (MPC) "Trout Quartet"	£26
MS Strauss (MPC) "Three Tone Poems"	£26
MS Stravinsky (MPC) "Rite Of Spring"	£26
Tchaikovsky's 1812 Overture (MPC, ST)	£15
Viking Opera Guide (MPC) "opera guide rated 4/5"	£30
Xplor 1 Peter Gabriel	£32

### PROGRAMMING

C Users Group Library (WC)	£10
Source Code (WC)	£10

### RELIGION

Dead Sea Scrolls (MPC) "uncover the bible's foundations"	£45
World Religions (MPC) "History, practices, beliefs" £39	
Creation Stories (MPC) "egg & turtle cosmologies etc"	£20
Illustrated Bible "The complete Bible + pics" Old Testament	£25

### SCIENCE & EDUCATION

A Brief History Of Time (MPC) "Hawking's book"	£25
Aviation Adventure	£29
Computer Works "Guide to how computers work"	£24
DK The Eyewitness Encyclopedia Of Science (MPC)	£33
Electricity & Magnetism "GCSE electricity"	£24
Electronic Geocis Engineering Formulas	£64
Encyclopedia Of Circuits on CD-ROM	£199
Encyclopedia Of Science & Technology (MPC) £899 (a)	
Exploring Earth Sciences (MPC)	£89
PC Computing-How Multimedia Computers Work (MPC)	£25
McGraw-Hill Science Navigator (MPC)	£109
PUSH-CD "University Guide"	£95
The Interactive Periodic Table (MPC)	£59
MPC MILITARY TITLES (Picture/sound & videos, Encyclopedias of military equipment)	
Russian Military 3CD NEW(MPC)	£24
USA AIR 6CD (MPC)	£48
USA Army 4CD (MPC)	£32
USA Navy 7CD (MPC)	£66
Science Adventure II "science becomes easy for children	



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

Multimedia

## SOUND BLASTER MULTIMEDIA HOME CD



This high quality kit was designed specifically for your home and office, and allows you to work, learn and play. The kit includes a quad speed drive, 16 bit sound card with Advanced Signal Processing, stereo speakers and a complete range of Microsoft titles that makes this kit both versatile and invaluable. It is perfect for the home as well as an excellent choice for games and educational applications for all the family.

**£275 (a)**

## NEW SOUND BLASTER SOUND CARDS

CREATIVE

### IDE SOUNDBLASTER 16 VALUE



**TECHNO VALUE**  
**£61 (b) (ex VAT)**

SoundBlaster is the industry standard for PC audio and this cost effective, true 16 bit sound card will fit effortlessly into your PC and give you CD quality audio at a price you can afford. The card features 16 bit stereo sampling and playback, and enhanced FM stereo music synthesiser, MIDI/joystick interface and 4W per channel amplifier. It has the new IDE interface system that allows simple connection to any compatible CD-ROM drive and like all the SoundBlaster range it includes a whole host of audio software. Software included: Creative Ensemble, Wavestudio, Mosaic, Talking Scheduler, Sound LE.

### IDE SOUNDBLASTER 16 PRO IDE



**TECHNO VALUE**  
**£84 (b) (ex VAT)**

This 16 bit sound card offers all the functionality of the value edition plus a whole host of upgrade options. Including a Panasonic/Creative and IDE interface for CD-ROM drive upgrade, a connector for WaveBlaster MIDI music. The SoundBlaster 16 Pro card is ideal for the multimedia enthusiast who may want to upgrade at a later stage. The AdSP chip upgrade handles Q Sound the 3D sound system, and also realtime compression of 16 bit wave samples. The WaveBlaster upgrade adds Wavetable synthesized sound. Includes a handsfree microphone.  
**SoundBlaster 16 Pro AdSP fitted £109 (b)**

### SOUNDBLASTER AWE32 VALUE



**TECHNO VALUE**  
**£122 (b) (ex VAT)**  
Price subject to change

Designed as a low cost sampled wave synthesis sound card, the AWE32 Value features the Advanced WavEffects system allows you to play sampled instruments stored on the card that sound just like the real thing. This means that MIDI music files sound like an orchestra and it makes games sound like you are actually there. It supports General MIDI, QSound, Reverb and Chorus and the E-mu Sound Font library. The card includes an upgrade socket for the Advanced Signal Processing chip and a CD-ROM interface.

## TECHNOMATIC VALUE PRO 95 MULTIMEDIA UPGRADE KITS

Complete multimedia solutions at Technomatic prices, the world's most popular family of sound cards combined with a selection of superior CD-ROM drives. TECHNO HI-FI PRO (25w) mains speakers and an amazing bundle of Microsoft CD-ROMs. The Microsoft CD-ROM's are MS ENCARTA 95, MS Works for Windows, MS Dangerous Creatures, MS Money, MS Golf and MS Scenes + Aldus Photostyler SE provided with Creative 563 drive. Scenes & Money are on 3.5" disks. The Pioneer 4X IDE has a random access time of only 150ms! Only Creative Labs full retail products used, bundled with the latest driver software.

- KIT 1VP SB16 VALUE + CREATIVE 563 **£209 (a)**
- KIT 2VP SB16 VALUE + PIONEER 4X IDE **£249 (a)**
- KIT 3VP SB16 PRO ADSP + PIONEER 4X IDE **£299 (a)**
- KIT 4VP SB AWE-32 + PIONEER 4X IDE **£363 (a)**
- KIT 5VP+ SB16 SCSI-2 ADSP + TOSHIBA 5301 **£399 (a)**



Kit contents are subject to change.

## SPEAKER SPECTACULAR!

Purchase a soundcard or CD-Drive from us to take advantage of these fantastic speaker offers!

SCREENBEAT 3 (2W) TECHNO HI-FI PRO (25W)



**£10 (b) (ex VAT)**

**£25 (b) (ex VAT)**

### VIDEO BOARDS

- VIDEOSIGOT **£75 (b)**
- VIDEOBLASTER SE-100 **£169 (b)**
- VIDEOBLASTER RT300 **£255 (b)**
- VIDEOBLASTER MP400 **£174 (b)**
- CREATIVE SHAREVISION PC3000 **£995 (b)**

## SOUND BOARDS



**SB AWE32 IDE**  
**£165 (b) (ex VAT)**

- SB V2 Value **£29 (b)**
- SB PRO Value **£35 (b)**
- SB PRO Value + ScreenBeat Speakers **£48 (b)**
- SB 16 Value & Panasonic I/F **£59 (b)**
- SOUND BLASTER 16 MCD **£69 (b)**
- SOUND BLASTER 16 MCD ADSP **£105 (b)**
- SOUND BLASTER 16 SCSI-2 ADSP **£112 (b)**
- SOUND BLASTER AWE 32 IDE **£165 (b)**
- WAVEBLASTER II **£93 (b)**
- ADSP UPGRADE **£39 (b)**

## MULTIMEDIA UPGRADE KITS

### CREATIVE S63 CD-DRIVE



**£75 (a)**  
**(ex VAT)**  
includes Aldus Photostyler

- DISCOVERY MULTIMEDIA KIT 2 x value **£169 (a)**
- DISCOVERY CD16 MULTIMEDIA KIT **£189 (a)**
- DISCOVERY QUAD SPEED MULTIMEDIA KIT **£267 (a)**
- GAMEBLASTER AWE32 MULTIMEDIA KIT **£237 (a)**
- GAMEBLASTER CD16 MULTIMEDIA KIT **£189 (a)**
- Easy CD16 Discovery multimedia kit Ext **£312 (a)**
- SOUNDBLASTER CD AUDIO CABLES.**  
Only available when ordering drive. Mitsumi, NEC 2Xi/3Xi, NEC Quad4/4xi or Toshiba **£9.95 each**

# CD-ROM DRIVE SPECIAL OFFERS



**SALES 0181-205 9558**  
**FAX 0181-205 0190**  
**ADMIN 0181-358 8100**



PRICES EXCLUDE VAT @ 17.5%

## FIRST AID 95 (V2.0)

First Aid Version 2.0 works with both Windows 3.11 AND Windows 95! So, before you upgrade to Windows 95, make sure your system is ready with First Aid for Windows Version 2. And, once you have Windows 95 installed, First Aid continues to monitor your system to assure optimal performance. It's easy for your Windows system to get cluttered with unwanted applications, icons and fonts. These not only take up disk space, they also slow down your PC.



### First Aid can:

- Automatically fix over 1,000 known problems in Windows 3.11 and Windows 95
- Trim applications to remove unnecessary and memory consuming features
- Clean up configuration files
- Tune up the PC for optimal performance

**£35**

UT5303 (3.5")

## Design Your Own Home Suite All in one Design Kit

The Design Your Own Home Suite is the first home design package to combine five exciting programs into one great CD. With Architecture, you can draw floor plans and side views. Design a breathtaking yard with Landscape. Arrange furniture and sample wallpapers, colours, and patterns with Interiors. Calculate the cost of each project in seconds with Design Estimator. Graph the cost of your remodelling with Mighty Draw.



HH0877 (CD) .... **£59**

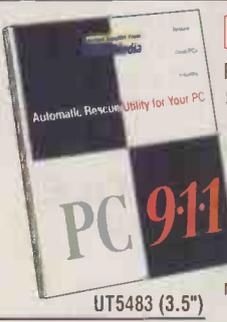
## The Train Pak for DOS

Two popular train programs on one CD-ROM!

THE TRAIN PAK™ includes two of Abracadata's most popular train programs on one CD-ROM. With Design Your Own Railroad, you can design and run layouts from the top view. Operate switches, specify cargo, couple and uncouple cars, track revenue, and more. TRAIN ENGINEER lets you design layouts, place scenery, and run trains from the engineer's viewpoint. Schedule cargo, create destinations, then race the clock to get them there on time. Packaged together in this special CD-ROM makes Design Your Own Railroad and Train Engineer a "must have" for any railroad enthusiast or collector.



RED0381 (CD) ..... **£42**



## PC911

PC911 will let you automatically restore your PC if it doesn't boot (by creating an Emergency Start-Up Disk), go back to a previously working setup (by automatically storing this essential start-up data on your hard drive), detect cards (network, SCSI, sound, and more), and help resolve conflicts.



UT5483 (3.5")

## Marketing Plan Pro

Build sales, increase market share, and make more money with Marketing Plan Pro. Easy-to-use windows and dialogues guide you step-by-step through every phase of your plan.

BS10373 (3.5") ..... **£59**

## Business Plan Pro

Business Plan Pro lets you finish a professional-quality plan in hours instead of days. A unique interview method guides you through every topic to help you think critically about your business.

BS10383 (3.5") ..... **£59**

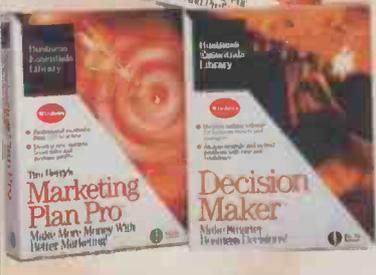
AS LOW AS **£49**

**NEW!**

## Decision Maker

Decision Maker gives you the advantage of decision tree science! Use Decision Maker to decide whether to expand, build, or subcontract, finance with debt or equity, remodel or move, buy or lease, sue or settle, add or cut product lines — and much more.

BS10343 (3.5") ..... **£49**



## Considering a Fax-Server or Modem-Server?



### FAXport

FAXport is an integrated client and server network fax solution providing functions to send, receive, administer and manage network faxing.

- Send faxes from most Windows, WFW or Windows NT 3.5 applications
- Easy-to-use, fully-featured user interface
- Real-time access to send and receive logs
- Fax viewer with annotation tools
- NOS-integrated security
- Shared and private phonebooks

### WINport

WINport turns any PC into a Communications server and allows users to access a modem pool from anywhere on the network.

- Inbound and outbound dialing
- NOS-integrated security
- Administrative console with exportable daily logs applications (no TSRs)
- Also supports DOS INT-14 compatible applications
- Access modem speeds up to 115.2kbps

Purchase WINport and FAXport separately, or integrate them for a complete network fax and modem sharing solution. WINport and FAXport support Windows, Windows for Workgroups, and Windows NT 3.5 clients, and most IPX, NetBios, or TCP/IP (winsock compliant) compatible networks

Faxport v5 5 User Licence	£275	Winport v5 for 1 Modem Sharing	£135
Faxport v5 10 User Licence	£475	Winport v5 for 2 Modem Sharing	£210
Faxport v5 25 User Licence	£675	Winport v5 for 4 Modem Sharing	£335
Faxport v5 Unlimited User Licence	£875	Winport v5 Add-on 1 Modem Sharing	£99
Faxport v5 5 User Add-on Licence	£199	Winport v5 for WFWG	£99
		Winport v5 for Lantastic	£99



## allCLEAR III for Windows

The Intelligent Flowcharter that draws flowcharts for you  
 allCLEAR turns words into pictures for intelligent diagramming of business procedures

MORE THAN 120,000 CUSTOMERS WORLDWIDE

- DIAGRAM TYPES
- Flow chart
  - Fishbone Diagram
  - Process flow diagrams
  - Deployment chart
  - Relationship diagram
  - Star (Network) chart
  - Procedure chart
  - Org (hierarchical) chart

UPGRA **£93**  
 EURGR1627 (3.5")

Quality Software



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

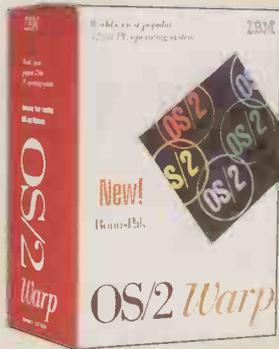
PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

IBM - software

# IBM OS/2 Warp Version 3



**45 Top Industry Honours**

**FREE BONUS PAK**

World's most popular 32-bit PC operating system

- |  |   |   |  |
|--|---|---|--|
| <ul style="list-style-type: none"> <li>★ Runs on 4Mb</li> <li>★ Outstanding memory management</li> <li>★ True multitasking &amp; multithreading</li> <li>★ True 32 bit code</li> <li>★ Multimedia support</li> </ul> | <ul style="list-style-type: none"> <li>★ Crash proof environment</li> <li>★ Plug &amp; play for PCMCIA</li> <li>★ One button installation</li> <li>★ TV &amp; Photo CD support</li> </ul> | <ul style="list-style-type: none"> <li>★ Supports world's 100 hottest games</li> <li>★ Runs DOS, Windows &amp; OS/2 applications</li> <li>★ New online tutorial</li> <li>★ Intuitive graphical interface</li> </ul> | <p><b>System Requirement</b></p> <ul style="list-style-type: none"> <li>★ Microsoft Windows Version 3.1 or 3.11</li> <li>★ 386 or higher</li> <li>★ 4MB RAM</li> <li>★ 35-55Mb Free Hard Disk Space</li> <li>★ BonusPak requires up to 30Mb additional free space (user selectable)</li> </ul> |
|--|---|---|--|

**£42**  
CD  
IB65S42

**£50**  
3.5"  
IB65S43

**UPGRADES**  
£35 CD  
IB77S38  
£49 3.5"  
IB77S43

### FREE BONUS PAK INCLUDES

- WordProcessor
- Database
- Spreadsheet
- Charting
- Report Writer
- Personal Organiser (PIM)
- Multimedia Application & Tools
- Faxworks (Requires Fax Modem)
- CompuServe Information Manager
- Internet Connection Service
- 3 hours of **FREE** Internet Access
- Person to Person Conferencing
- System Information Tool **AND MORE**

## Special Offer! Special Offer! Special Offer! Special Offer! Special Offer!

### IBM CD Showcase

Includes **FREE** Full copy of Ami Pro for OS/2  
This CD features demos of 45 OS/2 applications including: Business Applications, Games, Multimedia, Utilities, Shareware and lots more. IB20 A42

### OS/2 Warp & Lotus SmartSuite for OS/2 Save over £200

Lotus SmartSuite includes Ami Pro, Lotus 123, Freelance Graphics & cc:Mail

IB77 S59 OS/2 Warp 3 Upg + SmartSuite for OS/2 3.5" £170  
IB65 S63 OS/2 Warp 3 + Lotus SmartSuite for OS/2 3.5" £270

### Buy Hauppauge Win Celebrity for £295 & Get OS/2 v3 free

### OS/2 Warp v3 with Stacker 4.0 for OS/2 & DOS



Install it with Stacker and compress the amount of space you need to load OS/2 Warp and the Bonus Pack, allowing room for all other applications.

IB65 S66 OS/2 Warp v3 + Stacker 4 for OS/2 & Dos 3.5" £105  
IB65 S69 OS/2 Warp v3 + Stacker 4 for OS/2 & Dos CD £90  
IB77 S68 OS/2 Warp v3 Upg + Stacker for OS/2 & Dos CD £59  
IB77 S66 OS/2 Warp v3 Upg + Stacker for OS/2 & Dos 3.5" £69

### INTERNET BUNDLE

- Panasonic CD562 Double Speed CD-ROM Drive (Free Interface Card + Cable)
- Sportster 14.4 Ext Fax/Modem (Free Modem Cable)
- IBM OS/2 Warp v3 £199
- OS/2 v3 + £99
- Mitsumi FX300 CD-ROM Drive



## UPGRADE TO IBM PC-DOS v7.0

From any manufacturers

version of DOS (e.g. MS DOS, DR DOS)

Includes STACKER 4.0 for DOS & Windows

- **MORE MEMORY** - Up to 60K more of memory than PC DOS 6.x or MS-DOS 6.xx
- **MORE SPACE** - Integrated Stacker 4.0 Compression. Increases hard disk capacity by up to 2.5 times, supports volumes up to 2GB & provides conversion from existing compressed disks.
- **MORE HARDWARE SUPPORT** - Mobile (Docking, PCMCIA, CD-ROM, Dynamic Load Modules). Pen support.
- **PROGRAMMABILITY** - DOS REXX language supported.
- **ONLINE HELP** - Command Reference, REXX Reference & an Error Messages book.
- **E EDITOR** - 8 new Enhancements, including editing of multiple files.
- **Anti-Virus** - over 2100 detected • **PC TOOLS (Central Point) BACKUP** - diskette, tape, disk • **Central Point UNDELETE** • **QCONFIG** - Diagnostic Tool
- **Unattended program backup scheduling**
- ... and a host of other Enhanced Features

£36

IB77 P29 3.5"  
IB77 P30 CD

IBM PC-DOS v7

£59

(IB65 P36)

#### System Requirements

- Memory Requirements - 512KB minimum
- Works on any IBM compatible PC
- System Requirement - Intel 8088 or 80X86 or higher microprocessor or compatible
- Disk space - 6Mb to 18Mb depending on installation options selected

## IBM WIN-OS/2 includes FREE Bonus Pak

OS/2 Warp v3 with Win-OS/2 3.5" CD  
£99 ~~£89~~  
OS/2 Warp v3 with Win-OS/2 Upgrade £75 ~~£65~~

## OS/2 WARP CONNECT

This new addition to the OS/2 Warp family brings you all the benefits of OS/2 Warp v3, including the Bonus Pak plus the most complete networking client for advanced network connectivity.

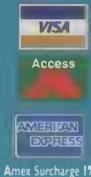
In addition to peer-to-peer connectivity, OS/2 Warp Connect includes client for Internet Access, Lotus Notes Express, LanServer Requester, Netware client, TP/IP as well as powerful features based on IBM LAN Distance for Remote access.

OS/2 Warp Connect also offers network admin, LAN bridging, security and more!

OS/2 Warp Connect v3 £95  
OS/2 Warp Connect with Win-OS/2 v3 £125  
OS/2 Warp Connect Upgrade £77



**LOTUS BUSINESS  
PARTNER**



**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



# LOTUS SMARTSUITE v4.0 FOR WINDOWS

The desktop solution for you and your team

Lotus SmartSuite for Windows. It integrates five of the hardest-working, easiest-to-use applications in business today - Lotus 1-2-3 spreadsheet, new Lotus Word Pro word processor, Lotus Approach relational database, Lotus Freelance Graphics presentation graphics and Lotus Organizer personal information manager - to help you get your job done fast.



## FREE LICENCE UPGRADES

If you purchase any Windows 3.1 Lotus Desktop applications between 20.6.95 and 31.12.95 you will be eligible for a FREE Licence upgrade to the 32 bit version for Windows 95 when it becomes available (There will be an additional charge for disks and manuals).

## LOTUS WORD PRO 96

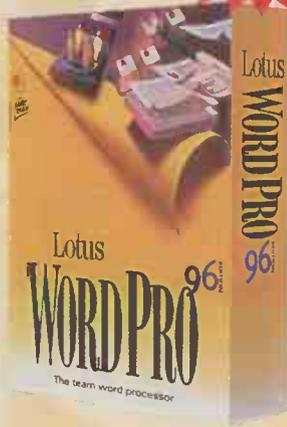
Productivity for teams, power for individuals

Lotus Word Pro 96 is a new breed of word processor - designed for the way you work today. The first and only Team Word Processor, it combines powerful writing and editing features with breakthrough ways to collaborate and share ideas.

Smart Word Processing innovations provide all the tools you need to create persuasive, professional-looking documents. TeamReview and TeamConsolidate features make it easy to gather and manage everyone's contributions to create the final draft.

With Lotus Word Pro 96, individuals and teams can Work Together faster, smarter, and more productively.

Full Product 3.5" ..... **£84**



## MANAGE IT APPROACH V3.0 DATABASE

Approach makes managing data as easy as Lotus 1-2-3! You don't have to be a programmer to use this relational database for tracking sales, invoicing and more.

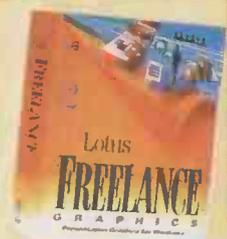
Full Product ..... **£81**



## PRESENT IT FREELANCE GRAPHICS V2.1 PRESENTATION PACKAGE

Freelance Graphics Presentations the fastest, easiest way to influence, persuade or inform at your next meeting - with great-looking on-screen presentations, hand-outs, flip-charts and more.

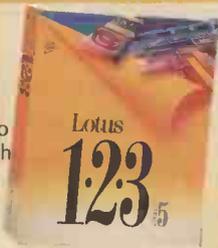
Upgrade/Trade-up ..... **£88**



## ANALYSE IT LOTUS 1-2-3 V5.0 SPREADSHEET

Lotus 123 Spreadsheet has everything you need to make your everyday spreadsheet tasks easier. With Lotus 1-2-3, Lotus redefines spreadsheet productivity - again.

Upgrade/Trade-up ..... **£88**



## ORGANIZE IT ORGANIZER V2.1 PERSONAL ORGANISER

Full Product **£82**

Upgrade ..... **£44**



## RECORD IT SCREENCAM V2.0 MULTIMEDIA UTILITY

Full Product ..... **£49**



Lotus SmartSuite v4.0 Win CD	£293
Lotus SmartSuite 4.0 Win 3.5"	£293
Lotus SmartSuite v4.0 Win Upg/Comp 3.5"	£158
Lotus SmartSuite v4.0 Win Upg/Comp CD	£158

## LOTUS PASSPORT

Lotus Passport is an easy way to purchase volume levels of Lotus Products. It offers exceptionally low prices, options for upgrades and support. Please call our specialist sales team for advice and pricing.

**60-DAY MONEY BACK  
GUARANTEE ON  
LOTUS SMARTSUITE  
DIRECT FROM LOTUS**



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Quality Software

## SYMANTEC. READY FOR WINDOWS '95

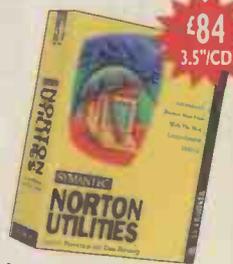
### Norton Utilities

FOR WINDOWS '95

The NEW 32 bit Automated System & Data-Protection Solution

This new version has been designed specifically for Windows 95. It works in the background constantly monitoring vital system resources and data integrity to ensure stability and reliability. In the event of a crash the Rescue disk gets you up and running. Already extensively Beta tested, this product is seen as an essential tool for Windows 95.

- Norton Pre-Installation tune-up
- Norton System Doctor
- 32-bit Norton speed disk
- System information
- DOS Mode recovery tools
- 32-bit Norton Disk Doctor
- Recovers lost data
- Norton rescue disk
- Unerase



£84  
3.5" CD

Trade up from Norton Utilities, Norton Desktop or PC Tools (3.5") ..... **£52**

### Norton Antivirus

FOR WINDOWS '95

The Most Complete Windows '95 Virus Protection that detects, destroys and prevents viruses

Trade up from Norton AntiVirus, CP AntiVirus, Norton Desktop or PC Tools (3.5") .. **£28**



£53  
3.5"

### Norton Navigator

FOR WINDOWS '95

Guaranteed to make file management and working in Windows 95 faster and easier

Trade up from XTree, Norton Desktop or PC Tools (3.5") ..... **£34**



£67  
3.5"

This upgrade program will search your system to confirm your upgrade eligibility for the following Windows 3.1 product (Full product supplied)



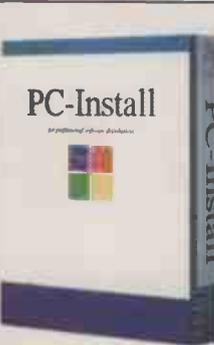
### Not Just A Big Art package But A Great One!

- Full-colour Images
- Easy to use with all popular applications
- FREE on-screen browser included with CD-ROM
- BONUS! 40 FREE Bitstream TrueType fonts plus a FREE speciality paper sampler
- Includes The ClickArt Trade Secret - makes each image available in EPS, CGM, PCX, TIF or Print Shop Deluxe formats.

ONLY  
£49

GR6983: Incredible Image Pak For DOS & Windows (3.5")

GR7590: Incredible Image Pak For Windows (CD-ROM)



Powerful yet simple to use

### PC-Install

PC-Install for Windows is an easy-to-use installation program for Windows developers who distribute applications or data files to end users. Display custom graphics, titles, messages, and prompts. Provide user selectable file sets to allow for partial or file subset installations. Check system parameters including video, memory, CPU, and/or available disk space. Control installation during execution based on user input or system configuration. PC-Install allows you to install to or from multiple directories making it ideal for installing from CD-ROMs or over networks. Request any type of user input during installation such as name or serial number. Check .DLL and .VBX file versions, modify AUTOEXEC, CONFIG, and .INI or any other text files, and locate existing files for upgrades.

FROM  
£89

PC-Install for Windows UT6553 (3.5") ..... **£99**

PC-Install Combo 3.0 for DOS and Windows UT6246 (3.5") ..... **£119**

PC-Install 3.0 for DOS UT6247 (3.5") ..... **£89**



### TEXTBRIDGE 3.0 FOR WINDOWS

Consistently delivers OCR accuracy and is rated as the most accurate on fax documents. Patented Lexifier technology provides greater accuracy on non-word documents, such as dates, phone and part numbers. It also

TextBridge 3.0  
£65  
EURO0C0076 (3.5")

comes with an application server, for direct operation from inside any Windows application. Tighter

filters and a standard TWAIN interface make it work with most scanners. It's today's easiest OCR package!

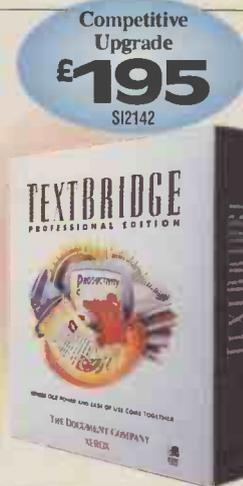
### TEXTBRIDGE PROFESSIONAL FOR WINDOWS

TextBridge Professional not only delivers the highest quality accuracy, but actually re-constructs your documents in your word processor, making them fully editable.

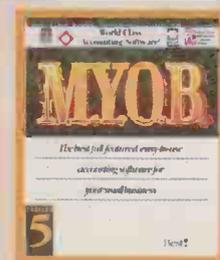
- DocuRT technology rebuilds cell tables for editing
- Page layouts, columns, and pictures are preserved
- Instant OCR access
- OLE 2.0 drag-and-drop
- 11 European languages

EURO0076 ..... **£269**

FREE UPGRADE TO TEXTBRIDGE PRO FOR WINDOWS 95 IF YOU PURCHASE TEXTBRIDGE PRO FROM TECHNOMATIC BETWEEN 15.8.95 AND 31.12.95



Competitive Upgrade  
£195  
S12142



### M.Y.O.B. 5.0

Meet your new business partner! Thousands of growing businesses, from stationers to graphic designers, have trusted their books to M.Y.O.B Accounting. Instant accounting templates and a step-by-step setup interview make getting started a snap. You'll be writing cheques and producing invoices within minutes. M.Y.O.B. is full-featured accounting, including nominal ledger, chequebook, invoicing, cash flow forecasting, stock control, debtors and creditors, and over 90 management reports. Winner of more international awards than any other small business accounts package, M.Y.O.B. can handle the special needs of your business with World Class Accounting!

M.Y.O.B. Small Business Accounting FN2143 (3.5")

**£169**

### The Advanced Multi-Lingual Word Processor for Windows

## ACCENT

- Accent is the only multilingual solution for Windows
- Its a complete word processor, not just an add on module
- Wide variety of import & export tools so that you can make your existing documents multilingual
- Free technical support from Accent
- Bundled with TrueType fonts, copy of Berlitz Interpreter for Windows, Keymap Utility



Accent Express **£37**

Accent Pro for Windows **£189**

Accent Special Edition for Windows **£90**

# GET ON THE NET

SEE PAGE 14 FOR  
MODEMS

VISA

Access

AMERICAN EXPRESS

Amex Surcharge 1%

SALES 0181-205 9558

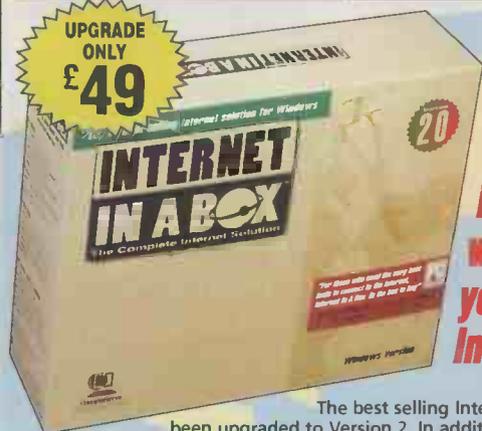
FAX 0181-205 0190

ADMIN 0181-358 8100

PRICES EXCLUDE VAT @ 17.5%



## INTERNET IN A BOX



UPGRADE ONLY  
£49

NEW VERSION!

# 2.0

The easy,  
Inexpensive  
way to get  
your feet wet  
In the Net.

The best selling Internet solution has now been upgraded to Version 2. In addition to the easiest to use tools for accessing the Internet, including a Mosaic browser, Global Network Navigator on-line guide, E-mail, News, file transfer, Gopher and telnet, Internet in a Box v2 is the only Windows compatible software that lets you access the net via CompuServe.

### New Features:

- Instant Access at a lower cost.
- Faster World Wide Web Access because text downloads completely before graphic images.
- Access Mail and News from SPRY Mosaic.
- New, secure Web Browser supports secure, on-line shopping over the Internet.
- Internet Wizard is the new tutorial tool for quick, painless starts on the Internet.
- The spell-checker in SPRY Mail prevents embarrassing e-mail misspellings.
- One button decoding: Decode images in Newsgroups using the new instant decoding button in SPRY News.
- CompuServe Information Manager: FREE software for accessing CompuServe's On-Line Information service is now included.

Includes a special edition of Ed Krol's Whole Internet Users Guide.

Full Version  
CM1823 (3.5") ..... **£95**

Upgrade  
UP3293 (3.5") ..... **£49**

## INTERNET OFFICE

Enterprising network connectivity for easy,  
intuitive network access



NOW ONLY  
£395!

Internet Office Professional is a modular suite of software applications that work together seamlessly to eliminate all barriers to a world of information. Corporate connectivity and Internet connectivity in one easy-to-use package. Indispensable, powerful tools that meet the evolving demands of today's corporate desktop. Enterprise connectivity solutions with SPRY TN3270 and SPRY TN5250 for access to everything from huge mainframes to the AS/400 UNIX servers. Remote Host and Windows applications run side-by-side with advanced terminal emulation services. Customise your news session with SPRY News to simplify newsgroup and article access. With SPRY Mail your employees can keep in touch with each other and a rapidly growing universe of people. SPRY Network File Manager is fully-integrated with the Windows File Manager to look, feel, and work together seamlessly.

**SPRY**  
The Internet Division @CompuServe

Internet Office Professional

EURCM0245 ..... **£395**

FOR  
WINDOWS

# More Memory

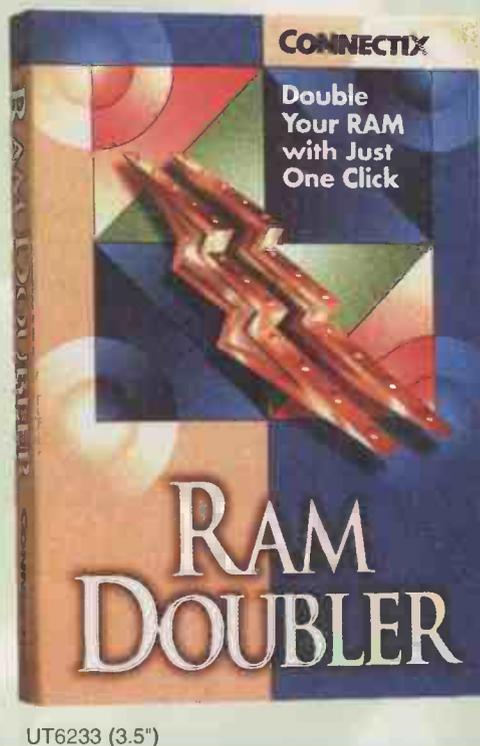
## With Just One Click!

**£58**

RAM Doubler for Windows makes your existing RAM work harder! Forget about buying more memory chips (SIMMs). Adding memory to a Windows system won't let you run more applications simultaneously. That's because Windows doesn't use RAM efficiently. But with RAM Doubler software running on your PC, you'll get rid of "INSUFFICIENT MEMORY" messages forever! And, the more applications you can run simultaneously, the more productive you'll be! The more RAM your PC has, the more it needs RAM Doubler! Adding SIMMs does nothing to get rid of Windows' inherent memory bottlenecks. A 4MB PC and a 32MB PC both have the same amount of memory dedicated to tracking systems resources when running Windows. Only RAM Doubler changes that. With RAM Doubler, you can run all your Windows applications simultaneously, and still not run out of memory! You'll stop wasting time launching and quitting applications. Instead, open all

your applications at once, and move quickly between them with a single keystroke. You'll be more productive instantly! And, RAM Doubler can actually make your system more stable, as well! RAM Doubler for Macintosh the #1 selling utility in all personal computing. It increases the efficiency of Windows memory management by eliminating unnecessary use of virtual memory. Because RAM Doubler for Windows specifically provides only Windows memory management improvements, it works well with DOS, memory extenders such as QEMM and NETROOM.

- Stops you from running out of system resource space.
- Load an entire suite of applications at once.
- Cleans up memory space below one MB where DOS, network software, and hardware drivers often clash.
- Installs in seconds
- Increase performance by delaying use of virtual memory.
- Works well with DOS memory management improvements like QEMM, NETROOM, and others.
- No changes required in autoexec or config files.
- No settings to change or configure.



CONNECTIX

Double  
Your RAM  
with Just  
One Click

# RAM DOUBLER

UT6233 (3.5")



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

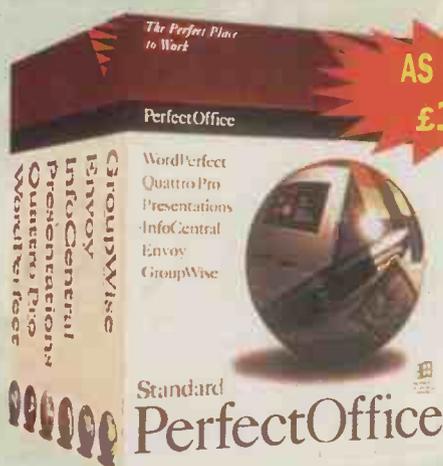
### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/9/95

Novell - PerfectOffice

## Buy PerfectOffice and get 50% OFF Microsoft® Windows 95\*

\*Conditions apply



AS LOW AS  
**£119**

WINDOWS '95  
HALF PRICE



### 15 Good reasons to buy PerfectOffice v3.0 for Windows NOW!

1. **Eight Applications** - leaders in their respective categories.
2. **The first network suite.**
3. **The only suite with electronic publishing & viewing product (Envoy).**
4. **PerfectFit** - share consistent tool bars, pull down menus.
5. **QuickTask** - performs tasks directly from the desktop without opening individual files.
6. **PerfectSense** - intelligent spell checker & grammar checker.
7. **PerfectScript** - records automated process & plays them back.
8. **QuickCorrect** - corrects errors & improves document as you type.
9. **DAD (Desktop Application Director)** - allows you to switch easily among all suite applications.
10. **OLE 2** - supported in 4 applications.
11. **Network navigator** support - manages your software across entire network.
12. **Integrated E-mail, scheduling, calendaring & task management (GroupWise).** (One user client software only)
13. **180 days FREE technical support.**
14. **Coaches & Experts** bring you up to speed quickly/QuickHelp for on-line help.
15. **QuickTools** includes QuickList, QuickFinder, QuickOpen, QuickRun, and QuickMenus.

### 3 Simple Steps

- 1) Buy PerfectOffice from Technomatic between 1st July '95 and 30th September '95
- 2) Buy Microsoft® Windows '95 from Technomatic before 30th September '95
- 3) Get 50% off Microsoft Windows '95 price from Novell

<b>1</b>		<b>WordPerfect® 6.1</b> The Perfect Way to Create Better Documents
<b>2</b>		<b>Quattro® Pro 6.0</b> The Perfect Way to Make Your Numbers Count
<b>3</b>		<b>Presentations™ 3.0</b> The Perfect Way to Sell Your Ideas
<b>4</b>		<b>Envoy™ 1.0a</b> The Perfect Way to View any Document
<b>5</b>		<b>InfoCentral™ 1.1</b> The Perfect Way to Organize People, Places and Things
<b>6</b>		<b>GroupWise™ 4.1</b> The Perfect Way to Share Information (One user client software only)
<b>7</b>		<b>Paradox 5.0</b> A Perfect Way to Organize Your Data Only included in Professional Suite
<b>8</b>		<b>Visual AppWare 1.0</b> A Perfect Way to Build Your Applications Only included in Professional Suite

PerfectOffice 3.0	New User	Upgrade	Trade-in	
Standard (3.5")	£154*	£119*	£154	Standard Version Includes WordPerfect 6.1 Quattro Pro 6.0 Presentation 3.0 Envoy 1.0a InfoCentral 1.1 GroupWise 4.1
Standard (CD-ROM)	£264	£119	-	
Professional (3.5")	£348	£179	£205	Professional Version Includes WordPerfect 6.1 Quattro Pro 6.0 Presentation 3.0 Envoy 1.0a InfoCentral 1.1 GroupWise 4.1 Paradox 5.0 Visual AppWare 1.0
Professional (CD-ROM)	£348	£175	-	

The CD-ROM versions offer full electronic documentation and SpeechAware software from Novell and Dragox Systems. SpeechAware allows users to talk directly to WordPerfect and other Perfect Office applications with the appropriate hardware set-up.  
\*While stocks last

**\*Conditions**  
Purchase PerfectOffice (any version 3.5" or CD-ROM) between 1st July '95 and 30th September '95.  
Purchase Windows '95 (upgrade only) between launch date and before 30th September '95.  
Maximum of 5 product claims per postal address.  
Maximum claim value £44.50 (inc VAT) per product (Windows '95) (no delivery charges to be re-imbursed).  
Both purchases must be from Technomatic Ltd.  
Purchase invoices must be dated between the dates above.  
You receive a voucher from Technomatic with your PerfectOffice purchase.  
You send your Invoices for PerfectOffice, Windows '95, completed PerfectOffice registration card and voucher to Novell before 31st October '95 and you will receive a cheque for 50% of the cost of Windows '95 upgrade (inc VAT) but excluding delivery.  
Purchase made under Novell's volume licensing agreement do not qualify for this offer.

# SAVE UP TO £15 WHEN YOU BUY MEMORY WITH WINDOWS 95 UPGRADES

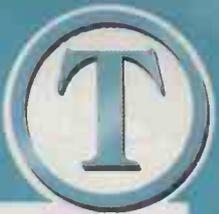


**SALES 0181-205 9558**

**FAX 0181-205 0190**

**ADMIN 0181-358 8100**

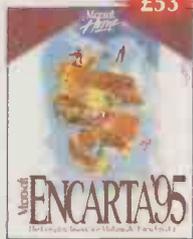
**PRICES EXCLUDE VAT @ 17.5%**



## Microsoft Multimedia CD's

### MS Encarta '95 - CD-ROM for Windows

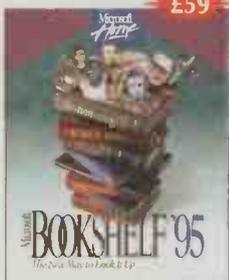
- 9,000,000 words
- 8,000 photographs
- 300,000 links
- 26,000 articles
- 15,000 multimedia elements
- 100 minutes of video and animation
- 250+ interactive charts and table
- 60 different languages spoken
- 40 country fact boxes, covering climate, religion, economy, geography, musical styles and more



£53

### MS Bookshelf '95 - CD-ROM for Windows

- 500 new images
- 150 audio clips
- 40 video clips
- 80,000 words spoken
- 230 flags



£59

Includes

- The original Roget's Thesaurus
- The World Almanac & Book of Facts 95 edition
- The concise Columbia Encyclopaedia
- The Columbia Dictionary of Quotations
- The People's Chronology
- The Hammond Intermediate World Atlas
- The American Heritage Dictionary

YCD/MS/E231

### Cinemanía 95 - CD-ROM for Windows

- 20,000 film reviews
- 1,000 movie stills
- 168 dialogue excerpts
- 139 tracks of film music
- 20 full-motion clips
- 4,000 movie personalities lives & careers



£31

### 500 Nations - CD-ROM for Windows

- View over 2000 images of N. American Indian people
- Watch dozens of animated sequences
- Listen to authentic music, songs and stories
- Experience Indian customs and cultures
- Discover true stories of legends



£31

YCD/MS/H001

### Microsoft Dogs - CD-ROM for Windows

- Information on 250 different popular breeds with beautiful photos, narrated videos, breed characteristics, origins and habits
- Over 700 detailed multimedia articles
- 80 video clips showing dogs at work and play



£29

YCD/MS/E811

### Wine Guide - CD-ROM for Windows

- UK edition guide to wines, wine making process and vineyards of the world
- 1800 full encyclopaedic entries on wines, wine regions and producers
- 6000 individual wine tasting notes
- .... and more!



£31

YCD/MS/H001

### Explorapedia - The World of Nature - CD-ROM for Windows

- The ultimate reference library for children
- Wealth of information about the world of nature through animation, sound and interactive learning
- Over 200 topics with more than 50 videos
- An hour of animation, songs and over 400 sounds
- 100's of photographs and illustrations
- Travel to virtually every type of natural environment



£25

YCD/MS/E822

### Autoroute Express for Windows on 3.5" & CD-ROM

- Route planner and computerised road atlas
- Plots the fastest, shortest or most preferred route
- Gives you step by step instructions on how to get there
- Two versions - UK & N Ireland or Europe
- 100,000 miles of roads (UK & Ireland)
- Now 25 vias on route (previously 4)
- 33,000 place names for UK & Ireland



£37

£43

Special £10.00 cashback offer for owners of previous versions

### Flight Simulator 5.1 for MS-DOS on 3.5" & CD-ROM

- New enhanced, realistic looking scenery
- New flight challenges to complete
- CD version includes over 100 airports plus major roads, rivers & mountains
- New customisable weather to test your instrument skills
- Add more details to the scenery with add-on sceneries



£22

MS/44/F68 3.5" MS/44/F58 CD

## WINDOWS 95 EXCLUSIVE OFFERS

### 1. FREE 10 PACK SOFTWARE

Bundle (CD-ROM) with every Windows 95 order (see page 1)

### 2. GET WINDOWS 95 UPGRADE FOR £55

With any other product (value must be greater than £25)

### 3. GREAT BUNDLES

Get Windows 95 upgrade with:-



						BUNDLE PRICE	
4MB	SIMM	72PIN	32bit	70NS	£159	SAVE £10	
4MB	SIMM	72PIN	36bit	70NS	£169	SAVE £10	
8MB	SIMM	72PIN	32bit	70NS	£264	SAVE £15	
8MB	SIMM	72PIN	36bit	70NS	£273	SAVE £15	
SEAGATE 1GB IDE HARD DISK + FUTURE DOMAIN EIDE ISA CONTROLLER WITH BIOS						£279	SAVE £20
INTEL OVERDRIVE DX4-100 (Specify socket)						£180	SAVE £14
PANASONIC S62 CD-ROM + INTERFACE CARD						£124	SAVE £4
PIONEER DRU124X IDE CD-ROM (QUAD SPEED)						£165	SAVE £5

ALL BUNDLES INCLUDE THE FREE 10-PACK CD (SEE PAGE 1)

Please note: Carriage for all above offers is £8. Offers cannot be used in conjunction with any other offer from Technomatic. Please specify media. Offers subject to change without notice.

## Microsoft Works for Windows 95

Create professional documents easily and quickly with Microsoft Works for Windows 95. No matter what kind of work you need to do, you'll find Works has a tool for the job. It combines a wordprocessor, spreadsheet with charting, a database, communications tools, and drawing tools - to create the best selling integrated package. New features include the work task launcher, easy calc for financial and budget calculations, repeat creator which links to your database and direct access to the works forum on the Microsoft network.



Microsoft Works for Windows 95 (3.5")

£59

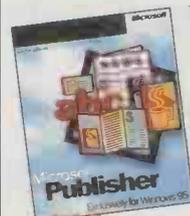
Microsoft Works for Windows 95 & Bookshelf (CD)

£CALL

£20 cashback offer for upgrades.

## Microsoft Publisher for Windows 95

The all-time best-selling desktop publishing programme for Windows



- PageWizards are the fastest and easiest way to make customised, professional quality publications because they guide you through the design process.
- The Design Gallery allows you to easily customise and personalise your publication, all the while keeping it's professional look and feel.
- Online User Assistance is always on hand to intelligently tutor and advise you as you work.
- Visit the Publisher Forum on the Microsoft Network directly from Publisher.

£65 3.5" or CD-ROM

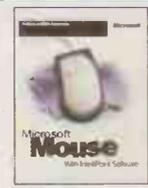
Upgrade: £20 cashback vouchers included in box for users of previous versions of MS Publisher or other DTP software products

Free Upgrade: To Microsoft publishers for Windows 95 if you purchase Microsoft Publisher v2.0 now.

### Microsoft Natural Keyboard for Windows 95



£66



Microsoft Mouse 2 for Windows 95

£38

## Visual FoxPro 3.0

Visual FoxPro 3.0 is the only Xbase product easy enough to be visual, powerful enough to be FoxPro

Visual FoxPro v3 Std Win £145  
Visual FoxPro v3 Prof Win £315



Visual FoxPro 3.0, a robust, 32-bit rapid application development (RAD) tool with full object-orientation and integrated client-server capabilities. Visual FoxPro will also maintain the power synonymous with the FoxPro name and will have full backwards compatibility with previous version of FoxPro.



**Flexibility:** Visual FoxPro 3.0 flexibly leverages your investments in code and training while building a solid foundation for the future.  
**Ease of data access:** Visual FoxPro 3.0 helps you integrate all the data in your organisation whether it resides in applications, client/server database, or local data stores.

**Developer productivity, ease of production:** Reusing code has never been easier - Visual FoxPro 3.0 uses the full range of OLE objects and controls and also makes it easy to create your own class libraries with inheritance and encapsulation.



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

### Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

Business Software

## ACCOUNTING £

### SAGE

SG10 S33	Sage Financial Controller V7 Dos	317
SG60 S68	Sage Financial Cont. Lan Dos	497
SG10 S29	Sage Accountant Plus V7 Dos	240
SG60 S64	Sage Accountant Plus Lan Dos	393
SG10 S26	Sage Accountant V7 Dos	159
SG10 S13	Sage Bookkeeper V7 Dos	55
SG10 S72	Sage +2 Financial Cont. Win v3	349
SG60 S86	Sage +2 Financial Cont. Lan Win	548
SG10 S68	Sage +2 Accountant Plus Win v3	270
SG60 S83	Sage +2 Accountant Plus Lan Win	463
SG10 S64	Sage +2 Accountant Win v3	189
SG10 S62	Sage +2 Bookkeeper Win v3	84
SG10 M78	Sage Moneywise V2	35
SG10 N83	Sage Instant Accounting Win	85
SG10 S43	Sage Payroll II Dos v5	127
SG60 S72	Sage Payroll II Network	165
SG10 S84	Sage +2 Payroll Win	127
SG10 N89	Sage Instant Payroll Win	68

\*While stocks last

### INTUIT

IU10 Q29	Intuit QuickBooks v3.0 Win	84
IU38 Q73	Intuit Quicken 4.0 Win	28
IU38 Q79	Intuit Quicken 4 Deluxe Home Pack Win	45
IU38 Q83	Intuit Quicken 4 Deluxe Business Pack Win	45
IU38 Q63	Intuit QuickTax Return 1995 Win*	25
IU38 Q72	Intuit Quicken V6 Dos	32

\*While stocks last

CA10 S13	CA Simply Accounting Win	50
CN38 M93	PC Money Manager Personal Edition	34
DP10 T13	Timeslips Personal Plus Win (2 Fee Earners)	93
DP10 T19	Timeslips Single User (8 Fee Earners)	317
DP70 T23	Timesheets Professional Dos	180
DP70 T26	Timesheets Professional Win	180
GS38 B16	GST Business Expenses Win	20
GS10 P69	GST Purchasing Manager Win	20
GS38 M19	GST Motoring Expenses Win	12
MH10 T12	Tas Books Accounting	76
MH10 T16	Tas Books 2	499
MS38 M92	MS Money V3 Win	25
NEW 000	Which? - Tax Calc for Windows	29

## INTEGRATED £

### MICROSOFT OFFICE

MS12 M13	MS Office 4.2 Standard Win	325
MS12 M14	MS Office 4.2 Standard Win CD	325
MS53 MS2	MS Office 4.2 Std 1 Lic Win	285
MS77 M68	MS Office 4.2 Std Win Upgrade CCP	161
MS77 M64	MS Office 4.2 Std Win CCP Upg CD	161
MS77 M60	MS Office 4.2 Std Comp Upg Voucher Win	218
MS12 M16	MS Office 4.3 Professional Win	395
MS12 M18	MS Office 4.3 Professional Win CD*	429
MS53 M72	MS Office 4.3 Prof 1 Lic	361
MS77 M70	MS Office 4.3 Prof Win Upg CCP	245
MS77 M72	MS Office 4.3 Prof Win CCP Upg CD	245
MS77 M62	MS Office 4.3 Prof Comp. Upg Voucher	264
MS12 M12	MS Office Assistant Win	55
MS12 M12	MS Office V4.2 Std for Windows NT CD	342

\*While stocks last

### LOTUS SMARTSUITE

LT12 S26	Lotus SmartSuite V4 Win 3.5*	293
LT12 S28	Lotus SmartSuite V4 Win CD	293
LT53 S62	Lotus SmartSuite 1 Lic	284
LT77 S44	Lotus SmartSuite V4 Win Upg/Comp Upg 3.5*	158
LT77 S42	Lotus SmartSuite V4 Win Upg/Comp Upg CD*	158
LT61 N54	Lotus Notes Suite Starter Pack CD	665
LT53 N32	Lotus Notes Suite 1 LLP Pack	453

\*While stocks last Upg/Comp Upg from any word processor, spreadsheet, database, graphics or organiser.

### NOVELL PERFECT OFFICE

WP12 P13	Perfect Office v3 Standard	154
WP12 P14	Perfect Office v3 Standard Win CD	264
WP77 P60	Perfect Office Std v3 Win CD Upg	119
WP77 P62	Perfect Office v3 Standard Upg	119
WP77 P64	Perfect Office v3 Std Comp Upg	155*
WP12 P19	Perfect Office Prof v3 Win 3.5*	348
WP12 P20	Perfect Office Prof v3 Win CD	348
WP77 P69	Perfect Office Prof v3 Win Upg 3.5*	179
WP77 P68	Perfect Office Prof v3 Win Upg CD	175
WP77 P70	Perfect Office Prof v3 Win Comp Upg 3.5*	205

\*Introductory price - while stocks last

MS12 W23	MS Works V4 Win 95	59
MS12 W23	MS Works V3 Dos	83
MS53 W94	MS Works Dos 1 Lic	74
MS12 W33	MS Works V3 Win + Money v3*	82
CDMS Z121	MS Works V3 Win CD	68
MS53 W90	MS Works Win 1 Lic	74
LT12 S43	Lotus Symphony V3	373
WP45 W63	WP Works v1 Dos	45
WP45 W66	WP Works V2 Win	54
CA12 S33	CA Simply Business Win	25
CM12 C23	Clarix Works V3 Win with Quicken V3 Win 61	87
CM12 C26	Clarix Works V3 Win	87
SN12 W52	SPS Window Works Win	29
SN12 F42	SPS First Choice V3.02 Dos	339
SQ12 A13	Open Access IV	339
IN12 S23	Smartware II V2.6	357
CR12 F12	Corel Office Companion CD	65

\*While stocks last

## SPREADSHEET £

MS16 E86	MS Excel V5 Win	221
MS53 E32	MS Excel V5 Win 1 Lic	196
MS77 E59	MS Excel V5 Win Upgrade CCP	85
MS16 E92	MS Excel V5.0 for Windows NT CD	235
RM16 C12	RMG Crystal Ball (Add-On for Excel 5.0)	218
LT16 186	Lotus 123 V5 Win + Approach (Limited offer)	219

See SmartSuite Trade-up offer E158

LT53 I32	Lotus 123 V5 Win 1 Lic	193
LT16 166	Lotus 123 V4 Dos	287
LT53 I22	Lotus 123 V4 Dos 1 Lic	246

LT16 143	Lotus 123 R2.4 Dos	245
LT53 I12	Lotus 123 R2.4 1 Lic	212
LT60 174	Lotus 123 R2.4 Lan Server	372
LT16 M16	Lotus Improv Win	86
WP16 Q13	Quattro Pro V5.5 DOS	45
WP16 Q16	Quattro Pro V6 Win 3.5* + CD	149
WP77 Q16	Quattro Pro v6 Upg Win	35
CA16 S73	CA Supercalc V5.5 Dos	69
CA60 S63	CA Supercalc V5.5 Lan 3 User	170
CA16 S76	CA Supercalc Win	68

Our item code numbers help you to identify the software you want to order more quickly and accurately. Please use the codes when you can.

## WINDOWS 95 UPGRADE



**FREE!**  
**10-PACK SOFTWARE CD-BUNDLE**  
Ask for AA1995

**£55**

When you purchase any other product over £25

**EXCLUSIVE OFFER**  
(See page 1 for details)

## Quicken 4 for Windows

- Organises your home & small business finances
- Multiple Currency Investments
- Manages bank & credit accounts, mortgages, loans & investments in any currency
- Provides detailed financial analysis
- Calculates VAT automatically
- Standing orders entered automatically
- Customisable reports & graphs
- View your finances using indicators of your choice
- Transactions memorised - no re-typing

**QuickTax Return 1995 £25**

For planning, completing & printing out your Personal Tax Return. Completes your tax return painlessly. QuickTax does all the work, checking for errors and omissions and instantly calculating tax (or rebate due). EURFN0185 (3.5")

**Quicken Deluxe Home Pack v4 for Windows £45**  
Includes: Quicken UK 4.0 for Windows, Quicken Home Inventory UK for Windows & QuickTax Planner 96. If you need to organise more of your home finances, inventory of your home and plan your 1996 income tax position. EURFN0115



NEW  
FN2194 (3.5")  
**£28**



NEW  
**£25**

## QuickBooks UK v3 for Windows

Accounting without the hassle  
The Fastest, easiest way to manage your business

Everything you need is in one easy to use, fully integrated package. QuickBooks is the UK's best selling accounting package for Small Business. Designed for business people not accounting experts, QuickBooks is a robust industrial strength system - the beauty is, that you never get to see the double entry - There's no Debits & Credits just simple forms that you already know how to use.

- COMPLETE FINANCIAL CONTROL**
- ACCOUNTS RECEIVABLE REPORTS
  - ACCOUNTS PAYABLE REPORTS
  - ADMIN. REPORTS
  - BUSINESS MANAGEMENT
  - SALES REPORTS
  - STOCK REPORTS
  - GRAPHS

**FREE TECHNICAL SUPPORT FROM INTUIT**

**Quicken Deluxe Business Pack v4 for Windows £45**  
Includes: Quicken UK 4.0 for Windows, QuickInvoice UK for Windows & QuickTax Planner 96. For the self-employed, sole trader or small business owner if you deal with a few invoices and need to plan your income tax position. EURFN0114

## BUSINESS TOOLS £

RM10 B26	RMG Business Plan Builder Win	85
RM21 P16	Performance Now Win	99

## PROFESSIONAL OCR £

CC66 M48	Caere Omnipage Direct	72
CC66 M52	Caere Omnipage Professional v5 Win	325
CC66 M34	Caere Omnipage v5 Standard Win	319
CC66 P69	Caere Personal Pagekeeper Win	120
CC66 P66	Caere Pagekeeper V2.0 Win	79
CL66 W64	Calera Wordscan Plus V4	385
XE66 T26	Xerox Textbridge 3.0 Win	65
XE66 T29	Xerox Textbridge Professional Edition Win	269
XE77 T39	Xerox Textbridge v3 Prof Ed Comp Upg	195

SEE OUR RANGE OF SCANNERS

Please call for site licences, education discounts and faxed quotations for volume purchases.

# WINNER 1994

## COMPUTER SHOPPER

### READERS AWARD



**SALES 0181-205 9558**  
**FAX 0181-205 0190**  
**ADMIN 0181-358 8100**



PRICES EXCLUDE VAT @ 17.5%

Quality Software

### CONTACT MANAGEMENT £

CK14 A22	Symantec Act V2.1 Dos	195
CK14 A34	Symantec Act V2 Win	135
CK14 A36	Symantec 1st Act Win	79
CK14 A33	Act! Mobile Link Win (Add-on To Act!)	189
RM67 NEW	Sidekick 2.0 for Windows	29
RM67 NEW	Sidekick 95 for Win 95	29
RM67 E23	Ecco Simplicity Win	45
RM67 E26	Ecco Professional Win	125
LT67 L29	Lotus Organiser v2.01 Win	82
LT77 L16	Lotus Organiser v2.01 Win Upg	45
LT53 L52	Lotus Organiser v2.01 Win Single Lic	74
MS67 L12	Microsoft Schedule+ Win	87
M167 M36	Maximizer Win	225
J167 M39	Maximizer Dos	229
J160 M23	Maximizer Win 5 User Lan pack	635
SG67 T23	Sage Telemagic Dos	169
WP45 I43	Novell/WordPerfect Infocentral Win 1.1	49

### PROJECT MANAGEMENT £

CA70 S33	CA Super Project V2.1 Dos	458
CA70 S43	CA Super Project V3 Win/OS/2	478
MS70 P43	MS Project V4 Win	282
MS77 P43	MS Project V4 CCP Upgrade	85
MS77 T72	MS Project V4 Comp. Upg voucher	129
TK70 P13	Project Scheduler 5 V1.5 Dos	475
TK70 P16	Project Scheduler V6 Win	550
DP70 S73	Instanplan With Ems Support	180
SY70 T23	Symantec On Target V1 Win	65
SY70 T53	Symantec Time Line V6.1 Win	319

### CHARTS & DIAGRAMS £

RM70 A82	ABC Flowchart v4 Win	215
AV80 L12	Avery Label Pro Dos	80
PU67 C44	Calendar Creator Win V2	28
CR70 C33	Corel Flow Win 3.5* + CD*	37
CR12 F12	Corel Office Companion CD	65
MG40 E26	Easyflow for Windows	95
RM40 F33	Family Tree Maker Win	36
BD30 F38	Form Tools Gold	43
BD30 NEW	Form Tools Gold Windows	49
FC40 NEW	Fastcad Allclear III for Windows	93
SP40 H83	SPC Harvard Chart XL	69
MG40 N16	Inspiration for Windows	97
RM77 A13	Micrografix ABC FlowChart 4.0 Upgrade	95
MG70 W88	Micrografix Windows Orgchart	108
RM70 R94	Org Plus v3 Win	85
RM70 R92	Org Plus Advanced Dos	69
SE40 NEW	Key Form Plus Designer Win	29
DL30 P53	Delrina Perform Win	59
MG40 S56	Micrografix Snapgrafix Win	49
MA40 S12	Stanford Graphics Win	339
RM40 NEW	Visio 4 for Windows 95	99
RM77 NEW	Visio 4 Windows 95 Upgrade	99
RM40 V42	Visio V3 Win	86
RM77 V14	Visio V3 Win Upgrade	58
RM40 V44	Visio 3 Win 10 Pack Lic	720
RM40 NEW	Visio Stencil (specify)	39
RM40 V49	Visio Express For Office Win	39
RM40 V49	Visio Express For SmartSuite Win	19
RM77 V13	Visio Technical Productivity Pk Add-on	110
CM40 NEW	Claris Impact v2.0 Win 95 3.5*	95
CM40 NEW	Claris Impact v2.0 Win 95 3.5* Upgrade	49

\*While stocks last



### The Best in 32-bit Graphics!

- Includes
- ★ CORELDRAW 6
  - illustration and page layout
- ★ COREL PHOTO-PAINT 6
  - Photo-editing and bitmap creation
- ★ COREL PRESENTS 6
  - Business and multimedia presentations
- ★ CORELDREAM 3D 6
  - 3D modeling and rendering

- Plus
- ★ 25,000 clipart images and symbols
- ★ 1,000+ TrueType & Type 1 fonts
- ★ 300+ Presentation Backgrounds
- And Much More

Full Product £275(CD) Upgrade from v3/v4 £229(CD) Upgrade from v5 £145(CD)

### DESKTOP PUBLISHING £

AL30 P23	Adobe Pagemaker V5 Win	379
AL30 P33	Adobe Pagemaker V5 Win 5 User	1375
AL30 P39	Adobe Pagemaker Classic Win	55
AL53 P26	Adobe Pagemaker v5 Mac	439
AD30 A63	Adobe Acrobat V2 Win	135
AD30 A66	Adobe Acrobat Pro V2 Win	295
AD30 A69	Adobe Acrobat Pro V2 for Workgroups	1108
WP30 E16	Novell/WorkPerfect Envoy v1.0 Win	89
CR30 C16	Corel Ventura V5 Win CD+3.5"	235
CR30 C17	Corel Ventura V5 CD only	199
CR77 C66	Corel Ventura V5 Win Upg Comp CD+3.5"	145
CR77 C68	Corel Ventura V5 Win Upg Comp CD only	60
QK30 Q13	Quark Xpress V3.3 Win	559
QK55 Q19	Quark Xpress Mac	609
MS30 P69	MS Publisher V2 Win	65
FM30 F73	FrameMaker V4 Win	462
SN30 P78	PFS Publisher Win*	20
SN30 F74	PFS First Publisher Dos	28
GS30 T56	GST Pressworks V2 Win	25
GS30 P23	GST Powerpack Win	53
GS30 F36	GST First Press Dos	22
GS40 F23	GST First Design Win	23
SP30 P23	Serif Page Plus v3.0 Win	45
SP30 P26	Serif Page Plus Publishing Suite Win	75
HS40 K26	Kal's Power Tools Win	107

### FONTS

MS30 T83	MS TrueType Font Pack 1 Win	45
MS30 T85	MS TrueType Font Pack 2 Win	45
AD30 T74	Adobe Type Manager Win v3	48
AD30 P54	Adobe Plus Pack Win	105
AD30 S68	Adobe Streamline Win	135
M130 T30	Micrologic True Type Dos	62
BT30 F39	Bitstream Facelit Win	49
GS30 G23	GST - Headline Font Collection	16
AS30 F63	Fontographer Win	355
SE30 K23	Softkey Key Fonts Win	29
SE30 K28	Softkey Key Fonts Pro Win 3.5"	29
SE30 M23	Softkey More Key Fonts Win	29

### CLIPART/IMAGES

CDCO A14	Corel Gallery (10,000) CD	26
CDCO A142	Corel Gallery v2 CD (15,000 Cliparts)	45
CDCO A06	Corel Artshow 3 CD	13
CDCO A08	Corel Artshow 4 CD	19
CDCO A09	Corel Artshow 5 CD	20
WP45 C48	WP Clipart Premium CD	50
WP45 C13	WP Clipart Home Win/Dos	19
WP45 C33	WP Clipart Office Win/Dos	19
SP40 C64	Spic Clipart CD (2,000) Win	59
LT40 S43	Lotus Smartpics Freelance Win	83
GS40 P70	GST Pictures Photo-CD Collection	17
GS40 G49	GST Clipart Portfolio (Pic 1)	17
GS40 G56	GST Clipart Gallery Win (Pic 2)	15
SN40 P88	PFS Power Album Win*	27
SE40 K22	Softkey Key Clip Master Pro Win CD	34
SE40 K28	Softkey Key Color Photo Pro Win CD	34
SE40 K24	Softkey Key Merg Clipart (7000 Images) Win CD	34
VS40 T38	Textures for Professionals CD Win	85
VS40 V52	Visual 3D Clipart - The Business Library CD Win	45
VS40 V54	Visual 3D Clipart - The Architects Library CD Win	45
PK40 M52	IMSI Masterclips (6000 Cliparts) CD	61

\*While stocks last

### GRAPHICS & DESIGN £

CR40 C14	Corel Draw V3 CD only	62
CR40 C13	Corel Draw V3 Win CD + 3.5"	42
CR40 C16	Corel Draw V4 Win CD + 3.5"	105
CR40 C18	Corel Draw V4 Win CD	84
CR40 C19	Corel Draw V5 Win CD + 3.5"	355
CR40 C20	Corel Draw V5 Win CD only	278
CR40 NEW	Corel Draw 6 for Windows 95 CD	275
CR77 C46	Corel Draw V3->V5 Upg CD + 3.5"	254
CR77 C48	Corel Draw V3->V5 Upg CD only	198
CR77 C49	Corel Draw V4->V5 Upg CD + 3.5"	145
CR77 C50	Corel Draw V4->V5 Upg CD only	115
CR77 NEW	Corel Draw 6 Win 95 CD Upg from v3/v4 229	145
CR77 NEW	Corel Draw 6 Win 95 CD Upg from v5	145
JT54 L28	Learning Corel Draw 5 CD	25
AD30 L42	Adobe Illustrator V4 Win	344
CA40 C13	CA Cricket Graph Win	62
GS40 D23	GST Designworks Win	64
GS40 D24	GST Designworks Win CD	64
AL40 F49	Freehand V5 Win	330
SP40 H73	SPC Harvard Draw	289
IS40 H49	Hijaak v3 Graphics Suite Win	99
PK40 NEW	IMSI Graphics Converter Gold Win	33
MG12 G73	Micrografix Graphics Works Win	75
MG40 D24	Micrografix Design Power Pack Win CD	345
MG40 W53	Micrografix Windows Draw	66
MG40 D26	Micrografix Designer v4.1 TE Win	288
MG77 D36	Micrografix Designer 4.1 TE Upgrade	99
ZN30 Z29	ZScript Win	149

### IMAGE EDITING

CR40 C44	Corel Photo-Paint 5 Plus CD Win	56
AD40 P23	Adobe Photoshop V3 Win	397
LE40 F23	Fractal Design Painter V3 Win	315
LE40 D16	Dabbler for Windows	75
MG40 P43	Micrografix Picture Publisher v5 Win	275
MG77 P59	Micrografix Picture Publisher 5.0 Upgrade	99
ZS40 P32	PC Paintbrush V Win	25
ZS40 S58	Photofinish Win	55
MG40 P33	Micrografix Photomag Win	59

### ANIMATION/VIDEO

AD30 P63	Adobe Premiere v4 Win	348
GD40 V34	Gold Disk Video Director V1 Win	42
GD40 V38	Gold Disk Video Director V2 Win	75
GD40 A12	Gold Disk Animation Works Interactive Win 1.79	79
GD40 A24	Gold Disk Add Impact Win	75

### PRESENTATION

AY40 M29	Asymetrix Mediabilty v3 Win	57
AY50 T39	Asymetrix Toolbook Win	224
AY30 Y36	Asymetrix iMedia Toolkit v3 Win	499
HB90 D62	Macromedia Director 4.0 Win CD	695
GD40 A32	Gold Disk Astound 1.5 Win	75
GD40 A33	Gold Disk Astound 2 for Windows	149
MM40 NEW	Macromedia Director Multimedia Studio Bundle	149
MG40 C13	Micrografix Charisma Win	181
SP40 H86	SPC Harvard Graphics V3 Dos	275
SP40 H93	SPC Harvard Graphics V2 Win	92
SP40 H76	SPC Harvard Graphics V3 Win	185
SP40 H96	SPC Harvard Graphics V2 Win + Powerpack	145
SP40 H79	SPC Harvard Graphics Presenters Pack	185
SP40 H99	SPC Harvard Spotlight Win	89
SP40 H89	Harvard Portfolio 35* + CD (CHRT-XL+ONFILE-HG)	209
SP40 H69	Harvard Montage Win	79
LT40 F83	Lotus Freelance 2.1 Win	258
LT40 F63	Lotus Freelance 4 Dos	246
LT40 S56	Lotus ScreenCam V2.0 Win	49
MS30 P63	MS Powerpoint V4 Win	234
AL40 P63	Aldus Persuasion V3 Win	233

### 3D

VS40 S22	VS Simply 3D CD Win	49
VS40 V44	VS Visual Reality v1.0 CD Win	295
RM40 NEW	Truespace v2.0	369
AY40 A22	Asymetrix 3D FX CD	99

### New Features

- ▲ Increased speed and power
- ▲ Multiple Document Interface (MDI)
- ▲ Fully-customisable toolbars, hot keys & status bars
- ▲ Greater ease of use with Wizards & Tutor Notes
- ▲ Precision to 0.1 micron
- ▲ New tools: polygon, knife, panning, spiral, graph tables, eraser tool, connector lines and angled dimension lines
- ▲ 3D modeling, rendering and animation
- ▲ Natural media brushes, chalk, airbrush, felt tip and more
- ▲ AVI file editing (video)
- ▲ Professional business and multimedia presentations
- ▲ OLE 2.0 in-place editing and OLE automation
- ▲ Macro recorder
- ▲ Printing and prepress enhancements: OPI, print styles, proofing options and impositioning.

### UPGRADES £

<b>MICROSOFT</b>		
MS77 M68	MS Office 4.2 Std Upg CCP	161
MS77 M60	MS Office 4.2 Std Comp. Upg Voucher	218
MS77 M64	MS Office 4.2 Std Win CCP Upg CD	161
MS77 M70	MS Office 4.3 Prof Upg CCP	245
MS77 M62	MS Office 4.3 Prof Comp. Upg Voucher	264
MS77 M72	MS Office 4.3 Prof Win CCP Upg CD	245
MS77 W76	MS Works V3 Win Upg CCP	43
MS77 W89	MS Word V6 Win Upg CCP	85
MS77 A23	MS Access V2 Win CCP Upg	85
MS77 E59	MS Excel V5 Win Upg CCP	85
MS77 M72	MS Project V4 Upg CCP	85
MS77 T72	MS Application Trade-In Voucher	129
MS65 D73	MS Dos V6.22 Upgrade	38
MS77 W78	MS Windows V3.1 CCP Upg	39
MS77 N26	MS Win NT Wkstn v3.5 Upg 3.5"+CD	75
MS77 N32	MS Win NT Server v3.5 Upg CD (250 clients)	559
MS77 N28	MS NT Workst Win Upg v3.5 to v3.51 CD	39
MS77 N30	MS NT Server Win Upg v3.5 to v3.51 CD	57

### LOTUS

LT77 S44	Lotus SmartSuite v3.1 Upg/Comp 3.5"	158
LT77 S42	Lotus SmartSuite v3.1 Upg/Comp CD	158
LT77 I19	Lotus 123 V5 Win Upg/Comp	88
LT77 F36	Lotus Freelance Graphics Win Upg/Comp	88

### COREL

CR77 C46	Corel Draw V3->V5 Upg	254
CR77 C48	Corel Draw V3->V5 Upg CD	198
CR77 C49	Corel Draw V4->V5 Upg	145
CR77 C50	Corel Draw V4->V5 Upg CD	115
CR77 C66	Corel Ventura V5 Win Upgrade CD+3.5"	145
CR77 C68	Corel Ventura V5 Win Upgrade CD only	60

### BORLAND

BO77 D46	Borland Dbase 5 Dos Upg	94
BO77 D49	Borland Dbase 5 Dos Comp. Upg	140
BO77 P46	Borland Paradox V5 Win Upg	116
BO77 D12	Borland Delphi Competitive Upg Win CD	125

### NOVELL/WORDPERFECT

WP77 W22	WordPerfect 5.1 Plus Upg Voucher	85
WP77 W20	WordPerfect 5.1 Plus Comp Upg	115
WP77 W23	WordPerfect V6 Dos Upg Voucher	81
WP77 W33	WordPerfect V6 Dos Comp. Voucher	115
WP77 W70	WordPerfect V6.1 Win Upg Voucher	62
WP77 W72	WordPerfect V6.1 Win Comp Upg	85
WP77 P64	PerfectOffice STD Comp. Upgrade	154
WP77 P62	PerfectOffice STD Upgrade	119
WP77 P69	PerfectOffice Prof Win Upg 3.5"	179
WP77 P68	PerfectOffice Prof Win Upg CD	175
WP77 P70	PerfectOffice Prof Win Comp Upg 3.5"	205
WP77 Q16	Quattro Pro v6 Upg Win	35

**PLEASE CALL FOR SYMANTEC, NOVELL NETWORK, PERFECTOFFICE, IBM OS/2, SPC, VISIO, QUARTERDECK, SCO, SAGE, STACKER UPGRADES.**

### SCREEN SAVERS

BS80 A82	Berkeley After Dark V3 Win	24
BS80 S92	Berkeley Stan-Trek Screen Saver Win	32
BS80 S73	Berkeley Simpson Screen Saver	32
BS80 L66	Berkeley Looney Tunes Animated Screensaver Win	27
AY80 P48	Asymetrix Pink Panther Screensaver CD + 3.5"	24
DL80 F73	Delrina Flinstones Screensaver Win	19
DL80 P26	Delrina Opus 'N' Bill Screensaver Win	20
DL80 F69	Delrina Far Side Screensaver Win	26

### UPGRADE YOUR MEMORY FOR TRUE 32BIT PERFORMANCE

BND1	WINDOWS 95 UPGRADE + 4MB 72PIN 32 BIT	£159
BND2	WINDOWS 95 UPGRADE + 4MB 72PIN 36 BIT	£169
BND3	WINDOWS 95 UPGRADE + 8MB 72PIN 32 BIT	£264
BND4	WINDOWS 95 UPGRADE + 8MB 72PIN 36 BIT	£273



# TECHNOMATIC

Techno House, 468 Church Lane, London NW9 8UF

PRICES EXCLUDE VAT @ 17.5%

Hours of Business:

Mon-Fri: 8am to 7pm  
Sat: 9am to 5pm  
Callers welcome, please check availability.  
Prices valid from 4/19/95

## LEISURE £

### ENTERTAINMENT

M544 G63	MS Golf Win 3.6"	25
M544 G69	MS Mauna Kea Add-on Golf Course	20
M544 F56	MS Flight Simulator v5.1 DOS 3.5"	25
M544 F58	MS Flight Simulator 5.1 DOS CD	22
M544 P36	MS Paris Scenery Pack	15
M544 N23	MS New York Scenery Pack	15
M544 S43	MS Space Simulator Dos	25
M544 A13	MS Arcade Games Win	16
M544 B29	MS Best of Entertainment Packs	20
E444 S59	Strike Commander	25
OR44 M23	Simcity 2000 DOS	26

### REFERENCE/EXPLORATION

CDMS E18	MS Encarta 1995 CD	53
CDMS E21	MS Bookshelf 95 CD	59
CDMS E80	MS Dangerous Creatures CD	31
CDMS W80	MS Ancient Lands CD	31
CDMS X14	MS Cinemania 1995 CD	31
CDMS A01	MS National Art Gallery CD	31
CDMS T34	MS Schubert CD	26
CDMS-001	MS 500 Nations Win CD	31
CDMS-002	MS Explorapedia - The World of Nature Win CD	23
YDMS-001	Microsoft Dogs Win CD	29
YDMS-002	Microsoft Wine Guide Win CD	31
CR44 A24	Corel Adventures with Edison CD	29
CR44 A22	Corel All-Movie Guide CD	49

### CHILDREN'S SOFTWARE

M520 C23	MS Creative Writer Win	27
M540 F23	MS Fine Artist Win	27
CDMS J11	MS Gahan W U Haunted House	28
CDMS E22	MS School Bus - Human Body	27
CDMS 002	MS School Bus - Solar System	27

### LIFESTYLE

G544 V36	GST Video Library Win	17
G544 W39	GST Wine Cellar Win	17
G544 N23	GST Instant Recipes Win	17
SE44 T12	Softkey Total Health-Body & Mind Win CD	36
SN67 C22	Pfs Cv Job-Search Win	28

Also see our **MULTIMEDIA** page



**SIDEKICK FOR WIN 95 ONLY £29**

## DEVELOPMENT £

### BORLAND

BO68 B24	Borland C++ V2 OS/2 CD	295
BO50 B18	Borland C++ 4.5 CD (On-line manual)	215
BO50 B20	Borland C++ 4.5 & Database Tools CD	329
BO50 T48	Borland Turbo C++ V3 For Dos	59
BO50 T50	Borland Turbo C++ 4.5 Win CD (On-line manuals)	62
BO50 P36	Borland Powerpack Dos for C++ v4	65
BO50 T43	Borland Turbo Assembler	58
BO50 V76	Borland Visual Solutions Pack	49
BO50 D22	Borland Delphi for Windows CD*	155
BO50 D24	Borland Delphi Client/Server CD	659
BO77 D12	Borland Delphi Competitive Upg Win CD	120
BO50 R42	Borland Rad Pack for Delphi	125
BO50 N30	Borland Notes Add-on for Delphi	49
BO15 D22	Borland Database Engine 2.0 Win CD	172
BO50 T69	Borland Turbo Pascal V1.5 Win	78
BO50 B33	Borland Pascal V7 Dos	79
BO14 P63	Borland Paradox Developers Toolkit V5 Win	135

\*While stocks last - Special Offer

### MICROSOFT

M550 V92	Microsoft Visual C++ V2 16/32 Bit CD NT	245
M550 F26	Microsoft Fortran 77 V5.1	119
M550 M33	Microsoft Macro Assembler V6.11	99
M550 V83	Microsoft Visual Basic Win V3 Std	72
M550 V86	Microsoft Visual Basic Win V3 Prof	191
M550 V43	Microsoft Visual Control Pack Win	69
M550 V74	Microsoft Visual Basic Dos Std	85
M550 V78	Microsoft Visual Basic Dos Prof	192
M550 S23	Microsoft SourceSafe 3.1 Platform Pack	325
M553 S32	Microsoft SourceSafe 1 MLP	275
M577 S56	Microsoft SourceSafe Trade In	75
M580 T30	Microsoft Test Win	399

### VISUAL BASIC ADD-ONS

CT50 A23	Aware/VBX Win	105
CT50 C29	Comms Library Win	110
CT50 D16	Data Widgets For Vb3 Prof	95
CT50 D19	Designer Widgets	95
CT50 F26	Fax Plus Win	165
CT50 S29	SpellPro 2 Win	105
CT50 T16	Tab/Pro Win	70
CT50 V33	VB Assist V3 Win	139
CT50 V39	VB Tools V4 Win	110
B150 V46	Versions/VB 1.1	75
CA50 V26	CA Visual Objects Win	429
SY50 S22	Symantec C++ 7.0 CD	149

## PROFESSIONAL CAD £

AU25 A58	Autosketch V2 Win	145
AU77 A29	Animator Studio Win Upg from Anim Pro 3	185
AU25 xxx	Autocad LT v2 Win	354
AU77 A39	Autocad LT v2 Win Upg from V1	95
AU77 A33	Autocad LT v2 Upg from Autosketch	299
AU77 A36	Autocad LT v2 Upg from Generic CAD	199
FC25 C66	Cadvance Win	355
AM25 D23	Designcad 2D V6 Dos	138
AM25 D33	Designcad 3D V4 Dos 5.25"	185
RM25 D22	Drafix Cad Ultra Dos	129
RM25 D28	Drafix Windows Cad V2.1	45
RM25 D32	Drafix Windows Cad Prof	145
RM25 NEW	Drafix Quick Cad	55
FC25 F93	FastCad Floorplan Plus 3D Win	45
FC25 F96	FastCad Floorplan+ 3D & 3D Design Plus	89
FC25 F99	FastCad Floorplan+ 3D & Estimator Win	75
FC25 V23	FastCad Visual CADD Win	399
FC77 V36	FastCad Visual CADD Win Upg or Comp Upg	169
FC25 E86	FastCad EasyCAD V4.0 Win	83
FC77 Exx	FastCad EasyCAD Upgrade Win	69
SE25 K16	Softkey KeyCad Complete for Win	29
RM70 P76	Planix Win Office Management	87
RM25 NEW	Planix Home Architect	39
PK25 T24	Turbocad 3D V3.2 Dos	54
PK25 T28	Turbocad Win	53

## MOUSE & KEYBOARD £

MS85 H22	MS Home Mouse Serial + Games*	26
MS80 N20	MS Natural Keyboard	65
MS85 M40	MS Mouse With Bus Interface	48
MS85 M60	MS Mouse V2 Combo (Serial + PS/2)	36
MS85 M62	MS Mouse V2 S-Pack Combo	169
MS85 M63	MS Mouse V2 + Windows V3.1 Combo	87

\*LIMITED OFFER Best of Entertainment Pack for Windows + Arcade for Windows (While stocks last)

## LANGUAGE TRANSLATORS £

GLxx xxx	Language Assistant Win	45
GLxx xxx	Power Translator Win	98
GLxx xxx	Power Translator Pro Win	287
GLxx xxx	Power Translator Deluxe Win CD	129

Please specify French, German or Spanish



## ANTIVIRUS £

SS80 D38	Dr Sol Antivirus v7 Dos & Qtrly	59
SS80 D54	Dr Sol Antivirus Win & Qtrly	70
SS60 D34	Dr Sol Antivirus For Netware Server	240
SS68 D72	Dr Sol Antivirus Toolkit for OS/2 + Qtrly	99
SY80 A26	Symantec Norton Antivirus V3 Win + Dos	75
SY80 A13	Symantec Norton Antivirus For Netware	458
SY80 NEW	Symantec Norton Antivirus Win 95 3.5"	53
SY77 NEW	Symantec Norton Antivirus Win 95 Upg 3.5"	28
PC80 F43	FPROT Dos,Win,OS/2,Netware + Qtrly	71
PC80 F46	FPROT Dos,Win,OS/2,Netware + Mthly	120
MF80 D69	Datasave Dos/Win + Monthly Updates	69

## MEMORY MANAGEMENT £

QL80 M34	Qualitas 386 Max V7	46
QD80 D33	Quarterdeck Desquiv 386 V2.7	79
QD80 Q19	Quarterdeck Qemm V7.5 Dos/Win	45
QD80 Q33	Quarterdeck Qemm Ps2 50-60	54
QD80 Q53	Quarterdeck Qram & Manifest V2	38
QD80 Q16	Quarterdeck Game Runner (incl Qemm V7.0)	39
QD80 Q23	Quarterdeck Qemm V7.5 Win/Dos 10 Pack Call	38
NEW 000	Ram Doubler for Windows	58
LK80 NEW	MagnaRAM for Windows	38

## MAPS & ROUTES £

MS57 NEW	Autoroute Express v4.0 Win UK & IRE 3.5"	37
MS57 NEW	Autoroute Express v4.0 Win UK & IRE CD	43
MS57 NEW	Autoroute Express v4.0 Win Europe 3.5"	37
MS57 NEW	Autoroute Express v4.0 Win Europe CD	47
NB57 E43	Nextbase Autoroute Express Europe Dos	55
NB57 E66	Nextbase Autoroute Express GB Win v3*	38
NB57 P46	Nextbase Autoroute Plus GB V7 Dos	219
NB57 P49	Nextbase Autoroute Plus GB Win CD	348
NB57 M23	Nextbase Autoroute Mapbase GB	288
NB57 M86	Nextbase Mapvision Plus GB Win CD	125
NB57 M89	Nextbase Mapvision Plus London Win CD	115
NB57 E29	Nextbase Explorer Dos	45
S057 W66	World Atlas Win	39

\*While Stocks Last

## MATHS & STATS £

MA75 M33	Mathcad Personal v3 Win	55
MA75 M33	Mathcad Win V6	169
MA75 M36	Mathcad Plus v6 Win	340
MA75 M23	Mathcad DOS V2.5	259
MA40 S12	Stanford Graphics Win	345
WF75 M14	Mathematica V2.2 Dos	665
WF75 M24	Mathematica V2.2 Win	705
ST75 S23	Statgraphics V7 Dos	559
ST75 S26	Statgraphics Win	559
ST75 S33	Statgraphics Plus Win	855
LM40 P26	Longman Logotron Pinpoint v3 Win	495

## A Value-Packed Graphics Suite for Windows 95



### MICROGRAFX ABC SUITE for Windows 95

Includes:  
Micrografx Designer 6.0  
ABC Flowcharter 6.0  
Picture Publisher 6.0  
ABC Media Manager 6.0

**UPGRADE FOR £99 (CD)**

The ABC Graphics Suite is the first integrated package featuring diagramming, flowcharting, clip-art, painting, image editing and drawing tools.

The Graphics Suite fully comply with the interface & technology-specific enhancements designed for Microsoft Office for Windows 95 compatible applications.

All components are written in full Win32 API and provide performance up to 2 to 3 times faster in some operation.

EURGR1661 Micrografx ABC Suite CD ..... **£205**

### INCLUDES:

- 20,000 + cliparts
- 7,500 + photos
- 2,000 + diagramming symbols
- 250 + fonts
- 50 + file formats

## ClarisWorks 3.0

for Windows

The new **No 1**

choice for integrated software for Business, Education and Home



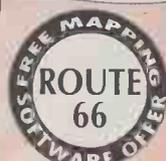
**£87**

Clarisworks 3.0 software perfectly integrates all the functionality of five software applications into one easy-to-use programmes. It's the perfect office alternative because it's compact, fast and friendly.

### 10 TOP USES FOR CLARISWORKS V3

1. Letters
2. Write memos
3. Create Reports
4. Track Budgets
5. Customer Lists
6. Brochure
7. Presentations
8. Invitations
9. Mailing labels
10. Design flyers

LIMITED OFFER



Everything you need in one simple, easy-to-use package

- Word processing
- Spreadsheets
- Database
- Outlining
- Charting & graphic capabilities
- Drawing/Painting
- Communication capabilities

## FileMaker Pro v2.1 for Windows

At last a database that provides power without programming

Filemaker Pro is a database that can organise information in ways that are useful to you. You can use it to publish a catalogue, or to keep an inventory of all your belongings. In fact the uses of Filemaker are limited only by your imagination. What's more, it can do all without the help or expense of a programmer. Its ease of use, form design features, multiple layout features and workgroup capabilities makes this package immensely popular.



**£84**

- Includes 6 ready to run applications:
- Contact manager
- Lead tracking manager
- Project manager
- Expense manager
- Product manager
- Invoicing system
- Plus 75 cliparts
- Limited Offer:
- Computer introductory membership
- Bacchus Junior - database of over 1000 wines

On Registration Claris will send you a CD with a mixture of 100 demonstrations & applications created using FileMaker Pro + a Claris T-shirt

# MICROSOFT WINDOWS 95 (UPGRADE)

1. Get Windows 95 for £55 When you purchase any other product over £25
2. FREE 10-Pack software bundle (CD-ROM) With every Windows 95 order (see page 1)
3. Order Now on our Windows 95 Hotline 0181 358 8095



**SALES 0181-205 9558**



**FAX 0181-205 0190**



**ADMIN 0181-358 8100**

**PRICES EXCLUDE VAT @ 17.5%**



Quality Software

## UTILITIES £ OPERATING SYSTEMS £ UNIX POWER £ COMMUNICATION £

### FILE/DESKTOP

RMB0 NEW Dashboard 3 for Windows	29
RMB0 NEW Dashboard 95 for Win 95	29
CR80 C76 Corel Scsi Software Only	65
CR80 C73 Corel Scsi Network Manager	267
CD00X11 Corel CD Power Pak	24
LK80 D36 Landmark Database	55
FG80 F38 File Director V1	20
IG80 M36 MacDisk for Win	69
AR80 U46 Artisoft Lantastic Utility Pack	199
SY85 D33 Symantec Norton Desktop Win V3	88
SY80 C54 Symantec Norton Commander V5 Dos	54
SY80 S69 Symantec Norton Speedrive 4.0	49
SY80 A23 Symantec Norton Admins for N/W 5 Pk	199
SY80 Y73 Symantec Norton Utilities V8	87
SY80 F66 Symantec Norton First Aid Dos	19
SY80 E63 Symantec Norton Editor 2.0 Dos	49
CP80 P93 Symantec Pc Tools V2 Win	47
CP80 P83 Symantec Pc Tools Pro V9 Dos	74
SY80 M33 Symantec More PC Tools Dos/Win	45
SY80 NEW Symantec Norton Navigator Win 95 3.5*	67
S777 NEW Symantec Norton Navigator Win 95 Upg 3.5*	74
SY80 NEW Symantec Norton Navigator Win 95 CD	32
SY80 NEW Symantec Norton Utilities Win 95 3.5*	84
S777 NEW Symantec Norton Utilities Win 95 Upg 3.5*	84
S777 NEW Symantec Norton Utilities Win 95 CD	84
SP80 N16 SPC On File for Windows	39
TS80 R23 RoadTECH DOS	51
TS80 S36 Setup Advisor Win	29
QD80 S23 Quarterdeck Sidebar V1.0 Win	29
CE80 S23 SpinRite 3.1 DOS	99
SV77 S26 Star Stacker V4 Upgrade	36
SV77 S26 Star Stacker 4 Win/DOS + Cleansweep Win 59	36
XT80 G72 Symantec Xtree Gold V3 Dos	86
SY80 X23 Symantec Xtree Gold V4 Win	59
XT60 N43 Symantec Xtreeet for Networks V3	259

### DOS

M565 D73 MS Dos V6.22 Upgrade CCP	38
M553 D22 MS Dos V6.22 Upg 1 Lic	36
NV60 P23 Novell Personal Netware Software Only	44
NV60 P33 Novell Dos 7 (+ Personal Netware s/w)	49
I865 P36 IBM PC Dos 7.0	59
I877 P29 IBM PC Dos 7.0 Upgrade	36

### WINDOWS

NEW 000 CRT Easy Tutor Windows 95 CD	29
M585 P12 Microsoft Plus for Win 95 v1.0 CD	29
M585 P13 Microsoft Plus for Win 95 v1.0 3.5*	29
M553 P62 Microsoft Plus for Win 95 1MLP	26
M565 W13 Microsoft Windows 95 3.5*	119
M553 W12 Microsoft Windows 95 1MLP	105
M577 W32 Microsoft Windows 95 Upgrade CD	59
M577 W33 Microsoft Windows 95 Upgrade 3.5*	59
M577 W78 MS Windows V3.11 CCP Upg	39
M585 W73 MS Windows V3.11 Rel 3.11	64
M560 W53 MS Wfmg Add-on for Dos	41
M577 W80 MS Wfmg Add-On Win 3.11 1 Lic	39
M560 W49 MS Windows for WorkGroups V3.11	89
M553 W40 MS Windows for WorkGroups V3.11 1 Lic	86
M565 N26 MS Windows NT Wstation V3.51	218
M565 N32 MS Windows NT Server V3.51 CD	475
M577 N28 MS NT Workstation Win Upg v3.5 to v3.51 CD	39
M577 N30 MS NT Server Win Upg v3.5 to v3.51 CD	57

### UNIX POWER

SC90 NEW SCO OpenServer v5.0 Host CD 5-user	342
SC90 NEW SCO OpenServer v5.0 Enterprise (Net) CD 5-user	629
SC90 NEW SCO OpenServer v5.0 Desktop CD	385
SC90 NEW SCO OpenServer v5.0 add licence 10-user	249
SC90 NEW SCO OpenServer v5.0 add licence 25-user	499
SC90 NEW SCO OpenServer Development System CD	385
NV91 U30 Unixware Personal Edition v2.0 CD	239
NV91 U40 Unixware Application Server v2.0 CD	799
NV91 U48 Unixware Software Dev. Kit CD	72
NV60 L52 Novell Lan Wplace Dos V5	189

Call for SCO Merge & SCO WABI products

### ON LINE/FILE TRANSFER

DC27 C24 Crosstalk Win V2.2	105
DC27 C12 Crosstalk Mkv V2.1	163
DT27 D44 *DataTalk V4 Dos/Win	39
SK27 M22 Mirror III UK v2.5	110
DS27 P12 Procomm Plus v2.01 Dos	54
HA27 P28 Procomm Plus 2.1 for Windows	56
DS27 S23 Hayes Smartcom Data/Fax Pro Win	46
SK27 T34 Talking Windows v3 Std	179
DL27 W40 Wincomm Pro	55

\*Limited Offer - WHILE STOCKS LAST

### WINDOW CLEANERS

QD80 C46 CleanSweep Win	27
CT80 L83 Uninstaller v3 Win 95 compatible	35
PK80 W23 WinDelete Win	35
LK80 U43 Uninstall It	42

### OS/2

I865 S43 IBM OS/2 Warp V3 3.5*	50
I865 S42 IBM OS/2 Warp V3 CD	42
I877 S43 IBM OS/2 Warp V3 Upg 3.5*	49
I877 S38 IBM OS/2 Warp V3 Upg CD	35
I865 S53 OS/2 Warp V3 with Win-OS/2 3.5*	99
I865 S54 OS/2 Warp V3 with Win-OS/2 CD	89
I877 S48 OS/2 Warp V3 with Win-OS/2 upg 3.5*	75
I877 S50 OS/2 Warp V3 with Win-OS/2 upg CD	65
I877 S53 OS/2 Warp V3 to Win-OS/2 upgrade 3.5*	49
I877 S54 OS/2 Warp V3 to Win-OS/2 upgrade CD	49
I860 NEW OS/2 Warp Connect v3	95
I860 NEW OS/2 Warp Connect with Win-OS/2 v3	125
I877 NEW OS/2 Warp Connect Upgrade	77
I820 A42 CD Showcase for OS/2*	9.99

See advert on OS/2 Warp v3 for more details  
\*When purchased with IBM OS/2 v3 Warp

### ELECTRONIC MAIL £

#### MICROSOFT

M560 M88 Microsoft Mail Remote Win	105
M560 M40 Microsoft Mail Lan Server + 10 User	310
M560 M36 Microsoft Mail Lan Server for Office	169
M577 M43 Microsoft Mail Post Office Upgrade	220
M567 S12 Microsoft Schedule + Win Starter Pk	89
M560 M79 Microsoft Mail SMTP Gateway	Call

PLEASE CALL FOR OTHER MS MAIL GATEWAYS

### REMOTE ACCESS/CONTROL

MC27 C42 Carbon Copy Dos	73
MC27 C54 Carbon Copy Win	73
TR27 C38 Commark Works Win (Inc Laplink Dos)	69
TR80 L64 Laplink V5 Dos	58
TR80 L73 Laplink v6 Win	83
SV27 R23 STAC Reachout v5 Modem Host/View Win	79
SV27 R26 STAC Reachout v5 Modem Host Win	57
SV27 R29 STAC Reachout v5 Modem View Win	57
SY27 P23 PC Anywhere V5 Dos Host + Remote	89
SY27 P76 PC Anywhere V5 Dos Host Only	58
SY27 P83 PC Anywhere V5 Dos Remote Only	65
SY27 P43 PC Anywhere V2 Win Host + Remote	88
SY27 P46 PC Anywhere V2 Win Host	57
SY27 P49 PC Anywhere V2 Win Remote	67

### BACKUP

SY80 B33 Symantec Norton Backup 2.2 Dos	89
SY80 B43 Symantec Norton Backup 3.0 Win	89
COLD S50 Colorado Backup v2 Win	39
CH60 N22 Cheyenne Arcserve V4 5 User Dos	179
CH60 N42 Cheyenne Arcserve V5 5 User Win	179
SW68 S49 Systos Premium Backup software for OS/2	149
CH60 S36 Arcserve for Windows NT	415
AR80 NEW Arcada Backup Exec v6 Win NT 3.51	415

### NETWORKING £

NV60 P23 Novell Personal Netware Software Only	44
NV60 P26 Novell Personal Netware 5 Pack	195
NV60 N33 Novell Netware 3.12 5 User	395
NV60 N36 Novell Netware 3.12 10 User	963
NV60 N39 Novell Netware 3.12 25 User	1443
NV60 N43 Novell Netware 3.12 50 User	1940
NV60 N49 Novell Netware 3.12 100 User	Call
NV60 N50 Novell Netware 3.12 250 User	Call
NV60 N56 Novell Netware 4.1 CD 5 User	413
NV61 N24 Novell Netware 4.1 CD 10 User	944
NV61 N30 Novell Netware 4.1 CD 25 User	1493
NV61 N34 Novell Netware 4.1 CD 50 User	2033
NV61 N40 Novell Netware 4.1 CD 100 User	Call
NV61 N44 Novell Netware 4.1 CD 250 User	Call
NV27 C23 Netware Connect 2 Port	279
CH60 S40 Arcslo Wstation Backup Dos	69
CH60 S42 Arcslo Wstation Backup Win	69
I860 NEW Intel Landesk Management Suite 2-user	269
R460 NEW Netmap for Windows	185

SEE NETWORKING PAGE FOR MORE NETWORKING PRODUCTS

### LOTUS

LT60 C12 Lotus CcMail Desktop Dos	70
LT60 C14 Lotus CcMail Desktop Win	70
LT53 C54 Lotus CcMail Workgroup Lic 10 User	259
LT60 C30 Lotus CcMail Router (Gateway)	75
LT53 C72 Lotus CcMail Workgroup to Lan 10 user	287
LT60 C46 Lotus CcMail Mobile Dos	115
LT60 C48 Lotus CcMail Mobile Win	115
LT53 C62 Lotus CcMail Lan System Lic Pack 10 User	446
LT61 N23 Lotus Notes Starter Pack Win OS/2 NLM CD	585
LT61 N54 Lotus Notes Suite Starter Pack CD	665
LT53 N32 Lotus Notes Suite 1 LLP Pack	453
LT61 N19 Lotus Notes Express Win CD	133

### TERMINAL EMULATION

WK27 R48 Reflection 4 Plus Dos	219
WK27 R44 Reflection 4 Win	249
PE27 S13 Smarterm 320 Dos	89
PE27 S23 Smarterm 340 Dos	159
PE27 S26 Smarterm 340 Win	159
PE27 S43 Smarterm 420 Win	125
PE27 S49 Smarterm for Windows NT v4 (32-bit Edn)	173
PI27 T23 Terminate Async Dos	169
PI27 T33 Terminate Async Win v6	169
PI60 T53 Terminate Network Dos	249
PI60 T63 Terminate Network Win v6	249
PI77 T73 Terminate Net Win Comp. Upg	99

Call for more information

### DIAGNOSTIC TOOLS

A180 A73 Ami Diags v4.5	85
TS80 A12 Dr Solomons Audit + Updates	298
TS80 C64 Check It Pro Volumes 1 & 2 (Sys Info + Tools)	55
TS80 C52 Check It Analyst Win	55
RM80 F19 First Aid for Windows	35
LK80 W49 Landmark Winprobe	59
TS80 W49 WinCheckit Win	39

### PRINTING UTILITIES

MS85 W70 MS Windows Printing System for HP	83
ZN30 S18 Superprint v3.1 For HP Printers	125
ZN30 Z29 ZScript Win	75
ZN80 S36 Superqueue Win	49

### NOVELL/WORDPERFECT

WP60 G13 Novell Groupwise Client (S) Admin Pack Dos 340	79
WP60 G16 Novell Groupwise Client (S) Admin Pack Win 340	79
WP53 G12 Novell Groupwise Additional 1 user licence	79
WP53 G14 Novell Groupwise Additional 5 user licence	335
WP60 G33 Novell Groupwise Message Server Dos	239

Please call for other Novell Groupwise Gateways

### COMMS FAX

DL27 C12 Delrina CommSuite	75
DL27 W34 Winfax Pro V4 Win	55
DL27 W52 Winfax Pro V4 Upgrade	32
DL60 W23 Winfax Pro V4 Server + 2 Users	176
DL60 W19 Winfax Pro V4 Lan Server only	98
DL60 W30 Winfax Pro V4 5 Pack	265
DL60 W32 Winfax Pro V4 10 Pack	409
DL27 C22 Dosfax Pro Dos	105
IR27 F33 Fax Now Personal v2.2 Win	405
LS27 W23 Winport v5 1 Modem Sharing	135
LS27 W26 Winport v5 2 Modem Sharing	210
LS27 W33 Winport v5 4 Modem Sharing	335
LS27 W43 Winport v5 Add-on 1 Modem Sharing	99
LS27 W46 Winport v5 For Windows for Workgroups	99

**FREE SOFTWARE** with every NetWare 3.12 or 4.1 from Technomatic Promotional Packaging

- WanderLink • Netmagic
- Config Pro for NetWare Basic
- GroupEase for Windows
- McAfee's 30-day Test Drive

PLEASE CALL OUR SOFTWARE TEAM FOR SPECIAL PRICING ON VOLUME LICENSES FOR MICROSOFT MOLP LOTUS PASSPORT NOVELL/WORDPERFECT VLA

# M MACROMEDIA

## The Most Powerful Authoring Tool For Multimedia Production

Macromedia Director is the most powerful Authoring tool for multimedia production. It offers powerful features that let you easily combine anything from text, graphics and animation to sound, digital video and interactivity to create dynamic productions. Using the integrated Cast, Paint and Score windows Director gives you precise control of virtually every element in your multimedia production. Import file formats from many Windows applications or control external hardware such as CD-ROM players to enable you to produce anything from entertaining CD titles or exciting presentations to kiosks or electronic reference materials.

### 12 TOP USES FOR DIRECTOR 4.0

1. Corporate presentations
2. Digital publications
3. Electronic reference materials
4. Entertainment CD-ROM titles
5. Educational CD-ROM files
6. Interactive informational kiosks
7. Simulations & visualisations
8. Storyboards
9. Product demos
10. Kiosks
11. Courseware
12. Video Productions

AND MORE!

**Director 4.0** £695

For Windows on CD-ROM MM50 D62

## The fastest way to make your ideas take shape...

# Visio 4

for Windows 95 & Windows 3.1

All in All, A Great Solution!

Its the one tool for all your business diagramming

Visio is one of the business diagramming tools Windows users rely on to help them clarify and manage their organisation, processes and information. The dramatic ease of use of Visio 4 and its advanced new Windows technology make it one of the very best Windows 95 applications available and a great solution to your diagramming needs.

- ▲ Unrivalled consistency with Windows 95
- ▲ Visio 4 is both a Windows 95 (32-bit) & Windows 3.1 (16-bit). The 32-bit version fully exploits the advanced capabilities of Windows 95.
- ▲ Smarter, more effective drawing tools
- ▲ New freeform tools, format painter, additional graphic attributes, new spell checker, new smart layers and more.
- ▲ Smarter integration with Microsoft Office
- ▲ Visio 4 is fully compatible with Microsoft Office for Windows 95. Visio 4 supports the new Microsoft Office binder features.
- ▲ Smarter database connectivity
- ▲ Enhanced OLE automation for developers

(WINDOWS 95 & WINDOWS 3.1 VERSIONS IN ONE BOX)

Full Product 3.5\* & CD-ROM £99 Upgrade 3.5\* & CD-ROM £59

**10 TOP USES FOR VISIO 4**

- ▲ Flowcharts
- ▲ Block Diagrams
- ▲ Relationship Diagrams
- ▲ Organizational Charts
- ▲ Network Diagrams
- ▲ Office Layout
- ▲ Marketing Charts
- ▲ Project Timelines
- ▲ Geographic Maps
- ▲ Directional Maps
- ▲ And Much More!

**FREE UPGRADE TO VISIO 4 IF YOU BUY VISIO 3 FROM TECHNOOMATIC AFTER 1.8.95**

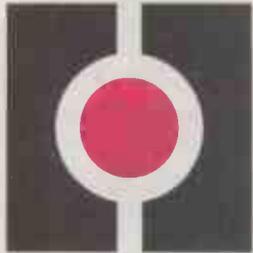
**VISIO V3 £86**

STENCILS £39 EACH

Visio Stencils -

- Adv Flowcharts
- Adv Network Diagrams
- Adv Electrical Eng
- Adv Software Diagrams
- Adv Space Planning
- Marketing • Chemistry
- Chemical Engineering
- Biotech/Medicine
- Mechanical Engineering
- Petroleum Engineering
- Insurance/Law Enforce
- Home Planning
- Kids • Landscape Planning

# Power



# Mark®

**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

**40 pages!**

## CONTENTS

- Memory.....1-7
- Processor Upgrades.....8-9
- Mass Storage.....9-12
- Multimedia.....12-18
- Monitors.....18-19
- Scanners.....20-21
- Printers.....21-23
- Modems.....24-28
- Networking.....29-31
- Windows 95.....33-34
- Software.....32-40

**QUALITY!  
QUALITY!  
QUALITY!**

Being the largest direct supplier means we buy memory direct from world class manufacturers.

Powermark plc only supply factory original memory.



Certificate no. FS 26535

## MEMORY LANE

Do you remember...?

- ... The CP/M operating system
- ... The De Lorean motor car
- ... DIP switches on motherboards
- ... Bulova Accutron watches

# MEMORY



## WELCOME TO POWERMARK - Part 11

*I'm passionate about my company and I feel that it is important that you know about the culture and ethos of the organisation that you are dealing with.*

*Mark Simon*

Mark Simon  
Chairman

Here are just some of the things that make Powermark so different:

- Our music on hold is not synthesised. Our playlist includes extracts from Peter Sellers, Tommy Cooper and Danny Kaye.
- Our unrivalled training scheme, the Powermark Academy, includes Undergraduates, Graduates, Masters and Fellows.



## THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

*"Adding memory to your computer is undoubtedly the easiest, most cost effective way of increasing the performance of your system"*

More and more applications demand large amounts of memory to work effectively. By increasing the standard memory in your PC you can:

- Radically increase the performance of your system
- Run multimedia applications at optimum speed
- Keep fonts and desktop accessories in RAM for instant access
- Run more than one application at a time, enabling true multi-tasking

**DON'T JUST TAKE OUR WORD FOR IT...**

*"There's no question that you need more memory to run Windows or OS/2 than you ever did to run DOS.*

*The amount of memory made an even greater difference when we tried features like dragging and dropping between applications. The system was very slow with 4MB, significantly faster with 8MB, and faster still with 12MB.*

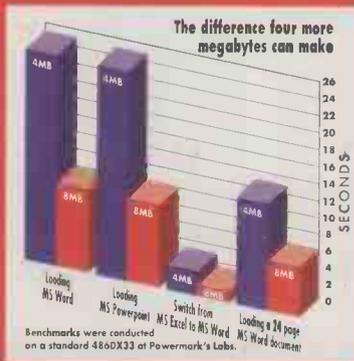
*On the basis of our tests, 8MB - not 4MB - is the minimum amount of memory you'll need to run Windows 3.1 satisfactorily. With 12MB, you'll get optimal performance in many cases."*

PC Magazine, February 1995

*"Possibly the greatest upgrade you can offer a flagging PC is an increase in memory.*

*The difference in speed between 4MB and 8MB is enormous, as is the jump from 8MB to 16MB. Anyone attempting to run Windows 3.1 in less than 4MB should upgrade now."*

Personal Computer World, January 1995



## MATCHED MEMORY SIMM KITS

If you're unsure about upgrading then our Matched Memory SIMM Kits are for you. They're guaranteed to be totally memory matched. That means speed, voltage, refresh, parity and physical characteristics are all matched to give optimum performance to your system.

From our listings on the following pages, just select the upgrade kit for your PC. They cost a little more but you get:

- full installation instructions
- anti-static wrist strap
- dedicated support hotline
- our famous double guarantee - full lifetime warranty and the Powermark Promise - our 14 day 'no-quibble' money back guarantee

If your PC is not listed then call us. Our Memory Database has the upgrade path for almost every PC supplied in the UK over the last five years.

## UPGRADING IS EASY

With most memory upgrades it's just a case of:

- switching off PC
- removing lid
- locating SIMM sockets
- installing SIMMs
- closing lid
- switching back on

## HANDLING MEMORY

Static can degrade a DRAM, shortening its life. That's why we include an anti-static wrist strap in every Matched Memory SIMM Kit. If you're buying loose SIMMs then do ask for an anti-static wrist strap. For multiple installations we can supply complete ESD (Electro Static Device) protection equipment.

**PRICE INSTABILITY!**  
CALL FOR LATEST OFFERS ON MEMORY BEFORE ORDERING

## REGULAR SIMMS

### 30 PIN SIMMS

• 5 year warranty on all SIMMs listed here

Type	Capacity	Speed	
256K x 9	256K	100ns	£12
256K x 9	256K	80ns	£12
1M x 8	1MB	80ns	£32
1M x 9	1MB	80ns	£32
1M x 9	1MB	70ns	£31
1M x 9 (9cs)	1MB	70ns	£32
1M x 9	1MB	60ns	£34
4M x 8	4MB	80ns	£125
4M x 8	4MB	70ns	£115
4M x 9	4MB	80ns	£125
4M x 9 (9cs)	4MB	70ns	£115
4M x 9	4MB	70ns	£115
4M x 9	4MB	60ns	£125
16M x 9	16MB	70ns	£579
16M x 9	16MB	60ns	£599

### GOLD EDGED SIMMS

• Specified by many PC manufacturers

- Longer MTBF

1M x 9	1MB	70ns	£41
1M x 9	1MB	60ns	£45

### 72 PIN SIMMS

• 10 year warranty on all SIMMs listed here

Type	Capacity	Speed	
256K x 36	1MB	80ns	£59
256K x 36	1MB	70ns	£59
512K x 32	2MB	70ns	£82
512K x 36	2MB	70ns	£82
1M x 32	4MB	80ns	£119
1M x 32	4MB	70ns	£119
1M x 36	4MB	80ns	£129
1M x 36	4MB	70ns	£129
1M x 36	4MB	60ns	£139
2M x 32	8MB	80ns	£239
2M x 32	8MB	70ns	£239
2M x 36	8MB	80ns	£269
2M x 36	8MB	70ns	£269
2M x 36	8MB	60ns	£269
4M x 32	16MB	70ns	£379
4M x 36	16MB	70ns	£429
4M x 36	16MB	60ns	£499
8M x 32	32MB	70ns	£949
8M x 36	32MB	70ns	£849
8M x 36	32MB	60ns	£949
16M x 36	64MB	60ns	£Call

### 72 PIN EDO SIMMS

• Call for full details

1M x 32 EDO	4MB		£156
2M x 32 EDO	8MB		£299

### NEW! 72 PIN DIMMS

1M x 32	4MB	70ns	£169
2M x 32	8MB	70ns	£299
4M x 32	16MB	70ns	£499

## DELIVERY CHARGES

UK MAINLAND • Next working day courier delivery to your door for all stock items  
See page 17

## EARLY BIRD

Order Bonus  
See page 29



Everyone at Powermark passes through our training college

# BANK

at  
Powermark



## MATCHED MEMORY UPGRADE FEATURE

THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

### HOW MUCH MEMORY DO YOU NEED?

Operating System	Minimum Requirement	Comfort Level	Optimum Performance
Windows 3.1	4MB	8MB	16MB
Windows 95	8MB	12MB	20MB
Windows NT	12MB	16MB	32MB
Windows AS	16MB	32MB	48MB
OS/2 Warp	4MB	12MB	20MB
Apple System 7.5	8MB	12MB	16MB

Source: manufacturers' figures

### MATCHED MEMORY UPGRADES FOR DELL

200 / 300 SERIES	
2MB Kit	£64
4MB Kit	£139
325/D/P, 333/D/P	
2MB → 6MB	£139
2MB → 10MB	£289

#### POWERLINE

#### WORKSTATION SERIES

4MB Kit	£179
8MB Kit	£329
16MB Kit	<b>POWERCUT!</b> £495

#### POWER DESKTOP SERIES

4MB Module	<b>POWERCUT!</b> £149
8MB Module	£299

#### LOW PROFILE POWER DESKTOP

4MB	£139
16MB	<b>POWERCUT!</b> £479

#### POWEREDGE SP/XE SERIES

8MB Kit	£279
16MB Kit	£579

#### NL20, NL25

2MB Module	£114
------------	------

#### 320SLi

1MB	£149
-----	------

#### DIMENSION 4'

4MB	£149
8MB	£289

#### DIMENSION XPS, P100C, 133C

<b>NEW!</b> 8MB EDO Kit	£299
<b>NEW!</b> 16MB EDO Kit	£599
<b>NEW!</b> 32MB EDO Kit	£898

#### OMNIPLEX SERIES

8MB Module	£299
16MB Module	£499

#### OPTIPLEX SERIES

16MB Module	£549
-------------	------

#### LATITUDE M SERIES

4MB	£177
8MB	£399

#### LATITUDE XP SERIES

4MB	£179
8MB	£329
16MB	£599

#### NETPLEX SERIES

4MB Module	£159
8MB Module	£515
16MB Module	£619

### MATCHED MEMORY UPGRADES FOR ESCOM

486 DESKTOP RANGE	
4MB Kit	£159
16MB Kit	£499
P90/100PCI	
8MB Kit	£279
16MB Kit	£529

### MATCHED MEMORY UPGRADES FOR GATEWAY

PC 4SX-33	
4MB Module	£139
16MB Module	£475
PC 4DX-33V, PC 4DX-66V	
4MB Module	£139
16MB Module	£479
32MB Module	<b>POWERCUT!</b> £999
PC 4DX-2-66P/V	
4MB Module	£145
8MB Module	£289
16MB Module	£499
32MB Module	£1199
PC P5-60, P5-66, P90, P100	
8MB EDO Kit	£299
16MB EDO Kit	£499
32MB EDO Kit	£1099
64MB EDO Kit	£2299
PC 4D-66, PC 4DX-100	
8MB Kit	£299
32MB Kit	<b>POWERCUT!</b> £999
PS-120/133 ELITE, P90 PREMIUM SERIES	
<b>NEW!</b> 8MB EDO Kit	£299
<b>NEW!</b> 16MB EDO Kit	£575
LIBERTY NOTEBOOK	£Call



### BEWARE!

Beware of economy memory modules that use ASIC parity generation. Powermark plc only supply SIMMs with genuine parity DRAMs.

### MATCHED MEMORY UPGRADES FOR DIGITAL

VENTURIS DESKTOP RANGE	
4MB Module	£159
8MB Module	£299
16MB Module	£549

20 Memory Specialists ready to take your call

Introducing...

## The Memory Bank Cheque Book

# SAVE £££s!



Buy Windows 95 and save over £400 on leading peripherals and software -

**EXCLUSIVELY from MEMORY BANK!**

When you purchase Windows 95 we'll also send you a Memory Bank Cheque Book containing over £400 of savings off normal Powermark prices on these top selling products:

Any 4MB Memory Kit	save £4
ClarisWorks	save £50
Micrografx ABC Graphics Suite For Windows 95	save £20
SMC EtherEZ Plug And Play Ethernet Cards Single Card 5 Pack	save £10
Logitech Mouseman Combo	save £40
Cyberman PCMCIA CD-Rom Drive	save £10
Hauppauge WINTV Celebrity	save £20
Dashboard 95 and Sidekick 95 Combo	save £10
Dr Solomon Anti-Virus for DOS or Windows (includes upgrade path to Windows 95 version)	save £10
Umax T630 A4 Flat Bed Scanner	save £25
Umax S8 A4 Flat Bed Scanner	save £40
Multitech MT2834 PC/SI Simultaneous Voice/Data Modem	save £25
Any Hard Disk Drive Over 500MB	save £6
Keytronics KT2000 Windows 95 Keyboard	save £7
Keytronics Protouch Windows 95 Keyboard	save £7
Cyrix Processors	call for special savings
Taxan 14" Monitors	save £5
Taxan 15" Monitors	save £10
Taxan 17" Monitors	save £20
Taxan 20" And 21" Monitors	save £35
Taxan GTS WinBoost 1MB	save £5
Taxan GTS WinBoost 2MB	save £7
Taxan GTS WinTurbo 2MB	save £7
Taxan GTS WinTurbo 4MB	save £10
Delrina WinFax Pro	save £10
Videologic MPEG card	save £15
Win '95 Advisor	save £6

Only one cheque book per customer and one cheque voucher per product. Offer ends 31st October 1995. Cheque vouchers expire 31st October 1995.

Technical Sales Order Lines

0181-951 3355  
(50 lines)

MEMORY

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantee.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233

Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



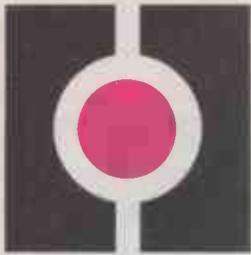
Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. PS 26535

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



## Mark®

**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**



*Unsure  
about upgrading?*

Upgrading is easy but if you would like us to upgrade your computer then our **UPGRADE DRIVE THRU** is for you. It's fast, it's simple and it's convenient. Just drive into our loading bay at the rear of Premier House and your computer will go directly to our on-site labs for instant upgrading by our fully qualified engineers.

For upgrades that take a little while we'll even hand you a Pager enabling you to visit the shopping centre next door. You'll be paged the minute your computer is ready.

In most cases you need only bring your base unit along, but do call first to discuss your requirements and to confirm our stock position on the upgrades you require.

### DESKTOP MENU

(Call for notebook menu)

Memory	£27
Hard Disk	£39
Processor	£28
Tape Backup	£31
Sound or Modem Card	£25
Graphics or Video Card	£26
Multimedia Kit	£39

**Save £££s with  
combo orders!**

**TURN THE PAGE  
FOR MORE**

# MEMORY



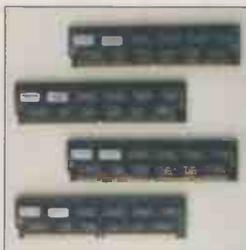
## MATCHED MEMORY UPGRADES FEATURE

**THE LARGEST DIRECT MEMORY SUPPLIER**

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

### MATCHED MEMORY UPGRADES FOR AMSTRAD

PC1286/PC1386/PC3286/ PC3386/PC5286	
1MB → 4MB	£132
ALT286/386SX	
1MB → 4MB	£149
1MB → 4MB (Zero-wait state)	£199
NC100	
256K Card	£58
512K Card	£89
1MB Card	£129
NC200	
2MB Card	£149
PC7286, 7386	
2MB	<b>POWERCUT!</b> £62
4MB	£129
PC7486 SLC	
8MB Kit	£249
16MB Kit	<b>POWERCUT!</b> £459
PC9486	
4MB Kit	£149
16MB Kit	£499
ANB386SX	
4MB Module	<b>POWERCUT!</b> £179
386SX25 MEGA PC	
4MB Kit	£139
16MB Kit	£469
<b>/// NEW!</b> PC9555i	
8MB Kit	£289
16MB Kit	£529



**“ UPGRADING TIPS  
You own a DX2/  
66MHz, 8MB of  
memory and 250MB  
hard disk.  
Verdict: It's  
definitely well worth  
upgrading to  
Windows 95 and  
when you can afford  
it add more memory  
and a bigger hard  
disk for better  
performance.”**

Personal Computer World  
September 1995

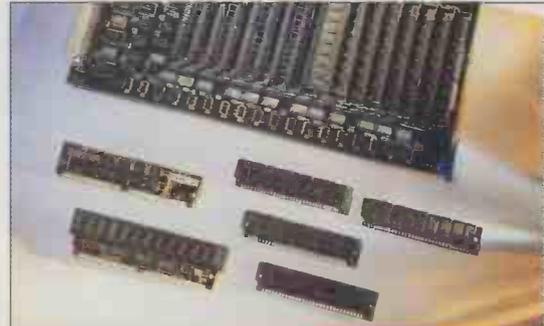
**LIFETIME  
WARRANTY ON ALL  
MATCHED MEMORY**

### MATCHED MEMORY UPGRADES FOR HP

• Authorised HP dealer	
VECTRA 386/25 PC, 486 PC, 486s/20	
4MB Kit	£159
8MB Kit	£336
HP VALUELINE 486, NETSERVER SERIES	
8MB Module	£299
16MB Module	£599
HP95, HP100	
512K Card	£89
1MB Card	£149
HP OMNIBOOK RANGE	£Call

### MATCHED MEMORY UPGRADES FOR TOSHIBA

T1000/E/XE/LE, T1800, T1850C, T2000SX, T2000SXE, T2200SXE	
2MB Card	£89
4MB Card	£159
8MB Card	£299
T3300SL	
2MB	£66
T1200XE	
2MB Card	£93
T1600/T5100	
2MB Card	£75
T2100	
4MB Card	£149
8MB Card	£299
T2400CS/T3600	
16MB	£649
T2450 CT/2400 CT	
8MB Card	£359
T3100SX	
2MB Card	£89
4MB Card	£169
T3200SX/C	
4MB Module	£162
8MB Module	£329
T3200	
3MB Card	£169
T4400, T6400 SX/C, DX/C	
4MB Card	£165
8MB Card	£329
T1900, T1910, T1950CT, T1960, T3400CT, T4500, T4600, T4700CT, T4800CT, T4800CT	
8MB Module	£329
16MB Module	£629
T4850/4900	
8MB	£325
T5200/C & T8500/ 6400/6600	
2MB Module	£89
8MB Module	£345
DYNAPAD T100X	
6MB Card	£269
DYNAPAD T200, T200CS	£Call
PROTEGE 610CT, T2130CS	
8MB Module	£Call
16MB Module	£Call
SATELLITE PRO 400 SERIES	
8MB Module	£329



### MATCHED MEMORY UPGRADES FOR OLIVETTI

PCS386SX	
1MB → 2MB	<b>POWERCUT!</b> £64
1MB → 4MB	<b>POWERCUT!</b> £129
1MB → 6MB	<b>POWERCUT!</b> £209
1MB → 8MB	£272
PCS40, 44	
4MB Kit	£159
8MB Kit	£299
M290	
2MB Kit	<b>POWERCUT!</b> £74
4MB Kit	<b>POWERCUT!</b> £149
M486/CP386	
2MB Kit	£99
4MB Kit	£168
PCS 11, 33	
2MB Kit	<b>POWERCUT!</b> £66
8MB Kit	£269
M300-30	
4MB Kit	£159
8MB Kit	£299
M400-10/40/60	
4MB Kit	£156
16MB Kit	£539
MODULO RANGE	
8MB Module	£289
16MB Module	£529
32MB Module	£1199
SUPREMA M6-600, 700	
4MB Module	£149
8MB Module	£289
PCI/ISA PENTIUMS	
8MB Kit	£299
16MB Kit	£575

**PRICE  
INSTABILITY!  
CALL FOR LATEST  
OFFERS ON  
MEMORY BEFORE  
ORDERING**

### MATCHED MEMORY UPGRADES FOR ELONEX

PC386SXM, SXB, 386/16, B/33	
2MB Kit	£64
4MB Kit	£139
8MB Kit	£249
PC386 V/E, 486 V/E	
4MB Kit	<b>POWERCUT!</b> £139
8MB Kit	<b>POWERCUT!</b> £279
16MB Kit	<b>POWERCUT!</b> £469
WS RANGE	
4MB Kit	£139
8MB Kit	£269
16MB Kit	£499
PC433M, 450M, 466M	
4MB Kit	£129
8MB Kit	£279
16MB Kit	£469
LT386SX/P	
2MB Kit	£64
4MB Kit	£139
PC-500 SERIES, PC-560M	
8MB Module	<b>POWERCUT!</b> £279
16MB Module	<b>POWERCUT!</b> £479
ELONEX 560F EISA	
8MB Kit	<b>POWERCUT!</b> £279
16MB Kit	<b>POWERCUT!</b> £475
PC 575M/I, PC5120M/L, PC5133M/I	
8MB Kit	£279
16MB Kit	£549

**BEWARE**  
Beware of low  
grade 5 volt  
notebook  
memory that  
reduces battery life by up  
to 40%. Powermark plc  
only supplies 3.3 volt  
devices from market  
leaders with  
manufacturers' approvals.

**SAVE £££s!**  
With the  
**Memory Bank  
Cheque Book**

Buy  
**Windows  
95** and save £4 on  
any 4MB Memory Kit  
**See page 2**

**DELIVERY CHARGES**  
UK MAINLAND - Next working day courier  
Delivery to your door for all stock items  
**See page 17**

**EARLY BIRD**  
Order Bonus  
**See page 29**



Everyone at  
Powermark passes  
through our  
training college

# BANK

at  
Powermark



## MATCHED MEMORY UPGRADES FEATURE

THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

### MATCHED MEMORY UPGRADES FOR IBM

- Planar memory plugs directly onto system board
- Price instability - check latest offers on IBM matched memory before ordering



PS/2 35LS, 35SX, 40SX  
4MB £159  
8MB £299

PS/2 55SX, 60, 65SX/57SX/M57  
4MB £168

PS/2 70, Portable 70/75  
4MB **POWERCUT!** £159  
8MB £289

PS/2 80  
4MB £239

PS/2 140SX, N335SX, NSL  
4MB Card **POWERCUT!** £149  
8MB Card £349

PS/2 90, 95, 95A  
4MB Module £168

PS/2 195 & 295  
32MB Module £Call

PS/2 95 ARRAY PENTIUM  
16MB Kit £679

VALUEPOINT 6381, 6382, 6384  
4MB £139  
8MB **POWERCUT!** £289

PENTIUM VALUEPOINT PERFORMANCE SERIES  
4MB Kit £149  
8MB Kit **POWERCUT!** £285  
16MB Kit £529

THINKPAD 300, 350, 355, 360, 500, 700, 701, 710, 720, 750, 755c  
4MB £179  
8MB £349  
16MB £675

THINKPAD 730T  
4MB £179  
8MB £349

PC466DX2, 100DX4  
8MB Module £289

CL57SX  
4MB £189  
8MB £383

TREKKA  
2MB £89

HURDLA, SPRINTA  
4MB Kit £139  
16MB Kit £459

PS/1  
2MB £85

PS/1 - 386  
4MB £149

PS/1 - PRO 486  
4MB **POWERCUT!** £139  
8MB £289

CONSULTANT, ESSENTIAL, WILLOW, EXPERT SERIES  
4MB £149  
8MB £279

**NEW!** APTIVA SERIES  
4MB Module £149  
8MB Module £279  
16MB Module £459

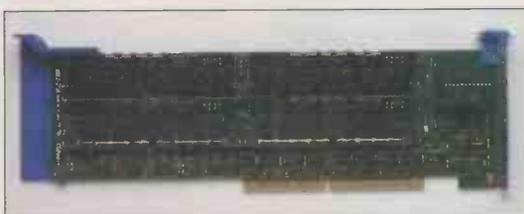
PC 300 SERIES  
4MB Module £149

PC 700 SERIES  
8MB Module £279

### MATHS CO-PROCESSORS

Installation of a Co-Processor results in a significant speed increase in maths intensive applications eg: spreadsheets, databases, CAD and graphics packages.

	INTEL	ULSI	ITT/ CYRIX
80387 SX (16 MHz → 33MHz)	£58	£49 <b>POWERCUT!</b>	£42
80387 SX (40 MHz)	£58	-	£48
80387 SL (25 MHz)	£58	-	-
80387 DX (16 MHz → 33MHz)	£59	£32 <b>POWERCUT!</b>	£49
80387 DX (40 MHz)	-	-	£51
80386 RapidCAD	£189	-	-



### MATCHED MEMORY UPGRADES FOR SIMM KITS

- Include:
- full installation instructions
  - anti-static wrist strap
  - dedicated support hotline
  - our famous double guarantee - full lifetime warranty and the Powermark Promise - our 14 day 'no-quibble' money back guarantee

### MATCHED ADAPTER BOARDS FOR IBM PS/2

- Completely user expandable
- PS/2 50, 50Z, 60 & 65  
16MB Board with 4MB £295  
16MB Board with 8MB £425
- PS/2 70, 80, 90 & 95  
64MB Board with 4MB £295  
64MB Board with 8MB £465

### QUALITY! QUALITY! QUALITY!

Being the largest direct supplier means we buy memory direct from world class manufacturers.  
Powermark plc only supply factory original memory.

### MATCHED MEMORY UPGRADES FOR VIGLEN

- Complete range for Executive, Professional and Tower

GENIE 386SX  
2MB Kit £64  
4MB Kit £129

VIG II ELITE  
2MB Kit £98  
4MB Kit £189

VIG III LS (Type 1)  
4MB Kit £169  
8MB Kit £399

VIG III/25, III/33  
4MB Kit £139  
8MB Kit £279  
16MB Kit £469

EX PENTIUM SERIES  
8MB Kit £279

**NEW!** PCI PENTIUM SERIES  
8MB EDO Kit £299  
16MB EDO Kit £549

EX 4DX33/50  
4MB £149  
8MB £279

VIG 4SX25, 4DX33, 4DX50, 4DX2-50, 4DX2-66  
4MB Kit £139  
8MB Kit £279  
16MB Kit **POWERCUT!** £469

CONTENDER RANGE  
4MB £149  
8MB £269

GENIE 486VLB RANGE  
4MB Module £149  
8MB Module £279  
16MB Module **POWERCUT!** £479  
64MB Kit £2396

GENIE PCI RANGE  
4MB Module £149  
8MB Module £289  
16MB Module £479



Certificate no. FS 26535  
BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

### MATCHED MEMORY UPGRADES FOR APRICOT

XEN 486SX-25, 486DX2-50, 486 DX2-66, PCM  
4MB Module £168  
8MB Module £279  
16MB Module £599

**NEW!** SHOGUN SERVER  
16MB Kit £689  
32MB Kit £1199

### MATCHED MEMORY UPGRADES FOR PACKARD BELL

LEGEND 200/316SX  
2MB Kit **POWERCUT!** £72  
4MB Kit **POWERCUT!** £144

LEGEND 600, 900  
4MB Kit **POWERCUT!** £129  
8MB Kit **POWERCUT!** £279

486 VLB, EXECUTIVE, ELITE RANGE  
4MB Module £149  
8MB Module £289  
16MB Module £449

FORCE RANGE  
4MB Kit £135  
16MB Kit £489

XL410/416/486  
16MB Kit **POWERCUT!** £459

### MATCHED MEMORY UPGRADES FOR APPLE

- Complete range stocked

Authorised Reseller



### BEWARE

Beware of third party, low grade memory. Powermark plc only supply factory original memory.

Technical Sales  
Order Lines

0181-  
951 3355  
(50 lines)

MEMORY

### Memory Moments



### Pondered with Professor Paul

Dear Professor Paul,  
I want to invest in Windows 95. The adverts have made it very appealing, but I'm concerned since they quote different systems requirements. I have a 486 DX33 with 4MB RAM. Could you please clarify?

Befuddled in Birmingham.

Dear Befuddled,  
I cannot help it, I have a thirst for power! 8MB of RAM is recommended to run Windows 95, but why stop there? Don't forget Windows 98 takes up to 60MB of hard disk space. My laboratory has all the component upgrades to make your PC zip along running any application. You could go MPEG, EDO, DCI, MPC2, and even P24... I must hurry back to my laboratory and calculate the permutations. Call me today and we can extrapolate together.

Send your thoughts and queries to Professor Paul, c/o Powermark plc, Premier House, Station Road, Edgware, Middlesex, HA8 7AQ or fax them to 0181 905 6233. You can also Email Professor Paul on: profpaul@powermark.com

Professor Paul makes every effort to answer your memory problems, but he cannot guarantee to reply to everyone.

Okay - So he's not a real professor but we think he should be!

Powermark plc  
Premier House, 112 Station Rd,  
Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



Public Sector customers can purchase through HMSO by calling 01603 694153.



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.  
Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

Certificate no. FS 26535



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

“... and here's what some of our customers have said ...

*I would like you to know that I am extremely pleased with the courtesy and efficiency, shown by two members of your staff when I telephoned about placing an order. I spoke to Kwang Sim regarding a Pace Mobifax. I found him to be most helpful and pleasant to speak to as well as very informative. Later, when I realised that I was unsure of the delivery time of the order I spoke to Jane Mackie. My sincere thanks and appreciation for the efficiency and courtesy shown to me. It was a pleasure to do business with your company. B S Mudge, Winchester Communications Ltd, Berks*

*... I have been impressed with the way that Kwang, Paul and your Technical Support people rallied round to try and help solve the problem. I will have no hesitation in buying from you in the future or recommending you to anyone looking for equipment or upgrades. I should add that my first order to you earlier this month for a DX2-66 OverDrive took less than 22 hours from speaking to Kwang Sim to successfully completing the installation - now that's what I call service!*  
M Rennie, Ayrshire

# MEMORY



## MATCHED MEMORY UPGRADE FEATURE

### THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

### HOW MUCH MEMORY DO YOU NEED?

Operating System	Minimum Requirement	Comfort Level	Optimum Performance
Windows 3.1	4MB	8MB	16MB
Windows 95	8MB	12MB	20MB
Windows NT	12MB	16MB	32MB
Windows AS	16MB	2MB	48MB
OS/2 Warp	4MB	12MB	20MB
Apple System 7.5	8MB	12MB	16MB

Source: manufacturers' figures

### PCMCIA MEMORY

- All formats stocked: JEDEC, FLASH, OTPROM, DRAM, etc
  - Check compatibility before ordering
- |           |               |
|-----------|---------------|
| 256K SRAM | £48           |
| 512K SRAM | £74           |
| 1MB SRAM  | £122          |
| 2MB SRAM  | POWERCUT! £99 |
| 2MB FRAM  | £149          |
| 4MB FRAM  | £439          |

### DRAMs

- Call for devices not shown
  - Full range of PROMs, SRAMs & ZIPS available
  - 5 year warranty
- |           |          |        |
|-----------|----------|--------|
| 64K x 1   | 120ns    | £1.79  |
| 256K x 1  | 80ns     | £2.80  |
| 256K x 4  | 80ns     | £5.77  |
| 256K x 16 | 70ns SOJ | £25    |
| 1M x 1    | 80ns     | £4.99  |
| 1M x 1    | 70ns     | £5.20  |
| 1M x 4    | 80ns     | £17.80 |

### VRAMS

256K x 8	70ns SOJ	£20
----------	----------	-----

### SRAMS

32K x 8	10ns SRAM	£9
32K x 9	25ns SRAM	£10
128K x 8	20ns SRAM	£25
8K x 8	15ns SRAM	£6

**QUALITY!  
QUALITY!  
QUALITY!**

Being the largest direct supplier means we buy memory direct from world class manufacturers.

Powermark only supply factory original memory.

### MATCHED MEMORY UPGRADES FOR HP NOTEBOOKS AND PALMTOPS

#### HP OMNIBOOK 300,425 SERIES

4MB	£199
6MB	£299

#### HP OMNIBOOK 530 SERIES

8MB	£409
12MB	£619

#### HP 951X & 100LX

512K	£79
1MB	£129

“ For at least two years we've recommended 8MB machines to our readers. Under Windows 95 this recommendation becomes a must and because Windows 95 is much better at handling extra memory than 3.x you'll get even better performance from 16MB RAM, if you can afford it, get 16MB RAM.”

Personal Computer World  
September 1995

### MATCHED MEMORY UPGRADES FOR TANDON

POSITIVE 386SX25, 386DX40, 486SX25, 486DX33

4MB Kit	£129
16MB Kit	£499



### MATCHED MEMORY FOR NOTEBOOKS & PALMTOPS

- More memory can increase battery life by up to 18%

#### COMMODORE LT286/386

4MB Kit	£169
---------	------

#### SANYO 17NB, 18NB

2MB	£82
4MB	£165

#### SHARP PC 3000, 3100

512K	£79
1MB	£129

#### PANASONIC CF170, 270, 370

2MB	£129
-----	------

#### PANASONIC CF1000

4MB Module	£198
------------	------

#### PANASONIC CF580

4MB Module	£185
------------	------

#### LIBREX V386SX

1MB → 4MB	£199
-----------	------

#### DEC HI-NOTE RANGE

4MB Module	£197
8MB Module	£398

#### HP OMNIBOOK RANGE

Complete range stocked

**LIFETIME WARRANTY ON ALL MATCHED MEMORY**



**BEWARE!**

Beware of third party, low grade memory. Powermark plc only supply factory original memory.

**TURN THE PAGE FOR MORE**

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all stock items  
See page 17

### EARLY BIRD

Order Bonus  
See page 29



Everyone at Powermark passes through our training college

# BANK

at  
Powermark



## MATCHED MEMORY UPGRADE FEATURE

### THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

#### MATCHED MEMORY UPGRADES FOR COMPAQ

DESKPRO 386/20/25/e/s	
4MB Add-on Module	£179
4MB Expansion Board	£209
SYSTEMPRO, DESKPRO	
486/33L, 50L & 486/25	
2MB Module	£129
8MB Module	£319
32MB Module	£1444

SYSTEMPRO XL 486/50,	
PENTIUM	
256MB Board with 16MB	£699
256MB Board with 32MB	£1199
DESKPRO 386N, 386S/20 & PROSIGNIA	
2MB Module	£85
4MB Module	£145

DESKPRO 386A/486,	
486/25M, 486S/33M, 486DX2	
64MB Board with 4MB	£292
64MB Board with 8MB	£444

DESKPRO XE & XL FAMILY	
4MB	£159
8MB	£299

DESKPRO DESKPRO 5/90	
8MB Module	£269
16MB Kit	£539

PROLINEA 4/25S, 4/33, 4/50, 4/66, NET 1, MT	
4MB	£145
8MB	£279

PROLIANT 1000, 2000, 4000, PROLIANT PENTIUM	
4MB	£168
8MB	£336
16MB	£639

PORTABLE 486M/COLOUR	
486/66	
2MB Kit	£87
8MB Kit	£310

SLT386	
2MB Board	£129
4MB Board	£189

LITE LITE 386, 386s/20	
2MB Board	£129
4MB Board	£189
8MB Board	£339

LITE LITE 4120/25/25C/25E	
4MB Card	£189
8MB Card	£339
16MB Card	£599

LITE ELITE SERIES	
4MB Card	£185
8MB Card	£349

CONTURA 400 C/CX, 4100, 4100C/CX	
4MB Module	£175
8MB Module	£339
16MB Module	£574

CONTURA 3/25/20/25C, 4/25	
4MB Card	£159
8MB Card	£299

CONCERTO 4/25, 4/33	
8MB	£389
16MB	£1215

AERO 4/25/33	
4MB	£159

PRESARIO 425,	
633, 833, 850, 866 /	
800 SERIES	
4MB	£159
8MB	£279

PRESARIO 700/900	
16MB Module	£499

PROSIGNIA 500	
8MB Kit	£289
16MB Kit	£539

#### MEMORY TOOLS

- Complete range of anti-static products available
- ANTI-STATIC WRIST STRAP
- Essential when handling electrostatic devices £8
- IC EXTRACTOR TOOL £9
- SIMM TESTER £779
- WRIST STRAP TESTER £99



All our Matched Memory Kits come with our famous double guarantee - full lifetime warranty and 14 day money back guarantee

#### MATCHED MEMORY UPGRADES FOR ZENITH

SUPERSPORT SX	
2MB Module	£127
TURBOSPORT 386E	
2MB Kit	£424
MASTERSPORT SL/SLe, 620NL	
2MB Module	£109
Z-NOTE I SERIES, 320, 325	
2MB	£99
Z-NOTE 420/25/33	
4MB Module	£219
Z-SERVER/STATION/425/433/450	
8MB Module	£289
Z-SPORT 420/425	
4MB Kit	£179
Z-SELECT SERIES	
8MB Module	£269

#### MEMORY EXPANSION BOARDS

KINGSTON ATA BOARD	
16MB Board with 4MB	£239
16MB Board with 8MB	£349
16MB Board with 16MB	£649



#### Beware

Beware of economy memory modules that use ASIC parity generation. Powermark plc only supply SIMMs with genuine parity DRAMs.

#### MATCHED MEMORY UPGRADES FOR ICL

DRS 40, 45	
2MB Kit	£86
4MB Kit	£172
ERGOPRO C4, D4	
8MB Kit	£149
16MB Kit	£539
DRS M95	
4MB Kit	£180
32MB Kit	£1199
VALUEPLUS DL RANGE	
4MB	£168
ZENO SERIES	
4MB Kit	£149
16MB Kit	£539

#### MATCHED MEMORY SIMM KITS

- Include:
- full installation instructions
  - anti-static wrist strap
  - dedicated support hotline
  - our famous double guarantee - full lifetime warranty and the Powermark Promise - our 14 day 'no-quibble' money back guarantee

**PRICE INSTABILITY!**  
CALL FOR LATEST OFFERS ON MEMORY BEFORE ORDERING

**SAVE £££s!**  
With the Memory Bank Cheque Book



Buy Windows 95 and save £4 on any 4MB Memory Kit  
**See page 2**

#### MATCHED MEMORY UPGRADES FOR GRAPHICS CARDS

Diamond Stealth 64	
1MB DRAM all versions	
1MB Upgrade Kit	£59
Diamond Stealth 64	
2MB VRAM PCI and VLB	
1MB Upgrade Kit	£59
Orchid Kelvin 1MB DRAM	
ISA and VLB versions	
1MB Upgrade Kit	£59
Taxan GTS Winboost	
1MB DRAM PCI, VLB, ISA versions	
1MB Upgrade Kit	£49

Call for upgrades on video cards not listed here

#### MATCHED MEMORY UPGRADES FOR MITAC

486SX/DXDV Series	
4MB Kit	£135
16MB Kit	£459
PENTIUM RANGE	
8MB Kit	£299
16MB Kit	£549

#### WE ALSO SUPPLY UPGRADES FOR...

Acorn, ALR, AST, Austin, Canon, Commodore, Dan, Goldstar, Hyundai, Locland, MJN, Multiplex, NEC, NeXT, Opus, Philips, QMS, Sharp, Tandy, TI, Unisys, Wyse and all Pentium and multimedia systems.

#### Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

MEMORY

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

Use fitted boards and these pages easily

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While you wait, installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com



Public Sector customers can purchase through HMSO by calling 01603 694153.



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades. Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

## MATCHED MEMORY UPGRADES FOR IBM PRINTERS



<b>IBM 4019 &amp; 4019E</b>	
3MB	£149
<b>IBM 4029</b>	
2MB	<b>POWERCUT!</b> £79
<b>IBM 4039 &amp; 4079</b>	
4MB	<b>POWERCUT!</b> £149
8MB	<b>POWERCUT!</b> £339
<b>LEXMARK OPTRA LX/L/R/RX</b>	
4MB	£149
<b>WINWRITER 200/400/600</b>	
2MB	£79

**He's back!** **DOG OF THE MONTH** **MIKE DITKA** **ULTIMATE FOOTBALL CD ROM** **£2 with any purchase over £30**

**TURN THE PAGE FOR MORE**

## MEMORY QUIZ

???????

"Your starter for 10MB"

- How many PROM sockets in a BBC micro?
- Name the first PC spreadsheet
- Which program is attributed to starting the boom in PC sales?

Answers on fax form page

# MEMORY



## MATCHED MEMORY UPGRADE FEATURE

### THE LARGEST DIRECT MEMORY SUPPLIER

Every month Powermark plc supply thousands of memory upgrades to thousands of satisfied customers, making us the largest direct supplier of memory in the United Kingdom.

## MATCHED LASERPRINTER MEMORY

• Price instability - check latest offers on laser printer memory before ordering

<b>APPLE LASER WRITER SELECT 300/310</b>	
4MB	£149
<b>APPLE LASER WRITER PRO 810</b>	
4MB	£179
<b>APPLE LASER WRITER PRO 600/630</b>	
4MB	£149
<b>BROTHER HL-630, 660, 1260</b>	
2MB	£85
4MB	£149
<b>BROTHER HL8/E/V, HL10, DPS</b>	
2MB	£129
<b>CANON NOTEJET 486, BN22/BJC-880</b>	
4MB Module	£149
<b>CANON LBP4, 4+, LITE, SX</b>	
2MB	<b>POWERCUT!</b> £139
<b>CANON LBP8II</b>	
2MB	£109
<b>CANON LBP8IV</b>	
4MB	<b>POWERCUT!</b> £139
<b>CANON LBP 860</b>	
16MB	£Call
<b>CANON LPB-1260</b>	
4MB	£149
<b>COMPAQ PAGEMARQ 15/20</b>	
8MB	£299
16MB	£599
<b>DEC LASER 2200/2100</b>	
1MB	£79
<b>EPSON EPL4000/4100/4300/8100</b>	
2MB	£109
<b>EPSON EPL7000</b>	
4MB	£199
<b>EPSON ACTION LASER 1600/1100</b>	
4MB	£149
8MB	£279
<b>FUJITSU VM4, VM8</b>	
4MB Module	£149
<b>KYOCERA F800</b>	
2MB	£129
<b>KYOCERA FS400, 410, 1500, 1550</b>	
	£Call
<b>NEC SILENT WRITER 95/95FX/97/97FX</b>	
2MB	£85
<b>OKI LASER 400, 410</b>	
2MB	£99
<b>OKI 800/820</b>	
2MB	£109
<b>OKI LASER 830/840/850</b>	
2MB	<b>POWERCUT!</b> £109
<b>PANASONIC 4420</b>	
2MB	£109
<b>PANASONIC 5410, 4440</b>	
2MB	£117
<b>PANASONIC 4450i</b>	
2MB	<b>POWERCUT!</b> £99
<b>TEXAS MICROLASER PS, MICROWRITER</b>	
1MB	£69
<b>TOSHIBA PAGELASER 6</b>	
1MB	£119

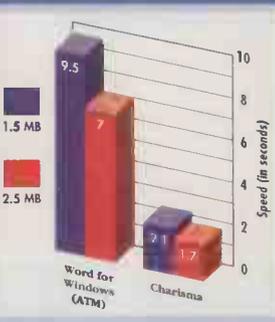
## LASER PRINTER MEMORY - AN EXPLANATION

Increasing memory in your laser printer will enable it to print large, graphics intensive documents. Additional benefits include faster print spooling, faster printing speed and multiple font downloading.

This chart shows the improvement a single megabyte of printer memory can make. "Speed" represents the amount of time required to spool the document into the printer and get the full use of your PC back.

### How much memory do you need?

Full page graphics	1MB - 2MB
Soft fonts	1MB
PostScript cartridge	1.5MB



PostScript with duplexing	4MB
4 - 5 PostScript fonts	2MB
8 - 10 PostScript fonts	4MB
Network printer sharing	4MB

## MATCHED MEMORY UPGRADES FOR HP PRINTERS



AUTHORISED RESELLER

<b>LASERJET II, IID</b>	
2MB	<b>POWERCUT!</b> £89
4MB	£159
<b>LASERJET IIP, III, IIID, IIP</b>	
2MB	<b>POWERCUT!</b> £82
4MB	£149
<b>LASERJET 5P, 5MP</b>	
4MB	<b>POWERCUT!</b> £169
8MB Module	£279
<b>LASERJET IIIsi, 4, 4M, 4si, 4MV, 4MP, 4P, 4V</b>	
4MB	<b>POWERCUT!</b> £149
<b>LASERJET 4L</b>	
1MB	£79
<b>DESKJET 500, 500c, 550</b>	
256K	£39
<b>DESKJET 520, 540, 560C</b>	
4MB	£149
<b>DESKJET 660C/PS</b>	
4MB	£149
8MB	£275
<b>DESKJET 1200 C/PS/1200, 1600C</b>	
4MB	£149
8MB	£275
<b>JET DIRECT</b>	
<b>EK PRINT SERVER</b>	£Call
<b>NETSERVER SERIES</b>	
32MB Module	£1399
<b>DESIGNJET 600/650</b>	
4MB	£142
<b>PAINTJET XL300</b>	£Call
<b>HP COLOUR LASERJET</b>	
4MB Module	£149
8MB Module	£279

All our Matched Memory Kits come with our famous double guarantee - full lifetime warranty and 14 day money back guarantee

## MATCHED MEMORY UPGRADES FOR DEC Workstations

• Call for models not listed here  
• All DEC workstation memory is individually tested

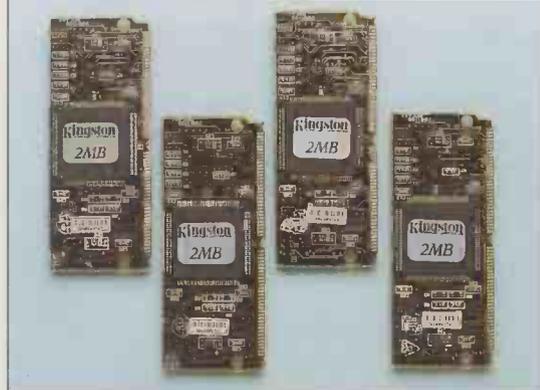
<b>MICROVAX 3100</b>	
<b>MODEL 30 &amp; 40</b>	
8MB Kit	£430
<b>DEC-SYSTEM 5100</b>	
8MB Kit	£386
48MB Kit	£1986
<b>ALPHASTATION 200/400 SERIES</b>	£Call

## MATCHED MEMORY UPGRADES FOR SUN Workstations

• SPARC tested and approved  
• All Sun memory is individually tested

<b>SPARC 1, 3/60, 3/80, 4/40, 4/60, 4/65, 4/75</b>	
4MB Kit	<b>POWERCUT!</b> £162
16MB Kit	£499
<b>SPARC ELC</b>	
16MB Kit	<b>POWERCUT!</b> £489
<b>SPARC LX</b>	
32MB Kit	£1199
<b>SPARC 330, 370 &amp; 390</b>	
16MB Kit	£1294
32MB Kit	£1802
<b>SPARC SERVER 630, 670, 690</b>	
64MB Kit	£2812
<b>SPARC 630MP, 670 &amp; 690</b>	
64MB	£2812
128MB	£5402
<b>SPARCSTATION 10/20</b>	
16MB	£599

**QUALITY! QUALITY! QUALITY!**  
Being the largest direct supplier means we buy memory direct from world class manufacturers. Powermark plc only supply factory original memory.



## MATCHED MEMORY UPGRADES FOR IBM RISC Workstations

• Call for models not listed here

<b>RISC SYSTEM 6000</b>	
32MB Kit	£1383
64MB Kit	£2787
448MB Kit	£17,384
<b>POWERSTATION/POWERSERVER 200</b>	
8MB Kit	£298
<b>X STATION</b>	
6MB Kit	£228

## MATCHED MEMORY UPGRADES FOR SILICON GRAPHICS Workstations

<b>POWER SERIES IRIS</b>	
32MB Kit	£2030
<b>PROFESSIONAL IRIS</b>	
4MB	£265
<b>INDIGO, 4D/30, 4D/35/533</b>	
64MB Kit	<b>POWERCUT!</b> £1999
<b>CHALLENGE M/ POWER CHALLENGE SERIES</b>	£Call

**DELIVERY CHARGES**  
UK MAINLAND - Next working day courier delivery to your door for all stock items  
See page 17

**EARLY BIRD**  
Order Bonus  
See page 29

Everyone at Powermark passes through our training college

# BANK

at  
**Powermark**

## INTEL OVERDRIVE® FEATURE



Intel OverDrive® processors enable you to take advantage of advanced technology on your existing upgradable Intel 486 CPU-based system. OverDrive® processors accelerate all applications running under MS-DOS, Windows, OS/2 and UNIX. Simply install the Intel OverDrive® processor into your



existing system and watch your applications run at blazing speeds.

Intel OverDrive® processors are available for all Intel 486 CPU-based systems with or without an OverDrive® socket.



## INTEL DX4 OVERDRIVE®

- Give your PC 100MHz performance with the Intel DX4 OverDrive® processor
- For most 16, 20, 25, 33MHz Intel 486 SX or DX CPU-based systems
- Features Intel's "speed tripling" technology
- 16K on-chip cache memory
- On-chip maths co-processor
- The most powerful PC upgrade available
- Accelerates DOS, Windows, Windows 95, OS/2 and Unix application



- |                |                  |      |
|----------------|------------------|------|
| INTEL DX4      |                  |      |
| 16MHz → 48MHz  | <b>POWERCUT!</b> | £121 |
| INTEL DX4      |                  |      |
| 20MHz → 60MHz  | <b>POWERCUT!</b> | £121 |
| INTEL DX4      |                  |      |
| 25MHz → 75MHz  |                  | £121 |
| INTEL DX4      |                  |      |
| 33MHz → 100MHz | <b>POWERCUT!</b> | £187 |



Can be installed in seconds by anyone



## INTEL DX2 OVERDRIVE®

- Give your Intel 486 SX or DX PC 66MHz performance with the Intel DX2® OverDrive® processor
- For any 16, 20, 25 or 33MHz Intel 486 SX or DX CPU-based systems
  - Features Intel's "speed doubling" technology
  - 8K on-chip cache memory
  - On-chip Maths Co-processor
  - Opens and runs all your software applications faster on your system

- |               |                  |      |
|---------------|------------------|------|
| INTEL DX2     |                  |      |
| 25MHz → 50MHz |                  | £79  |
| INTEL DX2     | <b>POWERCUT!</b> |      |
| 33MHz → 66MHz |                  | £105 |

## OVERDRIVE®

LIFETIME WARRANTY ON ALL INTEL OVERDRIVE® PROCESSORS



## INTEL PENTIUM® OVERDRIVE®

The Pentium® OverDrive® processor is the newest and fastest member of the Intel OverDrive® processor family. It is the upgrade option for Intel SX2 and DX2® CPU-based systems and is the superior upgrade option for Intel 486SX and DX based systems. It is based on Intel's latest and most sophisticated Pentium® processor technology and features a superscalar

architecture, which allows the execution of more than one instruction per clock cycle, 32K on-chip cache (one 16K code cache and one 16K data cache) and a faster floating point unit. It operates at two and a half times the speed of the system bus. For example, when a Pentium OverDrive® processor is installed in a 33MHz Intel 486 DX based system, the integer unit, floating point unit and cache operate at 83MHz while the speed of the external bus remains at 33MHz, thus delivering Pentium® processor class performance.

- |                  |      |                  |      |
|------------------|------|------------------|------|
| INTEL P24T 63MHz | £265 | INTEL P24T 83MHz | £400 |
|------------------|------|------------------|------|



Technical Sales Order Lines  
**0181-951 3355**  
(50 lines)

MEMORY & PROCESSOR UPGRADES

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices to.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

TURN THE PAGE FOR MORE

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
**Tel: 0181-951 3355**  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com

VISA MasterCard SWITCH DELTA  
Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. FS 26535

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

Power



Mark®

Technical Sales  
Order Lines  
**0181-  
951 3355**  
(50 lines)

ADAPTEC SCSI  
CONTROLLER  
CARDS

adaptec

I/O. NOW MORE IMPORTANT THAN EVER.™



Industry standard SCSI  
controllers from Adaptec

	Bare Card	Kit With Software
AHA1505	-	£42
AHA1510	-	£55
AHA1515	-	£66
AHA1522 ISA	-	£115
AHA1542 ISA	£126	£169
AHA1640 MCA	£184	£229
AHA2742T EISA	£229	£269
AHA2940 PCI	£189	-
AHA2842VL/K VLB	-	£166
AHA3940 PCI	-	£29

Save  
**£6 off**  
any  
hard disk  
drive over 500MB  
when you buy Windows 95.  
**See page 2**

**TURN THE PAGE  
FOR MORE**

REAL HARD  
DRIVES

Famous hard drives...

Any car with a  
crash gearbox

Wacky Races



# MEMORY

CYRIX FEATURE

THE NEW CYRIX 386 TO  
486 PROCESSOR UPGRADE

Cyrix®

UPGRADE  
DRIVE THRU  
See  
page 3 for  
details

Plug in the new Cyrix 386 to  
486 Processor Upgrade. It's  
the fastest, most cost  
effective way to a 486  
computer and it's totally  
compatible with the world's  
leading software: DOS,  
Windows and OS/2 operating  
systems.

It's easy to install. Just clip  
on the Cyrix processor and  
load the cache installation  
software. It's as simple as  
that. You're ready to run in  
minutes.



THE CYRIX MICROPROCESSOR UPGRADE FAMILY

The package consists of one Cx486DRx<sup>2</sup>  
Microprocessor, a 386DX removal tool, (SX version is a  
clip-on chip), installation manual, upgrade cache  
installation software (on both 3.5" and 5.25" media) and  
a pin 1 locator arrow (for correctly aligning the upgrade  
processor in the socket). A Cyrix-green heatsink is also  
included with 20/40, 25/50 and 33/66 versions.

EVEN LOWER PRICES!

386DX

DX 16MHz → 486 32MHz £129 ~~£135~~

DX 20MHz → 486 40MHz £129 ~~£135~~

DX 25MHz → 486 50MHz £155 ~~£265~~

DX 33MHz → 486 66MHz £159 ~~£165~~

386SX

SX 16MHz → 486 32MHz £129 ~~£135~~

SX 20MHz → 486 40MHz £129 ~~£135~~

SX 25MHz → 486 50MHz £155 ~~£185~~

CYRIX DRx<sup>2</sup>/SRx<sup>2</sup>

- Single chip upgrade solution  
for 386 DX and SX personal  
computers
- Clock doubling technology  
for increased performance
- 1K on-chip cache
- Very easy to install
- Compatible with DOS,  
Windows and OS/2
- Free technical support
- Limited lifetime warranty

SAVE £££s!

on Cyrix  
Processors With  
the Memory Bank  
Cheque Book



Buy  
Windows 95  
and save over £400 on  
leading peripherals  
and software!

See page 2

CONNER FEATURE

CONNER®

The Storage Answer

IDE DRIVES

CFS425A	<b>POWERCUT!</b> 425MB	14ms	£100
CFS540A	<b>POWERCUT!</b> 545MB	14ms	£111
CFS850A	850MB	14ms	£155
CFS1275A	1.275GB	12ms	£249

SCSI DRIVES

CFA540S	540MB	12ms	£149
CP1080	1.08GB	10ms	£345
CFP2107	2.1GB	9ms	£699
CFP2105	2.1GB	11ms	£659
CFP4207 Caymen	4.2GB	8ms	£999

1GB HARD DISKS AND ABOVE  
FEATURE:

- 5 year warranty on all SCSI drives
- Embedded servo systems eliminate the  
need for thermal recalibration and  
provide consistent data transfer rates
- Hot pluggable for uninterrupted data  
access in RAID applications
- Low power consumption means less  
heat and component wear



HARD DISK EXPERTS  
AVAILABLE FOR  
SPECIALIST ADVICE

NEW!  
CONNER TRAVAN  
800MB

The Travan 800 is the latest in value  
data protection. Each kit includes

- Backup Exec software
- Interface cable
- User Guide
- 800MB Travan cartridge
- 9.5MB/minute backup rate
- Backward compatible with QIC80 and  
QIC40

TAPE-STOR 800MB INTERNAL £125  
TAPE-STOR 800MB EXTERNAL £225

CONNER  
TAPE-STOR 850MB

- External parallel porttape  
backup or internal IDE system
  - Compact, portable external system
  - 9.5MB/minute backup rate
  - QIC-wide and QIC-3010 compatibility
- TAPE-STOR 850MB PARALLEL £244  
TAPE-STOR 850MB INTERNAL £175

CONNER  
TAPE-STOR 420MB

- Kit includes: Tape, Software,  
Manuals and cables
- Backward compatible with QIC80 and  
can read QIC40
  - 9.5MB/minute backup rate
- TAPE-STOR 420MB INTERNAL £107  
TAPE-STOR 420MB PARALLEL £207

DELIVERY CHARGES

UK MAINLAND • Next working day courier  
delivery to your door for all stock items  
See page 17

EARLY BIRD

Order Bonus  
See page 29



ACADEMY

Everyone at  
Powermark passes  
through our  
training college

# BANK

at  
Powermark

## HARD DISK DRIVE FEATURE



**Calluna**  
TECHNOLOGY  
**Maxtor**

**Seagate**  
**FUJITSU**

**Quantum**  
**MICROPOLIS**

**WESTERN DIGITAL**  
**CONNER**  
The Storage Answer

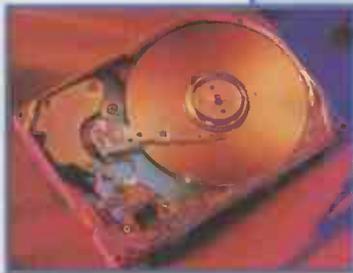
**TOSHIBA**  
PARTNERS

### IDE HARD DISK DRIVES

Quantum	LPS420AT	420MB	12ms	£111
Conner	CFS425A	425MB	14ms	£111
Seagate	ST3491A	428MB	14ms	£99
Maxtor	7540AV	540MB	12ms	£113
Quantum	LT750	540MB	10ms	£114
Western Digital	AC2540	540MB	13ms	£133
Fujitsu	M1603T	544MB	10ms	£119
Conner	CFS540A	545MB	14ms	£113
Seagate	ST3660A	545MB	14ms	£113
IBM	Aladdin	548MB	12ms	£129
Western Digital	AC2635	639MB	10ms	£135
Quantum	LT730	730MB	10ms	£156
Maxtor	7850AV	850MB	12ms	£169
Conner	CFS850A	850MB	14ms	£179
Western Digital	AC2850	853MB	10ms	£149
Seagate	ST5850A	855MB	11ms	£156
Western Digital	AC31000	1.0GB	10ms	£223
IBM	Pegasus	1.05GB	9ms	£329
Seagate	ST31220A	1.08GB	12ms	£195
Fujitsu	M1606T	1.09GB	10ms	£199
Maxtor	71260AT	1.26GB	12ms	£229
Conner	CFS1275A	1.275GB	12ms	£249

Western Digital	AC31200	1.28GB	10ms	£244
Western Digital	AC31600	1.62GB	10ms	£435

Save £6 on any hard disk over 500MB when you buy Windows 95. See page 2



### DISK EXTENDER

Upgrades your BIOS to support new IDE hard disks larger than 520MB.

- Automatically recognises, configures and initializes most hard disk drives
  - Works with most BIOS
  - Works across most platforms
  - Adds support for 4 hard disk drives
  - Works better than any software solution
- DISK EXTENDER £49**

### SCSI HARD DISK DRIVES

Conner	CFA540S	540MB	12ms	£149
Quantum	LT540S	540MB	12ms	£153
Fujitsu	M1603S	544MB	10ms	£139
Seagate	ST5660N	545MB	12ms	£209
IBM	Satsuma	548MB	12ms	£155
Quantum	LT730S	730MB	12ms	£171
Fujitsu	M1606SA	1.0GB	10ms	£302
IBM	Pegasus	1.05GB	9ms	£449
Seagate	ST31230N Hawk-2	1.05GB	9ms	£379
Conner	CP1080	1.08GB	10ms	£345
Fujitsu	M1606S	1.09GB	10ms	£299
Quantum	LPS1225S	1.2GB	10ms	£599
Micropolis	4221	2.05GB	8.5ms	£859
Conner	CFP2107	2.1GB	9ms	£699
Conner	CFP2105	2.1GB	11ms	£659
IBM	Ultrastar	2.1GB	8ms	£967
Seagate	ST32430N Hawk-2	2.1GB	9ms	£749
Seagate	ST32550N Barracuda Fast SCSI 2	2.1GB	8ms	£899
Micropolis	1936	3.02GB	12ms	£999

Conner	CFP4207 Caymen	4.2GB	8ms	£999
IBM	Ultrastar	4.3GB	8ms	£1449
Micropolis	3243	4.3GB	8.5ms	£1079
Seagate	ST15230N Hawk-4	4.3GB	9ms	£1099
Seagate	ST15150N Barracuda Fast SCSI 2	4.3GB	8ms	£1399
Seagate	ST410800N Elite	9.09GB	8ms	£2399
Micropolis	1991	9.1GB	12ms	£1799

### Audio Visual SCSI Drives

Micropolis	4221AV	2.05GB	8.5ms	£819
Quantum	Atlas XP32150	2.1GB	8ms	£895
Micropolis	1936AV	3.02GB	12ms	£1029
Micropolis	3243AV	4.3GB	12ms	£1069
Quantum	Atlas XP34300	4.3GB	8ms	£1460
Quantum	Grand Prix	4.3GB	8.6ms	£1484
Micropolis	1991AV	9.1GB	8.5ms	£1995

### PCMCIA HARD DISK DRIVES (Type III)

Calluna	Calluna170	170MB	16ms	£299
Calluna	Calluna260	260MB	16ms	£379
Kingston	DPPCM/260	260MB	11ms	£439

### 2.5" HARD DISK DRIVES

#### 2.5" IDE Drives

Seagate	ST9240AG	210MB	16ms	£170
Seagate	ST9300AG	262MB	16ms	£165
Seagate	ST9385AG	341MB	16ms	£219
Toshiba	MK1824FC	352MB	12ms	£239
Seagate	ST9420AG	420MB	16ms	£239
Seagate	ST9550AG	455MB	16ms	£270
Seagate	ST9655AG	524MB	16ms	£318
Toshiba	MK1924FC	543MB	12ms	£319
Toshiba	MK2628FC	810MB	12ms	£499

#### 2.5" SCSI Drives

Toshiba	MK2526FB	528MB	12ms	£359
---------	----------	-------	------	------



Technical Sales  
Order Lines

**0181-951 3355**  
(50 lines)

HARD DISKS  
AND BACKUP



## Dr Jane's Storage Surgery

Doctor, I've had the most confusing problem understanding E-IDE and IDE. I am not normally concerned by these things, but it's beginning to get me down. What is the difference between them, and what is the advantage of installing an E-IDE controller in my PC? I have a 486DX33 computer and I am thinking of adding an additional hard drive of around 500MB, but I don't know where to turn. Your diagnosis would assist me getting back on track.

Perplexed in Perth

Dear Perplexed,  
Help is at hand, I have just the remedy for you. Most PCs have an IDE controller, these are single channel so that you can support up to two drives. These do not normally allow capacities over 528MB. Enhanced IDE, on the other hand, have two channels and are capable of supporting four drives, furthermore as an added bonus they pass the 528MB barrier.

Here's my prescription:  
A Future Domain E-IDE controller with a Conner 540MB hard disk and fixing kit. Don't forget if you purchase at Powermark, Dr. Jane's Surgery is only a phone call away and help will be at hand.

Send your storage problems to Dr Jane, c/o Powermark plc, Premier House, Station Road, Edgware, Middlesex, HA8 7AQ or fax them to 0181 905 6233. You can also Email Dr Jane on: drjane@powermark.com

Dr Jane makes every effort to answer your storage problems, but she cannot guarantee to reply to every problem.

We confess, Dr Jane has no doctorate - Yet!

**Powermark plc**  
Premier House, 112 Station Rd,  
Edgware, Middlesex HA8 7AQ  
**Tel: 0181-951 3355**  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
**VAT at 17.5% will be added to all prices**



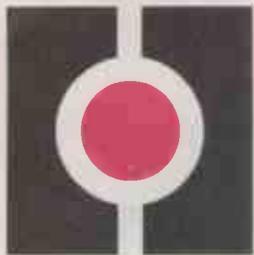
Public Sector customers can purchase through HMSO by calling 01603 694153.



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

10



# MEMORY

## SYQUEST STORAGE FEATURE



# SyQuest®



### SYQUEST REMOVABLE CARTRIDGE HARD DISK DRIVES

- Work like fixed drives yet provide unlimited capacity

SYQUEST SQ5200

**Unsurpassed warranties - 2 years on drives and 5 years on data cartridges**

### SYQUEST 3.5" RANGE

- Choice of 105MB or 270MB formatted capacities on each cartridge

### EZ135 DRIVES

**135MB Removable Disk Drive**

EZ135 SCSI Internal	£159
EZ135 SCSI External	£189
EZ135 Parallel	£189
135MB Cartridge	£17

**Free cartridge with all EZ135 disk drives**

### SYQUEST CARTRIDGES

Capacity	Form	Each	5 Pack
105MB	3.5"	£41	£199
270MB	3.5"	£45	£219
44MB	5.25"	£36	£172
88MB	5.25"	£49	£239
200MB	5.25"	£60	£289

### SYQUEST REMOVABLE CARTRIDGE HARD DISK DRIVES

Type	Capacity	Internal	External
SyQuest 3.5" IDE	105MB	£139	£229
SyQuest 3.5" SCSI	105MB	£169	£259
SyQuest 3.5" PARALLEL	105MB	-	£389
SyQuest 3.5" IDE	270MB	£259	£349
SyQuest 3.5" SCSI	270MB	£265	£355
SyQuest 3.5" PARALLEL	270MB	-	£439
SyQuest 5.25" SCSI	88MB	£179	£269
SyQuest 5.25" SCSI	200MB	£262	£352

**Technical Sales Order Lines**  
**0181-951 3355**  
 (50 lines)

### DATA CARTRIDGES

	Each	10 Pack
DC6150	£13	£112
DC6250	£15	£139
DC6525	£19	£169
DC9100Magnus	£31	£295

All QIC tapes are preformatted

QIC	Capacity	Each	10 Pack
DC2120	120-250MB	£13	£119
DC2120XL	350MB	£17	£151
QIC3010	700MB	£17	£185
QIC3020	1.7GB	£29	£270

QIC-Wide	Capacity	Each	10 Pack
5500c	420MB	£19	£169
9000c	850MB	£21	£190

DAT	Length	Each	10 Pack
1.3GB	60m	£6	£58
2GB	90m	£6	£58
4GB	120m	£6	£58
Head Cleaner		£26	

## HP COLORADO FEATURE



**TRAVAN**

HP COLORADO T1000

### HP COLORADO T1000

- New, advanced TRAVAN technology
- 800MB capacity (with compression)
- Up to 9.5MB/min backup speed
- Fits into 3.5" or 5.25" drive bay

HP COLORADO T1000 £149

### HP COLORADO BACKUP

- Easy to use software
- Works with all HP Colorado devices

COLORADO BACKUP £39

### HP COLORADO TRAKKER

- Plug and play - no hardware installation
- A total backup solution - fully assembled systems available in up to 350MB and up to 680MB capacities

PARALLEL PORT TRAKKER 350	£154
PARALLEL PORT TRAKKER 700	£198
TRAKKER CARRY CASE	£37

### HP COLORADO JUMBO

- Connects to your floppy controller
  - Includes software and cables
- |                       |      |
|-----------------------|------|
| JUMBO 350             | £81  |
| JUMBO 700             | £129 |
| JUMBO 1.36GB          | £227 |
| QIC 3020              | £29  |
| FAST CONTROLLER CARD  | £53  |
| EXTERNAL MOUNTING KIT | £64  |

## COLORADO® MEMORY SYSTEMS

A division of  
 HEWLETT®  
 PACKARD

### HP SURESTORE TAPE SERIES

- Very fast DAT drive system
- Capacity from 2GB to typically 8GB
- PC Magazine Editors's Choice

	Int	ISA Kit*
HP SureStore Tape 2000	£651	£Call
HP SureStore Tape 5000	£739	£Call
HP SureStore Tape 6000	£844	£Call

\*ISA Kit includes SCSI controller & full software

**Mass storage experts available for specialist advice**

**TURN THE PAGE FOR MORE**

### VERBATIM FEATURE

#### DISKETTES

3.5" HD 10 Pack	£4
3.5" HD Preformatted 20 Pack + 2 free!	£8

#### DATA AND DAT CARTRIDGES

Unit	10 Pack
DC2120 QIC 80	£13 £119
DC2120XL	£17 £150
MC 3000 XL	£17 £185
4mm 60m	£6 £58
4mm 90m	£6 £58
8mm 112m	£6 £58

#### BLANK CDS

CD-R 74 Min	£7
-------------	----

#### OPTICAL DISKS

3.5" 128MB	£17
3.5" 230MB	£22
5.25" 600MB	£45
5.25" 1.3GB	£57

## IOMEGA TAPE BACKUP FEATURE



### DITTO 800

- New, advanced Travan technology
- 800MB capacity (with compression)
- Backward compatible with 250, 350 and 420MB tapes
- Direct drive - no belt
- Network compatible

DITTO 800 INTERNAL	£139
DITTO 800 PARALLEL	£215

**TRAVAN**



DITTO 800

1.7GB INTERNAL QIC 3020 TAPES (for 1.7GB)	£219
TAPE 250MB/350MB INTERNAL	£29
TAPE 250MB/350MB PARALLEL PORT	£81
QIC & WIDE 420MB INTERNAL	£149
TAPE700 INTERNAL	£95
TAPE700 PARALLEL PORT	£115
TAPE ACCELERATOR CARD	£198
700MB DATA CARTRIDGE	£49
	£17

### IOMEGA ZIP DRIVES

**Awarded 5 mice by MacUser, 9th June 1995**

- Increase your hard drive capacity inexpensively on 100MB removable disks
- Provides high capacity mobile storage - use it at the office, at home, on the road, anywhere
- Zip Tools Software helps you track, organise and find everything with ease
- Excellent and easy for transferring information between two computers
- Securely organise your data by putting work, home, school, and leisure files on separate disks and let Zip Tools keep track of it all



- Makes backup fast easy and worry free
- Use as many disks as you need for one or more people or applications

IOZIP Parallel	£149
IOZIP SCSI	£149
100MB Cartridge Single	£17
5 Pack	£57
10 Pack	£98

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all stock items  
 See page 17

**EARLY BIRD Order Bonus**  
 See page 29



Everyone at Powermark passes through our training college

# BANK

at Powermark

## PANASONIC OPTICAL & CD ROM DRIVE FEATURE



### Panasonic QuadPro IDE

- 4xSpeed upgrade kit**
- New quad speed CD ROM drive
  - PowerIDE™ software to eliminate conflict with hard disk drive
  - Complies with MPC level 3
  - 32-bit disk access
  - Video-CD and CD-i movie
  - Includes all accessory parts for quick, trouble free installation
  - Optional IDE interface card available
- QUADPRO KIT IDE £139  
OPTIONAL INTERFACE CARD £11



### Panasonic QuadPro SCSI

- 4xSpeed upgrade kit**
- New quad speed CD ROM drive
  - Corel SCSI™ software supports most SCSI host adapters
  - Complies with MPC level 3
  - 256K cache memory
  - Video-CD and CD-i movie
  - Includes all accessory parts for quick, trouble free installation
- QUADPRO SCSI KIT WITHOUT INTERFACE CARD £159  
QUADPRO SCSI KIT WITH INTERFACE CARD £209



### Panasonic PD System

- 2 in 1 CD ROM and Optical Disk drive**
- New combined quad speed CD ROM drive and 650MB rewritable optical drive
  - Removable 650MB optical media for archiving or re-distribution
  - SCSI-2 interface for Mac or PC
  - Corel SCSI™ supports most SCSI host adapters
  - CD ROM function supports Video-CD and CD-i movie
  - Includes all accessory parts for quick, trouble free installation
- PD SYSTEM KIT WITHOUT I/F CARD £549  
PD SYSTEM KIT WITH I/F CARD £599  
PD 650MB MEDIA £39

## CYBERMAN PCMCIA CD ROM DRIVE FEATURE



The first slimline CD ROM drive with our optional built in 16-bit sound card and it's Windows 95 compatible too!



### CYBERMAN CM2 SX

- Designed for the newest generation of 'sound ready' computers
  - Can play Audio CDs
  - Includes headphones
- CYBERMAN CM2 SX £269

### CYBERMAN CM2 SB

- The perfect complement for computers without multimedia capability
- 16-bit wavetable synthesis sound card provides true state of the art sound quality for all multimedia applications

CYBERMAN CM2 SB £395

Also available  
Quad Speed (4X) Drive without Sound £395

Save £20 off Cyberman PCMCIA CD ROM Drive when you buy Windows 95. See page 2

## GOLDSTAR CD ROM FEATURE

# GoldStar

Technology with the human touch

Goldstar CD-ROM drives are on the leading edge of multimedia excellence. Each one is designed and built to take you into the next generation of personal computing.

Both the dual and quad speed drives feature MPC level 2, Photo CD, multi-session support, CD-i, Video CD, CD-DA and CD-ROM/XZ.

### GCD-R520B DUAL SPEED CD ROM DRIVE

- 300Kb/sec
- 250ms access time
- 64Kb buffer
- IDE interface
- Motorised tray loading
- Volume control and headphone jack

GCDR 520B £69



### GCD-R540B QUAD SPEED CD ROM DRIVE

- 600Kb/sec
- 220ms access time
- 128Kb buffer
- Enhanced IDE (AT-API) interface
- Motorised tray loading
- Volume control and headphone jack

GCD-R540B £105

Multimedia experts available for specialist advice



Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. PS 26555

BSS750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

Technical Sales Order Lines

0181-951 3355  
(50 lines)

MASS STORAGE & CD ROM DRIVES

**HUGE STOCKS**  
Unlimited same day despatch available on all stock items - far orders and even up to 4.00pm.

**TECHNICAL SALES PEOPLE**

Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**

Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**

We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**

Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**

We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**

All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

TURN THE PAGE FOR MORE

**UPGRADE DRIVE THRU**

While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**

Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

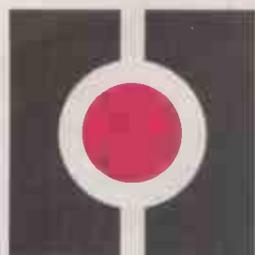
**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



# MEMORY

## CD ROM DRIVES, SOUND CARDS AND SPEAKERS FEATURE

### RECORDABLE CD ROMS

YAMAHA CDE-100 £1799

- External device
- Quad speed CD ROM recorder
- Records 630MB in 15 minutes
- Software included

JVC XR-W2001 £1449

- Internal
- Dual speed SCSI
- Windows software included
- ISO5 SCSI card

Call for other CD ROM recorder kits

Amazing Performance



PLUG & PLAY CD ROM RECORDER

**FREE CD when you buy a CD ROM drive**

Titles may vary from time to time.

### SPEAKERS



Quality speakers supplied as matched pairs

CREATIVE LABS SBS 300 STEREO SPEAKERS £79

- 10 watts
- Magnetically shielded
- SoundBlaster compatible
- Built-in amplifier

CREATIVE LABS SBS 37 STEREO SPEAKERS £18

- Magnetically shielded

SCREENBEAT £9

- Amplified with bass control

POWERSOUND MAX SP30 £19

- With power adaptor
- 2 watts per channel
- Shielded, with volume control

ALTEC ACS50 £69

QUICKSHOT SOUNDMATE 3 £15

QUICKSHOT SOUNDMATE 4 £12

ADD UP SS50 SPEAKERS £32

- 8 watts
- Built-in amplifier

LABTEC CS-1000 £59

'Under Monitor' unit

YAMAHA YST-M10 £49

- 10 watts per channel
- 80Hz - 20KHz frequency response

Full magnetic shielding

Built-in power amplifier

YAMAHA YST-SW10 SUB WOOFER £79

- 25 watts per channel
- Shielded
- Bass, treble, volume controls

**NEW!**  
**YAMAHA YST-MS SPEAKERS**  
**£39**

- 3 watts per channel
- Advanced Frequency Response
- Includes power supply

### SOUND BOARDS

The widest range of Sound Boards

Multimedia experts available for specialist advice

AZTECH SOUND GALAXY PRO £65

SoundBlaster compatible

AZTECH SOUND GALAXY NOVA 16 EXTRA £79

AZTECH SOUND GALAXY WAVERIDER 32+ £96

AUDIOTRIX PRO £179

Wavetable synthesiser

16-bit stereo record and playback

On-board CD ROM instruments

ADPCM compression software

Daughterboard upgrade available

SOUNDWAVE 32 £148

GAMEWAVE 32 **POWERCUT!** £102

GRAVIS ULTRASOUND £99

GRAVIS ULTRASOUND MAX £144

16-bit record and playback, 48KHz

Multi CD ROM interfaces

Dedicated digital sound processor

PORTABLE SOUND PLUS **POWERCUT!** £109

Plugs into parallel port

16-bit stereo playback

Includes speaker unit

Ideal for Laptops & MCA Desktops

WAVJAMMER £199

16-bit PCMCIA sound card

Includes MS Sound System

### CD ROM ACCESSORIES

QUALITY DISK CADDY 10 PACK £5

CD ROM DRIVE LASER CLEANER £24

CD ROM DISK CLEANER KIT £19

REFILLS FOR ABOVE £7

CD TOWER STORAGE UNIT £19

CD ROM BLANK DISKS (700MB) £10

### MULTIMEDIA KITS

AZTECH EXPLORER PERSONAL SYSTEM £239

AZTECH EXPLORER PERSONAL SYSTEM DELUXE £299

**NEW!** MIROMEDIA OFFICE £359

16-bit wavetable sound card

NEC quad speed CD-ROM

Novell standard Office

MIROMEDIA SOUND £269

### VIDEO CARDS

TV BUSTER PRO EXTERNAL £69

INTERNAL £69

TV ENCODER PROFESSIONAL PLUS £229

- Supports 640 x 480, 800 x 600 in colour
- 16.7 million colours

REELMAGIC £289

- Watch VideoCD's on your PC

- Built-in 16-bit sound card
- Includes bundled software

REELMAGIC LITE £215

MIRO VIDEO 20TD LIVE £345

MIRO VIDEO 20SD TWIN £549

MIRO VIDEO 12PD £129

MOVIE MACHINE II £475

MOVIE MACHINE II MJPEG ADD-ON £295

MOVIE MACHINE II MPEG ADD-ON £245

MOVIE MACHINE PRO £299

MJPEG BUNDLE £299

MJPEG card

Adobe Premiere

Animator Pro

Xing CD

### CD ROM DRIVES

	Type	Speed	Transfer rate	Access	Loading	Cache	Interface	Int	Ext
Argosy 592CD	PCMCIA	D	307Kb/sec	320ms	Tray	64Kb	PCMCIA	-	£249
Goldstar GCD-R520B	IDE	D	300Kb/sec	250ms	Tray	64Kb	E-IDE	£69	-
Goldstar GCD-R540B	IDE	Q	600Kb/sec	220ms	Tray	128Kb	E-IDE	£105	-
Mitsumi FX300	IDE	T	450Kb/sec	250ms	Tray	64Kb	E-IDE	£99	-
Mitsumi FX400	IDE	Q	600Kb/sec	230ms	Tray	128Kb	E-IDE	£121	-
Nakamichi (7 CD-ROM)	SCSI	D	330Kb/sec	380ms	Caddy	256Kb	16-bit SCSI	-	£279
NEC 3XP	SCSI	T	450Kb/sec	250ms	Caddy	128Kb	16-bit SCSI	-	£249
NEC 6Xi/e	SCSI	6	900Kb/sec	150ms	Caddy	256Kb	16-bit SCSI	£296	£387
Plextor 6x	SCSI	6	900Kb/sec	115ms	Caddy	512Kb	16-bit SCSI	£387	-
Panasonic CR503	SCSI	D	300Kb/sec	320ms	Tray	256Kb	8-bit SCSI	£129	-
Panasonic 562B	SB	D	300Kb/sec	320ms	Tray	64Kb	SB16 card	£79	-
Panasonic LF1004PDO	SCSI	Q	600Kb/sec	220ms	Caddy	512Kb	16-bit SCSI	£499	£589
Pioneer DRU124X	SCSI	Q	660Kb/sec	150ms	Tray	256Kb	16-bit SCSI	£199	-
Pioneer 124X	IDE	Q	600Kb/sec	220ms	Tray	256Kb	E-IDE	£119	-
Sony CDU4X	IDE	Q	600Kb/sec	190ms	Caddy	256Kb	E-IDE	£129	-
Sony CDU55E	IDE	D	300Kb/sec	250ms	Tray	256Kb	E-IDE	£89	-
Sony CD76S	SCSI	Q	600Kb/sec	150ms	Tray	256Kb	16-bit SCSI	£149	-
Toshiba XM3601	SCSI	Q	660Kb/sec	130ms	Tray	256Kb	16-bit SCSI	£219	£299
Toshiba XM5301B	SCSI	Q	600Kb/sec	190ms	Tray	256Kb	16-bit SCSI	£139	£219
Toshiba XM5302	E-IDE	Q	600Kb/sec	150ms	Tray	128Kb	E-IDE	£129	-

Key to drive speeds: D=Double, Q=Quad, T=Triple, 6=Six speed



Mouseman Combo £34

- High performance mouse of superior design
- Ergonomic design
- Ready for Windows 95



Sensa each £38

- Ergonomic design
- Ready for Windows 95, available in: soft matt Blue Leopard or Silver Pearl, or Deep Wood and Black Chess with their brilliant lacquered surface

Cordless £49

Chroma £23

- 3 button mouse with co-ordinated mouse mat, available in: Apple green with orange mat, luminous orange with blue mat, bright blue with yellow mat and canary yellow with green mat

Trackman Vista £43

- Ergonomic design
- Ready for Windows 95

Trackman Live £105

- A unique radio-wireless solution for presentations can be used for controlling slideshows or as a handheld mouse works from up to 10 metres
- Ready for Windows 95

Trackman Voyager £50

- Sets new standards in comfort, flexibility and performance for travellers and those looking for the latest in design

Pilot Mouse £18

Scanman Color £179

Scanman 256 £87

Potoman Plus Digital Camera £439

Save £10 off Logitech Mouseman Combo when you buy Windows 95. See page 2

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all stock items See page 17

### EARLY BIRD

Order Bonus See page 29



Everyone at Powermark passes through our training college

## KEY TRONIC KEYBOARD FEATURE

### KEY TRONIC KT2000

The Key Tronic KT2000 Windows 95 keyboard features three additional keys designed to offer users an easier interface to Microsoft Windows 95. **KT2000** £32

### PROTOUCH WINDOWS 95 KEYBOARD

The ProTouch keyboard represents a breakthrough in technology. ProTouch offers increased reliability - hinge

tested to 70 million cycles - in a spill resistant product. Plus, the soft landing of the flexible lever arm switch assembly makes

ProTouch a more comfortable keyboard to use. In an independent ergonomic study results showed that ProTouch improved keying performance and was preferred over standard keyboards in all useability factors.

**PROTOUCH KEYBOARD** £28



Save £7 off KT 2000 Keyboard and £7 off Protouch Keyboard when you buy Windows 95. See page 2

### KEY TRONIC COLORKEYS COOL STUFF KIT

- ColorKeys keyboard
- Clickmate mouse
- Mouse pad
- Screen bezel for 14" monitor
- Microsoft Fine Artist software
- All cables and connectors

**COLORKEYS COOL STUFF KIT** £49



## MULTIMEDIA ACCESSORIES FEATURE

### INTERNAL MULTIMEDIA EA-PRO WITH STEREO SPEAKERS

Equalizer/amplifier and speaker combination that brings full stereo sound to your multimedia PC.



- 60 watt equalizer/amplifier
- 7-band graphic equalization
- Installs into a 3.5" drive bay
- 40 watt stereo speakers

### INTERNAL MULTIMEDIA EA-PRO WITH STEREO SPEAKERS

External version for Macintosh & PC available (Call for prices) £69

### MULTIMEDIA STEREO KEYBOARD

For use with any multimedia software. Perfect for entertainment, education, presentations and your favourite music CDs.

- Built-in 16 watt stereo speakers 4" magnetically shielded
- Enhanced bass response for great listening pleasure
- Omnidirectional microphone
- Softsliding volume control
- Built-in headphone and microphone jacks
- Teleconferencing ready

FREE PS/2 ADAPTOR CABLE included with purchase

**MULTIMEDIA STEREO KEYBOARD** £81

### MULTIMEDIA STEREO AMPLIFIED KEYBOARD

For use with any multimedia software. Perfect stereo sound quality for education, entertainment, presentations and your favourite music CDs.

- Built-in 13 watt stereo amplifier
- Built-in 16 watt stereo speakers 4" magnetically shielded
- Soft sliding volume, treble and bass controls

- Enhanced bass response for great listening pleasure
- Built-in headphone and microphone jacks
- Teleconferencing ready
- LED volume readout

**MULTIMEDIA STEREO AMPLIFIED KEYBOARD** £109



## MICROSOFT® HARDWARE FEATURE

### MICROSOFT® MICE

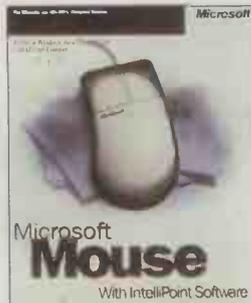
#### MICROSOFT® MOUSE 2.0

- Plug and Play with Windows 95
- Ergonomically designed for comfort
- Optimum hand position
- Teflon 'gliders' - moves smoother and swifter over any surface

New improved IntelliPoint software gives you:

- Shortcuts - assigns common tasks to each button
- Single click - click just one for double click
- Sonar - helps you find a lost cursor
- SmartSpeed - slows the cursor for added control

**MICROSOFT MOUSE 2.0** £36



**MICROSOFT® HOME MOUSE** Microsoft® Home Mouse, featuring IntelliPoint software is ready for Windows 95, and includes Microsoft® Arcade and Microsoft® The Best of the Entertainment Pack - 18 free games!

**MICROSOFT® HOME MOUSE** £28

## Microsoft®

### MICROSOFT® NATURAL KEYBOARD

- Ready for Windows 95
- Windows logo function keys
- Unique contoured design - encourages a balanced, more natural hand and wrist position
- 104 key design
- IntelliType software - customisable for improved Windows based performance

**MICROSOFT NATURAL KEYBOARD** £65



### Technical Sales Order Lines

0181-951 3355 (50 lines)

MULTIMEDIA

## The Backroom Boys investigate



Dear Backroom Boys,

I'm upgrading my PC at the Manor and I require something called a SCSI CD ROM. Loxley-Keates at my local outlet could not help. Auntie Maud has simply hunted high and low, but to no avail. Please help me to track down this elusive product.

Lady Pandora Futersbottom

Lady Futersbottom,

This will be an open and shut case. Our files show that Powermark currently have on their books a multimedia SCSI kit. Further investigations have shown that the SCSI card included can support up to 7 devices, so there is plenty of scope for the future.

PS: Don't forget you can always send Auntie Maud to collect direct from Powermark in the Manor's Rolls and if she brings your computer with her, she'll benefit from our Drive Thru installation service.

Send your investigations to The Backroom Boys, c/o Powermark plc, Premier House, Station Road, Edgware, Middlesex, HA8 7AQ or fax them to 0181 905 6233. You can also Email The Backroom Boys on: bboys@powermark.com

The Backroom Boys make every effort to investigate your problems, but they cannot guarantee to reply to everyone.

**Powermark plc**  
Premier House, 112 Station Rd,  
Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. FS 26535

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

## CASIO DIGITAL CAMERA

CASIO QV10

*Liquid Crystal  
Digital Camera*

Shoot and view  
digital images

The new Casio QV-10 is the world's first digital still image camera with its own built-in liquid crystal display. Now you can view images on the spot as soon as you shoot them! Take it along anywhere to capture visual data whenever you need it.

- Up to 96 images can be stored in memory
- Macro for close ups to approximately 15cm
- Built in LCD for on-the-spot viewing
- View edit and store images on APC
- Silent CCD shutter
- Compact and lightweight for easy portability
- Movable lens

CASIO QV10  
Liquid Crystal  
Digital Camera    £Call

**TURN THE PAGE  
FOR MORE**

**He's back!**  
**DOG OF  
THE  
MONTH**  
**MIKE DITKA**  
**ULTIMATE  
FOOTBALL CD ROM**  
£2 with any purchase over £30

ARF!



# MEMORY

## CREATIVE LABS FEATURE

### SOUNDBLASTER CARDS

- SOUNDBLASTER**
- 16 VALUE IDE £63
  - IDE interface
  - 16-bit stereo sampling and playback
  - 20 voice enhanced 4-operator stereo FM-synthesiser
  - Power amplifier (4 watts per channel) and volume, bass and treble control
  - Full software control of fade-in, fade-out, pan, volume, left/right steering and microphone mixing
  - Bundled software
- NEW! SOUNDBLASTER**
- 16 PRO IDE £86
  - With voice recognition software
  - With Panasonic interface
- SOUNDBLASTER**
- 16 PRO IDE ASP £112
- SOUNDBLASTER**
- AWE 32 IDE VALUE £123
  - Includes upgrade socket
- SOUNDBLASTER**
- AWE 32 IDE £166
  - 16-bit with ASP



SOUNDBLASTER MULTIMEDIA HOME CD QUAD SPEED KIT

### NEW! BLASTERKEYS



MIDI keyboard for  
SoundBlaster cards  
£119

### SOUNDBLASTER CARDS

- MIDIBLASTER** £95
- For amateur and professional music composition and presentation
  - 16 channels, 128 preset sounds, 33 preset effects, 55 preset drums
  - Bundled software included

**ALL CREATIVE LABS  
PRODUCTS ARE  
100% COMPATIBLE  
AND COME WITH A  
1 YEAR GUARANTEE**

### MULTIMEDIA KITS

- NEW! DISCOVERY EZ 16  
PACK** £319
- Double speed external CD ROM drive
  - Soundblaster 16
  - Speakers
  - Microphone
  - Bundled software

**External  
Kit**

- DISCOVERY QUAD  
SPEED KIT** £269
- Quad speed internal drive
  - Soundblaster 16 Pro
  - Top selling bundled software
  - Ideal for home and office use
- MULTIMEDIA HOME CD  
QUAD SPEED KIT** £285
- Quad speed IDE internal drive
  - 16-bit ASP sound card
  - Speakers
  - MS Publisher
  - MS Works 3
  - MS Encarta '95
  - MS Design Pack
  - MS Bookshelf '94
  - MS Cinemania '95
  - MS Ancient Lands
  - MS Dangerous Creatures
  - MS Musical Instruments
  - MS Golf and more

**Amazing  
value!**

### NEW FROM CREATIVE!

- Infrared pointing devices**
- Aero Mouse £69
  - Aero Pen £69

### POWERMARK MULTIMEDIA KITS

- NEW! HOMESTUDIO  
KIT** £309
- MIDI compatible keyboard
  - AWE 32 IDE Lite sound card
  - Windows software included
- NEW! POWER  
PERFORMANCE  
PACK** £499
- Toshiba 3601 4.4 SCSI CD-ROM drive
  - 16-bit SCSI controller card
  - AWE 32 sound card
  - Quality 25 Watt speakers
- NEW! SMART QUAD KIT** £225
- Mitsumi FX4 quad speed internal drive
  - SoundBlaster 16 Pack
  - 10 CD ROM bundle
  - Lotus SmartSuite
  - 15 watt speakers
- NEW! CREATIVE  
DOUBLE KIT** £239
- Double speed internal drive
  - SoundBlaster Pro Pack
  - MS Encarta, MS Dangerous Creatures, Doom I & II, MS Golf
  - Screenbeat speakers
- NEW! TOSHIBA 4x4 KIT** £375
- Toshiba 5302 quad speed internal IDE drive
  - SoundBlaster 32 AWE Value Pack
  - 25 watt speakers
  - 10 CD ROM bundle
  - MS Encarta
  - Enhanced IDE controller
- NEW! JUNIOR KIT** £189
- Double speed internal drive
  - SoundBlaster 16 Value Pack
  - Screenbeat speakers
  - 10 CD ROM bundle
- NEW! GAMEBLASTER  
AWE 32 KIT** £287
- Quad speed internal drive
  - SoundBlaster AWE32 IDE Lite
  - Stereo speakers
  - Joystick
  - Top selling bundled software titles
  - CSP Socket



SOUNDBLASTER AWE32

Multimedia experts  
available for  
specialist advice



SOUNDBLASTER 16  
VALUE IDE

### SOUNDBLASTER CARDS

- SOUNDBLASTER**
- AWE 32 £163
  - Next generation SoundBlaster card offering unbelievable sound quality
  - Full 16 channels, 128 instruments, 6 drum kits, 32 voice polyphony
  - Microphone included
  - Comprehensive software bundle including Creative VoiceAssist, Creative TextAssist, WaveStudio, Creative Sound Panel, Creative Mosaic, Creative Ensemble and more
- WAVEBLASTER II** £95
- Programmable Advanced WaveEffects generator

### NEW! AERODUET KIT

Only £99



- Aero Mouse
- Aero Pen

### DELIVERY CHARGES

UK MAINLAND - Next working day courier  
delivery to your door for all stock items  
See page 17

### EARLY BIRD

Order Bonus  
See page 29



Everyone at  
Powermark passes  
through our  
training college

# BANK

at  
Powermark

## CREATIVE LABS FEATURE

### SHAREVISION



#### PC3000

Easy to use video conferencing over a single regular telephone line. Realtime application sharing

#### PC300

Easy to use audio conferencing over a single regular telephone line

Call for pricing

### VIDEO BOARDS

<b>VIDEOBLASTER SE100</b>	£169
• Live full motion video	
• Capture single frames in BMP, TIFF, GIF, MMP, PCX, TGA or JPEG	
<b>VIDEOBLASTER RT300</b>	£265
• Intel i750PE chip inside	
<b>VIDEOBLASTER MP400</b>	£179
• Displays full motion MPEG video in a scalable window up to full screen	
<b>3DO BLASTER</b>	£275
• Requires CR-563 CD ROM drive and SoundBlaster with CD audio connector	
<b>TV CODER INTERNAL</b>	£99
<b>TV CODER EXTERNAL</b>	£129

## MICROSOFT® FEATURE

# Microsoft®



## ENCARTA '95

The Complete Interactive Multimedia Encyclopedia

### ENCARTA® 1995

Microsoft Encarta '95 has been extensively updated with new and up to date content.

- New 40 country fact boxes, covering climate, religion, economy, geography, musical styles and more
- Over 9 million works, 8,000 photographs, 300,000 links, 26,000 articles and over 15,000 multimedia elements with 100 minutes of video and animation

Special £30 cash back offer for owners of previous versions

### CINEMANIA® 1995

- New Cinemania 1995
- Nearly 20,000 film reviews, 1,000 movie stills, 168 dialogue excerpts, and 139 tracks of film music
- Now includes 1994 films

### MICROSOFT® DOGS

For the dog owner, or the dog lover, Microsoft® Dogs provides important information on 250 different breeds from around the world.



### MICROSOFT® OCEANS

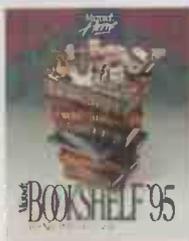
Take an interactive journey into the colourful world of aquatic creatures. The whole family will learn all about the creatures that live there, how people are discovering its secrets, and the impact humans have on its environments.

### MICROSOFT® GOLF 2.0

Microsoft® Golf version 2.0 brings the challenging Firestone Country Club to life right on your desktop, with rich graphics and vivid, natural sound.

### MICROSOFT® BOOKSHELF® '95

- Hear more than 80,000 spoken pronunciations and more than 170 audio clips
- Find what you need in a flash - whether it's a word or phrase from within any programme for Windows® or for Macintosh



### NEW! FURY<sup>3</sup>

Conquer at least one world today Fury<sup>3</sup> puts the fast, furious world of 32-bit gaming technology right in your face!

### CHILDRENS SOFTWARE

Creative Writer	floppy	£31
Creative Writer	CD ROM	£31
Fine Artist	floppy	£31
Fine Artist	CD ROM	£31
How the Leopard Got his Spots	CD ROM	£32
Gahan Wilson's Ultimate Haunted House	CD ROM	£31
Magic School Bus - Inside the Human Body	CD ROM	£31
Magic School Bus - Solar System	CD ROM	£31

### REFERENCE AND EXPLORATION

Explorapedia	CD ROM	£28
500 Nations	CD ROM	£33
Cooking For Windows	CD ROM	£31
Dogs For Windows	CD ROM	£33
Wine Guide	CD ROM	£33
Oceans V1.0	CD ROM	£33
Autoroute Express	CD ROM	£29
AutoRoute Express UK and Ireland V4	floppy	£29
AutoRoute Express UK and Ireland V4	CD ROM	£36
AutoRoute Express Europe V4	floppy	£29
AutoRoute Express Europe V4	CD ROM	£36
Encarta '95	CD ROM	£54
The Ultimate Frank Lloyd Wright	CD ROM	£32
Dangerous Creatures	CD ROM	£32
Ancient Lands	CD ROM	£34
Cinemania '95	CD ROM	£32
Bookshelf '95	CD ROM	£58
Dinosaurs	CD ROM	£31
Art Gallery	CD ROM	£29
Musical Instruments	CD ROM	£31
Schubert	CD ROM	£32
Stravinsky	CD ROM	£32
Strauss	CD ROM	£32
Mozart	CD ROM	£32
Beethoven	CD ROM	£32
Composer Collection	CD ROM	£49
• 3 CD ROM set includes Mozart, Beethoven and Schubert		



### ENTERTAINMENT

NEW! Flight Simulator 5.1	CD ROM	£28
Space Simulator	floppy	£29
Arcade	floppy	£15
Golf	floppy	£29
Golf	CD ROM	£31
Golf course - Mauna Kea	floppy	£16
Golf course - Pinehurst	floppy	£16
Golf course - Banff Springs	floppy	£16
Best of Entertainment Packs	floppy	£16

Technical Sales  
Order Lines

**0181-951 3355**  
(50 lines)

MULTIMEDIA  
& CD ROMS

**SUPER SPECIAL CD ROM BUNDLES!**

**10 CD ROMs for £29!**

The Blues Brothers	Fire Forget It
The Blues Brothers Juke Box Adventure	Battlestorm
Titus Fox	Super Cauldron
Crazy Cars 3	Titan
	Prehistorix
	Prehistorix II

**11 CD ROMs for £29!**

Return to Ringworld	Spectre VR
Microcosm	Compuserve Starter CD
Jutland	The Psychotron
The Cyberplasm Formula	Jurassic Park
Bodyworks	Shadowlands
Voyager	Sleepwalker

**CHILDREN'S CD BUNDLE £19**

Lenny's Musictoons	Family Circus
Cinderella	Putt Putt's Fun Pack
Basic Spelling Tricks	Sing-along Kids

**16 TITLES ON 10 CDS for £29**

Animals	Enchantia
World Atlas	James Pond 2
Space Encyclopaedia	Ostrun
World Cup USA	Print/Paint
Winter Olympics	Power
Links Golf	Comedy Central
Thunderhawk	Madonna
Curse of	Michael Jackson
	Phil Collins
	Abba

**10 CDs MEGAPACK Now only £19**

Links Golf	Freakin' Funky
Test Drive III	Fuzzballs
The Passion	Ultima: The Savage Empire
F14 Tomcat	The Magic Death: Virtual Murder II
Mike Ditke	Absolutely no shareware or clip-art!
Ultimate Football	
Dinosaur Safari	
Audubon's Mammals	

**Powermark plc**  
Premier House, 112 Station Rd,  
Edgware, Middlesex HA8 7AQ

**Tel: 0181-951 3355**  
(50 lines)

**Fax: 0181 905 6233**

**Email: sales@powermark.com**

HMSO

Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. FS 26559

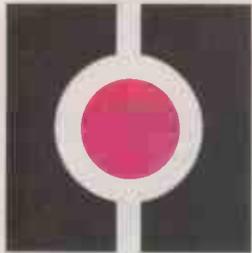
BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices

16



## Mark®

**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**



**DELIVERY CHARGES**

**UK MAINLAND**  
Next working day courier delivery to your door

### SMALL ITEMS

Examples: memory, sound/video cards, CD ROM titles, small software packages

**UP TO 3 ITEMS**  
£6.95 total

**4 ITEMS OR MORE**  
£1.95 for each additional item

### LARGE ITEMS

Examples: CD ROM drives, monitors, multimedia kits, software suites

**1ST ITEM**  
£8.95

**EACH ADDITIONAL ITEM**  
£4.95

Call for rates outside UK mainland

**TURN THE PAGE  
FOR MORE**

### JUKEBOX HITS

#### Memories

Barbara Streisand

#### Sam-Sung Blue

Neil Diamond

#### Intel Laura I Love Her

Ricky Vallance



# MEMORY

## HAUPPAUGE FEATURE

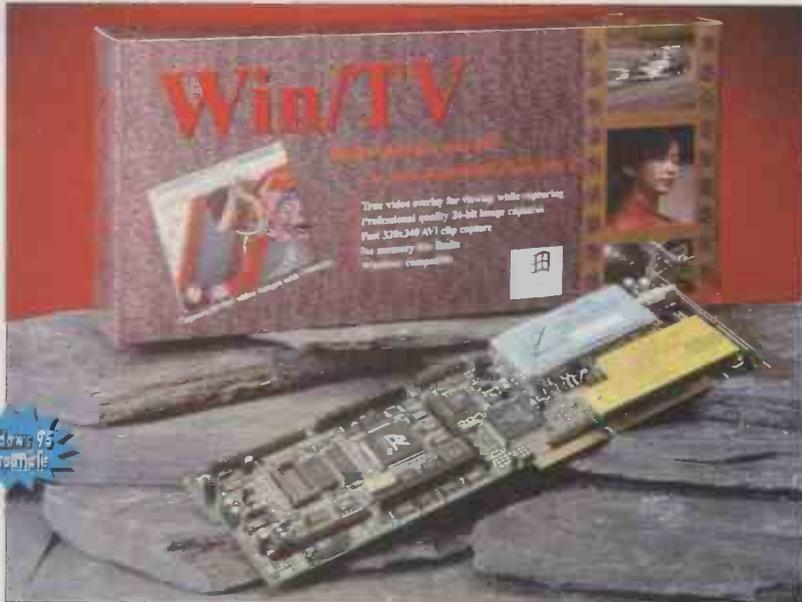
### WIN/TV CELEBRITY

#### THE NEW GENERATION

...the best choice for Multimedia Video! Perfect colour digitising from Hauppauge.

Works with all VGA and SVGA cards up to 1280 x 1024 with up to 16.7 million colours, requiring no feature connector. No memory size limitations make this the easiest overlay/capture card to install.

- MAET technology support: on board motion artifacts elimination
- Fast 320 x 240 lossless AVI clip capture
- Integrated TV tuner/teletext
- Perfect colour: 4:2:2 YUV colour separations and S-Video support for high quality multimedia presentations
- Square Pixel (CCIR 601) support
- Teletext feature is Reuters 1000 ready, supporting dynamic data exchange (DDE) see page 876 on CNNtext, for updated news



Windows 95 compatible

#### WIN/TV CELEBRITY

£269

#### VIDEO OUT MODULE FOR WIN/TV CELEBRITY

£149

#### WIN/TV PRISMA

£159

- SVGA compatible

- 640 x 480, up to 800 x 600 resolution

- Audio line-out so you don't need a sound card

Save £10 on Hauppauge WIN/TV Celebrity when you buy Windows 95. See page 2



Multimedia experts available for specialist advice

## VIDEOLOGIC FEATURE

### GRAFIXSTAR

A new generation of leading price/performance 64-bit Windows accelerators... expandable with low-cost multimedia options



MPC 3 compliant

Windows 95 compatible

#### GrafixStar 300/500

1MB upgrade £47

#### GrafixStar 300/500/700

VMC Controller £39

#### GrafixStar 700

2MB upgrade & VMC Controller £149

### GrafixStar 700

- Fastest performance
- 64-bit - S3 Vision968
- 110+ million Winmarks
- Up to 1600 x 1200 resolution
- Expandable with VMC multimedia options
- Built-in AVI acceleration DCI drivers



#### FREE XING SOFTWARE MPEG PLAYBACK

#### GRAFIXSTAR 700

VLB/PCI 2MB £239

### GrafixStar 300

- Entry level graphics card
- 64-bit - S3 Trio64
- 85+ million Winmarks
- Up to 1280 x 1024 resolution
- Expandable with VMC multimedia options

#### GRAFIXSTAR 300

VLB/PCI 1MB £99

Save £13 on Videologic MPEG player when you buy Windows 95. See page 2

### GrafixStar 500

- Best all-round graphics card
- 64-bit - S3 Vision868
- 95+ million Winmarks
- Up to 1280 x 1024 resolution
- Expandable with VMC multimedia options
- Built-in AVI acceleration with advanced DCI drivers

#### FREE XING SOFTWARE MPEG PLAYBACK

#### GRAFIXSTAR 500

VLB/PCI 1MB £129



### 928MOVIE

ISA 1MB 928MOVIE £139

928MOVIE with sound POWERCUT! £159

VLB 1MB 928MOVIE £139

928MOVIE with sound POWERCUT! £159

928MOVIE with MPEG £359

### MPEG PLAYER

The quality solution for Video CD playback

PLAYER POWERCUT! £199

### CAPTIVATOR PRO TV

Sensational quality video and TV for VML systems

CAPTIVATOR PRO TV £209

CAPTIVATOR PRO POWERCUT! £179

### PCIMOVIE

Super fast graphics for PCI machines

PCIMOVIE 2MB £249

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all stock items See above

### EARLY BIRD

Order Bonus See page 29



Everyone at Powermark passes through our training college

## TAXAN FEATURE

### MONITORS

- Taxan, market leader in display technology were the first manufacturer to introduce an energy efficient monitor compatible with the new EPA Energy Star programme - the adopted 'green' standard for the PC industry
- The Ergovision range not only help save the environment, they save you money too
- All monitors are Macintosh compatible - cable available at extra cost



# TAXAN



TAXAN ERGOVISION 1080LR

#### TAXAN ERGOVISION 1080LR

A 20" analogue auto-scanning ultra high resolution colour monitor, compatible with IBM, Compaq, Apple and most other personal computers. It is an excellent solution for high resolution Windows applications.

**3 YEAR ON-SITE WARRANTY FROM ONLY £49**

	Size	Dot pitch	Resolution at up to:	Frequency	Tube		
400LR	14"	0.28mm	800 x 600	60Hz	Conventional	<b>POWERCUT!</b>	£186
410LR	14"	0.28mm	1024 x 768	60Hz	Conventional	<b>POWERCUT!</b>	£197
420LR	14"	0.28mm	1280 x 1024	60Hz	Conventional	<b>POWERCUT!</b>	£239
<b>NEW</b> 580+LR	15"	0.28mm	1280 x 1024	60Hz	FST	<b>POWERCUT!</b>	£282
880LR	17"	0.28mm	1280 x 1024	60Hz	FST	<b>POWERCUT!</b>	£510
885LR	17"	0.26mm	1600 x 1200	65Hz	FST	<b>POWERCUT!</b>	£579
895LR	17"	0.25mm	1600 x 1200	67Hz	Trinitron	<b>POWERCUT!</b>	£795
1080LR	20"	0.28mm	1600 x 1200	65Hz	Conventional	<b>POWERCUT!</b>	£879
2100LR	21"	0.30mm	1600 x 1200	72Hz	DiamondTron		£1499
<b>NEW</b> KICV100	9.4"	0.30mm	640 x 480	72Hz	TFT LCD Colour		£1999
<b>NEW</b> KIOCV200	9.4"	0.30mm	640 x 480	72Hz	STN LCD Colour		£1249



TAXAN ERGOVISION 2100LR



TAXAN ERGOVISION 580+LR



TAXAN ERGOVISION 410LR

## DIAMOND MULTIMEDIA FEATURE

### DIAMOND

MULTIMEDIA

Diamond have established themselves as the industry standard for high speed graphics accelerators, combining dependable quality with value and high performance.

Windows 95 compatible

#### SPEEDSTAR 64 PRO

- The best price/performance card for Windows games packages
  - DRAM based
  - ISA bus
  - Includes Core! Draw 3 software
- SPEEDSTAR 64 ISA 1MB £109  
SPEEDSTAR PRO ISA 1MB **POWERCUT!** £79

#### STEALTH SE

- The best price/performance card for Windows/games packages
  - DRAM based
  - PCI or VLB bus
- STEALTH SE PCI 1MB £78  
STEALTH SE VLB 1MB £78

#### STEALTH 64 VIDEO DRAM

- The world's fastest DRAM graphics accelerator
  - DRAM based
  - PCI or VLB bus
  - Now with software MPEG support
- STEALTH 64 VIDEO DRAM PCI 1MB £99  
STEALTH 64 VIDEO DRAM PCI 2MB £137  
STEALTH 64 VIDEO DRAM VLB 1MB £99  
STEALTH 64 VIDEO DRAM VLB 2MB £137



#### STEALTH 64 VIDEO VRAM

- The world's fastest 64-bit graphics accelerator
  - Now with software MPEG support
- STEALTH 64 VV PCI 2MB £237  
STEALTH 64 VV PCI 4MB £319  
STEALTH 64 VV VLB 2MB £237  
STEALTH 64 VV VLB 4MB £319

Save ££££s on Taxan Monitors & Graphics Cards when you buy Windows 95. See page 2

### WINTURBO ACCELERATORS

- True 64-bit graphics and multimedia accelerator
- Powered by ATI 88800 Mach64 graphics engine
- 2MB (upgradable) or 4MB VRAM for higher resolution, more colours and greater performance
- ISA, VLB and PCI versions available
- Up to 16.7 million colours at all resolutions from 640 x 480 to 1280 x 1024 with full graphics acceleration

#### GTS WINTURBO

ISA	2MB VRAM	£205
ISA	4MB VRAM	£345
VLB	2MB VRAM	£205
VLB	4MB VRAM	£345
PCI	2MB VRAM	£205
PCI	4MB VRAM	£345

### WINBOOST ACCELERATORS

#### GTS WINBOOST

ISA	1MB DRAM	£101
ISA	2MB DRAM	£139
VLB	1MB DRAM	£101
VLB	2MB DRAM	£139
PCI	1MB DRAM	£101
PCI	2MB DRAM	£139

### Technical Sales Order Lines

0181-951 3355  
(50 lines)

VIDEOCARDS & MONITORS

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items: for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Detailed after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday, Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



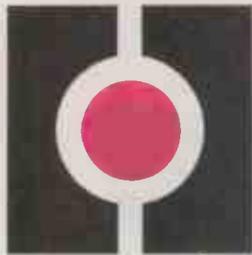
Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. PS 26539

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

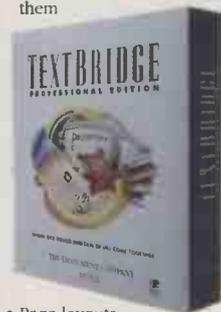
Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

### TEXTBRIDGE PROFESSIONAL EDITION OCR SOFTWARE FEATURE

- Award winning accuracy on normal, faxed and dot matrix text
- Exclusive DocuRT technology re-constructs cell tables that can be edited as if you created them



- Page layouts with columns and pictures are maintained for true text flow editing
- Instant Access OCR from within your Windows application
- Post Recognition Editing within your word processor
- On-line word training, user dictionaries and saving for future use
- OLE 2.0, drag and drop support
- 11 European languages
- Easy to use automatic functions

**Includes voucher for  
FREE upgrade to  
Windows 95 version**

TEXTBRIDGE 3.0	£69
TEXTBRIDGE PROFESSIONAL EDITION	£279
COMPETITIVE UPGRADE	£189

**TURN THE PAGE  
FOR MORE**

# MEMORY

## GOLDSTAR MONITOR FEATURE



**GoldStar**

Technology with the human touch

- Consistent quality and reliability from an ISO9001 approved company
- Over \$350m annual R&D spend
- Full range of monitors from 14" to 20"
- Full safety approvals
- Full ergonomic approvals
- All monitors non-interlaced except 1462
- Extended warranties available - call for full details



Model	Size	Dot Pitch	Resolution up to	Frequency	Features (see key)	
1462	14"	0.28mm	1024 x 768	87Hz	NG, AS, DT	£170
1468	14"	0.28mm	1024 x 768	60Hz	NG, AS, DT	£189
1505	15"	0.28mm	1024 x 768	60Hz	NG, AS, DT, FS, IM	£225
1527	15"	0.28mm	1280 x 1024	60Hz	NG, AS, DT, FS, IM, OS	£269
1727	17"	0.28mm	1024 x 768	60Hz	NG, AS, DT, FS, IM, OS	£485
2010	20"	0.28mm	1600 x 1280	60Hz	DF, AR, AS, IM, OS	£959

#### Key

NG = Non-Glare, AS = Anti-Static, DT = Dark Tint, FS = Flatter Squarer Tube, IM = Invar Mask, OS = Digital On-Screen Controls

**Monitor  
experts  
available for  
specialist  
advice**

## HITACHI MONITOR FEATURE

# HITACHI

Hitachi is one of the largest manufacturers of high resolution computer monitors, and is able to offer a complete range of models which will meet the needs of both home or small-business users, as well as the more demanding needs of the

professional designer, publisher or DIP user.

All monitors offer the latest in screen ergonomics including tilt and swivel bases, anti-glare screen treatment, MPR-II low radiation, energy save function and flicker free resolution capability.

All monitors are IBM PC, Apple Macintosh compatible, and can connect to most workstations.



HITACHI 15MVX Value



HITACHI 17MVX Value

### 17MVX Value

- 17" Flatter Squarer Tube
- Superfine .26mm dot pitch
- Dynamic focusing gun for sharp focus in all areas
- Optimum flicker-free resolution of 1024 x 768 @ 75Hz
- PC & Mac compatible
- VESA, DPMS power save
- Microprocessor control for optimising image size, position and geometry
- MPR-II low emission
- Colour adjust facility
- 12 months on-site replacement warranty

**Monitor experts  
available for  
specialist advice**

	Size	Dot pitch	Resolution	Refresh	Tube	
15MVX Value	15"	0.28mm	1280 x 1024	60Hz	FST, Energy Star	£269
17MVX Value	17"	0.26mm	1280 x 1024	60Hz	FST, VESA-DPMS	£499
CM1711	17"	0.26mm	1280 x 1024	77Hz	FST, VESA-DPMS	£599
CM2096	20"	0.31mm	1280 x 1024	75Hz	Standard, VESA-DPMS	£1029
CM2098	20"	0.28mm	1600 x 1200	72Hz	Standard, VESA-DPMS	£1289
CM2198	21"	0.28mm	1600 x 1200	75Hz	FST, VESA-DPMS	£1579
CM2199	21"	0.26mm	1600 x 1280	80Hz	FST, VESA-DPMS	£2199

### 15MVX Value

- PC and Mac compatible (when supplied with appropriate Mac adapter)
- Supports resolution standards - VGA / SVGA / ESVG / XGA / 8514A / MacII, Mac Quadra
- High refresh rate in all modes
- Microprocessor control
- MPR-II compliant
- VESA-DPMS compliant

### CM1711M

This new multi-scanning colour monitor with 0.26mm dot pitch tube offers sharp and clear images right up to the bezel. Images are flicker free to over 75Hz for resolutions from 640 x 480 to 1280 x 1024, and screen adjustments are made by a microprocessor-based on-screen display. In a recent PC Magazine 'First Looks' review, this monitor was rated 12% better than the previous Editor's Choice.



### DELIVERY CHARGES

**UK MAINLAND - Next working day courier  
delivery to your door for all stock items  
See page 17**

### EARLY BIRD

**Order Bonus  
See page 29**



Everyone at  
Powermark passes  
through our  
training college

# BANK

at Powermark

## UMAX SCANNERS FEATURE

### UMAX FLATBED SCANNERS

- Umax is one of the world's largest manufacturers of flatbed scanners
- All Umax flatbed scanners come complete with Adobe Photoshop V.3, SCSI controller card and 12 months on-site warranty

Windows 95 compatible

# UMAX

Save up to £40 on Umax scanners when you buy Windows 95. See page 2

### PAGEOFFICE

PageOffice is the way to bridge the gap between piles of paper accumulating on your desk and PC. Its impeccable design lets you work efficiently and easily. PageOffice performs important functions including: document filing, OCR translation, image editing, electronic mail, faxing, form-filing and copying.

- 300 dpi optical resolution
- 8-bit 256 shades of grey
- 5-10 sheet built-in document feeder
- 16-bit ISA SCSI interface included
- Fully TWAIN compatible



MEMORY BANK

£289



## HP SCANJET FEATURE

### HP SCANJET 3P

Scanner experts available for specialist advice

- Mono 300 dpi enhanced to 1200 dpi
  - Up to 12 pages per minute
  - Includes HP Picture Palace and Calera Wordscan V3.0
- HP SCANJET 3P £240  
AUTOMATIC DOCUMENT FEEDER £139  
3 YEAR ON-SITE MAINTENANCE £85



Call if the scanner you require is not listed here



HEWLETT PACKARD  
Authorised Reseller  
Personal Computer  
Products

### HP SCANJET 3c

- 600 dpi enhanced to 2400 dpi
  - 30-bit colour gives you 1 billion colours
  - Up to 18 pages per minute
  - Includes HP DeskScan II, ScanJet copier utility, Corel PhotoPaint and Calera Wordscan
- HP SCANJET 3c £636  
AUTOMATIC DOCUMENT FEEDER £315  
TRANSPARENCY UNIT £449

### Technical Sales Order Lines

0181-951 3355  
(50 lines)

MONITORS & SCANNERS

**HUGE STOCKS**  
Guaranteed same day despatch on a virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome enquiries from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

TURN THE PAGE FOR MORE

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices

20



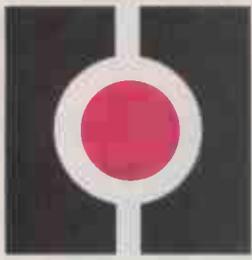
Public Sector customers can purchase through HMSO by calling 01603 694153.



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

Certificate no. FS 40535



# MEMORY

## MICROTEK SCANNERS FEATURE

### MICROTEK Scanners • Software • Support

- 24-bit colour flatbed scanner
  - 600 x 300 dpi up to 1200 x 1200 dpi (interpolated)
  - Scanning area 21.6cm x 35.6cm (approx A4)
  - Scanning modes: 24 bit/16.7 million colours, 8 bit/256 shades of grey, 1 bit/64 shades of grey simulated
  - SCSI interface
- MICROTEK SCANMAKER II** £299  
Mac version available £Call

### MICROTEK SCANMAKER II

This Microtek scanner reproduces your hard copy in 16.7 million colours at a maximum resolution of 1200 x 1200 dpi. It can even be specially equipped to meet your specific needs, if most of your scanning is text-based, just add an ADF-600 50-page

document feeder, or for film scanning, choose the backlit TMA-II transparency attachment.

All Microtek scanners include ScanMaker Plug-in for Adobe Photoshop and a TWAIN-Module for TWAIN-compliant Windows software plus an additional ASPI driver and SCSI card.

**SCANNER EXPERTS  
AVAILABLE FOR  
SPECIALIST ADVICE**

Technical Sales  
Order Lines  
**0181-  
951 3355**  
(50 lines)

**SAVE £££s!**  
With the  
**Memory  
Bank  
Cheque  
Book**



Buy Windows 95  
and save over  
£400 on leading  
peripherals and  
software!

See page 2

**TURN THE PAGE  
FOR MORE**

### MOVIE MEMORIES

7 Brides For 7  
BROTHERS

The Last ACTION  
Hero

In Which We File  
Serve



Can you accurately  
type at 1500 words  
per minute?

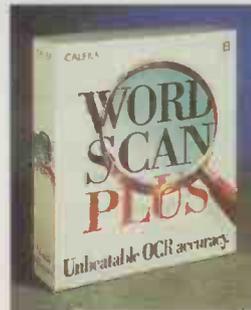
Upgrade your Caere OCR  
software to Omnipage PRO  
5.0 or Wordscan Plus 4.0  
only £129

## CAERE OCR FEATURE

### WORDSCAN PLUS 4.0

- Integrates to Microsoft Office, Novel Perfect Office and Lotus Smart Suite
- Chameleon Toolbar - emulates the toolbar in your favourite WP
- Microsoft Word button will initiate a scan
- Direct Fax/Email support

**Wordscan Plus V4**  
Upgrade £129  
**Wordscan Plus V4** £263



**OCR experts available  
for specialist advice**

### OMNIPAGE PRO 5.0

- The most full featured OCR package available
- Recognises 12 European languages
- Retains page layout
- 24-bit colour image editing
- Save text and graphics into applications.

**Omnipage PRO 5.0**  
Upgrade £129  
**Omnipage 5.0** £279  
**Omnipage PRO 5 Win** £379  
**Omnipage Direct 2** £74

## OKI PRINTER FEATURE

# OKI

### OL400ex Series 4 ppm Page Printers

Are you interested in LED/laser quality printing from a fast, four page per minute printer that takes up little more space on your desk than an A4 notebook? If so, you need look no further than the OL400ex series. Both the OL400ex and OL410ex are designed to sit discretely and quietly on any desktop.



OL810ex

### NEW! OKI 810ex

- 8 pages per minute
- True 600 x 600 dpi
- 2MB RAM
- HP4 compatible
- On-site warranty

**OKI 810ex** £689



OL400ex

### OKI 400ex

- 4 pages per minute
- HP II compatible
- 300 dpi
- PCL4
- Low cost of ownership
- On-site warranty

**OKI 400ex** £289



OL300C

### NEW! OKI Jet 300C

- 3 pages per minute
- Low cost colour printing
- 300 x 300 dpi
- PCL 3
- Straight paper path

**OKI Jet 300C** £239

### OKI 410ex

- 4 pages per minute
- HP III compatible
- 600 dpi
- PCL 5
- Low cost of ownership
- On-site warranty

**OKI 410ex** £389



# BANK

at Powermark

## FUJITSU PRINTER FEATURE

# FUJITSU

Fujitsu, the world's second largest supplier of data processing systems, telecommunications equipment and electronic components, provides a wide range of printer products for home and business applications. The VM range of LED Page Printers offer all the inherent quality associated with all Fujitsu manufactured products, combined with exceptional value.

- LED print technology
- Small footprint
- Easy operation
- Low power consumption
- No waste toner
- Meets the EPA requirements for 'Green' printing
- Low cost per page
- 100 page sheet feeder



FUJITSU VM8

### VM4

- 4 pages per min
- 300 dpi which is optimised to 300 x 900 dpi using Fujitsu Enhanced Imaging Technology
- PCL5
- 1MB RAM expandable to 9MB
- 10MHz Intel 80960 RISC processor
- Ethernet and Appletalk network interfaces available

FUJITSU VM4 £349

### VM4-WIN

- 4 pages per min
- 300 dpi which is optimised to 300 x 900 dpi using Fujitsu Enhanced Imaging Technology
- High speed Bi-directional parallel interface (IEEE P1284 Nibble mode)
- Minimal memory (3 raster memory + work memory)

FUJITSU VM4-WIN £295

### VM8

- 8 pages per min
- 300 dpi which is optimised to 300 x 900 dpi using Fujitsu Enhanced Imaging Technology
- PCL5
- 1MB RAM expandable to 9MB
- 20MHz Intel 80960 RISC processor
- Ethernet and Appletalk network interfaces available

FUJITSU VM8 £399

## KYOCERA PRINTER FEATURE

### KYOCERA FS-400

A compact 4 pages per minute, low cost personal page printer that also offers full system printer capabilities and savings on print costs due to its cartridge-free design.

The FS-400 has a wealth of features, including 300 dpi resolution, enhanced to 300 x 1200 dpi by Kyocera resolution technology, 13 scalable in-built fonts, and for addition cost savings, Energy Star compliance and draft print mode.

Other features include industry standard LaserJet III and optional PostScript emulations, single and multi-protocol network connectivity expansion and full compatibility with Windows applications.

- KYOCERA FS-400** **POWERCUT!** £380
- NETWORK-SPECIFIC ETHERNET INTERFACE £169
  - TONER KIT £16
  - 3 YEAR ECOSHIELD ON-SITE WARRANTY £99



KYOCERA FS-400

### KYOCERA FS-1550

The FS-1550 10 pages per minute printer offers substantial savings on running costs compared with competitive printers - where the ongoing cost of consumables can amount to far more than the purchase price.

It is ideal for word processing, database and spreadsheet printing, and with resolution enhancement, graphics. As your requirements grow, ECOSYS paper handling options include extra paper trays, a duplex unit and a sorter/collator.

Other features include industry-standard LaserJet III and optional PostScript emulations, sophisticated networking and IBM connectivity options, and full compatibility with Windows applications.

- KYOCERA FS-1550** £915
- NETWORK-SPECIFIC ETHERNET INTERFACE £279
  - TONER KIT £51
  - 3 YEAR ECOSHIELD ON-SITE WARRANTY £199
- Also available - KYOCERA FS1600 £1099
- 600dpi printer



KYOCERA FS-1550



KYOCERA FS-1500 WITH ACCESSORIES

**ECOSYS**  
Printing costs. Stop paying the price.

Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

OCR & PRINTERS

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While you wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com

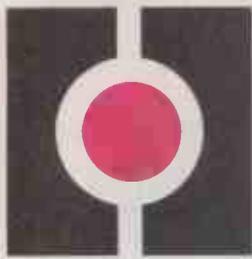
VISA MasterCard  
Cards are not debited until despatch VAT at 17.5% will be added to all prices



Public Sector customers can purchase through HMSO by calling 01603 694153.



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades. Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



**Technical Sales  
Order Lines**  
**0181-  
951 3355**  
(50 lines)

### HP SupportPack

- Onsite warranty by HP engineers
- Recommended for all HP Laserjets & Deskjets



**TURN THE PAGE  
FOR MORE**

### ORIGINAL TONER CARTRIDGES

<b>CANON</b>	
LBP 4/4+	£51
LBP 8III	£52
LBP 8IV	£71
<b>HEWLETT-PACKARD</b>	
LaserJet II/III/III/III	£47
LaserJet II HP/HP+/HP	£46
LaserJet II III/4Si/4MX	£77
LaserJet II 4/4+/4M/4M+	£67
LaserJet II 4L/4ML/4P/4MP	£44
LaserJet II4V/4MV	£115
LaserJet 5 Series	£Call

### PRINTER SHARERS

<b>TRUST AUTOSWITCH 2</b>	£13
• Connects 2 computers to 1 printer	
<b>TRUST AUTOSWITCH 4</b>	£27
• Connects 4 computers to 1 printer	
<b>AUTO SWITCHES</b>	
2 PCs to 1 printer	£18
4 PCs to 1 printer	£18
<b>AUTO SWITCHES</b>	
• 256K buffer	
4 PCs to 2 printers	£127

### DESKJET CARTRIDGES

<b>HP DESKJET BLACK CARTRIDGE</b>	£18
<b>HP DESKJET COLOUR CARTRIDGE</b>	£21

### PRINTER CABLES

	1.5m	3m
<b>PARALLEL</b>	£4	£8
<b>25M - 25M</b>	£4	£9
<b>25M - 36M</b>	£6	£8

### DELIVERY CHARGES

**UK MAINLAND** - Next working day, courier delivery to your door for all stock items  
See page 17

# MEMORY

## HP PRINTER FEATURE

**hp HEWLETT PACKARD**  
Authorised Reseller  
Personal Computer  
Products

### HP DESKJET 1200C

- 600 x 300 dpi
  - Up to 6 pages per minute in black
- HP DESKJET 1200C** £655  
**HP DESKJET 1200C/PS** £1045

### HP DESKJET 660C

- 800 x 600 dpi in black
  - 14 TrueType fonts
- HP DESKJET 660C** £304

### HP DESKJET 1600C

- 600 x 600 dpi in black
  - 4MB RAM
- HP DESKJET 1600C** £862



HP DESKJET 660C

### HP LASERJET 5P

- 6 pages per minute
  - 26 seconds first page out
  - 600 dpi, RET, microfine toner
  - 2MB RAM, up to 50MB
- HP LASERJET 5P** £597  
**HP LASERJET 5MP** £729

### HP LASERJET 4Si

- 16 pages per minute
  - 600 dpi
  - 1 year on-site warranty
  - Delivery: £27 on this printer
- HP LASERJET 4Si** £2175  
**HP LASERJET 4SiMX** £3099  
**3 YEAR ON-SITE WARRANTY** £459

### HP LASERJET 4L

- 4 pages per minute
  - 300 dpi
  - 1MB RAM
- HP LASERJET 4L** £369  
**3 YEAR ON-SITE WARRANTY** £95



HP LASERJET 5P

### HP COLOR LASERJET

- Up to 10 pages per minute in black
  - Up to 2 pages per minute in colour
  - 300 dpi
  - 1 year on-site warranty
  - Delivery: £27 on this printer
- HP COLOR LASERJET** £4389  
**IEEE 1284 COMPLIANT**  
**PRINTER CABLE** £19  
**HP COLOR LASERJET CABINET** £345  
**250 SHEET REAR FEED UNIT** £315



HP COLOUR LASERJET

### HP LASERJET 4 PLUS

- 12 pages per minute
  - Up to 600 dpi
  - 2MB RAM
- HP LASERJET 4 PLUS** £979  
**HP LASERJET 4M PLUS** £1349  
**HP DUPLEX UNIT** £499  
**3 YEAR ON-SITE WARRANTY** £159



HP DESKJET 540

### HP DESKJET 540

- 600 x 300 dpi in black
  - Up to 3 pages per minute
  - 3 year warranty
- HP DESKJET 540** £217  
**COLOUR KIT UPGRADE** £32

### HP DESKJET 850C

- 600 x 600 dpi in black
  - Up to 6 pages per minute in black
  - 45 TrueType fonts
- HP DESKJET 850C** £405



HP DESKJET 1600C

### HP LASERJET 4V

- A3 paper handling
  - 8 pages per minute in A3, 12 in A4
  - Delivery: £27 on this printer
- HP LASERJET 4V** £1425  
**HP LASERJET 4MV** £2065  
**HP LASERJET 4V 500 SHEET TRAY SYSTEM** £279  
**3 YEAR ON-SITE WARRANTY** £199

**Matched Memory Kits for HP Printers on page 5**

## SPIDERMAN FEATURE

### SpiderMan

**SpiderMan - The first personal messaging centre for PCs and notebooks**  
SpiderMan is a plain paper fax machine, answering machine, fax modem and switch box all in one unit.

- SpiderMan receives and stores up to 20 faxes in its internal memory even when the computer is switched off
- SpiderMan works even when your PC is not connected



**SpiderMan operates even without your PC**

- SpiderMan needs only one telephone line
- SpiderMan as an answering machine will store up to 10 minutes of voice messages



- SpiderMan prints faxes on ordinary paper through your office or home printer
- SpiderMan as an answering machine will store up to 10 minutes of voice messages

- SpiderMan as a high speed modem can send and receive data at speeds of 14.4 kbps
- SpiderMan's fax capacity allows you to send faxes from your PC to any fax machine in the world
- SpiderMan takes care of the environment - in sleep mode it uses almost no energy
- SpiderMan is a fax machine, an answering machine, fax modem, switch box, all in one unit, using just one telephone line

**SPIDERMAN** £255

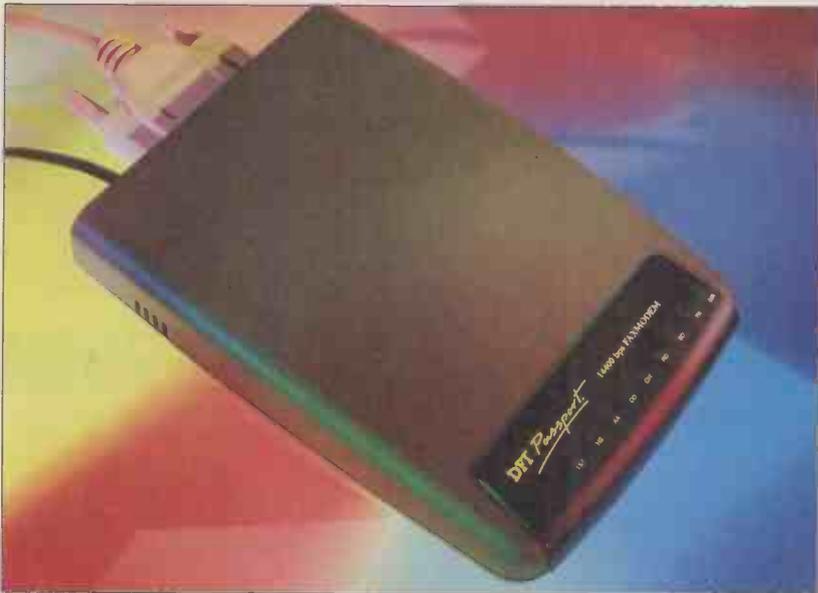
**EARLY BIRD  
Order Bonus  
See page 29**



**POWERMARK  
ACADEMY**

Everyone at Powermark passes through our training college

## DFI MODEM FEATURE



### DFI MODEMS

Model	V21	V22	V22bis	V32	V32bis	V32terbo	V34	MNP 2-4	V42	V42bis	MNP5	HST Cellular	Fax	Internal	External
Passport F1114V	●	●	●	●	●	●	●	●	●	●	●	●	●	£84	£84
Passport F1128V+	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £159	£159

# DFI®

## F1114V

### Features

- Data/Fax speed: 14,400 bps
- V.32, V.32 BIS, V.42, V.42BIS
- MNP level 2-4, 5
- Fax Class 1, 2 & 3
- Call back security
- Full/half duplex and auto fallback

### Accessories included

- Serial cable
- Telephone lead
- User's manual
- AC adapter

### Software

- Delrina's 4 in 1 Win/DOS Fax Lite and Comit Lite DOS/Win software for data transmission

### Access

- Introductory membership to CompuServe

### Warranty

- 5 years

DFI manufactures a comprehensive line of high quality PC components which are the strength behind its custom-built desktop and notebook PCs. To supplement this product line, DFI have now moved into the data communications arena, launching the passport range of BAPT approved fax modems. This complete package offers you state of the art technology and incorporates everything you need to gain access to the information super highway at a highly competitive price.



## F1128V+

### Features

- Data/Fax speed: 28,800/14,400 BPS
- V.32, V.32 BIS, V.42, V.42 BIS, V.34
- MNP Level 2-4, 5
- Fax Class 1, 2 & 3
- Call back security
- Full/half duplex and auto fallback

### Accessories included

- Telephone lead
- User's manual
- AC adapter

### Software

- Delrina's 4 in 1 Win/DOS Fax Lite and Comit Lite DOS/Win software for data transmission

### Access

- Introductory membership to CompuServe

### Warranty

- 5 years

## EARLY BIRD



**Order Bonus**  
See page 29 of this advertisement



Certificate no. FS 26535  
BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

... and here's what some of our customers have said ...  
"A brief note to thank you very much for your help when I phoned yesterday in connection with a memory upgrade for an old Viglen Dossier notebook. I did appreciate very much your assistance and your efficiency.  
...Once again, I wish to express my thanks for your assistance. When next I need any other computer items I know where I shall apply - Powermark!"  
Dr O'Reilly, Dublin

## Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

PRINTERS & MODEMS

## Webster's Web



Dear Webster,

Everywhere I am confronted with words like 'Internet' and 'Information Super-Highway'. Friends of mine are telling me that they are going 'surfing' or 'coasting' today. Am I missing out on something really hip, what equipment do I need to cruise the 'Infobahn'?

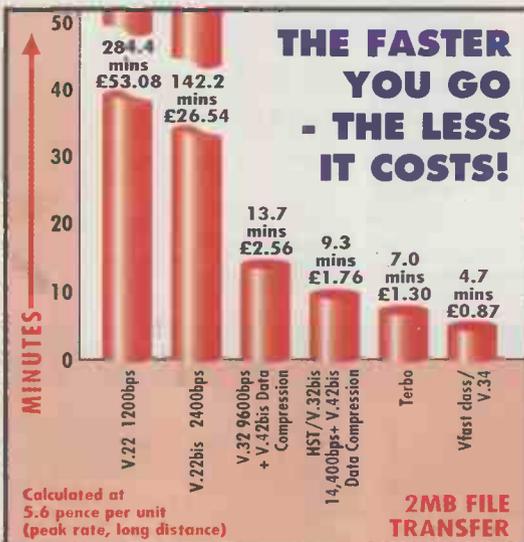
Yours, Anxious in Andover

Anxious, Everybody can crawl the Web. It's so easy to get tangled up in jargon. All you need is a 28.8 modem with supporting communications software and you'll really surf. Don't forget that Windows 95 includes access to the Microsoft Network.

Send your communication problems to Webster, c/o Powermark plc, Premier House, Station Road, Edgware, Middlesex, HA8 7AQ or fax them to 0181 905 6233. You can also Email Webster on: web@powermark.com

Webster makes every effort to answer your communication problems, but he cannot guarantee to reply to everyone.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355 (50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com



Public Sector customers can purchase through HMSO by calling 01603 694153.

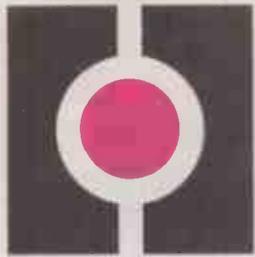


BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades. Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



Cards are not debited until despatch VAT at 17.5% will be added to all prices

Power



Mark®

Technical Sales  
Order Lines  
**0181-  
951 3355**  
(50 lines)



**FREE**  
WinFax  
for  
Windows 95  
Upgrade



Save £10 off  
WinFax Pro  
when you buy Windows 95.  
See page 2

All modems supplied  
by Powermark plc are  
BABT APPROVED

**TURN THE PAGE  
FOR MORE**

**WARTIME  
Memories**

Careless talk  
costs lives

Wartime ad

Some chicken...  
some neck!

Winston Churchill

Be like dad -  
keep mum

Wartime ad

# MEMORY

## MULTITECH MODEM FEATURE

**MultiTech**®  
Systems

### MULTITECH MODEMS

Model	V21	V22	V22bis	V32	V32bis	V32terbo	V.34	MNP2-4	V42	V42bis	MNP5	Fax	Simultaneous voice & data	External
MT2834BLK	●	●	●	●	●	●	●	●	●	●	●	●	●	£389
MT1932ZDX	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £108
MT1432LTI PCMCIA	●	●	●	●	●	●	●	●	●	●	●	●	●	£198
MT2834LTI PCMCIA	●	●	●	●	●	●	●	●	●	●	●	●	●	£219
MT1432MK Pocket	●	●	●	●	●	●	●	●	●	●	●	●	●	£347
MT1432BLK	●	●	●	●	●	●	●	●	●	●	●	●	●	£299
MT2834ZDX	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £165
MT2834PCSI	●	●	●	●	●	●	●	●	●	●	●	●	●	£599

Windows 95  
compatible



MULTIMODEM II MT2834 ZDX

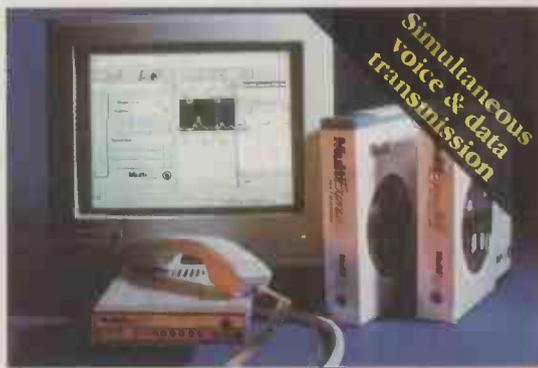
### MULTIMODEM II ZDX SERIES

- Desktop unit
- Group 3/Class 2 (TR29) fax
- V.17 fax compatible
- PSTN only
- V42 (lap-M) error correction
- V42bis data compression
- MNP to Level 5
- Asynchronous operation
- AT command set (Hayes compatible)
- Free Multiexpress fax and comms software for windows
- 10 year warranty
- Available in 28.8bps (V34) and 14.4bps (V32bis)

### MULTIMODEM II SERIES

- Desktop unit/metal enclosure
- Group 3/Class 2 (TR29) fax
- PSTN and 2W/4W leased line
- Leased line dial-backup with auto-restoral
- Security call-back (30 no.)
- V42 (lap-M) error correction
- V42bis data compression
- MNP to Level 5
- V25bis async/sync
- Free Multiexpress fax and comms software
- 5 year warranty
- Available in 28.8bps (V34) and 14.4bps (V32bis)

Save £25 off MultiTech MT2834 PCSI modem  
when you buy Windows 95.  
See page 2



MULTIMODEM II MT2834 PCSI

Simultaneous  
voice & data  
transmission

## U.S. ROBOTICS MODEM FEATURE

**USRobotics**®

The Intelligent Choice in Data Communications

### U.S. ROBOTICS MODEMS

Model	V21	V22	V22bis	V32	V32bis	V32terbo	V.34	MNP2-4	V42	V42bis	MNP5	IST Cellular	Fax	Internal	External
Sportster 14,400 + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	£106	£106
Sportster 28,800 V.34 + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £161	£159
Sportster 28,800 V.34 Mac + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £199	
Courier Dual Standard V.34 + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	£245	
Courier Dual Standard V.34 + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £242	
WorldPort Dual Standard Cellular + Fax	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £125	
WorldPort PCMCIA V.34	●	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT! £165	

PowerPort High Speed Dual Async Serial Card. Recommended for terbo and V34 modems to prevent bottleneck of data £49



SPORTSTER 28,800 + FAX

### SPORTSTER 28,800 + FAX

The world's best selling modem just got better. With speeds of up to 28,800bps, the Sportster 28,800 + Fax offers proven high performance technology, at an unbeatable price.



COURIER V.34

### COURIER

#### Courier Dual Standard V.34 with V.32bis

V.34 for speeds of up to 28,800bps. With the use of data compression a throughput of up to 115,200bps can be achieved, enabling you to communicate at speeds previously never possible on a dial-up line.



WORLDPORT DUAL STANDARD CELLULAR

### WORLDPORT PCMCIA

#### WorldPort Dual Standard Cellular PCMCIA 2.0 Fax Modem

Compatible with any portable equipped with a PCMCIA type II slot and powered directly by the computer. The ideal solution for anyone who will regularly need to transfer data from their portable computer.



WORLDPORT PCMCIA

### WORLDPORT DUAL STANDARD CELLULAR

Small enough to fit in your pocket, whilst providing you with all your data communications needs both in and out of the office, the WorldPort Dual Standard Cellular Fax is the perfect choice for the mobile user.

25

### DELIVERY CHARGES

UK MAINLAND - Next working day courier  
delivery to your door for all stock items  
See page 17

### EARLY BIRD

Order Bonus  
See page 29



Everyone at  
Powermark passes  
through our  
training college

## MOTOROLA MODEM FEATURE



### MOTOROLA MODEMS

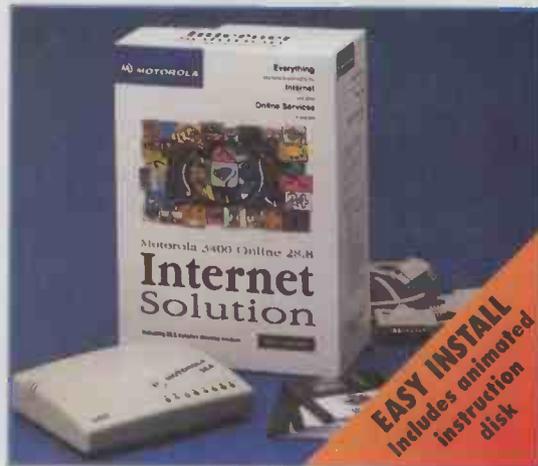
Model	V21	V22	V22bis	V23	V32	V32bis	V32terbo	V42	MNP2-4	MNP5	V.42bis	Fax	Voice*	External
<b>NEW!</b> 3400 Online	●	●	●	●	●	●	●	●	●	●	●	●	●	<b>POWER CUT!</b> £195
<b>NEW!</b> 3400 Pro Mac	●	●	●	●	●	●	●	●	●	●	●	●	●	<b>POWER CUT!</b> £179
<b>NEW!</b> 3400 Pro PC	●	●	●	●	●	●	●	●	●	●	●	●	●	<b>POWER CUT!</b> £179

### 3400 ONLINE & PRO MODEMS

- Motorola RISC Technology
- Twice the speed of V.32bis 14.4bps technology
- Automatically selects the fastest possible line speed
- Robust performance over standard telephone lines
- Data error correction and data compression
- Fax error correction
- Phone number directory

- Speed 28,800 bps the fastest standard available
- True V.34 worldwide compatibility
- Complete with all necessary cabling
- Includes popular fax and communications software
- Comprehensive user manual included
- Telephone support helpline

*Easy install - includes animated instruction disk*



Motorola 3400 Online 28.8 Internet Solution comes complete with all hardware and software that you need to get your PC online to the Internet!

- Internet software
- Protocol software
- File transfer software
- WorldWide Web browser software
- Electronic mail software
- Newsgroup software
- Interactive online game
- Internet phone software licence



**EASY INSTALL** Includes animated instruction disk

**Comms experts available for specialist advice**

## LASAT MODEM FEATURE

### LASAT MODEMS

Model	V21	V22	V22bis	V32	V32bis	V.34	MNP2-4	MNP5	MNP10	Fax	External
Unique 144	●	●	●	●	●	●	●	●	●	●	£199
Safire 144 (Mains only)	●	●	●	●	●	●	●	●	●	●	£119
Credit 144 PCMCIA	●	●	●	●	●	●	●	●	●	●	£165
<b>NEW!</b> Credit 288 PCMCIA	●	●	●	●	●	●	●	●	●	●	£198
Safire 288	●	●	●	●	●	●	●	●	●	●	£195
<b>NEW!</b> Unique 640i single channel ISDN T/A	●	●	●	●	●	●	●	●	●	●	£399



### SAFIRE 288

The Safire 288 V34 modem has V.42 error correction; V.42bis

data compression, MNP 2-5, MNP10; industry standard AT commands; async/sync/autosync communications; V.29 and V.27 fax. With indicator lights on front panel, the Safire 288 comes with cable and fax software.

It can send and receive data at 115,200 bps and send and receive faxes at 14,400 bps.

### CREDIT 288

The Credit 288 V.34 PCMCIA modem which has V.42 error correction; V.42bis data compression, MNP 2-5, MNP10; industry standard AT commands; async (8/9/10-bit), autosync; auto dialling/answering; built-in 16550 FIFO UART.

It can send and receive data at 115,200 bps and send and receive faxes at 14,400 bps. Includes telephone cable and fax software.



All modems supplied by Powermark plc are **ISDN APPROVED**

"We were wrong to expect a good looking modem to perform badly. The Unique 144 displayed perfect data performance... and its throughput was excellent." Computer Shopper, April 1994

### Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

**MODEMS**

**HUGE STOCKS**  
Guaranteed same day despatch on a virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
**Tel: 0181-951 3355**  
(50 lines)  
**Fax: 0181 905 6233**  
**Email: sales@powermark.com**



Cards are not debited until despatch  
**VAT at 17.5% will be added to all prices**



Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. PS 26535

BS7570 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

**HAYES ESP  
ACCELERATOR  
CARDS**

- Helps PCs to keep up with fast modems
- Recommended for all 288 and 144 modems
- Can run at speeds up to 921,600bps

ESP Card - 1 Port £74  
ESP Card - 2 Port £108

**CABLES**

2 metre 9F to 25M £8  
2 metre 25F to 25F £8  
Call for modem/serial cables and adaptors not listed here.

... and here's what some of our customers have said ...  
*I refer to my telephone call with one of your colleagues last week, who is to be complimented on the excellent approach he had towards me.*  
S Little, W Lothian

All modems supplied by Powermark plc are BABT APPROVED

**TURN THE PAGE FOR MORE**

**FAMOUS COMMUNICATORS**

Magnus Pike  
Stanley Unwin  
Joyce Grenfell

# MEMORY

## HAYES MODEM FEATURE



ACCURA 288 V.34 + FAX

**ACCURA+ FAX**  
Low cost fax modems with all of the quality and ease-of-use that comes with the Hayes name.

**OPTIMA+ FAX**  
Offers outstanding performance with the ability to compress data twice as much as other fax modems.



OPTIMA 288 V.34 + FAX



**HAYES MODEMS**

The industry standard

Windows 95 compatible

Model	V21	V22	V22bis	V32	V32bis	V32terbo	V34	V34-4	V42	V42bis	MNP5	FAX	Internal	External
ACCURA 144 + FAX144	●	●	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£105
ACCURA 288 + FAX	●	●	●	●	●	●	●	●	●	●	●	●		£172
OPTIMA 144 + FAX144	●	●	●	●	●	●	●	●	●	●	●	●		£249
<b>NEW!</b> OPTIMA 288 PCMCIA	●	●	●	●	●	●	●	●	●	●	●	●		£197
OPTIMA 288 + FAX	●	●	●	●	●	●	●	●	●	●	●	●		£342
OPTIMA 288 + FAX bundle 2 pack with free accelerator cards and upgrade to V.34	●	●	●	●	●	●	●	●	●	●	●	●		£669
ULTRA 144	●	●	●	●	●	●	●	●	●	●	●	●		£489
ULTRA ISDN 64K System Adapter														£499

ESP high speed serial card, 1 port £59, 2 port £89

## ZOOM MODEM FEATURE

# ZOOM

Personal Computer  
World:  
Editor's Choice  
Award Dec '93 and  
June '93

Windows User:  
Best On Test,  
February 94



**ZOOM MODEMS**

Model	V21	V22	V22bis	V32	V32bis	V34	MNP2-5	V42	V42bis	FAX	Internal	External
14.4X	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£95
14.4i	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£89
14.4X MacPak	●	●	●	●	●	●	●	●	●	●		£109
28.8X	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£169
28.8i	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£149
28.8X MacPak	●	●	●	●	●	●	●	●	●	●	POWERCUT!	£179

**ZOOM 14.4  
MODEMS**

- Remote configuration and callback security
- High speed 14,400 bps fax and data transmission with V.42bis and MNP 2-5

- Extended status reporting with 15 LED lights (14.4X only)
- 5 year warranty
- Buffered 16550 UART to prevent data overruns (14.4i only)

## PSION MODEM FEATURE

# PSION DACOM



**PSION DACOM MODEMS**

Model	V21	V22	V22bis	V32	V32bis	V.F.C.	MNP2-4	MNP10	V42	V42bis	MNP5	FAX	PC Card
V.32bis Gold Card	●	●	●	●	●	●	●	●	●	●	●	●	£175
V.34 Gold Card	●	●	●	●	●	●	●	●	●	●	●	●	£219

Windows 95 compatible

**NEW!**  
**GOLD DRIVE  
PC Card  
DRIVER**



- Internal device reads any PC Card
  - Fits into any 3.5" drive bay
  - Front loading
  - Reads Type I, II and III cards
  - Easy to use
  - Easy to install
  - 5MB/sec data transfer rate
- GOLD DRIVE PC Card DRIVER** £119

Comms experts available for specialist advice

All modems supplied by Powermark plc are BABT APPROVED

**DELIVERY CHARGES**

UK MAINLAND - Next working day courier delivery to your door for all stock items  
See page 17

**EARLY BIRD**

Order Bonus  
See page 29



Everyone at Powermark passes through our training college

## DATAFLEX MODEM FEATURE



14.4  
portable  
only £69  
Limited offer

### DATAFLEX MODEMS

Model	V21	V22	V22bis	V23	V32	V32bis	V34	MNP2-4	V42	V42bis	MNP5	MNP10	Voice	VITFax	Internal	External
PC SuperGEM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	£Call
Portable SuperGEM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	LIMITED OFFER!
Comms Office	●	●	●	●	●	●	●	●	●	●	●	●	●	●	£106	£175
PC HyperGEM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	£169	POWERCUT!
Portable HyperGEM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	£195
Desktop HyperGEM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	£242

### SuperGEM Comms Office

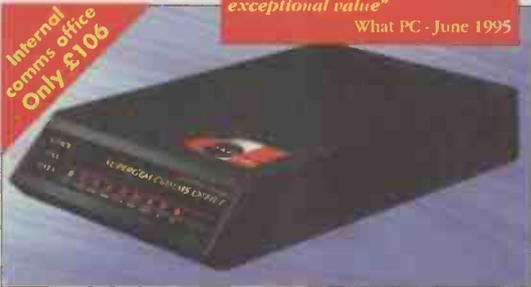
Combines voice recording, message taking, automatic touch tone response, fax, modem and comms management in one box. Easy to use Windows software enables your PC to become an answering machine with automatic voice, fax and data detection.

- Touch tone selection
- Voice mail
- Pager notification
- Call screening
- Sound card support
- Fax broadcasting
- Faxback/Faxforward
- Super Voice 2.0 software
- Windows fax and comms software

"Versatile modem combining answering machine with fax and data functionality - exceptional value"

What PC - June 1995

Internal  
comms office  
Only £106



### HyperGEM

Available as portable, PC card or desktop  
• V34 (28,800bps)  
• Ideal for Internet  
• Windows fax and comms software



## XIRCOM FEATURE

### Xircom

#### CREDIT CARD TOKEN RING ADAPTER IIps

- High-performance, memory-saving SmartRing software
- 16 or 4 Mbps software selectable ring speed
- Windows and DOS based installation program automatically configures PC and NOS setup
- Intuitive Windows based user utility for easy adapter management
- Allows 'hot' removal and reinsertion while preserving system status
- Supports both shielded & unshielded twisted pair Token-Ring cabling
- Compatible with the widest range of platforms

PS-CT2-16CTP (TP) £299



- Performance modem communications via Xircom's Modem Application Programming Interface (XMAPI)
- Supports advanced PCMCIA features including HotSwap, Suspend/Resume and Integrated Power Management
- Support for remote node access applications
- Includes Windows terminal and fax software

CEM2-10BT (TP) **POWERCUT!** £299

CEM2-10B2 (BNC) **POWERCUT!** £309

CEM2-10BC (COMBO) **POWERCUT!** £319

#### CREDIT CARD ETHERNET + MODEM II

- Simultaneous Ethernet/803.2 LAN plus 19,200 bps data and 14,400 bps send/receive fax modem operation in one slot
- Modem software configurable to support localised telephone requirements in US and 14 European countries
- Serial port/UART emulation provides increased compatibility with all popular terminal and fax software
- Includes terminal and fax software for Windows

#### POCKET ETHERNET ADAPTER III



- Universal connection for all notebook, laptop and desktop PCs
  - Enhanced Parallel Port (EPP) capable
  - Requires no internal expansion slots
  - No jumpers or configuration switches to set
  - Ultra-compact, ergonomic design for maximum portability and one hand installation
  - Phantom power cable
  - Small, lightweight power supply included
- PE3-10B2 (BNC) £185  
PE3-10BT (TP) £186  
PE3-10BC (COMBO) £209

Technical Sales  
Order Lines

0181-951 3355  
(50 lines)

MODEMS

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

TURN THE PAGE FOR MORE

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. FS 26535

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

**EARLY BIRD**



**Catches the  
ROM!**

**FREE  
CD ROM**

**WITH EVERY  
TELEPHONE ORDER  
PLACED  
BEFORE 1.00PM**

When ordering just  
ask for your **FREE**  
CD ROM as it is  
not shipped  
automatically

**HURRY!  
STOCKS ARE VERY  
LIMITED**

**TURN THE PAGE  
FOR MORE**

**SAVE £££s!**  
With the  
**Memory Bank  
Cheque  
Book**

Buy  
**Windows 95**  
and save over **£400**  
on leading  
peripherals and  
software!

**See page 2**

# MEMORY

## INTEL NETWORKING FEATURE



### INTEL LANDESK MANAGEMENT SUITE V2.0

- Integrated desktop management applications including: software distribution and metering, inventory and remote control, printer management, traffic monitoring, powerful reporting and much more
  - Powerful data capture and reporting
- LANDESK MANAGER  
SUITE V2** £349  
**LANDESK MANAGER  
V1.51** £675



### INTEL NETPORTEXPRESS XL PRINT SERVER

The high performance print server for multi-protocol networks. Supports Novell NetWare, UNIX and Macintosh network printing environments simultaneously. It connects up to three printers anywhere on your LAN, so it's easy to respond to changing users' needs.

- Print throughput of up to 180 KBps
- Simultaneously (Multi-protocol) supports up to 3 protocols on up to 3 attached printers
- Software upgradable with Flash memory

*Unit 3 Pack*

<b>NETPORT XL BNC/TP</b>	£324	£899
<b>NETPORT XL TOKEN RING</b>	£439	-

**...ALSO AVAILABLE**

*Unit 3 Pack*

<b>NETPORT EL BNC/TP</b>	£259	£749
<b>NETPORT EL TOKEN RING</b>	£388	-

### INTEL ETHEREXPRESS PRO



- Superior performance via concurrent processing, large 32k buffer and 32-bit instructions
- 90 day money back guarantee and limited lifetime warranty

**ETHEREXPRESS 16**

	BNC	RJ45	AUI	Unit	5 Pack
EE16	•	•	•	£69	£325
EE16-TP	•	•	•	£71	£335

**ETHEREXPRESS FLASH**

	BNC	RJ45	AUI	Unit	5 Pack
EF16	•	•	•	£74	£352
EF16-TP	•	•	•	£74	£352
EF16C	•	•	•	£86	£415

**ETHEREXPRESS PRO 10 (PLUG & PLAY)**

	BNC	RJ45	AUI	Unit	5 Pack
EP16-TP	•	•	•	£59	£266
EP16C	•	•	•	£71	£329

**ETHEREXPRESS FLASH PRO 10 (PLUG & PLAY)**

	BNC	RJ45	AUI	Unit	5 Pack
EFP16-TP	•	•	•	£68	£289
EFP16C	•	•	•	£77	£353

## FISKARS POWER FEATURE



### POWERSERVER 10

The PowerServer 10 range of line-interactive Uninterruptible Power Supplies provides a typical computer load with up to 10 minutes of battery back-up time in the event of an extended mains power failure. Cost-effective UPS for servers, workstations and other LAN applications.

- PC Magazine Editors' choice
- ABM battery management
- On-line battery testing
- Wide input range
- Compatible with LanSafe III power management software



Model	Power Range	Watts at Power Factor 0.7	Typical Backup Time (Mins)		
PS10/0.4	400VA	280W	10	<b>POWERCUT!</b>	£229
PS10/0.6	600VA	420W	10	<b>POWERCUT!</b>	£253
PS10/1.0	1000VA	700W	10	<b>POWERCUT!</b>	£442
PS10/1.4	1400VA	980W	10	<b>POWERCUT!</b>	£529
PS10/1.8	1800VA	1260W	10	<b>POWERCUT!</b>	£811
PS10/2.2	2200VA	1540W	10	<b>POWERCUT!</b>	£950

### FAILSAFE III

Power Management Software for Stand-Alone PC's

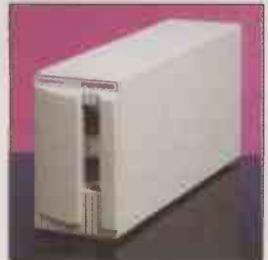
- For Windows, Windows NT and OS/2
  - Self-guided installation
- FAILSAFE III WINDOWS** £49  
**FAILSAFE III WIN NT** £49  
**FAILSAFE OS/2** £49

### POWERRITE PLUS

	Power Range	Typical Backup Time		
PRP/250	250VA	5 Mins	<b>SPECIAL OFFER!</b>	£77
PRP/400	400VA	5 Mins		£115
PRP/600	600VA	5 Mins		£149

- Protects against power problems
- Advanced battery management (ABM) gives 30% longer battery life
- Supported by LanSafe III and FailSafe III power management software (400VA and 600VA models)

Powerful, small-footprint Uninterruptible Power Supply suitable for use with workstations and communication devices. Typically provides 5 minutes of back-up time for computer loads. All models feature a computer communication software option.



### LANSAFE III

Power Management Software for Networks

LanSafe III, used in conjunction with a Fiskars UPS, provides a sequenced network shutdown in the event of an extended mains power failure. LanSafe III ensures the integrity of data by instructing the workstations to send their cached data to the hard disk, before sequentially closing down the network.

- Power events stored in log file for analysis\* Automatic orderly shutdown of entire network in case of power failure

<b>LANSAFE III FOR DOS/ WIN/ NETWARE</b>	£69
<b>LANSAFE III FOR NOVELL NMS</b>	£119
<b>LANSAFE III WINDOWS NT</b>	£69
<b>LANSAFE OS/2</b>	£69
<b>LANSAFE III UNIX</b>	£69



# BANK

at  
Powermark

## SMC NETWORKING FEATURE

# SMC®

### SMC EtherEZ Adapters

Superior plug and play Ethernet adapter approved for Windows 95

SMC have been working very closely with Microsoft to ensure their adapter is completely compatible with Windows 95, and are therefore one of the first companies to have gained full approval by Microsoft. In non Plug and Play environments, these adapters install in just one easy step.

- Installs in less than 30 seconds
- Plug and Play capability means auto-configuration on power up
- SMC's fastest adapter to date
- All drivers are backward compatible with previous SMC adapters
- SNMP agent included at no extra charge
- Support for all popular network operating systems
- Lifetime Warranty
- 20 packs and 50 packs also available - call for pricing

	Single	5 Pack
EtherEZ Adapter BNC	POWERCUT! £60	£279
TP	POWERCUT! £60	£259
Combo	POWERCUT! £68	£299



Windows 95 compatible

### SMC Fast Ethernet Adapters

The SMC EtherPower 10/100 and Ether 10/100 adapters are 100Base-TX devices, designed for PCI or EISA bus computers. These dual-speed adapters allow for the easy integration of Fast Ethernet into 10Base-T legacy LANs.

- Performance boost for PCI and EISA machines
- Widest driver support, including NetWare, Windows for Workgroups, Windows NT, Banyan Vines, DEC Pathworks and IBM LAN Server
- Lifetime warranty
- ISO9002-certified manufacturing process
- SNMP agent included
- 20 packs + 50 packs also available - call for pricing

### SMC ETHERCARD ELITE ULTRA

	Single	6 Pack
Elite 16 Ultra BNC	£59	£339
Elite 16 Ultra TP	£59	£339
Elite 16 Ultra Combo	£69	£386

### SMC ETHERPOWER PCI

	Single	5 Pack
EtherPower PCI TP	POWERCUT! £89	£415
EtherPower PCI Combo	POWERCUT! £101	£499

### SMC ELITECARD PCMCIA

	Single	5 Pack
EliteCard PCMCIA TP	£85	£399
EliteCard Combo	£114	£553

### SMC ETHERCARD ELITE 32C ULTRA

	Single	6 Pack
Elite 32C Ultra Combo	£141	£769

### TIGER HUBS

	Number of Ports				
	TP	BNC	AUI	FL	
CX3	0	3	1	0	£209
TP6	6	0	1	0	£124
TP6B	6	1	0	0	£125
TP12	12	1	1	0	£249
CX6	1	6	1	0	£435
FL6	0	1	1	6	£4call

Save £10 on SMC EtherEZ Ethernet cards and £40 on five-packs of SMC EtherEZ Ethernet cards when you buy Windows 95. See page 2

24 AND 50 PACKS ALSO AVAILABLE

## 3COM FEATURE

# 3Com®

Compatible with commonly used operating systems, including Novell Netware, Microsoft LAN Manager, DECnet, DOS, PC-NFS, Banyan Vines and 3+Open.

### 3C503 RANGE

Standard 8-bit or selectable 16-bit card. Shared memory architecture and 8K buffer.

### 3C529 RANGE

MCA Etherlink III Cards.

### 3C509 RANGE

16-bit high performance, low component cards.

### 3C579 RANGE

32-bit EISA interface using Parallel Tasking Architecture.

The adapter uses the same drivers as the EtherLink III and is SNM!

manageable when used with Linkwatch.



CALL FOR 20 PACK PRICES

### 3C509 RANGE

	BNC	RJ45	AUI	Unit	5 Pack
3C509	●		●	£73	£329
3C509TP		●		£73	£329
3C509C	●	●	●	£81	£359

### 3C529 RANGE

- MCA Etherlink III cards

	BNC	RJ45	AUI	Unit	5 Pack
3C529	●		●	£156	£699
3C529TP		●	●	£156	£699

### 3C579 RANGE

- 32-bit EISA interface using Parallel Tasking Architecture

	BNC	RJ45	AUI	Unit	5 Pack
3C579	●		●	£149	£679
3C579TP		●	●	£149	£679

### 3C589 RANGE

- PCMCIA cards

	BNC	RJ45	AUI	Unit	5 Pack
3C589T	POWERCUT!	●		£107	£490
3C589C	POWERCUT!	●	●	£137	£634

### TOKEN RING PCMCIA

- AutoLink software
- LEDs for installation and trouble shooting

		Unit	5 Pack
3C689	TokenLink III 16/4	£299	£1399

### 3C590 RANGE

- PCI Bus Master adapters using parallel tasking architecture

	BNC	RJ45	AUI	Unit	5 Pack
3C590TP		●		£97	£424
3C590C	●	●		£113	£512

NETWORKING

Technical Sales Order Lines

0181-951 3355  
(50 lines)

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm. Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com

VISA MasterCard  
Cards are not debited until despatch  
VAT at 17.5% will be added to all prices

HMSO

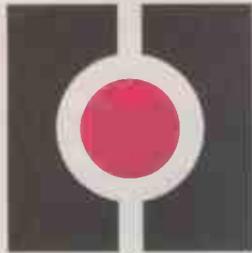
Public Sector customers can purchase through HMSO by calling 01603 694153



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades. Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

30

Power



Mark®

**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

**SAVE £££s!**

With the  
Memory  
Bank  
Cheque  
Book

Buy Windows 95 and  
save over £400 on leading  
peripherals and software!

See page 2

**TURN THE PAGE  
FOR MORE**

... and here's what  
some of our customers  
have said ...

*Thank you very much for  
the efficient and helpful  
way that you dealt with  
my purchase of  
additional memory  
yesterday. Installation  
was as straightforward  
as you had said.  
I shall certainly come to  
Powermark if I need  
more memory or other  
hardware in the future.*

Nigel Sherratt  
London

**MEMORABLE  
Ha Ha GAGS**

Punchlines  
to old, old,  
old favourites

Just give them  
fish fingers

So am I - lets have  
a drink

£1 a mile

If you can't remember the  
stories to these then contact  
Quentin Quizzy and he'll be  
happy to oblige.

# MEMORY

## ARTISOFT FEATURE



### LANTASTIC NETWORK STARTER KIT

LANtastic is the most awarded network in the world (Cover 106 awards to date), with over 2.5 million users worldwide. Artisoft is the network for small/medium businesses. The LANtastic Starter Kit contains everything you need to

connect 2 PC's (hardware, software, cables, manuals, T-pieces) in ONE box. When you need to add a node get an add-on kit.

Installation is exceptionally easy. If you are not fully satisfied there is a 30 day money back guarantee.

Get networked with LANtastic and get the most from your PC investment.

LANTASTIC 2 NODE NETWORK STARTER KIT	£179
LANTASTIC ADD-ON 1 NODE KIT	£99

**Powerfully,  
simply,  
networking**

## ARTISOFT®

### LANTASTIC FOR OS/2 NETWORK OPERATING SYSTEM

The only network software that works in IBM OS/2 Warp V3.

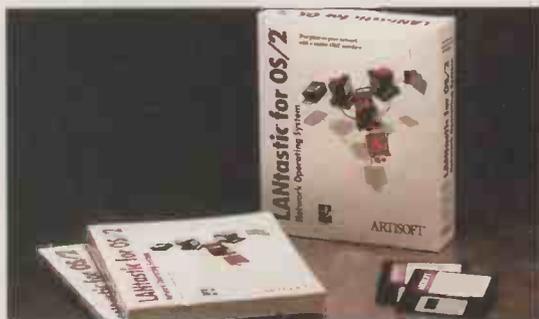
As the world leader in peer-to-peer networks for DOS and Windows, LANtastic opens the door to sharing files and printers with minimal expense and maximum flexibility.

LANtastic for OS/2 is a 32-bit, multitasking, multithreaded network operating system that supports Named Pipes and HPFS and FAT file systems.

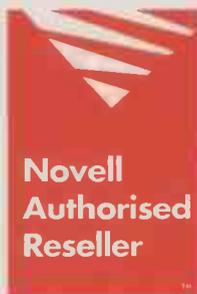
With a familiar interface, LANtastic for OS/2 allows you to take full advantage of the power of OS/2. It features tight security and strong management features - full network control at your fingertips and quick installation.

**1 USER** **POWERCUT!** £69  
**5 USER** **POWERCUT!** £299

**ALSO AVAILABLE:**  
**LANTASTIC V6 FOR DOS AND WINDOWS** £59  
**5 USER PACK** £235  
**LANTASTIC UTILITY PACK** £249  
**ARTICOM** £75  
**ARTISAVE** £137



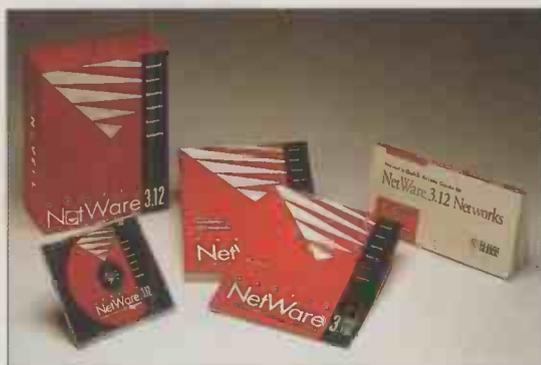
## NOVELL FEATURE



### INTRODUCING NOVELL NETWARE 4.1

NetWare 4.1 has all the advantages of previous versions of NetWare, plus gives you new capabilities designed to increase productivity, reduce costs, and simplify installing and maintaining your network.

- Additive licensing - 25 user + 10 user = 35 user licence
- NDS - NetWare Directory Services
- Single network log in for access to all resources
- Improved memory management and protection using both ring 3 and 0
- Enhanced security utilising RSA public/private key cryptography
- Remote management features



- Independent network auditing features
- Automatic file grooming and archiving
- All utilities in GUI format
- Support for over 250 printers per server
- New simplified installation
- Improved ITX WAN behaviour with enhanced routing of IPX, AppleTalk and IP
- Internationalisation via Multilingual language modules

### UPGRADES

Upgrades from any version to Netware 4.1								
	New	5	10	25	50	100	250	500
Current								
5		185	719	1179	-	-	-	-
10		-	355	834	1329	-	-	-
25		-	-	567	1064	1824	-	-
50		-	-	-	765	1520	Call	Call
100		-	-	-	-	1065	Call	Call
250		-	-	-	-	-	Call	Call

### FREE WITH EVERY COPY OF NETWARE

Lan Workplace 5 buy-one-get-one-free offer. Time Out (1996) full version of Net Connect. Groupwise Quicklook CD (offer ends 22/10/95) Limited offer - please ask for NOV2 when ordering

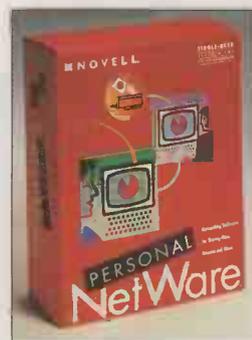
<b>NOVELL NETWARE 4.1 CD</b>	
5 USER	£449
10 USER	£1079
25 USER	£1589
50 USER	£2329
100 USER	£3279
250 USER	£Call

<b>NOVELL NETWARE 3.12</b>	
5 USER	£429
10 USER	£1009
25 USER	£1499
50 USER	<b>POWERCUT!</b> £1999
250 USER	£Call

Call for CD ROM pricing

### PERSONAL NETWARE

- Share all your printers, drives (CD ROMs etc), directories and files



<b>PERSONAL NETWARE 5 PACK</b>	£44 £189
--------------------------------	-------------

31

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all stock items  
See page 17

### EARDY BIRD

Order Bonus  
See page 29

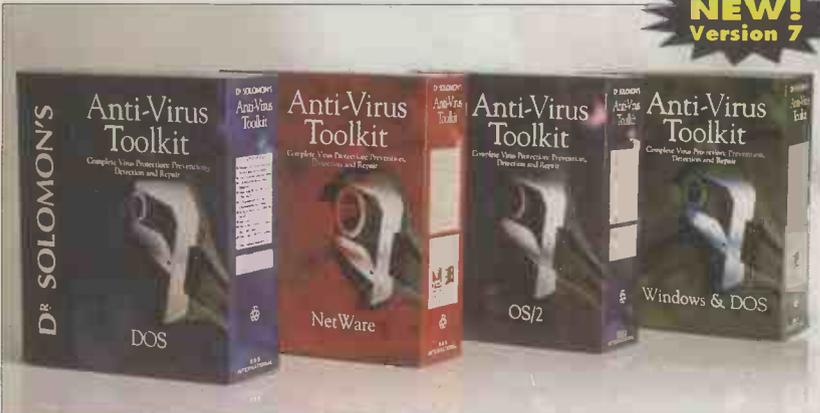


Everyone at Powermark passes through our training college

## Dr. SOLOMON'S FEATURE

### DR SOLOMON'S

**NEW!**  
Version 7



#### Dr. SOLOMON'S ANTI-VIRUS TOOLKIT

**Combat viruses in DOS, OS/2, Windows and Netware**  
The best answer to the serious problem posed by viruses. Each toolkit is made up of four programs geared to locate, identify and destroy existing viruses and then protect your system.

**FINDVIRUS** - Detects and identifies viruses in files, partition code and boot sectors using an extensive database of virus recognition information.  
**GENERIC DECRYPTION ENGINE** - An amazing program that can actually detect those viruses that mutate.  
**VIRUSGUARD** - This is the memory resident utility that is installed every time you restart your computer. It checks every

program for viruses before it is opened or copied.  
**VIVERIFY** - ViVerify is a unique program that finds new and undiscovered viruses by monitoring executable code changes.  
**ANTI-VIRUS TOOLKIT DOS** £59  
**ANTI-VIRUS TOOLKIT WINDOWS** £69  
**ANTI-VIRUS TOOLKIT NETWARE** £245

#### Dr. SOLOMON'S PC ARMOUR

**PC Protection for IT Professionals**  
An easy to use package which gives you back control over who uses your computer

- Boot-up password
- Program authorisation
- Hard disk boot protection

**PC ARMOUR** £49

**MEMORY BANK**

Save **£20 off**  
**Dr Solomon's Anti-Virus for DOS or Windows**  
when you buy **Windows 95**.  
**See page 2**

**ATTENTION VOLUME USERS! SITE LICENSES AVAILABLE**  
Microsoft • Lotus • Borland • Corel • S&S International • Novell • IBM

**Technical Sales Order Lines**  
**0181-951 3355**  
(50 lines)

**NETWORKING & PRINTERS**

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While-you-wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
**Tel: 0181-951 3355**  
(50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com

## ACCENT FEATURE



#### ACCENT SPECIAL EDITION

Includes all of the features of Accent Express plus advanced support in - English, French, German, Spanish and Italian. Each language offers a spell checker, thesaurus, hyphenation, word-forward translation with the Berlitz Interpreter and keyboard maps. Accent Special Edition contains advanced word processing features and can import from or export to most popular word processing programs.

**ACCENT SPECIAL EDITION** £95

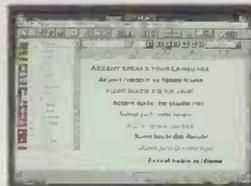
#### ACCENT PROFESSIONAL

Accent Professional, the premier complete multilingual solution, as Accent Special Edition plus more. 17 spell checkers, 9 thesauruses, 12 language hyphenations, including Russian, Danish, Portuguese, Finnish and Dutch.

**ACCENT PROFESSIONAL** £189

#### ACCENT LANGUAGEWARE PRODUCT LINE

	Pro	Special Edition	Express
Typing Languages	Over 30	Over 30	Over 30
User Interface Languages	19	15	15
Interactive Keyboard Maps	Over 50	Over 50	Over 50
TrueType Fonts	Over 150	Over 80	30
On Line Help Languages	12	8	-
Spell Checker Languages	17	9	-
Thesaurus Languages	11	8	-
Hyphenation Languages	14	8	-
Berlitz Interpreter			
Word-for-Word Translation	5	5	-
Word Processing Features	Advanced	Advanced	Standard



#### ACCENT EXPRESS

All the features of a traditional word processor plus the capability to create documents in over 30 languages. Accent Express can import and export text and graphics. Includes 50 keyboard maps for ease of use and authentic characters in any language.

**ACCENT EXPRESS** £39

**Exclusive to Powermark**  
Buy Accent Express for only £24 with any other purchase

**ACCENT HOT PRESS**  
"Accent is the best multilingual word processor we've seen."  
PC Magazine, January 1995  
"If you're looking for a world-class correspondence program, I've got it. ... for those who must do electronic correspondence in many languages, I'd think this would be a godsend."  
Byte, January 1995

#### ACCENT LANGUAGEWARE

Discover Accent LanguageWare and bridge the language barrier across international borders. Accent offers you the ability to work effortlessly in over 30 languages simultaneously, with any PC and printer. Accent speaks your customers' languages enabling you to write an entire letter or contract in their language or simply spell your customers' names and addresses correctly, from Russian letters to Turkish accent marks.

Public Sector customers can purchase through HMSO by calling 01603 694153.



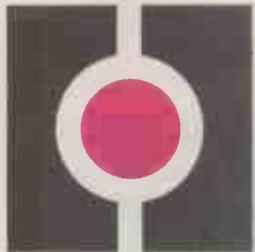
Certificate no. FS 26535

BS7570 registered for the supply of computer, printer and workstation memory, processor and other upgrades. Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



Cards are not debited until despatch  
**VAT at 17.5% will be added to all prices**

Power



Mark®

Technical Sales  
Order Lines  
**0181-  
951 3355**  
(50 lines)

**SAVE £££s!**  
With the  
Memory  
Bank  
Cheque  
Book



Buy Windows 95  
and save over £400  
on leading  
peripherals and  
software!

See page 2

Training Video  
for Microsoft  
Windows 95

£19

or £16 when purchased  
with Microsoft Windows 95

... and here's what  
some of our customers  
have said ...  
...the service and help I  
received from you all over  
the last few weeks has  
been nothing short of  
brilliant.  
... Your company has been  
brilliant and I will  
certainly use you again  
and recommend you whole  
heartedly to my friends in  
the future, THANK YOU.

Mr & Mrs N Luxford  
St Albans

**TURN THE PAGE  
FOR MORE**

# MEMORY

WINDOWS® 95 FEATURE

## Microsoft®

### Unlock the potential of your PC with Microsoft® Windows® 95

Microsoft Windows 95 makes everything you  
do with your computer faster and easier.

The Microsoft® Windows® 95 operating system  
will transform everything you do with your PC.  
Suddenly using a computer can be fast, easy  
and fun - with limitless possibilities!

#### Microsoft® Windows® 95: Your open door to doing more

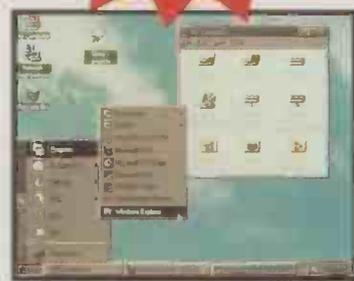
- Save time with an easier-to-use interface; long filenames; and one-click access to all of your programmes and documents with the **Start** button
- Plug and Play technology automatically configures compatible disk drives, sound cards and more
- 32-bit, pre-emptive multitasking lets you run multiple programmes or perform multiple tasks simultaneously
- Gain built-in access to e-mail and faxes with Microsoft Exchange, and to the Internet with **The Microsoft Network**
- Full-motion video provides vividly realistic game play with big, fast, on-screen action

#### Everything you do is easier and faster

- **Easier.** Navigate your system quickly with easy-to-use tools, including the **Start** button, **taskbar**, and **Windows Explorer**
- **Plug and Play.** Plug and Play frees you from manually setting up Plug and Play-compatible hardware devices such as CD-ROM drives and scanners
- **Long File Names.** More descriptive file names - up to 250 characters long
- **Faster.** Enjoy improved performance in all major areas, including faster file and disk access, and faster printing, thanks to the 32-bit architecture of Windows 95®
- **Compatible.** Works with your current software - 16-bit programmes and drivers for Windows, Windows for Workgroups, and MS-DOS are compatible with Windows 95®



Buy  
**Windows 95** and  
save over £400 on  
leading peripherals  
and software!  
See page 2



### MICROSOFT® PLUS! FOR WINDOWS® 95

#### To give Windows® 95 even more space and style, add new Microsoft® Plus!

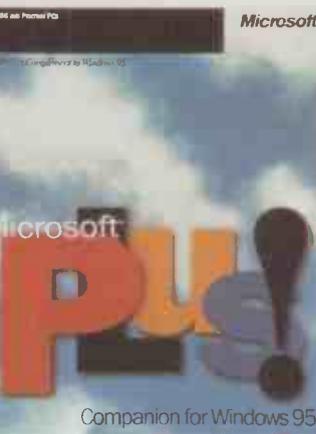
Introducing Microsoft® Plus! - the way to  
fully exploit the power of 486 and  
Pentium PCs.

A companion for the Windows® 95  
operating system, Microsoft® Plus! adds  
space and style to your PC. With  
Microsoft Plus!, your computer is self-  
maintaining and is customisable with  
unique new desktop themes. Microsoft  
Plus! gives you outstanding data  
compression whether you have a 486 or  
Pentium computer. As an added bonus,  
you get fast, easy access to the Internet.

Microsoft® Plus! is packed with  
features that complement Windows® 95

- An intelligent new System Agent makes your PC self-maintaining
- Microsoft® Plus! has an enhanced version of DriveSpace that allows up to 50% more compression than Windows® 95 and more free disk space without any performance penalty
- Themes - 11 colourful themes, each with new fonts, icons, backgrounds, sounds, screen savers and colours
- For Internet users Microsoft Plus! includes an enhanced Internet Browser
- Pinball - a 3-D game designed for Windows 95 that looks, sounds and plays like the real thing
- Turn your computer into a Dial-Up Networking server that lets your small office or workgroup share data or send and receive mail remotely
- Font smoothing makes fonts easier to read

MICROSOFT PLUS! 3.5" FLOPPY £29



MICROSOFT PLUS! CD ROM £29

#### A world of new possibilities

- **Multitask.** Work on several tasks at once with fast, new 32-bit programmes that support pre-emptive multitasking and **multithreading**
- **The Microsoft Network.** Sign on to The Microsoft Network. It's an easy-to-use online service with e-mail, news, Internet access and more
- **One-Stop In-Box.** Microsoft Exchange is your one-stop in-box that makes it easy to view and work with such things as electronic mail from multiple sources, faxes, documents and bulletin boards
- **Network-Ready.** Windows 95 is network-ready, providing easy 32-bit access to network resources.
- **Mobile.** Get the most from your portable PC features such as Dial-up networking, Battery Monitor and Plug and Play support for PCMCIA cards and docking stations
- **Better Video.** Enjoy larger, smoother video than ever before for more fun multimedia experiences

MICROSOFT WINDOWS 95 UPGRADE 3.5" FLOPPY	£59
MICROSOFT WINDOWS 95 UPGRADE CD ROM	£59

33

#### DELIVERY CHARGES

UK MAINLAND - Next working day courier  
delivery to your door for all stock items.

See page 17

SOFTWARE WARRANTY  
Do check compatibility before ordering.  
Faulty software replaced through  
Powermark Customer Service. Opened  
software cannot be returned.



Everyone at  
Powermark passes  
through our  
training college

# BANK

at Powermark

## WINDOWS® 95 FEATURE

### Microsoft®

#### MICROSOFT® WORD FOR WINDOWS® 95

Microsoft® Word for Windows® 95 helps make everyday writing tasks more automatic and complex tasks simple. It also provides tools to create and distribute documents in an increasingly connected world.

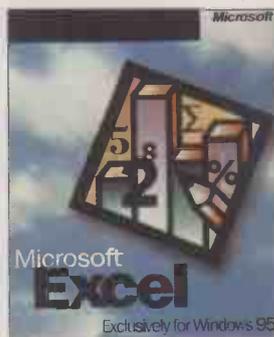
Save time with Microsoft® Word for Windows® 95, with features like the integrated **Address Book** and grammatical **Find and Replace**.

- Get your work done faster with Word's full 32-bit support and the new interface and user assistance of Windows® 95
- Readily access addresses for letters, memos and faxes

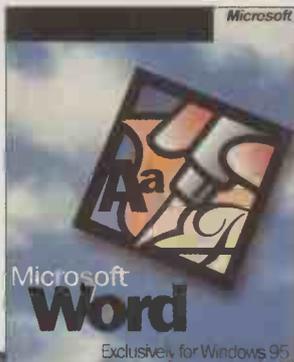
Word for Win 95	£230
Word for Win 95 1 SL	£195
Word for Win 95 UP CCP	£82
Word for Win 95 UP CCP 1 SL	£70
Word for Win 95 CUP	£107

#### MICROSOFT® EXCEL FOR WINDOWS® 95

- Enhanced IntelliSense® technology, more intuitive help, and integration with Windows® 95 make your everyday spreadsheet tasks easier
- Significant performance improvements help you get your work done faster
- Powerful new analysis tools simplify a variety of complex tasks

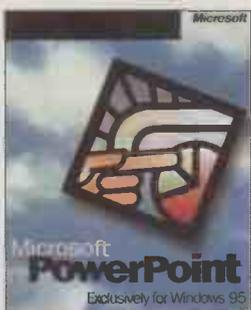


Excel for Win 95	£230
Excel for Win 95 1 SL	£195
Excel for Win 95 UP CCP	£82
Excel for Win 95 UP CCP 1 SL	£70
Excel for Win 95 CUP	£107



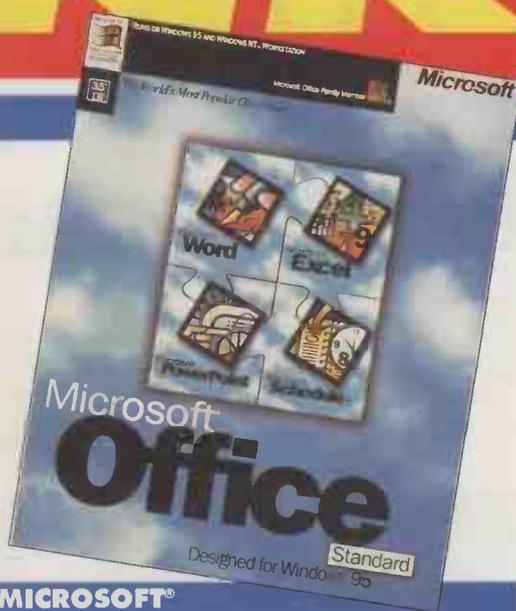
#### MICROSOFT® POWERPOINT FOR WINDOWS® 95

- Type a help request in your own words, and the **Answer Wizard** finds the answer
- Bring your presentation to life with extended animated builds, sounds and more!



- Take meeting notes and assign action items on the spot with the Meeting Minder
- Presentation Conferencing lets a remote audience review your presentation over the network

PowerPoint for Win 95	£230
PowerPoint for Win 95 1 SL	£195
PowerPoint for Win 95 UP CCP	£82
PowerPoint for Win 95 UP CCP 1 SL	£70
PowerPoint for Win 95 CUP	£119



#### MICROSOFT® OFFICE FOR WINDOWS® 95

Microsoft® Office for Windows® 95. Easy access to powerful tools. For powerful accomplishments.

Microsoft® Office for Windows® 95 makes it easier than ever to focus on your job instead of your software.

In Microsoft® Office Standard for Windows® 95, you get these full-featured programmes: Excel, Word, PowerPoint® and the new Microsoft Schedule+. In Microsoft Office Professional, you get all these plus Microsoft Access.

- IntelliSense technology does routine tasks for you with enhanced AutoCorrect and much more
- Type a help request in your own words and the Answer Wizard gives you the answer you need
- Get your work done faster with full 32-bit performance

Office for Win 95	£334	Office Professional for Win 95	£433
Office for Win 95 CD	£334	Office Professional for Win 95 CD	£433
Office for Win 95 1 SL	£284	Office Professional for Win 95 1 SL	£368
Office for Win 95 UP CCP	£140	Office Professional for Win 95 UP CCP	£206
Office for Win 95 CD UP CCP	£140	Office Professional for Win 95 UP CCP CD	£206
Office for Win 95 UP CCP 1 SL	£118	Office Professional for Win 95 CUP	£249
Office Standard for Win 95 CUP	£164	Office Professional for Win 95 CUP CD	£249
Office Standard for Win 95 CUP CD	£164		

#### MICROSOFT® ACCESS FOR WINDOWS® 95

Access for Win 95	£230
Access for Win 95 1 SL	£195
Access for Win 95 UP CCP	£82
Access for Win 95 UP CCP 1 SL	£70
Access for Win 95 UP	£107

#### MICROSOFT® SCHEDULE+ FOR WINDOWS® 95

Put time on your side with Microsoft® Schedule+ for Windows® 95	£75
Schedule+ for Win 95 1 SL	£68

#### KEY

CCP	Compliance Checking Product	MS	Microsoft Product
CD	CD ROM	SL	Site License
CUP	Competitive Upgrade	UP	Upgrade
DOS	DOS Version	Vxx	Version
LAN	Local Area Network	WIN	Windows Version

#### Technical Sales Order Lines

0181-951 3355  
(50 lines)

WINDOWS 95

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While you wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233  
Email: sales@powermark.com

Education Packs available at very special prices  
(Proof of status required)  
Call our Education Sales Team for details



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.  
Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



# MEMORY

## WINDOWS® 95 FEATURE

### MICROSOFT® WORKS FOR WINDOWS® 95

Create professional documents easily and quickly with the essential tools in Microsoft® Works

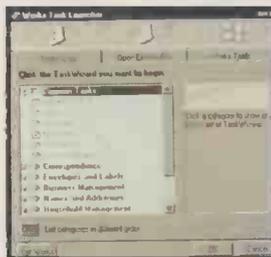
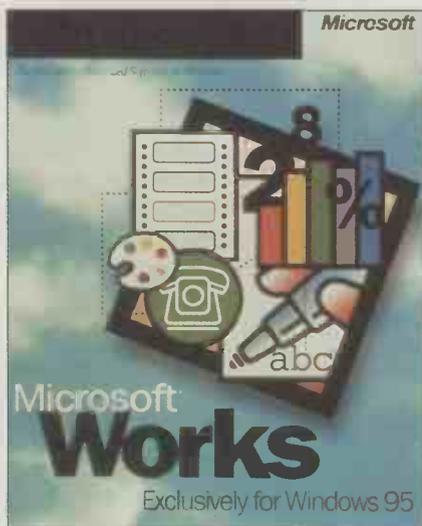
The all-time best-selling integrated productivity programme for Windows®, Microsoft® Works is the natural

choice for Windows 95.

Microsoft® Works for Windows® 95 provides the easy-to-use, integrated tools you need—a word processor, spreadsheet, database, drawing and communication tools—to

make everyday computing tasks easier and create professional documents for your business or home. These unique features make Microsoft® Works for Windows® 95 powerful and easy to use:

- Select a task from the Works



Task Launcher (for example, create a letter, address book, or business plan) and a Works TaskWizard makes it as easy as clicking a few buttons

- New Easy Calc makes a budget and financial calculations in the Works spreadsheet a snap
- Report Creator lets you make great-looking reports from your database information
- Visit the Works Forum on the Microsoft network directly from Works

Works for Windows 95 £56  
Works for Windows 95 and Bookshelf 95 Bundle £Call

### MICROSOFT® PUBLISHER FOR WINDOWS® 95

Creative distinctive newsletters, brochures and flyers without any design experience with Microsoft® Publisher

The all-time best-selling desktop publishing programme for Windows®, Microsoft® Publisher is the natural choice for Windows 95.

These unique features make Microsoft® Publisher for Windows® powerful and easy to use:

- PageWizards are the fastest and easiest way to make customised, professional quality publications because they guide you through the design process
- The Design Gallery allows you to easily customise and personalise your publication, whilst keeping it's professional look and feel
- Online User Assistance is always on hand to intelligently tutor and advise you as you work
- Visit the Publisher Forum on the Microsoft Network directly from Publisher

Publisher for Windows 95 £Call

Technical Sales Order Lines  
**0181-951 3355**  
(50 lines)

### AUTODESK FEATURE

#### AUTOCAD LT RELEASE 2

AutoCAD LT Release 2 for Windows is a full-featured, easy-to-use, 2D design and drafting package with extensive 2D drawing and editing tools, associative hatching and Aerial View.

AutoCAD LT V2 WIN £375  
AutoCAD LT V2 WIN UP £95



### ANIMATOR STUDIO

Animator Studio is the complete 2D creative environment for Windows-based multimedia producers, providing animation with unlimited colour and synchronised sound.

Animator Studio £385

## TOUCHSTONE FEATURE



### WIN'95 ADVISOR

ARE YOU READY FOR WINDOWS 95? Get the answers you need quickly and easily! Win'95 Advisor is designed to take all of the guesswork out of installing Microsoft Windows 95. Make the right decisions with Win'95 Advisor and install Windows 95 right the first time.

- Prepares your Windows 3.1 system for a fast, safe and easy upgrade
- Makes expert recommendations on hardware and software requirements
- Optimizes Windows 95 installation

WIN'95 ADVISOR £25



### FASTMOVE!

THE FAST, EASY WAY TO TRANSFER FILES

- Shows you which files need to be updated
- Scans each file for viruses
- Synchronizes PCs with up-to-date files
- Simple interface for problem-free transfers
- Selects just the files you want
- Includes Windows and DOS versions
- Includes PC to PC transfer cable

FASTMOVE! £33

Save £6 on Win'95 Advisor when you buy Windows 95. See page 2



### WINCHECK IT

The all-in-one Windows problem solver!

Includes Uninstall Utility! Six reasons why you need the new all-in-one Windows problem solver

- Clean up - Make room for more programs and data files
- Fix up - Recovery that works even when Windows won't
- Tune up - Get the most out of your Windows system
- Set up - Simplify hardware and software installation
- Uninstaller - Get rid of unwanted Windows applications
- Check up - Be sure you don't have a hardware problem

Includes Pentium Troubleshooter Kit  
WINCHECK IT £33

### SET UP ADVISOR II

"If you're planning a hardware upgrade, SetUp Advisor is a must have." Save hours of frustration when installing....

- Multimedia kits
- CD ROMs
- Fax/modems
- Sound cards
- Floppy drives
- Tape drives
- Scanners
- Network cards
- SCSI host adapters
- Graphic accelerator boards
- Serial/parallel port adapters and other devices

SET UP ADVISOR £17

### CHECK IT PRO DELUXE

- Advanced Diagnostic Toolkit
- TroubleShoot PC Problems!
- Diagnose hardware problems
- Find setup conflicts and assignments
- Compare system performance
- Document configuration details
- Create/recover system rescue disk
- Check for virus infections
- Install and test new equipment

CHECK IT PRO DELUXE £89  
CHECK IT PRO £59

TURN THE PAGE FOR MORE



### DELIVERY CHARGES

UK MAINLAND: Next working day courier delivery to your door for all stock items See page 17

### EARLY BIRD

Order Bonus See page 29



Everyone at Powermark passes through our training college

## STARFISH SOFTWARE FEATURE

### Sidekick 95 for Windows 95

#### The Simplest Way to Stay Organised

Simple to use, easy to learn and incredibly powerful - Sidekick is already the best-selling personal organiser ever. The new 32bit Sidekick 95 uses the power and flexibility of Windows 95 to get you organised quicker. It takes up a fraction of the memory other PIMs use, so you can keep it running all the time without affecting your system's performance.

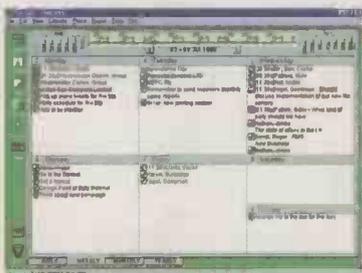
Sidekick 95 helps you simplify your life - not complicate it. With the improved drag-and-drop interface, there's no need to enter information twice or complete complicated import / export procedures. Sharing information between the Calendar, Cardfile, Wordprocessor, Expenses Tracker and Contact Manager is as easy as moving your mouse across the desktop. Sidekick 95 will even dial your phoned Using Windows 95's new "Plug-and-Play" technology, Sidekick automatically looks for and configures any installed modem.

New for Sidekick 95 is an integrated word processor with all the features you need for day-to-day letter writing and document production. What's more it's linked directly to the Cardfile database, so writing properly addressed letters or even mail merging is just a mouse click away. To make life easy, Sidekick will automatically print letters, schedules, notes, names and addresses in over 70 different formats including labels, envelopes and popular paper organiser formats like filofax™.

#### Over 10 million copies sold!

- Windows 95 Plug and Play compatibility
- Integrated, full function word processor
- Worldwide clock
- TAPI standard phone support for incoming calls
- Track your expenses and create complete summaries in seconds

Sidekick 95 for Windows 95 £29



**Save £10 off Sidekick 95 and Dashboard 95 combo when you buy Windows 95. See page 2**

- Now you can move your appointments, notes, and to-do items from one time to another with drag-and-drop simplicity
- Great new label, address book and envelope printing features gets you started with more than 70 templates
- Alarms with snooze feature



Starfish Software



### Who uses Sidekick 95? The business & home office professional

Friendly and flexible, Sidekick 95 offers all the calendar, address book and word processing features every overloaded professional needs. And thanks to integrated contact management, all dealings with prospects and customers can be easily tracked and managed.

### The mobile professional

Sidekick 95 is the perfect portable companion - It instantly updates your files from your desktop PC to your portable and then back again.

### The home PC and family PC

Sidekick 95 can keep track of everyone in the family - all in one place. From the kid's activities to personal errands, you'll always be in the right place at the right time. Even more, Sidekick 95 can organise your household inventory, car maintenance records - even your CD collection!

### You!

If you've ever used a paper-based organiser or address book, then you already know how to use Sidekick 95. Imagine your current personal organiser, but with the timesaving power of your PC. Let Sidekick 95 forward unfinished tasks to the next day, sound alarms to remind you of appointments and help you manage important contacts.

### Dashboard 95 for Windows 95

#### The Simplest Way to Organise Windows 95

Like the dashboard in your car, the new native 32bit Dashboard 95 for Windows 95 helps you to get to where you want to go by keeping everything close at hand. Launch applications, check your system's memory usage, disk space and resources and at last - Windows printing made easy! Dashboard 95 makes choosing and using a new printer simple, just click an icon of the new printer and Dashboard does the rest.

New for 95 are Dashboard's Virtual Screens. This innovative and useful feature allows you to open applications on up to 9 virtual screens and then switch between them with a simple mouse click. No more cluttered screens!

Dashboard 95 for Windows 95 £29



**Launch Applications**  
No need to search for programs - just use Dashboard 95's Launcher!

**Virtual Screens**  
Switch between up to 9 virtual screens on your PC!

**Easy Printing**  
Just choose the printer you need by clicking an icon - easy!

**Customise**  
Customise Dashboard 95 to do exactly what YOU want it to!

**NEW for Windows 95**

### Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

SOFTWARE

**HUGE STOCKS**  
Guaranteed same day despatch on virtually all stock items for orders placed even up to 4.00pm.

**TECHNICAL SALES PEOPLE**  
Our sales people are the best. They are trained specialists in their chosen field - multimedia, memory of all types, mass storage, networking and communications.

**FINANCIAL STABILITY**  
Powermark plc has been supplying upgrades for over 5 years and has an annual turnover exceeding £18 million with a healthy balance sheet.

**LOW, LOW PRICES**  
We only supply products from leading manufacturers and at low, low prices too.

**TECHNICAL SUPPORT**  
Dedicated after sales technical support teams on line to help with installation.

**CORPORATE & PUBLIC SECTOR**  
We welcome orders from corporate, education and public sector organisations. Just fax or phone your order number.

**FULL MANUFACTURERS' WARRANTIES**  
All products supplied by Powermark plc carry manufacturers' warranties and of course full Powermark plc guarantees.

**TURN THE PAGE FOR MORE**

**UPGRADE DRIVE THRU**  
While you wait installation service available. See page 3 for details.

**PERSONAL CALLERS**  
Save on delivery charges - there's plenty of parking. Telephone first to check our stock position on the items you want. We're open from 9.00am to 6.00pm Monday to Friday. Saturdays: Sales from 9.30am to 4.00pm, Technical Support and Customer Service from 10.00am to 2.00pm.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ  
Tel: 0181-951 3355 (50 lines)  
Fax: 0181 905 6233  
Email: sales@powermark.com



Cards are not debited until despatch VAT at 17.5% will be added to all prices



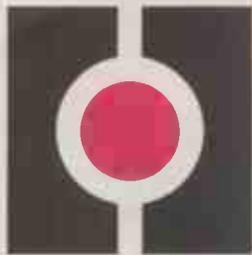
Public Sector customers can purchase through HMSO by calling 01603 694153.



Certificate no. FS 26535

BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.



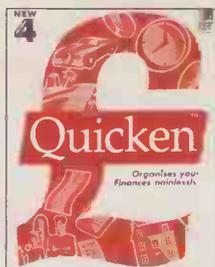
**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

## Quicken

**QUICKEN UK 4.0 FOR  
WINDOWS** £29

*The fastest, easiest way to  
organise your home and  
small business finances*

Quicken organises all your  
finances in one place. It's  
easy to use, provides insight  
into your spending habits  
and helps you to plan for a  
better financial future.



**QUICKTAX  
RETURN 1995** £34

*Completes your tax  
return painlessly*

**QUICKEN DELUXE HOME  
PACK FOR WINDOWS** £47

*Organises more of your  
home finances*

**QUICKEN DELUXE  
BUSINESS PACK FOR  
WINDOWS** £47

*Organises more of your  
business finances*

**QUICKBOOKS UK 3 FOR  
WINDOWS** £85

*Accounting without the  
bassle*

# MEMORY

## SOFTWARE FEATURE

### UTILITIES

386 Max V7	£45
After Dark V3 WIN	£19
<b>NEW!</b> Clean Sweep & Stacker For Win	£35
Colorado Backup WIN	£39
Corel SCSI	£61
Corel SCSI Network Manager	£265
Check It Pro	£59
Check It Set Up Advisor	£17
Win Check It	£35
Check It Analyst WIN	£59
CP Antivirus DOS	£66
With Subscription	£119
CP Antivirus WIN	£69
With Subscription WIN	£119
CP Antivirus For Netware	£469
Desqview 386 V2.7	£105
Desqview V2.6	£59
Dr Solomon Antivirus & Quarterly Update DOS	£59
Dr Solomon Antivirus & Quarterly Update WIN	£69
Dr Solomon Antivirus For Netware	£239
Fastback Plus V6 DOS	£85
Fastback Plus WIN	£75
First Aid for Windows	£39
MS Windows Printing System	£83
Norton Desktop V3 WIN	£89
Norton Desktop V1 DOS	£49
Norton Commander V5 DOS	£54

### ATTENTION VOLUME USERS! SITE LICENSES AVAILABLE

Microsoft • Lotus • Borland • Corel • S&S  
• Novell • IBM • Claris

### LANDMARK SOFTWARE

#### WINPROBE

• DIY - Windows trouble  
shooter

#### DATASAFE

• Data security made easy

#### UNINSTALL-IT

• Increases performance of  
PC by eliminating  
unwanted files

**Exclusive to  
Powermark!**

**Buy all three for only £38  
and get IN! Expert  
FREE!**

### UTILITIES

Norton Speedrive 4.0	£55
Norton Administrator for LAN 5 Pack	£299
Norton DiskLock V3	£79
Norton Utilities V8	£86
Norton Utilities V8 UP	£49
<b>NEW!</b> Norton Utilities For Win 95	£104

### UTILITIES

Norton Editor 2.2 DOS	£49
Norton Antivirus V3 WIN & DOS	£95
<b>NEW!</b> Norton Antivirus For Win 95	£62
Norton Antivirus For Netware	£459
Norton Backup 2.2 DOS	£87
Norton Backup 3.0 WIN	£87
<b>NEW!</b> Norton Navigator For Win 95	£84
PC Tools V2 WIN	£75
PC Tools Pro V9 DOS	£78
More PC Tools DOS WIN	£45
Qemm V7.5 DOS WIN	£45
Qemm V7.5 + Stacker V4.0	£65
Stacker V4 DOS WIN	£65
Stacker V4 UP	£36
Superprint V3.1	£79
Systos Plus for OS/2	£79
Uninstaller WIN	£39
Uninstall IT <b>POWERCUT!</b>	£29
WinDelete <b>POWERCUT!</b>	£37
WinProbe <b>POWERCUT!</b>	£29
Xtree Gold V3 DOS	£86
Xtree Gold V4 WIN	£69
Xtree Net V3	£259
Xtree Tools For Network	£379

### SOFTWARE SUITES

CA Simply Business WIN	£59
Lotus Smartsuite V3.1 WIN	£328
Lotus Smartsuite V3.1 WIN CD	£328
Lotus Smartsuite 1 SL	£286
Lotus Smartsuite 3.5' UP	£164
Lotus Smartsuite UP CD	£169
Lotus Symphony V3	£379
MS Office 4.2 Standard WIN	£325
MS Office 4.2 1 SL	£294
MS Office 4.2 UP CCP	£161
MS Office 4.2 CUP	£239
MS Office 4.3 Professional	£420
MS Office 4.3 1 SL	£362
MS Office 4.3 UP CCP	£245
MS Office 4.3 CUP	£289
MS Office Assistant	£59
MS Office V4.2 for Windows NT CD	£345
MS Works V3 DOS	£87
MS Works DOS 1 SL	£74
MS Works V3 WIN CD	£89
MS Works WIN 1 SL	£74

<b>PerfectOffice Standard</b>	<b>£265</b>
<b>PerfectOffice Standard UP</b>	<b>£129</b>
<b>PerfectOffice Standard CUP</b>	<b>£159</b>

**Half price  
voucher**  
for Windows 95 when  
you buy PerfectOffice  
(Offer ends 30th  
September)

### ACCOUNTS PACKAGES

CA Simply Accounting WIN	£125
MS Money V3 WIN	£27
Sage Financial Controller DOS V7	£329
Sage Accountant Plus DOS V7	£259
Sage Accountant Plus LAN DOS	£397
Sage Accountant DOS V7	£169
Sage Bookkeeper DOS V7	£57
Sage +2 Financial Cont WIN	£354
Sage +2 Financial Cont LAN WIN	£565
Sage +2 Bookkeeper WIN	£84
Sage Moneywise V2	£31
Sage Invoicing Add-On	£24
Sage Instant Accounting WIN	£87
Sage Payroll II DOS V5	£135
Sage Payroll II LAN	£166
Sage +2 Payroll WIN	£135
Tas Books Accounting	£79

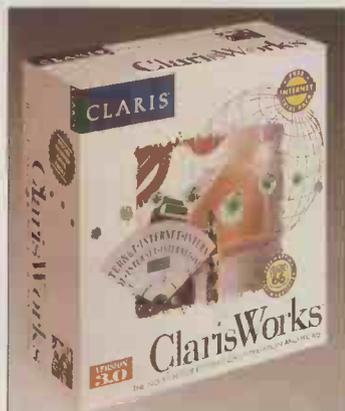
### PROJECT MANAGEMENT

CA Super Project V3 WIN/OS/2	£478
MS Project V4 WIN	£279
MS Project V4 CCP UP	£85
MS Project V4 CUP Voucher	£134
Project Helper	£49
Project Scheduler V6 WIN	£565

## CLARIS SOFTWARE FEATURE

### CLARISWORKS 3.0 FOR MAC AND WINDOWS

• PLUS - when you send your registration card to Claris they will send you Route 66 (Mac and Windows mapping software) absolutely FREE!  
ClarisWorks 3.0 software perfectly integrates all the functionality of five software applications into one easy-to-use programme: word processing, spreadsheet, database, graphics and painting. It is the perfect office alternative and it's compact, fast and friendly.  
**CLARISWORKS 3.0 FOR MAC AND WINDOWS** £97

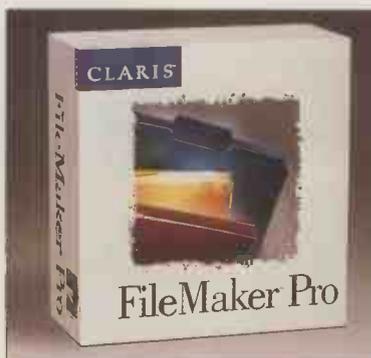


**Save £50 off Clarisworks 3  
when you buy Windows 95.**

**See page 2**

## CLARIS™

Simply powerful software.™



### CLARIS FILEMAKER PRO

Includes 6 ready-to-run applications:

- Contact Manager
- Lead Tracking Manager
- Project Manager
- Product Manager
- Expense Manager
- Invoicing System and 75 Clip Arts

**CLARIS FILEMAKER PRO** £85

**TURN THE PAGE  
FOR MORE**

### DELIVERY CHARGES

**UK MAINLAND** - Next working day courier  
delivery to your door for all stock items

**See page 17**

### SOFTWARE WARRANTY

Do check compatibility before ordering.  
Faulty software replaced through  
Powermark Customer Service. Opened  
software cannot be returned.



Everyone at  
Powermark passes  
through our  
training college

## SOFTWARE FEATURE

### COREL FEATURE

#### COREL DRAW

**NEW!** COREL DRAW 6 FOR WINDOWS 95

CD	£299
UPGRADE FROM V3/V4 CD	£249
UPGRADE FROM V5 CD	£199
COREL DRAW 3 CD	£44
COREL DRAW 3 DISKETTE ONLY	£66
COREL DRAW 4 WIN CD	£86
COREL DRAW 5 WIN CD	£289
COREL DRAW 3 TO 5 CD	£199
COREL DRAW 4 TO 5 CD	£118

#### COREL CD OFFICE COMPANION

Corel CD Office Companion is the perfect complement to your office suite with business graphics, Internet browser, fax, PIM, electronic reference, multimedia utilities, plus extensive clipart, font and photo libraries.

#### COREL CD OFFICE COMPANION

£75



#### COREL STOCK PHOTO LIBRARY

- 200 CD ROMs, 20,000 photographs
- Royalty free

£69

#### COREL VENTURA 5

COREL VENTURA 5 WIN CD + 3.5"	£255
COREL VENTURA 5 WIN CD	£199
COREL VENTURA 5 CUP WIN CD + 3.5"	£145
COREL VENTURA 5 CUP WIN CD	£49

#### COREL FLOW

£49

### CAD

Autosketch V3 DOS	£65
Autosketch V2 WIN	£129
Animator Studio	£385
AutoCAD LT V2 WIN	£369
AutoCAD LT V2 WIN UP	£95
AutoCAD LT Int	
Architectural Library	£110
DesignCAD 2D V6 DOS	£175
DesignCAD 2D WIN	£175
DesignCAD 3D V4 DOS	£191
Drafix CAD Ultra DOS	£249
Drafix Windows CAD V2.1	£46
Drafix Windows CAD Prof	£145
Drafix WINCAD Libraries	
Architectural Library	£109
Electrical Library	£109
Mechanical Library	£109
<b>NEW!</b> Floorplan Plus 3D WIN	£63
<b>NEW!</b> Floorplan + 3D & 3D Design Plus	£179
TurboCAD 3D V3.2 DOS	£55
TurboCAD WIN	£55

### TIME MANAGEMENT

1st Act WIN	£79
Act V2.1 DOS	£195
Act V2 WIN	£146
CA Up To Date WIN	£50
Ecco Simplicity WIN	£49
Ecco Professional WIN	£149
Lotus Organiser V2.0 WIN	£85
Lotus Organiser V2.0 WIN UP	£49
Lotus Organiser V2.0 WIN SL	£75
MS Schedule+ WIN	£87
Sidekick with Dashboard 95	£58
WP Infocentral WIN	£56

### NAVIGATION PACKAGES

Autoroute Express GB DOS	£49
Autoroute Express Europe DOS	£55
Autoroute Express GB WIN	£79
Autoroute Plus V7 GB DOS	£223
Autoroute Plus GB WIN	£275
Autoroute Plus GB WIN CD	£348
Autoroute Database Editor V6	£92
Autoroute Mapbase GB	£288
Nextbase Explorer DOS	£59

### SPREADSHEETS

CA Supercalc V5.5 DOS	£69
CA Supercalc WIN	£69
CA Supercalc V5.5 LAN 3 User	£171
Lotus 123 V5 WIN	£230
Lotus 123 V5 WIN 1 SL	£195
Lotus 123 V4 DOS	£288
Lotus 123 V4 DOS 1 SL	£247
Lotus 123 R2.4 DOS	£247
Lotus 123 R2.4 1 SL	£212
Lotus 123 R2.4 LAN Server	£378
Lotus 123 Go DOS	£98
Lotus Improv WIN	£92
MS Excel V5 WIN	£222
MS Excel V5 WIN 1 SL	£197
MS Excel V5 WIN 20 SL	£Call
MS Excel V5 WIN UP CCP	£78
MS Excel V5.0 for Windows NT CD	£242
Quattro Pro V5 DOS	£49
Quattro Pro V6 WIN 3.5" + CD	£155

### KEY

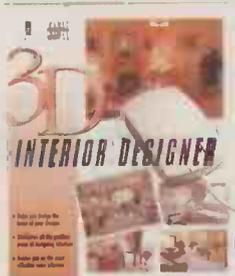
CCP Compliance	DOS DOS Version	UP Upgrade
Checking Product	LAN Local Area Network	Vxx Version
CD CD ROM	MS Microsoft Product	WIN Windows Version
CUP Competitive Upgrade	SL Site License	

## EUROPRESS FEATURE

### europress SOFTWARE

#### 3D INTERIOR DESIGN

Helps you design the home of your dreams



#### 3D GARDEN DESIGNER 2

Helps you design the garden of your dreams

Make your dream garden a reality with 3D Garden Designer 2, which takes full advantage of the vast scope offered by CD ROM.



#### Alice's Adventures in Wonderland

The world's best-loved children's story brought to life on your PC.

Alice's Adventures in Wonderland £15

#### Education

Fun School 5 Dreamland age 4 to 7	£19
Fun School 5 Space age 6 to 9	£19
Fun School 5 Time age 8 to 11	£19
Fun School 4 Under 5's	£16
Fun School 4 age 5 to 7	£16
Fun School age 7 to 11	£16
Fun School Paint & Create 5 to 11	£18
Fun School Spelling 7 to 16	£18
Fun School Maths 7 to 11	£18
Flying Fingers Typing Tutor	£27

#### Lifestyle

BBC Gardeners' World 3D Garden Designer 2	£22
BBC Gardeners' World 3D Garden Designer	£13
Granada 3D Interior Designer	£14

#### Creativity

Klik & Play	£29
Klik & Play Gamepack (Four customisable games on one CD)	£5

### Technical Sales Order Lines

**0181-951 3355**  
(50 lines)

SOFTWARE

## Aaron's Answers



Dear Aaron,

I'm stuck and I don't know what to do! I have bought CAD software for an engineering project at college. My PC is a 386SX/20 and on the software instructions it recommends 4MB RAM which I have. So why will it not run? I have one week to complete my project. Help!

Desperate in Dorking

Dear Desperate, Calm down chuck. Help is at hand. Its no use getting all knotted up. By the sounds of things you need a Cyrix 386 to 486 processor upgrade which costs only £135. You'll also need a maths co-processor to cope with the maths intensive CAD functions. If you hurry Powermark's cheque book offer means that when you order an a Cyrix chip you can get a free co-processor. So drop Powermark a line today and they'll be happy to help you.

Yours Aaron.

P.S. Since you are in a real hurry, you can use their next day AM delivery service.

Send your questions to Aaron's Answers, c/o Powermark plc, Premier House, Station Road, Edgware, Middlesex, HA8 7AQ or fax them to 0181 905 6233.

You can also Email Aaron on: aaron@powermark.com Aaron makes every effort to answer your storage problems, but he cannot guarantee to reply to everyone.

**Powermark plc**  
Premier House, 112 Station Rd, Edgware, Middlesex HA8 7AQ

Tel: 0181-951 3355  
(50 lines)

Fax: 0181 905 6233

Email: sales@powermark.com

NO GREY IMPORTS!



BS5750 registered for the supply of computer, printer and workstation memory, processor and other upgrades.

Powermark plc is regularly assessed by the British Standards Institution to ensure compliance with the quality standard.

Certificate no. BS 26535



Cards are not debited until despatch  
VAT at 17.5% will be added to all prices



**Technical Sales  
Order Lines  
0181-  
951 3355  
(50 lines)**

**ALPHA 5  
HOME AND  
BUSINESS**

Alpha Five Home and Business is a powerful Windows database that allows you to fully automate your business with point and click ease. You'll be creating real applications in no time and all without programming.



- No programming
  - Point and click ease of use
  - Interactive Genies walk you through tasks so you learn as you go
  - Built in word processor, creates letters, reports and mail merges without leaving the program
  - Powerful yet easy to use
- ALPHA 5 HOME & BUSINESS EDITION** £45  
**ALPHA 5 WINDOWS** £69

**TURN THE PAGE  
FOR MORE**

**MASTER QUIZZY**  
Famous quiz show sayings...

And your next object is...  
*Twenty Questions*  
**Bong!**  
*University Challenge*

# MEMORY

## SOFTWARE FEATURE

### FONTS AND CLIP ART

Adobe Type Manager WIN	£49
Adobe Plus Pack WIN	£107
Adobe Streamline WIN	£129
Bitstream Facelift WIN	£49
Corel Artshow 3	£17
Corel Artshow 4	£24
Corel Artshow 5 CD	£24
Corel Gallery V2	£45
Fontographer WIN	£355
100 GST Fonts WIN	£15
Key Clip Master Pro WIN CD	£34
2550 Key Color Clipart WIN CD	£34
Key Colour Photo Pro WIN CD	£34
Lotus Smartpics Freelance WIN	£89
MS TrueType Font Pack 1	£46
MS TrueType Font Pack 2	£46
WP Clipart Premium CD	£50
WP Clipart Home WIN & DOS	£22
WP Clipart Office WIN & DOS	£22

### DESKTOP PUBLISHING

Adobe Acrobat V2 WIN	£137
Adobe Acrobat Pro V2 WIN	£299
V2 for Workgroups	£1108
Designworks and Pressworks WIN	£79
First Press WIN	£25
First Press DOS	£25
First Design WIN	£25
Info Publisher WIN	£145
MS Publisher V2 WIN	£62
PageMaker Classic WIN	£49
PageMaker V5 WIN	£396
PageMaker V5 WIN 5 User	£Call
Quark Xpress V3.3 WIN	£565
Serif Page Plus V3.0	£45
Serif Page Plus Publishing Suite	£75

### ANIMATION AND VIDEO

Adobe Premiere WIN	£399
Add Impact WIN	£79
Animation Works Interactive	£88
Timeworks V3 DOS	£89

### OPERATING SYSTEMS

IBM PC-DOS V7 UP	£37
MS Windows V3.1 CCP UP	£37
MS Windows V3.1	£61
MS Windows For Workgroups Add-On for DOS	£42
MS Windows For Workgroups Add-On 3.11	£42
MS Windows For Workgroups Add-On 3.11 1 SL	£39
MS Windows For Workgroups V3.11	£89
MS Windows For Workgroups V3.11 1 SL	£87
MS Windows NT Winstation V3.5	£219
MS Windows NT Server V3.5 CD	£475
MS DOS V6.22 UP	£38
MS DOS V6.22 UP 1 SL	£36
Novell DOS 7	£49

### DEVELOPMENT

Asymetrix Toolbook WIN	£224
Asymetrix Multimedia Toolbook V3	£499
Borland Delphi	£159
Borland Delphi CUP	£109
Borland Powerpack DOS	£69
Borland Turbo Assembler	£57
Borland Visual Solutions	£49
Borland C++ V2 OS/2 CD	£299
Borland C++ 4.5 (On-line manual) CD	£225
Borland Pascal With Objects V7	£198
Borland Turbo C++ V3 For DOS	£47
Visual Edition WIN V4.5 WIN	£59
Borland Turbo Pascal V1.5 WIN	£79
MS Visual C++ V1 WIN	£55
MS Visual C++ V2 CD	£249
MS Fortran 77 V5.1	£119
MS Macro Assembler V6.11	£95
MS Visual Basic V3 Standard WIN	£78
Prof WIN	£191
MS Visual Tools Suite WIN	£179
MS Visual Control Pk WIN	£69
MS Visual Basic Std DOS	£79
MS Visual Basic Pro DOS	£192
Symantec C++ Standard	£66
Symantec C++ Professional	£228

## IBM OS/2 WARP FEATURE

### Amazing application support

This operating system will run your current DOS and Windows applications reliably and often faster. Carry on working at full speed while printing a document, formatting a diskette or recalculating a spreadsheet.

### Word processing

Word processing and faxing come free as part of the BonusPak in addition to a spreadsheet, report writer, database, charting and graphics tool, calculator, address book, to-do list and many other productive applications.

### Great games

The best memory management to give a full 640Kb memory to run all your DOS and Windows games smoothly. It also picks up your games DOS settings automatically so no more editing or reboots.

### Drag and drop

OS/2 Warp is intuitive, it just works the way you do.

### Crash protection

Protects your applications and data should another DOS or Windows application crash.

### Easy internetting

Free as part of the OS/2 Warp BonusPak. With graphical interface and 3 hours free Net access also included.

### IBM OS/2 WARP V3

3.5" FLOPPY	£65
CD ROM	£56
3.5" FLOPPY UPGRADE	£49
CD ROM UPGRADE	£54

# OS/2 WARP



**IBM**  
Authorised Dealer  
IBM Personal Computers

### 45 Ways to Get Warping with IBM CD Showcase

- Includes full version of Ami Pro for OS/2
- Galactic Civilisation, SimCity, Tensor, The Cosmos, Casino Game Pack, Microlearn game Pack
- Lotus SmartSuite for OS/2, Describe word processor, Mesa Spreadsheet

- BitMaps Unlimited, WipeOut, SystemSounds, Gammatech utilities for OS/2
- Shareware: Hobbes, Vogel, Roids, Chomp, Dungeon Chess for OS/2

**IBM CD SHOWCASE** £9.99  
*(when purchased with OS/2 Warp)*  
*For users without MS Windows, these versions support most Windows based applications:*

WIN FLOPPY	£127
WIN CD	£111
WIN FLOPPY UPGRADE	£79
WIN CD UPGRADE	£69

\*At full retail price

### Lotus SmartSuite Version 2.0 for OS/2 and OS/2 Warp Version 3

Consists of the Lotus SmartCenter, Ami Pro Bonus Pack Macros for OS/2 Lotus 1-2-3, 1-2-3 File Translator, Freelance Graphics File

Translator, Freelance Graphics SmartMaster sets and REXXLink for 1-2-3  
**3.5" FLOPPY** £229  
**3.5" FLOPPY UPGRADE** £139

### GRAPHICS & DESIGN

Adobe Illustrator V4 WIN	£351
Adobe Photoshop V3 WIN	£454
Corel Photo-Paint 5 Plus CD	£56
Deluxe Paint II Enhanced	£53
Designworks WIN	£64
Designworks WIN CD	£75
Harvard Draw	£289
Micrografix Graphics Works WIN	£79
Micrografix Charisma WIN	£181
Micrografix Designer V5 WIN	£270
Micrografix Draw WIN	£66
Micrografix Picture Publisher WIN	£277
Micrografix Photomagic WIN	£69
Photofinish WIN	£55
Photostyler V2 WIN	£370

### NETWORKING

Intel LANdesk Manager 1 Server	£669
Intel LANdesk Virus Protect	£499
Netware Connect 2 Port	£279

**See Novell feature on page 31 for full product listing**

### OCR

Omnipage Direct 2	£74
Omnipage WIN	£379
Omnipage V5	£279
Omnipage Pro V5 UP	£129
Omniscan WIN	£275
Pagekeeper V2 WIN	£299
Wordscan Plus OCR	£390
Wordscan Plus V4 UP	£129

### DELIVERY CHARGES

UK MAINLAND - Next working day courier delivery to your door for all-stock items  
**See page 17**

**SOFTWARE WARRANTY**  
Do check compatibility before ordering. Faulty software replaced through Powermark Customer Service. Opened software cannot be returned.



Everyone at Powermark passes through our training college



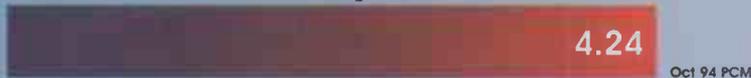
# Overall Systems Test Results



## Gateway Pentium 100MHz



## NexGen P90 by Dan



## Twinhead Pentium 60MHz notebook



## HiGrade DX-100MHz notebook



## IBM Aptiva 486 SX 33MHz



All of the above machines were top of their class in recent tests.

# The numbers game

Over six months and more than £1 million later, VNU European Labs is testing over 300 products a month (or a staggering 3600 per year) for our 40 computer magazines and our 1.8 million European readers in 10 countries. Drawing on our extensive database of over 3000 suppliers and vendors, we collect over 220 individual data items and over 110 feature points for every product. That means over 5 gigabytes of data racing at 10 megabits per second over 3Kms of labs network cable every single day.

Because we don't want to overload you with information, an army of over 30 journalists and

lab technicians put in more than 1300 hours a week to interpret and distil the data down into the single numbers you see above. But despite the baffling number of numbers we deal with every 365 days, we never forget that you and your needs are number 1. That's why we work with market leading titles such as *Personal Computer World*, *Personal Computer Magazine*, *pdan* and *What PC?* to give you what you want, numbers.

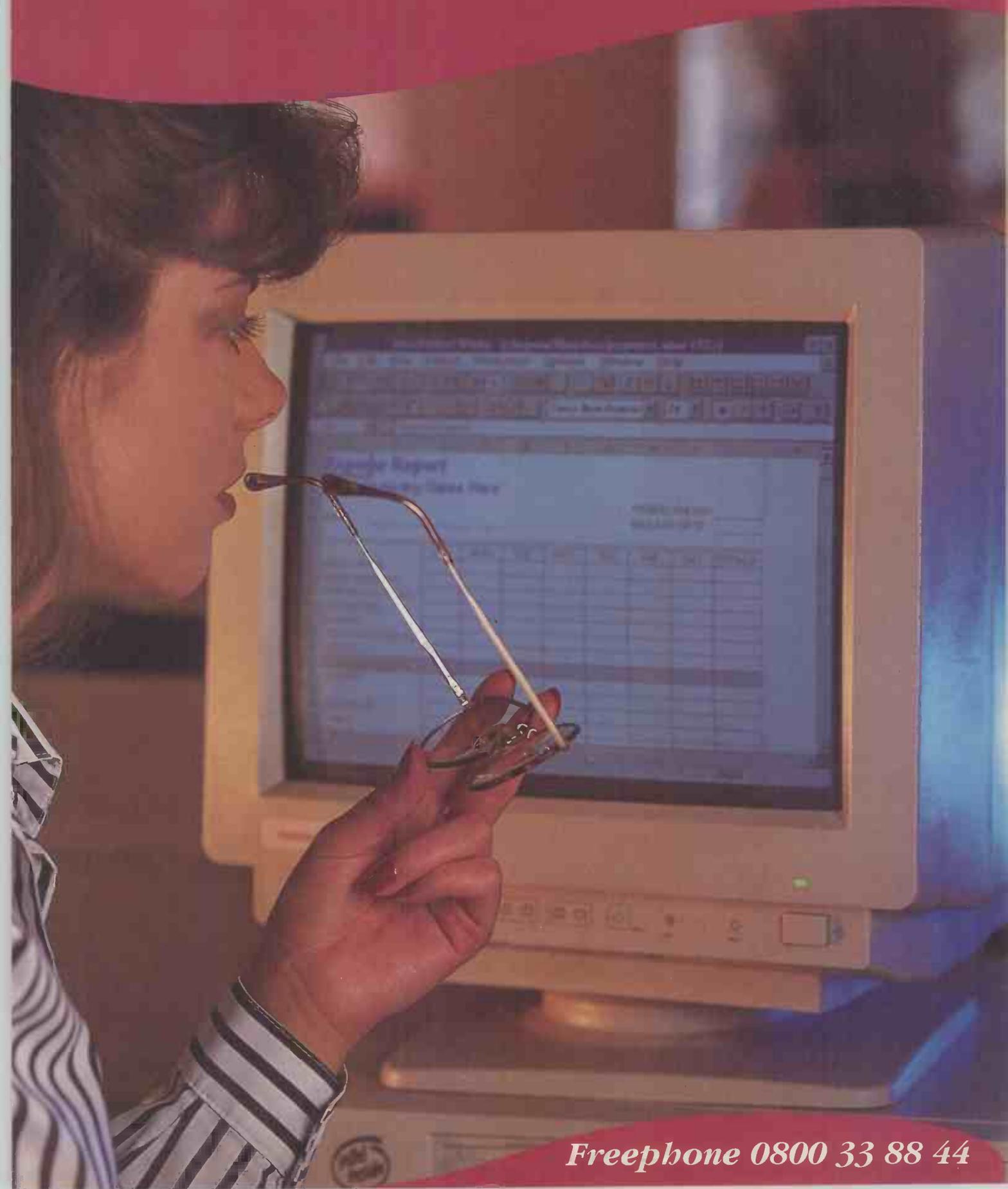
If you would like to find out more about the VNU European Labs use this number to call us 0171 316 9062 and ask for John Barnes.



VNU BUSINESS PUBLICATIONS

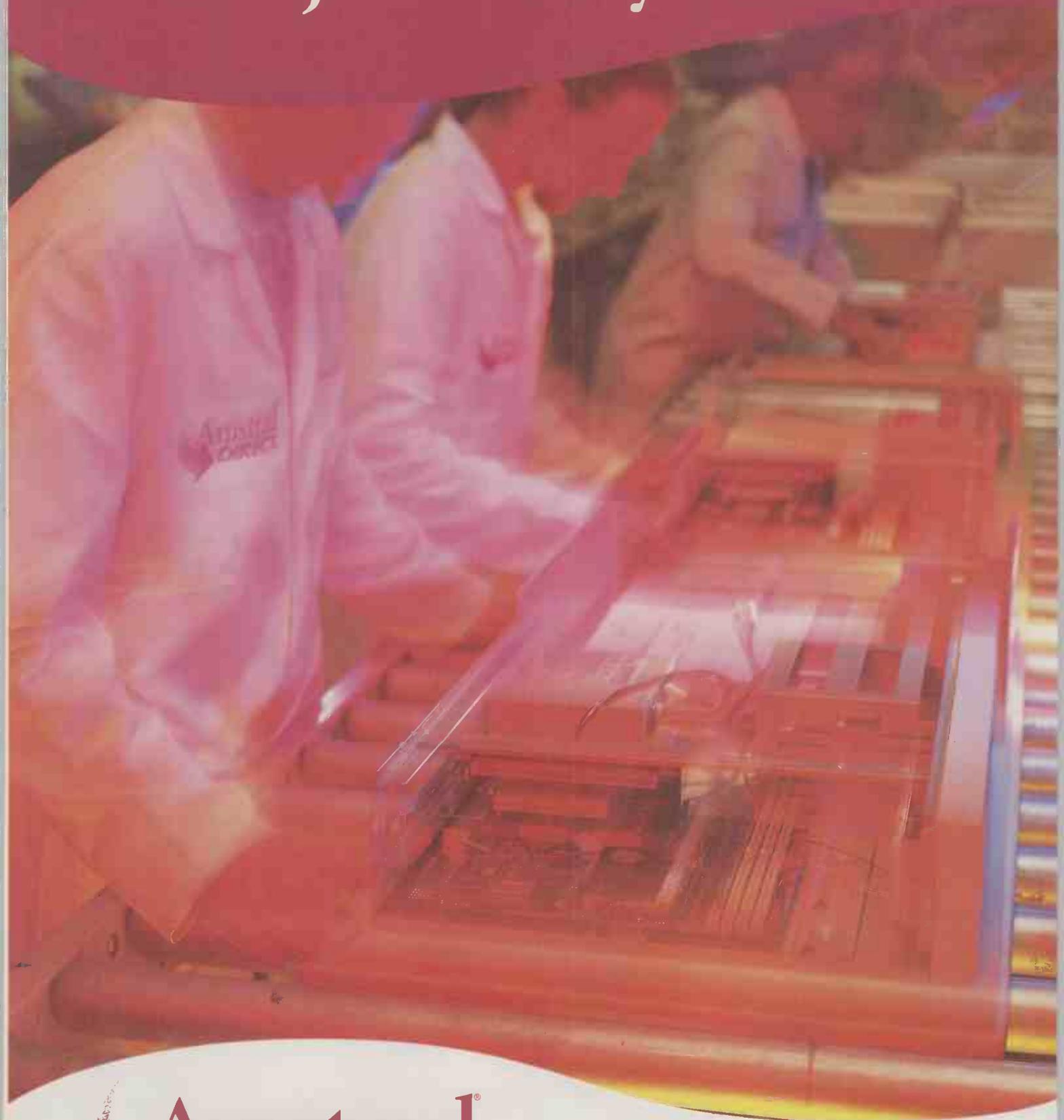
**Nobody reads the computer market like we do**

Can't find a PC to  
suit your needs?



*Freephone 0800 33 88 44*

We'll tailor make one  
just for you.



 **Amstrad**  
**DIRECT.**

660  
PERSONAL COMPUTER WORLD  
OCTOBER 1995

*Freephone 0800 33 88 44*

# You've just found your perfect PC.



The search is over. If you can't find the exact PC to match your needs we'll build it for you.

Our Tailor-Made service means that in just seven working days (one of the fastest production times in the industry), we will configure, build and stringently test your PC before despatching it to you. Only when we are 100% sure of our quality control checks will we call you to arrange a convenient delivery time. On top of this, one week after delivery, we will call again to make sure you are completely satisfied with, and getting the most out of your PC.

**Take advantage of our reputation.** For the last twenty-six years Amstrad has made innovative electronic technology accessible to the people who need to use it. In the process, our name has become recognised for providing high performance yet affordable PCs. That's why there are more Amstrad PCs used in the home today than any other brand\*.

\* Source: The ROMTEC "Investigating PC Usage and Demand" Survey, February 1994. © ROMTEC Plc, 1994.



## See what we are made of.

The beauty of an Amstrad PC is more than just skin deep. Each one of our products is individually built, using the latest state-of-the-art components, by the highly skilled workforce at our factory here in the UK. That way we can ensure the highest quality standards for our products; each and every PC has to pass three stringent quality control tests before it reaches your door.



## The future is already here.

Our latest PCs are built around 486 or Intel Pentium® processors for ultra fast performance on even the most demanding tasks. To boost performance even further, we've incorporated both state-of-the-art PCI Local Bus and Enhanced IDE technology. This hi-tech feature combination provides massive increases in both graphics, hard drive, and expansion card performance. What's more, all Amstrad PCs comply with the EPA/Energy Star Standard, which means they consume less power, saving you money and protecting the environment.



# We have the PC you are looking for.

There's never been an easier way to buy a PC. Because everyone has different needs, we offer a wide range of PC configurations, each one perfect for a variety of applications.

They're a great investment for the future too. That's because they're also ready for the next generation of processors with low voltage and write-back Cache support – so you can be sure your PC is 'future-proof', enabling it to function as well in the future as it does today.

However, if at present all you need is an entry level model, you can even upgrade that in the future too. All Amstrad PCs are designed to be easily upgradable, with extra drive bays, expansion slots, SIMM, video memory and Cache sockets.

Whichever one of the following PC models you choose, you can rest assured that you'll have made the best buying decision.

## Amstrad PC9486i Premier

A great buy

£699

Excl. VAT & Delivery

Finance options available, see order form for full details.

Our entry level PC9486i Premier offers impressive performance at a very affordable price. Powered by an IBM 80MHz 486DX2 processor, it's pre-installed with all the software you'll need to get going, including word processing, spreadsheet and personal accounts. Just switch on, follow the interactive on-screen tutorial, and you're ready to go.

## User Guide



Ideal for adults.



Ideal for children.



Ideal for office.



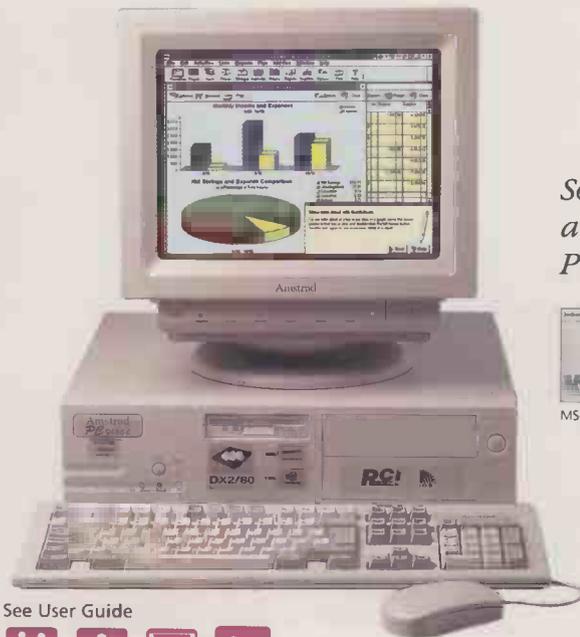
Ideal for home or office.



Ideal for learning.



Ideal for games.



Software loaded and ready to go for PC9486i Premier



MS-DOS 6.2



MS Windows 3.11



WordPerfect Works v.2



Quicken 4.0



Amstrad User Friendly Interface and Tutorial

See User Guide



### Impressive specifications

- IBM 80MHz 486DX2 Processor
- Intel Pentium OverDrive Ready
- 4Mb RAM (Exp. to 128Mb)
- PCI Enhanced IDE 32bit Hard Disk Interface
- 540Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- PCI 32bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- 14" SVGA Non-Interlaced (1024x768) 0.28dp Low Radiation Colour Monitor
- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see above)
- The Amstrad Promise

### Easy to upgrade.

Upgrade Options available:

- DX4-100 Processor **£30**
- 4Mb to 8Mb RAM **£110**

For more memory options, please call

- 256Kb Cache **£40**
- 850Mb Hard Disk Drive **£50**
- 1.05Gb Hard Disk Drive **£100**
- 2Mb Video RAM **£40**
- 15" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) **£70**
- 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) **£310**
- 14.4 BPS Internal Fax/Modem/Ansaphone **£100**
- 28.8 BPS Internal Fax/Modem **£200**
- Quad Speed Sony® CD-ROM and Lotus SmartSuite® **£200**
- Windows 95 upgrade (call for details)
- Colour & Mono Printers (call for details)

All prices exclude VAT & £15+VAT Delivery

### Select or build your own personal PC.

If you've never specified your own PC before, here are a few hints. 1. Choose from our carefully configured range of PC packages (for example, a PC9486i or PC9555i). 2. Select from your PC package and add from the upgrade options available. Alternatively, start from scratch and build your perfect, personally customised PC with our Tailor-Made service. For further information or advice, just call us free on 0800 33 88 44 to discuss your needs.

Here are two examples of personalised PCs:

#### 1. Ideal System for Home/Office usage.

PC9486i Premier	£699.00
Upgrade to DX4-100 Processor	£30.00
Upgrade 4-8Mb RAM	£110.00
Upgrade to 850Mb Hard Disk Drive	£50.00
<b>System Price</b>	<b>£889.00</b>
Delivery	£15.00
VAT 17.5%	£158.20
<b>Total to pay</b>	<b>£1062.20</b>

#### 2. Windows Station to maximise the performance of all your Windows based software.

PC9555i Premier P75	£999.00
Upgrade 8-16Mb RAM	£220.00
Upgrade 1-2Mb Video RAM	£40.00
Upgrade 540-1050Mb Hard Disk	£100.00
Upgrade 14" - 15" monitor	£70.00
<b>System Price</b>	<b>£1429.00</b>
Delivery	£15.00
VAT 17.5%	£252.70
<b>Total to pay</b>	<b>£1696.70</b>

## Amstrad PC9486i Premier Multimedia

Enjoy the benefits of Multimedia from just

**£899**

Excl. VAT & Delivery

Finance options available, see order form for full details.

Thanks to a Sony® Quad speed CD-ROM, Creative Labs® Soundblaster 16bit stereo soundcard and stereo speakers, the PC9486i Premier Multimedia gives you access to movie-like video sequences, superb educational software and the most amazing games. Delivered with an impressive suite of productivity, educational and entertainment software, the PC9486i Premier Multimedia lets you benefit from tomorrow's multimedia technology today.

## Amstrad PC9555i Premier P75

Powerfully flexible

**£999**

Excl. VAT & Delivery

Finance options available, see order form for full details.

Easy enough to use at home, but with all the power needed to run a small business, the Amstrad PC9555i Premier P75 offers real Pentium® performance. Driven by the Intel 75MHz Pentium® Processor, its pre-loaded software will make light work of all your word-processing, database, spreadsheet, presentation graphics and home accounting needs.

Software loaded and ready to go for PC9555i Premier P75



See User Guide



### Impressive specifications

- IBM 80MHz 486DX2 Processor
- Intel Pentium® OverDrive Ready
- 4Mb RAM (Exp. to 128Mb)
- PCI Enhanced IDE 32bit Hard Disk Interface
- 540Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- Quad Speed Sony® CD-ROM
- PCI 32bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- Creative Labs® Soundblaster 16bit Stereo Soundcard & Stereo Speakers
- 14" SVGA Non-Interlaced (1024x768)
- 0.28dp Low Radiation Colour Monitor
- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see above)
- The Amstrad Promise



See User Guide



### Impressive specifications

- Intel 75MHz Pentium® Processor
- 8Mb RAM (Exp. to 128Mb)
- 256Kb Cache
- PCI Enhanced IDE 32bit Hard Disk Interface
- 540Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- PCI 64bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- 14" SVGA Non-Interlaced (1024x768)
- 0.28dp Low Radiation Colour Monitor

Software loaded and ready to go for PC9486i Premier Multimedia



### Easy to upgrade.

Upgrade Options available:

- |                     |             |
|---------------------|-------------|
| • DX4-100 Processor | <b>£30</b>  |
| • 4Mb to 8Mb RAM    | <b>£110</b> |
- For more memory options, please call**
- |   |             |
|---|-------------|
| • 256Kb Cache   | <b>£40</b>  |
| • 850Mb Hard Disk Drive                                   | <b>£50</b>  |
| • 1.05Gb Hard Disk Drive                                  | <b>£100</b> |
| • 2Mb Video RAM   | <b>£40</b>  |
| • 15" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) | <b>£70</b>  |
| • 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) | <b>£310</b> |
| • 14.4 BPS Internal Fax/Modem/Ansaphone                   | <b>£100</b> |
| • 28.8 BPS Internal Fax/Modem                             | <b>£200</b> |
| • Windows 95 upgrade (call for details)                   |             |
| • Colour & Mono Printers (call for details)               |             |
| • Joysticks (call for details)                            |             |
- All prices exclude VAT & £15+VAT Delivery

### Easy to upgrade.

Upgrade Options available:

- |                                   |             |
|-----------------------------------|-------------|
| • Intel 90MHz Pentium® Processor  | <b>£90</b>  |
| • Intel 100MHz Pentium® Processor | <b>£180</b> |
| • 8Mb to 16Mb RAM                 | <b>£220</b> |
- For more memory options, please call**
- |   |             |
|---|-------------|
| • 850Mb Hard Disk Drive                                   | <b>£50</b>  |
| • 1.05Gb Hard Disk Drive                                  | <b>£100</b> |
| • 2Mb Video RAM   | <b>£40</b>  |
| • 15" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) | <b>£70</b>  |
| • 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) | <b>£310</b> |
| • 14.4 BPS Internal Fax/Modem/Ansaphone                   | <b>£100</b> |
| • 28.8 BPS Internal Fax/Modem                             | <b>£200</b> |
| • Quad Speed Sony® CD-ROM and Lotus SmartSuite®           | <b>£200</b> |
| • Windows 95 upgrade (call for details)                   |             |
| • Colour & Mono Printers (call for details)               |             |
- All prices exclude VAT & £15+VAT Delivery

- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see left)
- The Amstrad Promise



**Day 1** Call and discuss your system requirements.



**Day 2** Planning and customising the PC.



**Day 3** Picking the components to build your PC.



## Amstrad PC9555i Multimedia P75

More space to explore

£ 1149

Excl. VAT & Delivery

Finance options available, see order form for full details.

Our Intel 75MHz Pentium® based PC9555i Multimedia P75 package offers everything you'll find in the PC9486i Premier Multimedia, **but** with a CPU that will really get the most out of multimedia software. Double the "thinking space" with 8Mb of RAM and a 256Kb Cache as standard ensures that the PC9555i Multimedia P75 will simply race through even the most demanding of computing tasks.

## Amstrad PC9555i Performer P75

Pentium® processor for  
brilliant performance

£ 1149

Excl. VAT & Delivery

Finance options available, see order form for full details.

The combination of a Sony® Quad speed CD-ROM with the power of an Intel 75MHz Pentium® Processor gives you a real office work-horse with full access to the wealth of information resources and software now available on CD. The Amstrad PC9555i Performer P75 is shipped as standard with Lotus SmartSuite on CD, bringing you full business applications such as 1-2-3 for Windows, Ami Pro, Approach, Freelance & Organiser to cover all your spreadsheet, wordprocessing, database, presentation graphics and personal scheduling requirements.

See User Guide



### Impressive specifications

- Intel 75MHz Pentium® Processor
- 8Mb RAM (Exp. to 128Mb)
- 256Kb Cache
- PCI Enhanced IDE 32bit Hard Disk Interface
- 540Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- Quad Speed Sony® CD-ROM
- PCI 64bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- Creative Labs® 16bit Soundblaster 16 Stereo Soundcard & Stereo Speakers
- 14" SVGA Non-Interlaced (1024x768) 0.28dp Low Radiation Colour Monitor
- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see above right)
- The Amstrad Promise



See User Guide

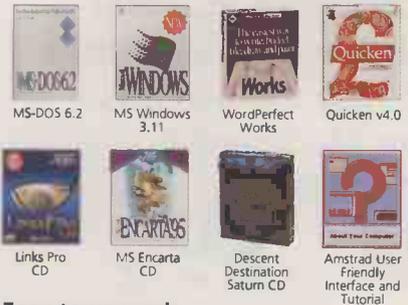


### Impressive specifications

- Intel 75MHz Pentium® Processor
- 8Mb RAM (Exp. to 128Mb)
- 256Kb Cache
- PCI Enhanced IDE 32bit Hard Disk Interface
- 540Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- Quad Speed Sony® CD-ROM
- PCI 64bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- 14" SVGA Non-Interlaced (1024x768) 0.28dp Low Radiation Colour Monitor
- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see right)
- The Amstrad Promise

Software loaded and ready to go for PC9555i Performer P75

Software loaded and ready to go for PC9555i Multimedia P75



### Easy to upgrade.

- |                                   |             |
|-----------------------------------|-------------|
| Upgrade Options available:        | <b>Add:</b> |
| • Intel 90MHz Pentium® Processor  | £90         |
| • Intel 100MHz Pentium® Processor | £180        |
| • 8Mb to 16Mb RAM                 | £220        |

### For more memory options, please call

- 850Mb Hard Disk Drive £50
- 1.05Gb Hard Disk Drive £100
- 2Mb Video RAM £40
- 15" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) £70
- 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) £310
- 14.4 BPS Internal Fax/Modem/Ansaphone £100
- 28.8 BPS Internal Fax/Modem £200
- Windows 95 upgrade (call for details)
- Colour & Mono Printers (call for details)
- Joysticks (call for details)

All prices exclude VAT & £15+VAT Delivery

### Easy to upgrade.

- |                                   |             |
|-----------------------------------|-------------|
| Upgrade Options available:        | <b>Add:</b> |
| • Intel 90MHz Pentium® Processor  | £90         |
| • Intel 100MHz Pentium® Processor | £180        |
| • 8Mb to 16Mb RAM                 | £220        |

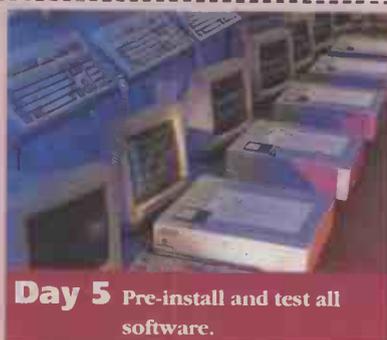
### For more memory options, please call

- 850Mb Hard Disk Drive £50
- 1.05Gb Hard Disk Drive £100
- 2Mb Video RAM £40
- 15" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) £70
- 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) £310
- Creative Labs® 16bit Soundblaster 16 Soundcard, Stereo Speakers & Multimedia software £90
- 14.4 BPS Internal Fax/Modem/Ansaphone £100
- 28.8 BPS Internal Fax/Modem £200
- Windows 95 upgrade (call for details)
- Colour & Mono Printers (call for details)
- Joysticks (call for details)

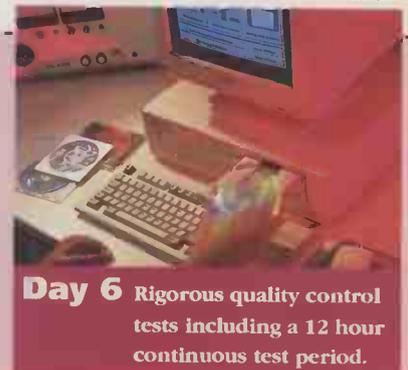
All prices exclude VAT & £15+VAT Delivery



**Day 4** Commence the build process.



**Day 5** Pre-install and test all software.



**Day 6** Rigorous quality control tests including a 12 hour continuous test period.



**15" Monitor as Standard**

*Software loaded and ready to go for PC9555i Power Pro P90*



**Amstrad PC9555i Power Pro P90**  
A real business investment

**£1299**

Excl. VAT & Delivery

Finance options available, see order form for full details.

Our top of the range PC9555i Power Pro P90 package offers you all the hardware and software benefits of the Amstrad PC9555i Performer P75 pack, **but** with the computing power of the Intel 90MHz Pentium® Processor combined with a one Gigabyte (1050Mb) Hard Drive and a fully non-interlaced "flicker-free" 15" digital SVGA colour monitor. This advanced feature set means that any business looking for state-of-the-art specification will find our unbeatable Power Pro P90 model an indispensable asset.

See User Guide



**Impressive specifications**

- Intel 90MHz Pentium® Processor
- 8Mb RAM (Exp. to 128Mb)
- 256Kb Cache
- PCI Enhanced IDE 32bit Hard Disk Interface
- 1050Mb Hard Disk
- 1.44Mb 3.5" Floppy Drive
- Quad Speed Sony® CD-ROM
- PCI 64bit Local Bus Graphics
- 1Mb Video RAM (Exp. to 2Mb)
- 15" Digital Non-Interlaced (1024x768 0.28dp MPR-II Colour Monitor
- Ergonomic Keyboard and Microsoft Compatible Mouse
- Slimline Desktop Case
- Pre-loaded software (see above right)
- The Amstrad Promise

**Ready to run at the touch of a button.**

*All Amstrad PCs are delivered ready to use, and supplied with all software pre-installed on the hard drive.*

*Simply switch on and you and your PC are ready for business, or leisure.*

**Easy to upgrade.**

Upgrade Options available:	<b>Add:</b>
• Intel 100MHz Pentium® Processor	<b>£90</b>
• 8Mb to 16Mb RAM	<b>£220</b>

**For more memory options, please call**

- 2Mb Video RAM **£40**
  - 17" Digital Non-Interlaced SVGA Colour Monitor (MPR-II) **£250**
  - Creative Labs® 16bit Soundblaster 16 Soundcard, Stereo Speakers & Multimedia Software **£90**
  - 14.4 BPS Internal Fax/Modem/Ansaphone **£100**
  - 28.8 BPS Internal Fax/Modem **£200**
  - Windows 95 upgrade (call for details)
  - Colour & Mono Printers (call for details)
  - Joysticks (call for details)
- All prices exclude VAT & £15+VAT Delivery



*Naturally, you will still receive all software disks, CDs and relevant instruction manuals, which come free of charge, plus an easy to follow interactive on-screen tutorial. There's also Lifetime Technical Support for your PC the instant you need it.*



**Day 7** Tailor-Made PC despatched.

**Freephone**  
**0800 33 88 44**





How to select your tailor-made system and have it despatched within 7 days.

## No one offers you so much.

When you buy from Amstrad Direct not only are you buying a product that is at the forefront of computer technology, you are also buying total peace of mind. The reason: no other company offers you the service and guarantees that you'll receive from Amstrad Direct. Just look at the following **Amstrad Promises** and you'll see a commitment that you won't see anywhere else.

### The Amstrad Promise



**30 DAY MONEY BACK GUARANTEE**  
No quibbles, no hassles, just your money back.



**PLAIN LANGUAGE PROMISE**  
Everything is written in easily understandable English.



**LIFETIME TELEPHONE SUPPORT**  
All your problems answered, for the life of your PC, over the phone.



**12 MONTHS' FREE WARRANTY**  
All parts and labour costs involved in any repair covered for a full 12 months.



**12 MONTHS' FREE ON-THE-SPOT SERVICE**  
Free, at-home or office, repair service within 48 hours for your PC.



**FACTORY PRICES**  
No middle-men, just incredible savings through buying direct.



**72 HOUR DESPATCH**  
For advertised PC bundles, despatch is within 72 hours. You'll be up and running in no time.



**7 DAY TAILOR-MADE PC SYSTEMS**  
Tell us what you're looking for in a PC and we'll make it for you - within just 7 working days.

## Now you've chosen your PC, ordering it is easy

Buying your chosen Amstrad PC couldn't be easier. In fact, you've three easy ways to place your order.

**By phone** - call us free on **0800 33 88 44**. Please remember to have your credit card ready.

**By post** - Either enclose a **cheque** for the full amount made payable to **AMSTRAD DIRECT** and write your cheque guarantee card number and the expiry date on the reverse. Or provide your **credit/debit** card details including expiry date. Don't forget to include a full list of the products you require together with your name, address and telephone number and post it to: **AMSTRAD DIRECT, FREEPOST, BRENTWOOD, ESSEX CM14 4YW**.

**By fax** - Send a list of the products you require together with credit/debit card details including expiry date, your name, address and telephone number to: **01277 20 90 09**.

**TRANSAX** We use TRANSAX cheque clearance so there's no delay despatching your order.

You won't find a better deal anywhere else. So call Amstrad Direct today, free of charge, on **0800 33 88 44**. Quote **PCW07**

### 3. The Ultimate Multimedia System for all your educational & home office needs.

PC9555i Multimedia P75	£1149.00
Upgrade 75-100MHz	£180.00
Upgrade 8-16Mb RAM	£220.00
Upgrade 1-2Mb Video RAM	£40.00
Upgrade 540-1050Mb Hard Disk	£100
Upgrade 14" - 15" monitor	£70
<b>System Price</b>	<b>£1759.00</b>
Delivery	£15.00
VAT 17.5%	£310.45
<b>Total to pay</b>	<b>£2084.45</b>

### 4. Complex Desktop Publishing with advanced communications.

PC9555i Power Pro P90	£1299.00
Upgrade to 100MHz	£90.00
Upgrade 8-16Mb RAM	£220.00
Upgrade 1-2Mb Video RAM	£40.00
Upgrade 15" - 17" monitor	£250
Upgrade to 28.8 BPS internal Fax/Modem	£200
<b>System Price</b>	<b>£2099.00</b>
Delivery	£15.00
VAT 17.5%	£369.95
<b>Total to pay</b>	<b>£2483.95</b>

## Helping spread the cost.

Even though there are benefits from buying direct from the factory, it is often useful to be able to spread the cost. As a result, we have introduced the Amstrad Direct card in association with Avco Trust plc, which offers you personal finance credit facilities.

Credit is available the moment your application is accepted, with flexible repayment terms to suit your budget. Credit is provided subject to status and written quotations are available on request. For more information on how to spread your payments, call free on **0800 33 88 44**.

Avco Trust plc, Avco House, Castle Street, Reading, GRI 7DX. Registered in England 721502.

Amstrad Direct Card: Payment Examples (PC9486i Premier £838.95, PC9486i Premier Multimedia £1073.95)

Typical example	Cash price inc. VAT and delivery	Deposit	No. of monthly payments	Each payment	One final payment	Total repayable	APR
GOODS	£838.95	NIL	25	£42.00	£31.75	£1081.75	26.8%
GOODS	£1073.95	NIL	25	£54.00	£32.96	£1382.96	26.8%

Payments are calculated as 5% of initial debt balance. Written quotations are available on request from Amstrad Direct. All credit loans are subject to status. Amstrad Direct is a licensed credit broker.

**Business Leasing. Technical flexibility - for no capital outlay.** Alternatively, you could take advantage of one of our tailored Business Leasing schemes, which allow you to enjoy immediate use of our PCs without a large capital outlay. And, if you need to keep pace with new technology, Business Leasing will enable you to either upgrade or replace your equipment at any time during your minimum hire period - giving you maximum technical flexibility.

What's more, because Lease Rental Payments are fully allowable as a tax deductible business expense, you'll find Business Leasing offers exceptional value for money, too.

**Enjoy the reassurance of our 30 Day money back guarantee.** If you are not delighted with your purchase at any time within 30 days of despatch, simply telephone a member of our Customer Service Team and tell us you want to return the PC. We will even arrange to collect, free of charge, provided you make sure that the PC is undamaged and re-packed in its original packaging, and we will refund your money\* - no questions asked. We regret we can only give refunds on software if it is returned unused with all disk packaging seals intact. Please do remember to phone first before returning a product to obtain a returns number. Full details are included with your PC documents. Your statutory rights are not affected.

\* Charges will be made for any missing items, including manuals. We may supply sealed back-up disks for pre-loaded software. A charge may also be made if the seals on these disks are broken.

We reserve the right to change component types, manufacturers, sources of supply and technical specifications at any time. Dimensions, speeds, weights and colours contained in this brochure are approximate and may change. Prices and products may change without notice at any time. Products subject to availability. All software is sold strictly subject to licence. MS-DOS and MS Windows are registered trademarks of the Microsoft Corporation. Intel Inside logo, Pentium, Overdrive are registered trademarks of Intel Corporation. The name and logo Amstrad are registered trademarks of Amstrad plc. All other trademarks that are registered trademarks are acknowledged. Products may differ in appearance from those pictured in the catalogue. Amstrad Direct is a division of Amstrad Consumer Electronics plc.

**Freephone 0800 33 88 44**

# ADVERTISERS INDEX

# Personal Computer World

<b>A</b>					
Adams Technology	339/343	Powermark plc - Videologic Feature	634	Technomatic for Lotus SmartSuite 4.0, Lotus Word Pro 96	609
Adminure	502/503	Powermark plc - Taxan Feature	635	Technomatic for Norton Utilities 95, Antivirus 95, Navigator 95	610
Alternatives	388/391	Powermark plc - Diamond Multimedia Feature	636	Technomatic for Xerox Textbridge, Accent, PC-Install, M.Y.O.B., 2000 Image Pak	610
Allgem	485	Powermark plc - Hitachi Monitor Feature	637	Technomatic for Spry Internet In a box, Internet Office, RAM Doubler	611
Amstrad	659/666	Powermark plc - Umax Scanners Feature	637	Technomatic for Novell Perfect Office 3.0 + Windows 95	812
ATT Corporation (UK) Ltd	331	Powermark plc - HP Scanners Feature	638	Technomatic for Microsoft Multimedia CD's - Encarta 95 Bookshelf 95, Cinemania 95, 500 Nations, Dogs, Wine Guide, Explorapedia, Autorote Express, Flight Simulator	613
Austin Computer Systems (UK) Ltd	467/474	Powermark plc - Caera OCR Feature	638	Technomatic for Windows 95 Special Offers, MS Works 95, MS Publisher 95, Mouse 2 & Keyboard for Win 95, Visual Foxpro 3.0	613
<b>B</b>		Powermark plc - OKI Printer Feature	638	Technomatic for Accounting	614
Bascrown Ltd	509/511	Powermark plc - Fujitsu Printer Feature	639	Technomatic for Spreadsheets	614
Business Data and Communications Systems	406/407	Powermark plc - Kyocera Printer Feature	640	Technomatic for Office Suites/Integrated Software	614
Byte Computer Superstores Ltd	513/519	Powermark plc - HP Printer Feature	640	Technomatic for Databases	614
Bytewise	506/507	Powermark plc - Spiderman Feature	641	Technomatic for Wordprocessing	614
<b>C</b>		Powermark plc - DFI Modem Feature	641	Technomatic for Business Tools	614
C&T Group	404/405	Powermark plc - Multitech Modem Feature	642	Technomatic for OCR	614
CAE Office Supplies Ltd	344	Powermark plc - US Robotics Modem Feature	642	Technomatic for Quicken 4, Quickbooks 3	614
CAE Office Supplies Ltd	350	Powermark plc - Motorola Modem Feature	643	Technomatic for Contact Management	614
CD Choice (Datatrade)	498	Powermark plc - Lasat Modem Feature	643	Technomatic for Project Management	615
CD Revolution Ltd	420	Powermark plc - Hayes Modem Feature	644	Technomatic for Charts & Diagrams	615
CD Revolution Ltd	480	Powermark plc - Zoom Modem Feature	644	Technomatic for Desktop Publishing/Fonts/Cliparts/Images	615
Channel Awards House Ad Choice Systems	508	Powermark plc - Psion Modem Feature	644	Technomatic for Graphics & Design/Image Editing/Animation Video Presentation/3D	615
Cherry Mikroschalter GmbH	504/505	Powermark plc - Datafax Modem Feature	645	Technomatic for Upgrades - Microsoft, Lotus, Corel, Borland, Novell/Wordperfect	615
Colossus	412/413	Powermark plc - Xerox Feature	645	Technomatic for Screen Savers	615
Colossus	345/349	Powermark plc - Intel Networking Feature	646	Technomatic for CorelDraw 6 for Windows '95	615
Computers By Post - Toshiba PCs & Accessories	433	Powermark plc - Fiskars Power Feature	646	Technomatic for Windows '95 Special Offer - Memory & Windows 95 Upgrade	615
Computers By Post - ADI ProVista 14 Colour Monitors	434	Powermark plc - SMC Networking Feature	647	Technomatic for Leisure/Entertainment/Reference/Exploration/Children's Software/Lifestyle	615
Computers By Post - Cyberman Cd-ROM Drives	434	Powermark plc - 3COM Feature	647	Technomatic for Development	616
Computers By Post - Uninterruptible Power Supply	434	Powermark plc - Arcsoft Feature	648	Technomatic for CAD	616
Computers By Post - Sound Galaxy-Wave Rider +32	434	Powermark plc - Novell Feature	648	Technomatic for Mouse & Keyboard	616
Computers By Post - WIN/TV Celebrity Video Grabber	434	Powermark plc - Dr Solomon's Feature	649	Technomatic for Language Translators	616
Computers By Post - Facsimile Machines	434	Powermark plc - Accent Feature	649	Technomatic for Anti Virus	616
Computers By Post - Compaq Presario 7100	435	Powermark plc - Windows 95 Feature	650/652	Technomatic for Memory Management	616
Computers By Post - TI-Pentium Notebook	435	Powermark plc - Touchstone Feature	652	Technomatic for Maps & Routes	616
Computers By Post - Portable & Desktop PCs & Access	435	Powermark plc - Starfish Software Feature	653	Technomatic for Micrografix ABC Suite for Win95, Clanswork 2.0, Sidekick 95	616
Computers By Post - Modems - Very latest	435	Powermark plc - Claris Software Feature	654	Technomatic for Utilities - File/Desktop/Uninstallers/Backup/Diagnostic Tools/Printing Utilities	617
Computers By Post - Kyocera Ecosys Fs-400 Printer	436	Powermark plc - Eurress Feature	655	Technomatic for Operating Systems - DOS/Windows/OS/2	617
Computers By Post - TI MicroVarc Thermal Inkjet	436	Powermark plc - IBM OS/2 Warp Feature	656	Technomatic for Networking - Novell Network v3.12,v4.1	617
Computers By Post - Star Wintype 4000 Laser Printer	436	Powermark plc - Micrografix Feature	657	Technomatic for UNIX - SCO/UNIXware	617
Computers By Post - OKI QL-400 Ex Laser Printer	437	<b>R</b>		Technomatic for Electronic Mail - MS Mail/CC-Mail/Lotus Notes/Novell Groupwise	617
Computers By Post - Epson LapCat G1300 Scanner	437	Richnight Limited	414/415	Technomatic for Communications - On Line/File Transfer/Remote Access/Control Terminal Emulation/Comms Fax/TCP/IP/Internet	617
Computers By Post - Syantec - Norton Anti-Virus	437	Roldec	493/495	Technomatic for Macromedia Director v4.0, Visio 4 for Windows & Windows 95	617
Computers By Post - IBM - OS/2 Warp	437	<b>S</b>		Time Direct - Time Direct Information	441
Computers By Post - Corel Draw 3, 4, 5, 6 & CD Office	438	SMC Computers Plc	392/401	Time Direct - Desktops & Networks	442/443
Computers By Post - Win '95 Advisor - New	438	SMC Computers Plc for SCSI hard disk drives	396	Time Direct - Toshiba	444/445
Computers By Post - BubbleHelp & SpellWriter	438	SMC Computers Plc for IDE hard disk drives	397	Time Direct - IBM	446/447
Computers By Post - MS - Windows '95	439	SMC Computers Plc for Removable Drives	398	Time Direct - Compaq & Mitac Notebooks	448/449
Computers By Post - Business Builder	440	SMC Computers Plc for Parallel port hard & floppy disks, CD ROM and tape drives	398	Time Direct - Texas & Colossus Notebooks	450/451
Computers By Post - Globalink Power Translator	440	SMC Computers Plc for Tape Drives	399	Time Direct - HP Printers & Software	452/453
Computers By Post - FastCAD Softwares	440	SMC Computers Plc for DAT drives	399	Time Computers - Special Offers	535
Computers By Post - Alpha for Home Business Computech	496/497	SMC Computers Plc for Manufacturer matched memory	39	Time Computers - Time Services and buying from Time	536/537
<b>D</b>		SMC Computers Plc for SIMM Memory	392	Time Computers - More Power & Lower Prices	538/539
Dabs Direct	454/459	SMC Computers Plc for Motherboards	392	Time Computers - Ultimate Performance & Incredible Prices	540/541
<b>E</b>		SMC Computers Plc for CPUs	392	Time Computers - Compaq Multimedia Time Machines & Multimedia Time Machine 95	542/543
ESL	488/489	SMC Computers Plc for Sound cards from Sound Blaster Orchid and Gravis	400	Time Computers - Multimedia PowerStation 95 & Perfect Office	544/545
Eurosell	413	SMC Computers Plc for CD ROM drives from Panasonic, NEC, Toshiba, Goldstar, Mitsumi and Pioneer	401	Time Computers - Compaq Multimedia Powerstations	549/547
Evesham Micros	520/533	Semphar Systems Ltd	386/387	Time Computers - Mitac Notebooks & Multimedia Office	548/549
<b>F</b>		Silica Systems	461/465	Time Computers - Apple Macs And Portable PC Offers	550/551
4 Front Technology Ltd	384/385	Simply Computers	362/373	Time Computers - Texas Instruments & Powerstations	552/553
First Choice Computers	492	<b>T</b>		Time Computers - Lotus Education Software & Business Software	554/555
FOX Computer Systems	408/409	TAG PC	499/501	Time Computers - Fax/PCTV/Printer Multimedia Soft & Hardware Offers	556/557
<b>G</b>		TEC Computers Ltd	534	Time Computers - Ultimate Time Machine	558
Gultronics	374	Tech Direct	375/377	Tiny Computers Ltd	460
<b>H</b>		Techno World	402/403	Tiny Computers Ltd	479
Hi-Grade Computers Ltd	378/380	95 Special Offer, MS Plus!	584	Tiny Computers Ltd	482/485
<b>I</b>		Technomatic for Microsoft Office '95 Standard & Professional (MS Word, Excel, PowerPoint, Schedule+, Access)	585	<b>U</b>	
IPC Computers	467/474	Technomatic for HP Printers	586	UK Flex Ltd	381/383
<b>K</b>		Technomatic for HP Peripherals	587	Universal Control Systems	559
Kyodal Electronics	351/355	Technomatic for HP Computers & Accessories	588	<b>W</b>	
<b>L</b>		Technomatic for Compaq Computers & IBM Computers	589	Watford Electronics - Universa PCs	560
Lantec Information Services Ltd	416/419	Technomatic for Taxan Monitors & Graphics Cards	590	Watford Electronics - Universa PCs	561
<b>M</b>		Technomatic for Genius Network products	590	Watford Electronics - Perfecta PCI+ Pentium	562
Microhelp Inc	356	Technomatic for US Robotics Modems	591	Watford Electronics - Notebook 7000	564
Mitac Europe Ltd	338	Technomatic for Microtek Scanners	591	Watford Electronics - Aries Scanners & Modems	565
Mr PC	421/431	Technomatic for SMC Networking	592	Watford Electronics - Networking	566
<b>N</b>		Technomatic for Hayes Modems	592	Watford Electronics - Genius & Epson LapCAT	567
Netland (UK) Ltd	332/333	Technomatic for Cyrix Upgrades	592	Watford Electronics - Roderick Manhattan/NEC	568
Netland (UK) Ltd for Novell Netware	332	Technomatic for Motorola Modems	592	Watford Electronics - Creative Labs Kits	569
Netland (UK) Ltd for SMC	332	Technomatic for Canon Computers	593	Watford Electronics - Creative Labs Listing	577
Netland (UK) Ltd for Sun NFS	332	Technomatic for Epson LapCat Scanner	594	Watford Electronics - Multimedia & Scanners + HP ads	579
Netland (UK) Ltd for Instant Internet	332	Technomatic for 3COM Networking	594	Watford Electronics - Kyocera Printers & Oki	580
Netland (UK) Ltd for TCP/IP	332	Technomatic for Nokia Monitors	594	Watford Electronics - Printer Listing	581
Netland (UK) Ltd for 100MBPS Networking Products	333	Technomatic for The Tray Cradle II	594	Watford Electronics - Monitors/Video Listing	582
Netland (UK) Ltd for 3COM Networking Products	333	Technomatic for Multitech Modems	595	Watford Electronics - Last page misc Listing	583
Netland (UK) Ltd for APC UPS	333	Technomatic for MicroSolutions Drives	595	Western Systems (Europe) Ltd	410/411
Netland (UK) Ltd for Web Networking Products	333	Technomatic for Laser Printers	596	<b>X</b>	
Netland (UK) Ltd for Token Ring Products	333	Technomatic for Inkjet Printers	596	Xitec Elite Corporation Europe Limited	335/337
Netland (UK) Ltd	35	Technomatic for Dot Matrix Printers	596	<b>TURNOVER COMPANY LISTINGS</b>	
Novatech	357/361	Technomatic for Printer Consumables & Media	596	<b>MICROMART INDEX</b>	<b>208</b>
<b>O</b>		Technomatic for Plotters & Tablets	597		
Optimum Technology Ltd	330	Technomatic for A4 & Hand Scanners	597		
<b>P</b>		Technomatic for Mobile Communications	597		
P&P Micro Distributors plc	475/478	Technomatic for Modems	597		
Panrix Electronics	325	Technomatic for Intel OVERDRIVE Processors	598		
Pico	486/487	Technomatic for Make-II 486 Processors	598		
Protek	490/1	Technomatic for Printer Memory Upgrades	599		
Powermark plc	618/657	Technomatic for Computer Memory Upgrades	599		
Powermark plc - Memory Feature	618/623	Technomatic for Co-Processors	599		
Powermark plc - Laserprinter Memory Feature	624	Technomatic for Co-Processors	599		
Powermark plc - Intel OverDrive Feature	625	Technomatic for SIMMS	600		
Powermark plc - Cyrix Feature	626	Technomatic for Networking Products	600		
Powermark plc - Conner Feature	626	Technomatic for UPS	600		
Powermark plc - Hard Disk Drive Feature	627	Technomatic for Hard Disk Drives	601		
Powermark plc - Syquest Storage Feature	628	Technomatic for Tape Backup Solutions	601		
Powermark plc - HP Colorado Feature	628	Technomatic for Storage Media	601		
Powermark plc - Iomega Tape Backup Feature	628	Technomatic for PC Accessories	601		
Powermark plc - Panasonic Optical & CD ROM Drive Feature	629	Technomatic for Monitors	602		
Powermark plc - Cyberman PCMCIA CDROM Drive Feature	629	Technomatic for Video Graphics Cards	602		
Powermark plc - Goldstar CDROM Drive Feature	629	Technomatic for Overhead Projection Panels	602		
Powermark plc - CDROM Drives, Sound Cards and Speaker Feature	630	Technomatic for Keyboards	602		
Powermark plc - Key Tronic Keyboard Feature	631	Technomatic for Mice & Cables	602		
Powermark plc - Multimedia Accessories Feature	631	Technomatic for QuickCAM, Aztech, Sound Cards, Optorian, Video Editing, Hauppauge	603		
Powermark plc - Microsoft Hardware Feature	631	Technomatic for Multimedia CD-ROM drives	604		
Powermark plc - Creative Labs Feature	632/633	Technomatic for CD-ROMs Titles	605		
Powermark plc - Microsoft Feature	633	Technomatic for Creative Multimedia	606		
Powermark plc - Hauppauge Feature	634	Technomatic for First Aid 95, PC911, Train Software, Design Home, Business Plan, Winport/Faxport, Allclear	607		
		Technomatic for IBM OS/2 V3 Warp, IBM PC DOS 7, OS/2 Warp Connect, OS/2 Special Offer	608		

<b>A</b>					
A1 Shareware	0181 806 5769	245	MPC International (UK) Ltd	01923 249898	71
Acer (UK) Ltd	01753 23024	58/59	Mr PC	01282 777888	421/431
ACi	0161 929 9444	188	Multimax Ltd	01652 651651	243
Adams Technology Ltd	0161 877 8822	339/343	<b>N</b>		
Admicure Ltd	01788 567567	502/503	Netland (UK) Ltd	01638 720999	332/333
ADI Systems (UK) Ltd	0181 236 0801	60	Novell	0800 666767	85, 147
AJP	0181 452 9090	334	Novatech	01705 664144	357/361
Allgem Ltd	0141 425 2000	485	Number Nine Visual Technology	01256 361194	76
Alternatives	01925 700007	388/391	<b>O</b>		
Amstrad Direct	0800 338844	659/666	Obodex	0181 841 3555	193
Apricot (UK) Ltd	0800 212422 89/91,172/173,137/139	183/185	Optimum Technology	0181 203 0220	330
Atlantic Systems	01792 792999	331	Opti International Ltd	0181 507 1818	196/197
ATT	0181 520 1007	53, 55	Opus Technology Plc	01293 821555	178/179, 126/127
Autodesk	01433 303322	163	Orchid (Europe) Ltd	01256 479898	288
Avery Label Europe	01236 725611	509/511	Orion Technology	01252 838393	224
<b>B</b>			<b>P</b>		
Bascrown Ltd	01704 895815	276	P&P Micro Distributors Plc	0171 265 4570	475/478
Blackwell Science	01865 206206	41	Panrix	0113 244 4958	325
Borland International (UK) Ltd	01734 320022	87	Paradigm Technology	01235 862400	168
Brother International Europe Ltd	0161 330 6531	164	PC Science	01423 323386	113
Budget Workstation	0181 871 4322	406/407	Pegasus	01536 410044	80
BusinessData Communications Systems	0181 795 0971	513/519	Pico Direct t/a DIP Systems Ltd	01483 202022	486/487
Byte Computer Superstore Ltd	0121 766 5559	513/519	Powermark Plc	0181 951 3355	618/657
Bytewise Ltd	0171 275 8853	344, 350	Pro-Teknology	01438 361212	490/491
<b>C</b>			<b>R</b>		
CAE Office Supplies Ltd	01923 210923	108	Raydream Europe	00 331 69 41 9722	54
Caere GmbH	0181 759 8494	404/405	Richnight Ltd	0181 668 4199	414/415
C&T Group	0171 637 1767	412/413	Rock Computer Corporation	01753 567899	166/167
CD Revolution Ltd	01932 562000	239, 420, 480	Roldec Systems Ltd	01902 456464	493/495
Cherry Microschalter GmbH	00 49 96 43 1800	504/505	<b>S</b>		
Choice Systems	0181 993 9003	345/349	S&S International Ltd	0800 581263	111, 281
Collosus	01282 770088	156	Sage	0800 336633	24/25
Compuserve	0800 289378	207	Scanner Technologies Ltd	01734 770808	208
Computer Concepts	01442 63933	130	Semaphore Systems Ltd	0171 625 7744	386/387
Computers Unlimited	0181 200 8282	433/440	Serif	0800 924925	56
Computers By Post	0181 982 6380	268	Silica Systems	0181 309 1111	461/465
Computing Plus	01993 881912	496/497	Simply Computers	0181 523 4002	362/373
CompuTech	01923 224440	73, 75	SMC Computers	01753 550333	392/401
Corel	0800 381028	454/459	Software Warehouse (insert)	01675 466467	124/148
<b>D</b>			Software Publishing Corporation	01344 867100	161/163
Dabs Direct	0800 558866	232	Solidisk	01702 354674	670
Dakota Computer Solutions	0181 452 2400	15/17	Solwise	01482 473899	268
Dan Technology	0181 830 1100	273	Sony Europe	01784 466660	227
Datastorm Technologies Ltd	01223 42166	498	Symantec	01628 592222	144
Datatrade Marketing Ltd	0171 352 2127	22	Syntenic Ltd	01752 256473	161
Datrontech Plc	01252 313155	IFC	System Science	0171 833 1022	297
Dell Computer Corporation	01344 720000	64/65	System Star Soft Tools Ltd	01707 278300	231
Digital Equipment Co Ltd	0800 227228	265	Syquest Technology	0990 115565	21
<b>E</b>			<b>T</b>		
Electrone Ltd	01494 511999	50/51, 39	Tag PC Technology	0181 803 7770	499/501
Epson	0800 220546	164/165	Taxan (UK) Ltd	01344 484646	119/121
Escom	0990 555888	488/489	Tec Computers Ltd	01371 831159	534
Euro Asia Systems	0171 498 7816	413	Tech Direct	0181 286 2222	375/377
Eurosell	01293 824024	520/533	Techno World	0181 830 5555	402/403
Evesham Micros	01386 765500	217	Technomatic Ltd	0181 205 9558	584/617
Express Technology	01784 421123	163	Tektronix (UK) Ltd	0800 991155	83
<b>F</b>			Texas Instruments Ltd	01932 780753	69
4 Front Technology Ltd	01252 812292	384/385	The Electronic Frontier Ltd	01734 810600	240
Fastcad	01923 246427	140	Time Computer Systems Ltd	01282 777111	535/558
First Choice Computer Centre	0113 231 9444	492	Time Direct	01282 770066	441/453
Fox Computer Systems	01621 744500	408/409	Tiny Computers Ltd	01737 779511	460/466/479/481-484
Fujitsu/ICL	01345 441122	44, 46, 48	Toshiba Information Systems	01932 828828	10/11
<b>G</b>			Travelling Software Ltd	01753 818282	171
Gateway 2000 Europe	0800 342000	100/101	<b>U</b>		
Grey Matter	01364 654100	96/97, 669	UK Flex Ltd	0121 624 7777	381/383
Gultronics	0171 323 2838	374	Universal Control Systems	01902 28688	559
<b>H</b>			Unipalm/Pipex Ltd	01223 250100	150/151
HCCS	0191 487 0760	28/29, 42	US Robotics	0800 225252	213
Hewlett Packard	01344 369222	378/380	<b>V</b>		
Hi-grade Computers Ltd	0181 591 9040	204	Viglen Computer Supplies	0181 758 7080	102/103/IBC
Hitachi Sales (UK) Ltd	0181 848 8787	180	Vine Micros Ltd	01843 225714	281
<b>I</b>			<b>W</b>		
Iiyama (UK) Ltd	01438 745482	132/133, 201, 203	Watford Electronics	01582 487777	560/583
Intuit Software Ltd	0800 585058	222/223, 467/474	Western Digital Corporation	01372 360055	228, 284
IPC Computers	01282 618866	351/355	Western Systems (Europe) Ltd	0181 842 0071	410/411
<b>K</b>			Westlakes	0181 902 2392	432
Keyzone Computer Products Ltd	0181 500 1525	303	<b>X</b>		
Kyocera Electronics	01734 230700	OBC	Xitec	01372 749981	335/337
Kyodai	01279 416888	252	<b>TURNOVER DEALER LISTINGS</b>		
<b>L</b>			<b>MICROMART INDEX</b>		<b>208</b>
Lapland UK Ltd	01256 812720	114/115			
Lantec Information Services Ltd	01753 777777	416/419			
Leaf Distribution Ltd	01256 707777	224			
Loadplan Ltd	0181 200 7733	268			
<b>M</b>					
Marktec Systems Ltd	0181 841 6711	231, 281			
Microtechnics	01252 724446	306			
Merlin Gerin (UK) Ltd	0500 820828	252			
Mitac Europe Ltd	01952 207200	104, 106, 338			
MJN Technology	01282 777555	317/324			
Morgan	0171 255 2115	31, 33			

## C & C++ FOR DOS

Comms		Screen	
Async Prof for C/C++ 2.1	£170	C-Scaper 4.0	£419
Greenleaf CommLib 5.2	£235	C/Windows Toolchest	£45
MagnaComm/DOS	£215	Greenleaf Datawindows 3.0	£225
SilverComm "C" Async 4.02	£195	Panel Plus II 2.24	£260
		TCXL UI Dev Sys for DOS/Win	£140
Database		General & Systems Libraries	
c-tree Plus 6.4b	£565	GX Sounds	£200
D-ISAM	£495	Interwork	£205
DataBoss 3.5 (Special Offer)	£79	MTASK	£215
SoftFocus Btree/ISAM	£75	Multi-C w/Source	£39
Graphics		TTSR Ram Res Dev Sys 2.0	£105
3D-Ware Prof	£249	TSRs and More	£130
Essential Graphics Toolkit	£320	Tools	
Fastgraph 4.0 (Ted Gruber)	£195	C-DOC 6.0	£175
GFX Graphics/Fonts & Menus	£330	C-Vision for C/C++ 4.0	£145
GX Graphics 3.0	£155	CC-Rider Deluxe	£465
GX Images	£399	Clear+ for C	£135
MetaWINDOW-DOS 4.4	£170	CodeCheck (Professional)	£475
GUI		PC-Lint for C/C++	£139
Menuet/C 2.1	£300	Source Print+ 5.1	£290
MEWEL/GUI Std 4.0	£390	BASIC LANGUAGE	
object-Menu w/Source 2.7	£510	CA-Realizer 2.0 (OS2&Win)	£179
Zinc Engine & DOS Key 4.1	£505	GFA-BASIC for Windows	£80
Math & Scientific		GFA-BASIC for Win Compiler	£54
C/Math Toolchest & Grafix	£45	PowerBASIC Pro (Win&DOS)	£210
Huge Virtual Array & NAT 3.0	£215	BBC BASIC-86 Plus	£75
Science, Eng & Graphics Tools	£115	GFA-BASIC for DOS	£80
Printer		PowerBASIC 3.1 (DOS)	£109
BD/CX (DOS)	£300	TrueBASIC Std 3.0	£88
BGI Printer Driver Toolkit	£105		
GX Printer 1.5	£240		
SLATE	£260		

## C & C++ FOR WINDOWS

Asynch Pro for Win	£135	PKWare Data Comp Lib for Win	£175
COMM-DRV/LIB	£140	ProtoGen+	£190
Greenleaf Comm++	£180	RWCanvas.h++	£340
Greenleaf CommLib Pro	£365	SOObjects Dev Toolkit	£220
Borland Database Engine 2.0	£205	TCOMP/Multi-Platform	£105
CodeBase 5.1	£248	TG-CAD Prof 5.0	£795
CodeServer 5.1 (10-Clients)	£370	Tools.h++ 6.1	£340
CXBase Pro	£500	Visual Parse++	£289
DataBoss for Windows	£410	WinMaker Pro 6.0	£725
DataDirect Developer's Toolkit	£450	WinWidgets++	£240
DataTable 2.5	£145	Zinc 4.1 for Windows & NT	£505
DBTools.h++ for ODBC	£340		
Greenleaf Database Library 4.0	£180		
Integra VDB/C++, Desktop	£209		
List & Labels for Win (Pro)	£395		
POET Personal SDK 3.0	£169		
Raima Database Manager	£380		
Spread/VBX++	£171		
Velocis	£340		
Charting Tools for Win 2.0	£180		
Essential Chart for Win	£320		
GraphiC/Win 7.0	£360		
Graphics Server 4.0	£245		
Real-Time Graphics Tools	£360		
AccuSoft Image Lib/Win 5.0	£610		
AccuSoft Pro Imaging Toolkit	£610		
Ad Oculus (Image Analysis) 2.0	£325		
ImageMan	£399		
LEADTOOLS Prof 5.0	£675		
PCX Toolkit for Windows	£155		
Borland Visual Solutions Pack	£59		
Control Palette 2.0	£135		
Crusher! Win DLL w/Source	£235		
Diamond Toolkit	£310		
Greenleaf ArchiveLib	£210		
HeapAgent	£420		
KPWin++	£600		
Lapack.h++ w/source	£675		
M.4	£660		
Math.h++ 4.1	£340		
Money.h++	£340		
MS Visual Control Pack	£69		

## PROGRAMMING TOOLS

Ada	Assemblers
Basic	C/C++
Comms	Cross Dev
Custom Controls	Database
Debuggers	Dos Extenders
Editors	Fortran
Graphics	GUI
Linkers/Locaters	Lisp
Modula-2	Multi-tasking
Pascal	Prolog
Smalltalk	SQL
Version Control	Visual Programming
Windows	Xbase

We stock many items for which there is no space in these advertisements.

# GREY MATTER

Prigg Meadow, Ashburton  
Devon TQ13 7DF

Prices do not include VAT or other local taxes but do include delivery in mainland UK. Please check prices at time of order as ads are prepared some weeks before publication. This page lists some products - call us for a complete price list. ORDER BY PHONE WITH YOUR CREDIT CARD

**(01364) 654100**

FAX: (01364) 654200

## C++ COMPILERS

Borland C++ 4.5	£280
Borland C++ 4.5 & DB Tools	£405
Microsoft Visual C++ Intel Ed	£299
Salford C/C++ Win Developer	£395
Symantec C++ 7.0	£199
Turbo C++ for Win 4.5	£68
Watcom C/C++ 10.5	£239
Microsoft Visual C++ Std	£65
High C/C++ for Ext-DOS/Win	£620
Salford C/C++ DOS Developer	£195
TopSpeed C/C++ Prof	£215
Turbo C++ 3.0	£66

## DELPHI

Delphi	£279
Delphi Client/Server	£806
Apiary Dev Suite for NetWare	£195
Conversion Assistant VB Std	£77
Eschalon Power Controls	£105
InfoPower (intro)	£140
Mobius Business Builder (Intro)	£199
Mobius Draw Kit	£99
Mobius WinG Sprite Kit	£99
Orpheus	£135
Real-Time Graphics Tools for Win	£360
VisualPro 1 - App Enhancement	£69
VisualPro 2 - Visual Video Pack	£99

## VISUAL BASIC FOR WINDOWS

Visual Basic 3.0 for Win Std	£96	VBX Artist	£240
Visual Basic 3.0 for Win Prof	£230	WinWidgets/VBX	£160
Comms Lib/Win	£115	3D Graphics Tools 4.0	£130
Distinct TCP/IP - Visual Edition	£265	Code.Print Pro for VB	£85
DsSocket 1.1 (Intro)	£65	Compression Plus 4.0	£175
NetWare Client SDK for VB	£169	d-Barcode VBX/DLL	£94
Network Library/Win 1.1	£80	DynaZIP VBX 2.0	£129
PDQComm for Windows 2.1	£79	FXTools/VB Std 1.5	£149
ADE/VBX	£350	MediKnife/VBX	£290
CodeBase 5.1	£140	Microhelp Muscle/Win	£125
Controls for Btrieve	£185	QuickPak Scientific for Win	£105
Crystal Reports Pro 4.0	£290	TMS Tools 1.1	£99
Data Widgets	£99	VB Compress	£99
DataDirect Multilink/VB	£255	VB Language Manager	£130
Grid/VBX	£75	VB/DLL 1.0	£165
Integra VDB/VB, Desktop	£209	VERSIONS/VB 1.1	£135
List & Labels for VB	£279	Visual Developer's Suite	£216
TrueGrid Pro 2.1	£90	Visual CAD Dev Kit	£520
VB/SAM MU	£150	Visual Instrument Panel Controls	£150
VB/Link for Lotus Notes	£715	VisualSpeller	£120
VBtrv for Windows	£185	VisualWriter Pro	£145
Visual/db Network 3.0	£235	VSView	£105
AccuSoft Image Lib/VBX 5.0	£382		
Image SDK Plus/VBX 2.0	£250		
ImageKnife/VBX 2.0	£200		
ImageMan/VB 3.0c	£239		
ImageStream/VBX	£120		
JPEG Image Compressor VBX	£169		
LEADTOOLS VB 5.0	£425		
PCX Toolkit for Windows	£155		

## LOW PRICES FOR MICROSOFT & BORLAND PRODUCTS

Microsoft Access 2.0	£289
Microsoft Fortran 5.1	£138
Microsoft Fortran Power Station	£230
MS Macro Assembler 6.11	£110
MS Visual Basic for Win Std	£96
MS Visual Basic for Win Prof	£230
Microsoft Visual C++ 2.0	£299
Microsoft Windows 3.1	£78
Borland Database Engine	£205
Borland C++ 4.5	£280
Borland Pascal with Objects 7.0	£250
dBase 5.0 for DOS	£405
dBase 5.0 for Windows	£280
dBase Compiler 2.0	£245
Delphi	£279
Delphi Client/Server	£806
Turbo C++ 3.0	£66
Turbo C++ for Win 4.5	£68
Turbo Pascal 7.0	£94
Turbo Pascal for Windows 1.5	£99
Paradox for Win 5.0	£280

WITH FULL TECHNICAL SUPPORT

## News & Views

### Watcom C/C++ 10.5

A new version of Watcom's C/C++ compiler is always an event, and their latest 10.5 removes the last "butts" which may have put you off using it in the past. Major new features include:

- **Visual Programmer** by Blue Sky, visual design tool with functional preview mode, generates 16/32-bit MFC code
- **Windows 95 Ready**, supports pre-release version, free upgrade to 10.6 with full support
- **Improved Microsoft Compatibility** for easier porting of existing apps (MFC 2.5 & 3.0 included)
- **Technical Resource Database** on CD with technical tips & reference data
- **Competitive Upgrade only £139** from Visual C++ 1.5+, Borland C++ 4.0+, Borland C++ for OS/2 1.0+, Symantec C++ Prof 6.0+, IBM C Set++ 1.0+

If you are serious about C++, you should check out **Watcom C/C++ 10.5** - it's their best one yet.

### DB2/2 Version 2

In 1983 IBM released DB2, one of the first Relational DBMS's. Now, 12 years later, they have released Version 2. It is the largest database release IBM has ever shipped, and is one of the most advanced databases available on PC's. Look at these new features:

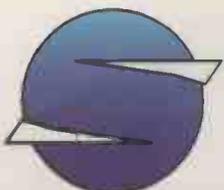
- **Object Oriented Extensions** based on SQL3
- **Large Objects (LOBs)** maintained directly in the database
- **User-Defined Types (UDTs)** can be used for columns
- **User-Defined Functions (UDFs)** treated like built-in functions
- **Triggers** including statement & row, before & after, with two-phase commit processing
- **Constraints** let you restrict values to a given domain
- **Recursive SQL Queries** including path expression queries
- **Symmetrical Multi-Processing** right out of the box
- **Visual Explain** reports the query optimiser's execution plans, allows "what-if" analysis

The combination of LOBs, UDTs & UDFs lets you create function libraries that extend the functionality of the database. IBM are developing relational extenders for text, image, audio, video & fingerprint information.

DB2/2 V2 is available now on OS/2, with a version for Windows NT due later this year. Call us for full details.

## VISUAL BASIC FOR DOS

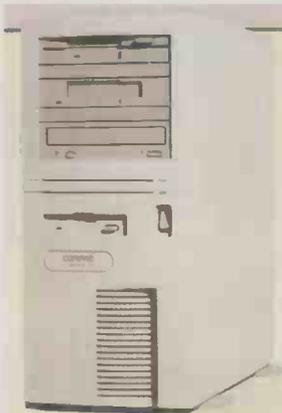
MS Visual Basic for DOS Std	£96
MS Visual Basic for DOS Prof	£230
NetPak Pro for DOS	£135
PDQComm	£79
QuickComm	£129
QuickNet	£79
RS232 Library	£130
db/Lib Prof 3.0	£195
VB/ISAM MU	£150
Graphics QuickScreen	£105
Graphics Workshop	£105
GraphPak Pro	£99
Compression Plus	£79
Compression Workshop	£110
PDQ	£110
Printer Plus	£130
ProBas 7.1	£210
QuickPak Prof 4.19	£145
QuickPak Scientific 3.0	£105
QuickScreen 4.0	£105



**SOLIDISK present  
Three Absolutely  
SOLIDISK Fabulous NT SERVERS:**

**COMPAQ PROSIGNIA 300  
£3,350 + VAT**

Special bundle price includes:  
COMPAQ PROSIGNIA PC with 75MHz Pentium CPU  
16MB Error Corrected RAM  
Triflex PCI SCSI controller  
1GB SCSI hard disc  
CD ROM  
15" ADI Microscan monitor  
Windows NT Server 3.5  
5 NT user licence  
3 years on-site warranty.



WE CAN MODIFY ANY ITEM TO SUIT YOUR REQUIREMENT.

**SOLIDISK P90 SERVER:  
FROM £2,479 + VAT**

Flexible combination includes:  
90MHz Pentium CPU  
Intel ZP mainboard  
16MB RAM  
Future Domain SCSI controller  
1GB IDE mode 4 hard disc  
Quad speed CD ROM  
optional changer for 7 CDs  
Trident 64-bit 9660 PCI VGA  
15" ADI Microscan monitor  
Windows NT Server 3.5  
One year on-site warranty.



**MOTOROLA BASED SERVER:  
100MHz PC604 FR. £2,599 + VAT**

This barebone system from Motorola puts the superior performance of the new 100MHz 604 CPU in use where speed is critical. Basic features include: 2 fast 16550 serial, 1 parallel and 1 mouse ports, Cirrus 5434 PCI VGA, enhanced IDE, SCSI2 controller, 32-bit Ethernet and a Sound port. We add to this excellent system Windows NT Server 3.5 software, 16MB RAM, a quad speed CD ROM, 1GB mode 4 IDE disc drive and a 15" ADI



PLEASE CALL FOR FURTHER DETAILS.

**Transfer your hard disc onto CD for £10!**

We provide an efficient backup service to all our customers in the form of CD ROM. We can put as much as 600 megabytes of your DOS or WINDOWS hard disc onto a single CD in less than an hour!  
We also sell CD Recorders (Double Speeds from £1,100, Quad Speeds from £1,800) and blank media (£6 each).



**Transfer video tapes onto CD for £25!**

Using a MPEG video capture and compression system, we can transfer up to 1 hour of your video tape directly onto a CD which you can use on PCs equipped with VGA card with MPEG play function.

**Adobe Premiere 1.0**



For Bundles Only  
Not to be sold separately

Sheffield (01142) 441 855  
Nottingham (01159) 243 465  
London (0171) 700 0090  
Milton Keynes (01908) 694 500  
Southend (01702) 354 674  
Brighton (01273) 208 010

**P75 Multimedia**



Now with WINDOWS95

SOLIDISK Proves you can get a quality Pentium multimedia PC for £1,200."

COMPUTER BUYER MAGAZINE JULY 1995

**Specifications:**

- Triton - Pentium AIO Mainboard
- INTEL 75MHz Pentium Processor
- Medium Tower Case with 200W PSU
- Teac 1.44 Floppy Disk Drive
- Seagate 545MB Mode 3 IDE Hard Disk Drive
- Creative Labs Sound Blaster 16 Value
- NEC CDR272 Quad Speed CD ROM
- Speakers
- Trident 9660 PCI Graphics Card
- ADI 4V 15" Non Interlaced Monitor
- 8MB RAM (2x 1MB-36 SIMM)
- WINDOWS 95
- Mitsumi 2 button MS compatible mouse

Buy this winner for only £1,200 + VAT

**ISDN MODEMS:**

**£490 MOTOROLA ISDN PC CARD:**  
Includes an analog adapter for phone or fax machines. Can also be used as a 56KB MODEM.

**£740 DIGIBOARD PC IMAC CARD:**  
Transparently connect two NOVELL networks- make/break calls on traffic; supports NT server RAS - full 128 KB/S.

**£790 SONIX ARPEGGIO PC CARD:**  
Transparently connect two NOVELL networks call on traffic; includes an analog adapter for phone / fax machine. Can be used as 56K MODEM..



**SCSI HARD DRIVES**

Seagate Hawk	
ST31250N (1Gb)	£568.00
ST32450N (2Gb)	£732.00
ST32450LU (2Gb)	£790.00
ST115230N (4Gb)	£897.00
ST115230LU (4Gb)	£1068.00
Seagate Elite	
ST410800N (9Gb)	£8075.00
ST410800LU (9Gb)	£2188.00
Seagate Barracuda	
ST31250N (1Gb)	£680.00
ST32550N (2Gb)	£840.00
ST115150N (4Gb)	£1180.00
ST115150LU (4Gb)	£1360.00

**IDE HARD DRIVES**

Seagate	
ST3491A (425Mb)	£112.50
ST3660A (545Mb)	£122.50
ST5850A (850Mb)	£174.00
ST31220A (1Gb)	£211.00
Western Digital	
AC2700 (700Mb)	£157.00
AC2850 (850Mb)	£174.00
AC31000 (1Gb)	£211.00
AC31200 (1.2Gb)	£259.00
Maxtor	
idek 15" Vision Master	£275.00
idek 17" Vision Master	£536.00
idek 21" Vision Master	£1385.00
ADI MicroScan 15"	£270.00

**ETHERNET CARDS**

Surecom NE2000 BNC	£94.00
Surecom NE2000 UTP	£4.00
Surecom NE2000 Combo	30.00
SMC Elite Combo	£75.00
SMC Etherpower PCI	£106.00
SMC 10/100 PCI	£151.00
10MHz 8-port hub	£75.00
100MHz 16-port hub	£ CRILL
MEMORY SIM'S	
72-pin SIM'S w/parity	
4Mb (1x36, 70ns)	£119.00
8MB (2x36, 70ns)	£245.00
16MB (4x36, 70ns)	£399.00
32MB (8x36, 70ns)	£850.00
64MB (16x36, 70ns)	£CRILL
4MB (1x36, 70ns) EDO	£125.00
8MB (2x36, 70ns) EDO	£255.00

**FAX / MODEMS**

DFI Passport 28.8 Internal	£180.00
DFI Passport 28.8 External	£180.00
US Robotics 14.4 External	£134.00
US Robotics 28.8 External	£210.00
MOTOROLA 28.8 Internet Solution	£210.00

**SCSI Controllers**

Future Domain 850M	£30.00
Future Domain 3260 PCI	£95.00
Adaptec AHA 1505	£38.00
Adaptec AHA 2940	£218.00
Adaptec AHA 2940LU	£266.00

**VIDEO CARDS**

DIAMOND	
Speedstar Pro SE 1Mb PCI	£87.50
Speedstar Pro SE 2MB PCI	£131.00
Stealth 1MB DRAM PCI	£110.00
Stealth 2MB DRAM PCI	£210.00
Stealth 4MB DRAM PCI	£340.00
TRIDENT	
9660 Chipset 1MB DRAM PCI	£70.00
9660 Chipset 2MB DRAM PCI	£104.00
SPEA VIDEO 7	
Mirage PCI 2MB with Microstation s/w	£132.50
ORCHID	
Orchid Helix 64 PCI 1Mb	£116.00
Orchid Helix 64 PCI 2Mb	£152.00
CIRIUS LOGIC	
Cirrus Logic 5428/4 ISA 1Mb	£50.00
Cirrus Logic 5428 VL 1Mb	£70.00

**CD-ROM DRIVES**

Toshiba 5301B SCSI x4 Speed	£162.00
Mitsumi PC400 IDE x4 Speed	£185.00
NEC CDR273 IDE x4 Speed	£118.00
Nakamichi MBR7 CD changer	£308.00
Yamaha CD Recorder x4 Speed	£1,699.00
Pioneer CD Recorder x2 Speed	£1,199.00

**MAINBOARDS**

486 (PPIO) 256Kb Cache SPIDE, without CPU (33-95MHz)	£110.00
Pentium PPIO 256Kb Cache SPIDE, No CPU (75/90/100MHz)	£147.00
INTEL	
Intel Zappa with TRITON chip Pentium 75-120MHz, EIDE & VIO, no CPU	£160.00
Intel Endeavour Pentium 75-120MHz, EIDE & VIO, Sound Blaster, no CPU	£220.00
MOTOROLA	
Motorola Atlas PowerPC 604 100MHz, EIDE & VIO, SCSI 2, Crystal Sound	£800.00
BACKUP SYSTEMS	
Conner or Colorado 250MB Internal	from £99.00
Traiker 250MB Parallel port system	£189.00
Exabyte SCSI all models	£CRILL
Sony DAT SCSI 4GB	£718.00
LIANGDAT SCSI all models	£CRILL
Yamaha CD Recorder x4 Speed	£1,699.00
Pioneer CD Recorder x2 Speed	£1,199.00

**SETTING UP INTERNET WEB SITES?**  
We can supply complete hardware + software solutions based on WINDOWS NT systems. We can also offer short term rental solutions.

Prices exclude VAT @ 17.5 % Carriage at Standard courier rates ACCESS/VISA/ Accounts facilities.

From chips to systems, maintenance and software support, one call does it all!

### • New technology...

Bill Gates, Andy Grove, and Jerry Sanders (CEOs of Microsoft, Intel, and AMD) were in a high-powered business meeting. During the serious, tense discussions, a beeping noise is suddenly emitted from where Bill is sitting. Bill says: "Oh, that's my emergency beeper. Gentlemen, excuse me, I really need to take this call." So Bill lifts his wristwatch to his ear and begins talking into the end of his tie. Having completed the call, he notices the others are staring at him — Bill explains: "Oh, this is my new emergency communication system. I have an earpiece built into my watch and a microphone sewn into the end of my tie. That way, I can take a call anywhere." The others nod, and the meeting continues.

Five minutes later, the discussion is again interrupted when Andy starts beeping. "Oh, that's *my* emergency beeper" he says. "Excuse me, gentlemen, this must be an important call." Andy taps his earlobe and begins talking into thin air. When he completes the call, he notices the others staring at him and explains: "I also have an emergency communication system. But my earpiece is actually

implanted in my earlobe, and the microphone is embedded in this fake tooth — isn't that neat?" The others nod, and the meeting continues.

Later still, the discussion is again interrupted when Jerry emits a thunderous fart. He looks up at the others staring at him and says, "Uhh, somebody get me a piece of paper... I'm receiving a fax."

• In the middle of the August heatwave, conversation in the PCW office turned to swimming, and features editor Chris Cain revealed that he'd never learned how to. "But it's just like riding a bike," said one of the subs. Chris looked slightly fazed before admitting that he can't ride a bike either.

• The normal reaction when the world's most overused buzzword "Information Superhighway" is mentioned, is to grimace. But there's a whole crowd of people out there who prefer to sit down with a pen and paper, or perhaps a computer, and work out every possible anagram from those 23 all too familiar letters. Roy Fear sent in this list of 18 to go with the Internet Top 10 from August's *Chipchat*:

Hi! What of imperious granny?  
At your whimpering fashion  
Whip a train, you fishmonger  
As when I aim for your thing  
Sham figure now in hairy pot  
Harrow mouse — graph infinity!  
With no umpiring of hearsay  
Fumigation? Why hire parson?  
O trip away, home furnishing!  
Whip your man sore in a fight  
I whisper of human gyration  
Your wife harmonising path  
So writhe in agony, fair hump  
O forum! A shiny writing heap  
Show Mary our infinite graph  
I, Murphy, wrote on fish again  
Further moaning is how I pay  
Pure hogwash or infamy in it

### • What if Dr. Seuss did technical writing?

Here's an easy game to play.  
Here's an easy thing to say:

*If a packet hits a pocket on a socket on a port,  
And the bus is interrupted as a very last resort,  
And the address of the memory makes your floppy disk abort,  
Then the socket packet pocket has an error to report!*

*If your cursor finds a menu item followed by a dash,  
And the double-clicking icon puts your window in the trash,  
And your data is corrupted 'cos the index doesn't hash,  
Then your situation's hopeless, and your system's gonna crash!*

You can't say this?  
What a shame sir!  
We'll find you  
Another game sir:

*If the label on the cable on the table at your house,  
Says the network is connected to the button on your mouse,  
But your packets want to tunnel on another protocol,  
That's repeatedly rejected by the printer down the hall,*

*And your screen is all distorted by the side effects of gauss  
So your icons in the window are as wavy as a souse,  
Then you may as well reboot and go out with a bang,  
'Cos as sure as I'm a poet, the sucker's gonna hang!*

*When the copy of your floppy's getting sloppy on the disk,  
And the microcode instructions cause unnecessary risc,  
Then you have to flash your memory and you'll want to RAM your  
ROM.  
Quickly turn off the computer and be sure to tell your mom!*



• Intel recently informed the press of the many benefits of using a "Pentium Overdrive Processor to Increase Enjoyment of Games on Intel486 Processor-Based Systems". But jaded hacks were puzzled to see a slide entitled "Home Benefits". Could that be an Apple Macintosh in the picture running a Motorola Processor?

### Gripes and gremlins

- In last month's group test of P90s we included a few wrong contact numbers. These should have read: Hi-Grade 0181 591 1586, Carrera 0171 830 0286, Compusys 01296 395531.
- Some readers, and particularly the people at Corel, were probably a bit perturbed by the verdict of Paul Begg's review of the Corel CD Office Companion (last month's *First Impressions*). It's not "a good, solid workhorse which has proved reliable under adverse conditions" as we reported, but "a worthwhile collection for home or business users". It costs £99 from Corel on 01703 814142.



Designed for  
  
 Microsoft®  
 Windows®95

Windows 95 is now installed in all Vigen PCs as standard. Windows 3.11 and MS-DOS 6.22 is available as a no cost option - please specify if you require this.

Dossier 486 ADVANCED Sound

Dossier P5 ADVANCED Sound



# The DOSSIER® Range

THE NOTEBOOK PC THAT OFFERS POWER, FLEXIBILITY AND MULTIMEDIA SOUND

**CASE STYLE**  
**NOTEBOOK**  
 Dimensions (W x H x D) mm: 279 x 43 x 216 closed.  
 Weight with battery 2.7kg (6lb) for mono, 2.95kg (6.5lb) for colour Dossier 486 and 3.09kg (6.8lb) for colour Dossier P5.



LCD Status icon display panel including battery charge gauge.



Easy to upgrade CPU. Up to DX4 100MHz for Dossier 486 and up to Pentium® 90MHz for Dossier P5. Also easy to upgrade RAM and hard disk.



Two separate PCMCIA type 2 slots or one type 3 allowing a host of PCMCIA cards (for modems, networks, storage and more) to be used.



Docking station accessory option. Just slip the Dossier ADVANCED Sound into the docking station to transform it into an instant desktop system.

The Vigen Dossier® ADVANCED Sound is a range of portable notebook sized PCs that offer flexibility and power for people on the move. This range provides many advanced features that rival even the most powerful desktops. It is available in two main processor ranges, the Dossier® 486 processors ranging from 486SX 25MHz to 486DX4 at 100MHz, and the Dossier® P5

for Pentium® processors from 75MHz to most powerful 90MHz. There is a choice of exceptional colour screen types for each range, Dual Scan or a high contrast fast TFT and also a Mono screen for 486 models. In addition to the features shown on the left, the Dossier® ADVANCED Sound includes sound hardware compatible with SoundBlaster and

Microsoft Sound system allowing you to manipulate sound and music to enhance your productivity. Plus there is a whole range of accessories and upgrades including a docking station, PCMCIA cards, external speakers, car battery adaptor and many more, making the Dossier® ADVANCED Sound a notebook that needs to be seen and heard to be believed!

Designed for  
  
 Microsoft®  
 Windows®95

## LOOK AT THIS SPECIFICATION

### Dossier® 486:

- Intel SL enhanced 486SX 25MHz, 486DX2 66MHz, 486DX4 75MHz, and 486DX4 100MHz.
- 4MB RAM, upgradeable to 20MB.
- 170MB HD upgradeable to 720MB.
- Choice of Mono (9.5" STN), Colour DSTN (10.3" Dual Scan STN), or Colour TFT (9.5" TFT) screen.
- Battery Life: 5.5 hours on 486SX mono with full power management, 4 hours without, 4 hours on 486SX colour with full power management, 2 hours without. (High processor speeds will reduce battery life).

### Dossier® P5:

- Intel Pentium® processor 75MHz and 90MHz.
- 8MB RAM, upgradeable to 40MB.
- 540MB PCI IDE HD, upgradeable to 720MB.
- Choice of Colour DSTN (10.3" Dual Scan STN), or Colour TFT (10.4" TFT).

- Battery Life: 2 hours on Pentium 75MHz to most powerful 90MHz. There is a choice of exceptional colour screen types for each range, Dual Scan or a high contrast fast TFT and also a Mono screen for 486 models. In addition to the features shown on the left, the Dossier® ADVANCED Sound includes sound hardware compatible with SoundBlaster and
- 3.3 volt technology.
- Comprehensive power management with doze, sleep, suspend and resume.
- 8K internal cache. (486) and 16K (Pentium processor).
- 3.5", internal 1.44MB floppy drive.
- Local bus accelerated Super VGA Graphics with IMB Video DRAM (PCI local bus graphics for Dossier® P5).
- 1 Serial, 1 Parallel, 1 PS/2 port, 2 PCMCIA type 2 or 1 type 3, 1 expansion socket for docking station.
- 85/86 key keyboard.
- Ergonomic large tracker ball with arm rest to reduce wrist fatigue.

- NIMH battery.
- Audio with built in speaker and microphone and socket for external speakers and line in (16-bit stereo for Dossier® P5).
- Ability to record, compress, store and playback voice, sound and music.
- LCD Status icon display.
- Windows 95 supplied as standard - option for Windows 3.11 and MS-DOS 6.22 (please specify).
- Microsoft Works for Windows™ pre-installed and ready to run and Lotus Organizer.
- User-friendly manuals.
- 12 Months parts and labour collect and return warranty. Low cost on-site option up to 5 years.
- Free lifetime hotline technical support.
- Option for competitive application software bundles.

**EASY OWN™**  
 Easy to Own payment scheme. From £46.08 per mth over 36 mths 19.9% APR 10% deposit. See "Order page" for typical example.

Organizer  
 Working Together  
 Supplied as standard

WORKS  
 TAKE ADVANTAGE OF THE SOFTWARE BONUS WITH EACH VIGLEN PC SEE 'VIGLEN OPTIONS' PAGE FOR DETAILS.

## THE PRICE YOU PAY

DOSSIER 486				INTEL SL ENHANCED 486SX 25MHz				DOSSIER P5				INTEL PENTIUM® PROCESSOR 75MHz			
MODEL NAME	DISPLAY	HARD DISK	RAM	PRICE	MODEL NAME	DISPLAY	HARD DISK	RAM	PRICE	MODEL NAME	DISPLAY	HARD DISK	RAM	PRICE	
DOSSIER 486 SM	MONO 9.5" LCD	260MB	4MB	£999	DOSSIER P5 SD	COLOUR 10.3" DUAL SCAN	540MB	8MB	£2099	DOSSIER P5 ST	COLOUR 10.4" TFT	540MB	8MB	£2999	
DOSSIER 486 SD	COLOUR 10.3" DUAL SCAN	260MB	4MB	£1399											
DOSSIER 486 ST	COLOUR 9.5" TFT	260MB	4MB	£1939											
<b>DOSSIER 486 UPGRADES</b>															
CPU UPGRADE TO: 486DX2 66MHz £49, 486DX4 75MHz £59, 486DX4 100MHz £79															
HARD DISK UPGRADE TO: 340MB £79, 540MB £169, 720MB £279															
MEMORY UPGRADE TO: 8MB £149, 12MB £299, 20MB £639															
<b>DOSSIER P5 UPGRADES</b>															
CPU UPGRADE TO: Pentium® Processor 90MHz £99															
HARD DISK UPGRADE TO: 720MB £129															
MEMORY UPGRADE TO: 16MB £309, 24MB £679, 40MB £1359															

ALL PRICES EXCLUDE VAT AT 17.5%

The above upgrades are available specifically for the Dossier

## PRAISE INDEED!



June 1995  
Dossier 486



May 1995  
Dossier P5190



March 1995  
Dossier 486 Highly Recommended



February 1995  
Dossier P5



What to buy for Business  
February 1995  
Dossier 486



August 1994  
Dossier 486

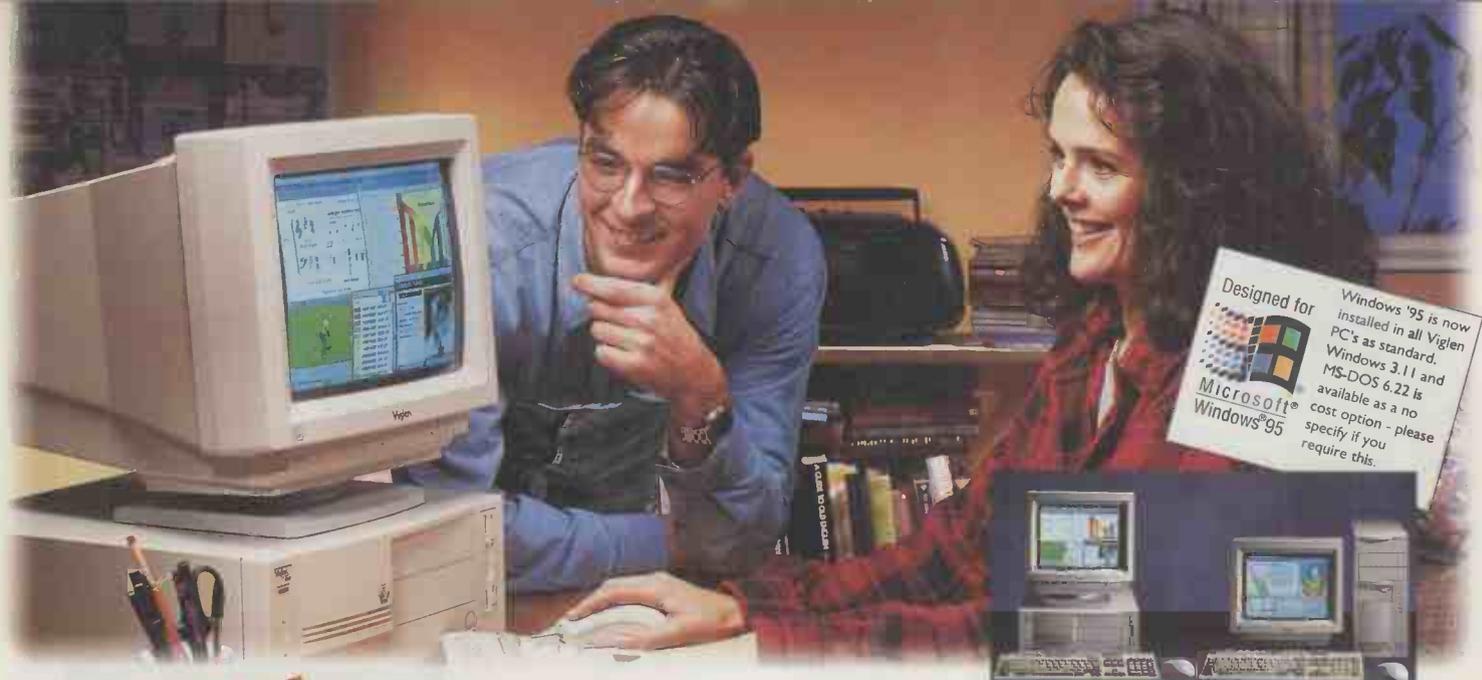
**Personal Computer World**  
 "...the Vigen is a 'no nonsense' machine at a competitive price."  
 March 1995 Vigen Dossier P90  
 March 1995 Vigen Dossier 486 Advanced Sound

**CHOOSE YOUR OPTIONS**  
 The following are only some of the options available specifically to the Dossier range. For a full list of other items look at the 'Vigen Options page' or for a free copy of the Direct Guide please call our sales department.

- N4ADXK0 Docking station for Dossier 486 £309
- N4XDELUX Deluxe padded carrying case £49
- N4XPSXDC Universal car battery adaptor £69
- CMDDPT3F 1400/1400 PCMCIA Fax/Modem £185
- PAMMPS03 External amplified speakers £23



RING 0181 758 7000  FAX 0181 758 7080



Designed for  
  
 Microsoft®  
 Windows®95

Windows '95 is now installed in all Viglen PCs as standard. Windows 3.11 and MS-DOS 6.22 is available as a no cost option - please specify if you require this.

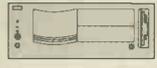
# NEW The Contender<sup>®</sup> PCI Range

A VALUE RANGE OF PCs WITH LEADING EDGE PCI TECHNOLOGY

### YOUR CHOICE OF CASE STYLE

**CONTENDER PCI PROFESSIONAL**

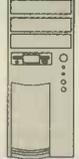
Dimensions (W x H x D) mm: 380 x 150 x 415



Two free 5.25" drive bays.

**CONTENDER PCI MEDIUM TOWER**

Dimensions (W x H x D) mm: 170 x 380 x 420



Three free 5.25" drive bays and two free (one internal) 3.5" drive bays.

The Contender<sup>®</sup> PCI is a new value range of personal computers providing the performance edge and future proofing of PCI local bus technology as well as the ease of use of Plug and Play software. It is one of the lowest cost PC investments you can make without compromising

quality, reliability or support. And you won't be disappointed when it comes to performance either.

The Contender<sup>®</sup> PCI is available in a choice of two case styles (see inset box) and in a 486 and Pentium<sup>®</sup> processor range. It offers amazing value for money

and is ideal for most office applications such as word processing, accounts and spreadsheets.

With a host of options including multimedia, the Contender<sup>®</sup> PCI makes the perfect PC for everyday use.

Designed for  
  
 Microsoft®  
 Windows®95

## LOOK AT THIS SPECIFICATION

- Choice of processor, memory and enhanced IDE drives.
- 8K (16K for Pentium Processor) Cache RAM built into CPU plus 128K (256K for Pentium Processor) second level external cache.
- 3 ISA, 2 PCI and 1 PCI/ISA shared bus slots.
- One 3.5" floppy drive.
- 2 Serial, 1 Parallel printer port (EPP), 1 PS/2 mouse port.
- Choice of case styles either Professional for desktop use or Medium Tower for desktop or floor standing use.
- 486 models CPU upgradeable to 486DX4 100MHz and Intel Overdrive processors based on Pentium<sup>®</sup> technology.
- High Performance PCI bus Windows accelerated Super VGA card with 1MB (upgradeable to 2MB) video DRAM option for even faster performance.
- Viglen ENVY 14R 14" Super VGA Colour Monitor.
- 102 Key compact ergonomic keyboard.
- Genuine Microsoft Mouse.
- Windows '95 supplied as standard - option for Windows 3.11 and MS-DOS<sup>®</sup> 6.22 (please specify).
- Microsoft Works for Windows<sup>™</sup> pre-installed and ready to run.
- User friendly manuals.
- 12 months parts and labour collect and return warranty. Low cost on-site option up to 5 years available.
- Free lifetime hotline technical support.
- Options for competitive application software bundles.

ENHANCED  
  
 IDE

CPU  
  
 UPGRADABLE

WINDOWS  
  
 ACCELERATION  
 PCI  
 LOCAL BUS

### MICROSOFT<sup>®</sup> ERGONOMIC MOUSE



Supplied as standard with the Contender<sup>®</sup> PCI Range.

Get your hands on The New Microsoft Mouse with IntelliPoint software. Built for Comfort! Built for Speed!

## THE PRICE YOU PAY

THE CONTENDER PCI PENTIUM <sup>®</sup> PROCESSOR RANGE		PCI P575			PCI P590			PCI P5100		
COLOUR SUPER VGA	RAM	Pentium <sup>®</sup> processor 75MHz			Pentium <sup>®</sup> processor 90MHz			Pentium <sup>®</sup> processor 100MHz		
420MB	8MB	£1109			£1199			£1279		
530MB	16MB	£1349			£1429			£1519		
1GB	16MB	£1429			£1499			£1589		

The prices above are for complete Contender PCI Medium Tower and Professional systems ready to run with MS-DOS 6.22 and Windows 3.11 and are based on either an Intel 486 or Pentium<sup>®</sup> processor. To order please quote the relevant model along with the hard disk and RAM capacity required and PLEASE DO NOT FORGET to specify the case style required. ALL PRICES EXCLUDE VAT AT 17.5%  
 \*The Contender P560 is a limited offer (while stocks last) please check availability before ordering.

Plug and Play  
  
 Includes software for easy configuration of add-in cards

Now all Contenders comply with EPA energy saving specification.



EPA POLLUTION PREVENTER

### NOTE FOR 486 SYSTEMS

For Contender PCI Systems with 486 processor please call

## CHOOSE YOUR OPTIONS

For a list of some of the options available with all Viglen PCs, refer to the 'Viglen Options' Page or for a free copy of the Direct Guide please call our Sales Department. The following are some of the options you can choose specific to the Contender PCI:

**PDDXPST2** High Performance Diamond Stealth 64 DRAM SVGA card (1MB upgradeable to 2MB as used in the Genie range) instead of the standard Contender SVGA card £29

**PDDXPAT4** High Performance ATI Mach 64 SVGA card with 2MB of VRAM instead of the standard Contender SVGA card £149

**PDDXPST5** Highest Performance Diamond Stealth 64 Video SVGA card with 2MB of VRAM instead of the standard Contender SVGA card. This card allows the fitting of an optional high performance MPEG module for full motion video applications £179

For the optional MPEG module providing CD-i and Video CD compatibility (when a CD ROM is fitted) please add a further £229

EASY2OWN<sup>™</sup>

Easy to Own payment scheme From £37.08 per mth over 36 mths 19.9% APR 10% deposit. See "Order page" for typical example.



### MULTIMEDIA OPTION



Why not add Multimedia to the system of your choice? See 'Viglen Options' page for details.

### TAKE ADVANTAGE OF THE SOFTWARE BONUS WITH EACH VIGLEN PC

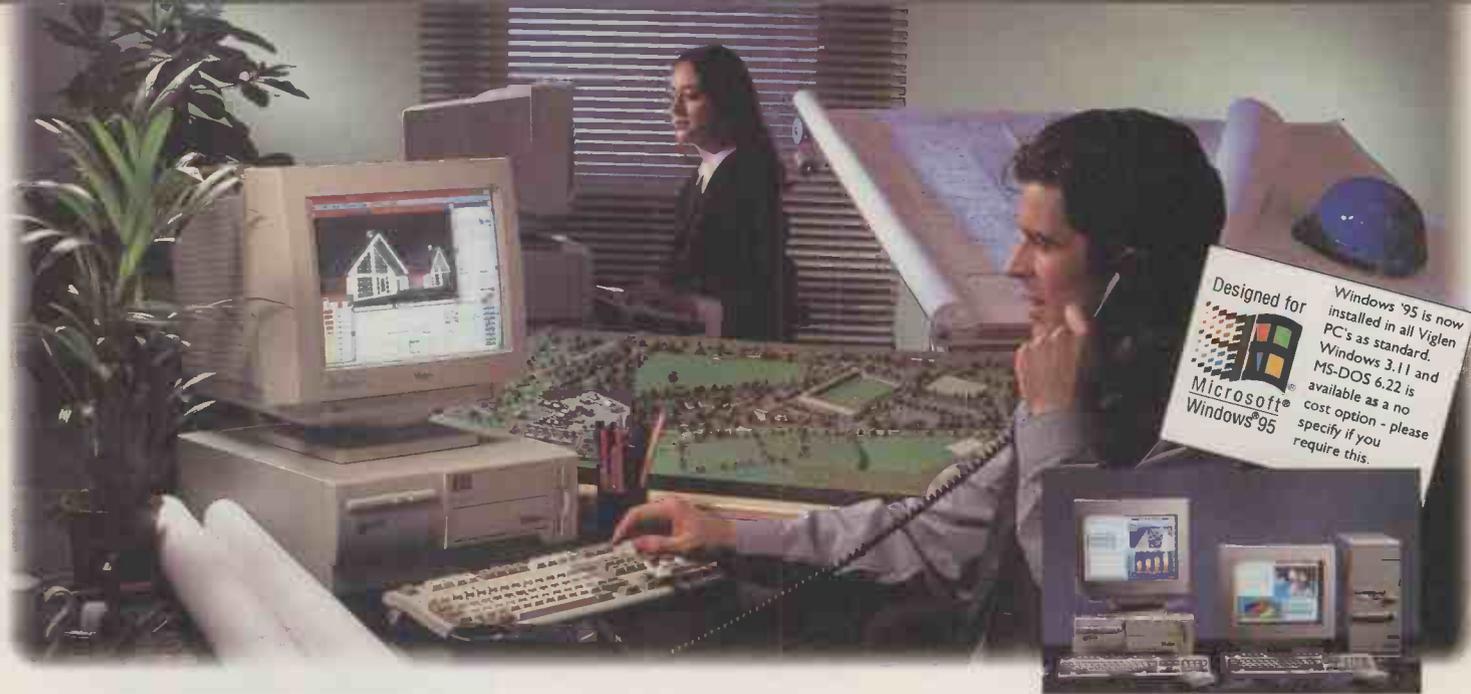


SEE 'VIGLEN OPTIONS' PAGE FOR DETAILS.

RING 0181 758 7000  FAX 0181 758 7080

Viglen Limited, Viglen House, Alperton Lane, Alperton, Middlesex HA0 1DX.

673 PERSONAL COMPUTER WORLD OCTOBER 1995



# The **Genie**® **PCI** Range **LOCAL BUS** LEADING THE RACE FOR PERFORMANCE AND NEXT GENERATION TECHNOLOGY

## YOUR CHOICE OF CASE STYLE

### GENIE PCI PROFESSIONAL

Dimensions (W x H x D) mm: 380 x 150 x 415

Two free 5.25" drive bays.

### GENIE PCI MEDIUM TOWER

Dimensions (W x H x D) mm: 170 x 380 x 420

Three free 5.25" drive bays and two free (one internal) 3.5" drive bays.

The Genie® PCI is the flagship of the Viglen range of personal computers, providing the highest performance systems which are in the forefront of leading edge technology. The Genie® PCI was one of the very first systems to incorporate the new PCI local bus architecture with all its performance

advantages as well as the easy to configure plug and play software - thus eliminating the guesswork of yesterday's technology. PCI local bus has now become the industry standard for PCs. The Genie® PCI has carried on incorporating the advances of new technology such as the Triton chipset,

EDO RAM and currently provides one of the fastest PCs yet. Available with incredibly fast PCI graphics cards, enhanced IDE hard disks and the highest specification 15" Monitor. If performance is your requirement, then the Genie® PCI is the choice for you.

## MICROSOFT® ERGONOMIC MOUSE

Supplied as standard.

Get your hands on The New Microsoft Mouse with IntelliPoint software. Built for Comfort! Built for Speed!

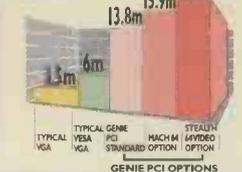
## LOOK AT THIS SPECIFICATION

- Choice of processor, memory and hard disk capacity.
- 2 ISA, 3 PCI, 1 PCI/ISA shared slots.
- Enhanced IDE support.
- 256K secondary WRITEBACK cache.
- One 1.44MB floppy drive.
- 2 serial, 1 parallel printer port (EPP).
- Choice of case styles, either Professional or Medium Tower.
- EDO DRAM
- On board sound system
- CPU upgradeable to future Intel Pentium® Overdrive processors.
- High Performance PCI bus with Windows accelerated Super VGA card with 1MB (upgradeable to 2MB) video DRAM option for even faster performance.
- Viglen ENVY 15P Super VGA 15" FST colour monitor.
- 102 key compact ergonomical keyboard.
- Microsoft mouse with Microsoft Mouse Manager software utilities.
- Windows '95 supplied as standard -
- option for Windows 3.11 and MS-DOS® 6.22 (please specify).
- Microsoft Works for Windows™ pre-installed and ready to run.
- User friendly manuals.
- 12 months parts and labour warranty with option for low cost parts and labour maintenance for up to 5 years.
- FREE lifetime hotline technical support.
- Option for competitive application bundles.

## GENIE PCI PERFORMANCE

### VGA Performance in New Winmarks 95

Figures based on 100MHz Pentium™ based Genie PCI systems.



## THE PRICE YOU PAY

### THE GENIE PCI PENTIUM® PROCESSOR BASED RANGE

COLOUR SUPER VGA	RAM	PCI P5/75	PCI P5/90	PCI P5/100	PCI P5/120	PCI P5/133
530MB IDE	8MB	£1299	£1379	£1469	£1619	£1699
1GB IDE	16MB	£1599	£1679	£1769	£1919	£1999
1.6GB IDE	32MB	£2199	£2289	£2379	£2529	£2619
2GB SCSI-2	32MB	£2499	£2589	£2679	£2829	£2919

The prices above are for complete Genie PCI Professional and Medium Tower systems ready to run with MS-DOS 6.22 and Windows 3.11 and are based on either an Intel 486 or Pentium® processor. To order please quote the relevant model along with the Hard Disk and RAM capacity required and PLEASE DO NOT FORGET to specify the case style required. ALL PRICES EXCLUDE VAT AT 17.5%

## NEW FASTEST EVER GENIES

The Genie range now includes the new Intel Triton based Motherboard providing dramatic increases in performance. In fact the performance of this range was so impressive that the 120MHz system (fitted with pipeline burst cache - this is an optional extra) earned us the supreme accolade of being voted PC Magazines Editor's Choice for the Ultimate PC in the June 95 issue. Here are some of the many features of the new Genie PCI Pentium® processor based systems:

- Fast new EDO DRAM as standard
  - Capable of accepting the new faster pipeline burst (PB) cache (optional)
  - Capable of accepting faster mode 4 IDE Drives (standard on HD of 1GB and greater)
  - Socket 5 as standard, thus upgradeable to future Pentium® Processors up to 133MHz
- If you require 256K of pipeline burst cache instead of the standard asynchronous version please add £30. Please note that there is a severe world shortage of this memory, so please check on delivery dates.

## PRAISE INDEED!

## CHOOSE YOUR OPTIONS

For a list of some of the options available with all Viglen PCs, refer to the 'Viglen Options' page or for a free copy of the Direct Guide please call our Sales Department. For the Genie range may we suggest a larger 17" monitor, a multimedia upgrade and perhaps a Microsoft Office application suite as an ideal option. The following are some of the options you can choose specific to the Genie PCI Pentium® processor based range:

- PDDXPAT4** High Performance ATI Mach 64 SVGA card with 2MB of VRAM instead of the standard Genie SVGA card £139
- PDDXPST5** Highest Performance Diamond Stealth 64 Video SVGA card with 2MB of VRAM instead of the standard Genie SVGA card. This card allows the fitting of an optional high performance MPEG module for full motion video applications £169
- For the optional MPEG module providing CD-i and Video CD compatibility (when a CD ROM is fitted) please add a further £229
- PAMNP504** 15 watt speakers (Model: QS-B16) to connect to Genie PCI £36

**TAKE ADVANTAGE OF THE SOFTWARE BONUS WITH EACH VIGLEN PC**

SEE 'VIGLEN OPTIONS' PAGE FOR DETAILS.

**MULTIMEDIA OPTION**

Why not add Multimedia to the system of your choice? See 'Viglen Options' page for details.

**EASY 2 OWN™**

Easy to Own payment scheme From £53.20 per mth over 36 mths 19.9% APR 10% deposit. See "Order page" for typical example.

**Plug and Play**

Includes software for easy configuration of add-in cards

**yes**

NetWare Software tested and Approved

RING 0181 758 7000 FAX 0181 758 7080

## Viglen options

### Take advantage of the Software Bonus



#### Get the WORKS with Viglen!

In addition to Windows '95, all Viglen systems are now supplied with Microsoft® Works for Windows™ an easy to use integrated package comprising a word processor, spreadsheet, database and electronic communication software; the ideal tool to run a small business.

Works for Windows™ manuals and disks are not included but these can be provided at small additional cost.

Please quote the following:

Order code **WAPCMD10** Works 3.0 for Windows Manual and disks **£9.99**

### ...and Software Bonus Upgrades...

The additional software bonus obtained from Viglen gives you a choice of upgrading to further powerful applications from Microsoft at very competitive bonus upgrade prices. These bonus upgrade prices are only available when ordered with a Viglen PC at the time of purchase. The following applications are available. Please add the relevant order code when ordering:



#### Microsoft® Office 4.2

This is the latest version of the most popular and powerful integrated software package from Microsoft featuring the technology of Intellisense. The package includes Word for Windows™ 6, Excel 5 and Powerpoint 4 as well as a licence to use MS Mail. Supplied pre-installed with full manuals and disks.

Order code:

**WAPMMX30 Bonus Upgrade Price (Floppy Disk version) £169** or  
**WAPMMR30 Bonus Upgrade Price (for CD version) £159**



#### Microsoft® Office Professional 4.3

This is the same as Microsoft® Office 4.2 with the addition of the latest version of Access 2.0 - the powerful yet simple to use Windows based database. Supplied pre-installed with full manuals and disks.

Order code:

**WAPMMX50 Bonus Upgrade Price (Floppy Disk version) Price £249** or  
**WAPMMR50 Bonus Upgrade Price (CD version) £229**



#### Viglen Consumer Bundle

Microsoft® Publisher 2.0, the easy to use desktop publishing package, plus Microsoft® Money 3.0 for money management made simple. Both these packages are fully pre-installed and supplied with full manuals and disks.

Order code **WAPMMX60 £49**

Software may be supplied in Viglen OEM packaging.

### Support for you

Unlike many PC manufacturers, Viglen puts equal emphasis on its after-sales service - that means not only a comprehensive standard warranty on every product but a choice of service packages that offer total cover for up to five years.

#### 12 MONTHS COLLECT AND RETURN WARRANTY

All Viglen PCs are supplied with a 12 months collect and return warranty (UK only). This covers your Viglen PC and any other options that are factory fitted, covering parts and labour. In addition to these standard warranty terms, which provide a better and quicker response than some of our competitors, Viglen offer a choice of additional low-cost on-site options to meet specific user requirements - See to the right.

Do not forget, when you compare our services with our competitors, please read their small print. With Viglen, you have a choice and your choice is clear.

#### ADDITIONAL ON-SITE OPTIONS

For complete peace of mind choose one of the additional low-cost on-site warranty options.

#### THE STANDARD ON-SITE NEXT DAY RESPONSE

This option converts the standard Viglen warranty into a next business day on-site response for

12 months covering parts and labour. Order code **ZSMI 2NBD £39** - for all desktop and Tower models. Order code **ZSMI 2DSS £149** - for Dossier portable range.

#### THE PREMIUM ON-SITE 4 HOUR RESPONSE

This option converts the standard Viglen warranty into a 4 hour on-site response for 12

months covering parts and labour. Please call for details of this individually tailored package.

ALL PRICES EXCLUDE VAT AT 17.5%

### Experience the excitement of CD ROM and Multimedia



#### CD ROM Drive Option

ONLY £59 + VAT

Take advantage of the ability to use all the new software that is being supplied on CD ROM format and add an IDE CD ROM double speed photo CD compatible drive to your system for only **£59 + VAT**. Please quote order code **DCDDNP01** when ordering.

#### Multimedia Options



For a complete multimedia solution why not add one of our multimedia options to your system.

#### For a Contender PCI system choose Option 1.

Option 1 includes a genuine 16 bit SoundBlaster card, along with a 2X CD ROM drive as well as a pair of amplified speakers, microphone, SoundBlaster Ensemble software, 3 Microsoft CD titles (Encarta '95, Musical Instruments, and Golf) and Microsoft Works and Money. To order this option fully fitted to your Contender PCI system quote order code **UCDM0INI** and add **£169 + VAT** to your order.

#### For a Genie PCI Pentium® system choose Option 1B.

Option 1B is only for the Genie PCI Pentium® system as it does not include a sound card (Genie PCI Pentium® systems now have sound as standard on the motherboard). This option is supplied with a 4X CD ROM drive as well as a pair of amplified speakers, microphone, Voyetra Audiostation software, 3 Microsoft CD titles (Encarta '95, Musical Instruments, and Golf) and Microsoft Works and Money. To order this option fully fitted to your Genie PCI Pentium® system quote order code **UCDMBINI** and add **£169 + VAT** to your order.



Multimedia option 1B fitted to a Genie Professional system.

### PCMCIA on your desktop

You can now add a PCMCIA facility on all Viglen desktop and tower systems. This allows you not only to use PCMCIA cards on your desktop but also to transfer cards and information from your notebook PC to your desktop. There are three choices. If you require any one of these, please add the relevant product code to your order and we will factory fit it for you.

Order code	Description	Price
PDCPX10	Single PCMCIA (Type 1,2 or 3) slot at the back of the System.	£134
PDCPKPX20	Two PCMCIA slots (each type 1,2 or 3), one at the back and one at the front fitted to a 3.5" drive bay (this is not suitable for an Executive case style).	£159
PDCPKPF20	Two PCMCIA slots (each type 1,2 or 3), one at the back and one at the front fitted in a 3.5" floppy and PCMCIA drive combination thus not requiring an additional drive bay.	£254



Why not add a fax/modem to your system and join the information super highway. The Viglen FM1414 Fax modem provides you with 14,400 baud fax and data facility with **Internet** and **Comuserve** access software as well as a free starter pack. All this and the ability to receive and send faxes within Windows for only **£89 + VAT** Order code **CMDN0VGF** when ordering.

### Upgrade your Monitor

The Viglen desktop and tower systems are supplied with either a 14" or 15" Colour Monitor as standard. To enhance your viewing further, you can upgrade to one of our superb 17" Colour Monitors the ENVY 17P or the even more enhanced ENVY 17PE.



Upgrade from:	Upgrade to:	Price to add:
Contender Range	ENVY 17P	£330 + VAT
Contender Range	ENVY 17PE	£410 + VAT
Genie Range	ENVY 17P	£240 + VAT
Genie Range	ENVY 17PE	£320 + VAT

FOR A FULL RANGE OF THE UPGRADES AND OPTIONS AVAILABLE WITH YOUR VIGLEN PC, CALL NOW FOR YOUR FREE COPY OF THE VIGLEN DIRECT GUIDE.

RING 0181 758 7000



Viglen®  
YOU'LL NEVER LOOK BACK

FAX 0181 758 7080

# Software packages

The Viglen Special Configurations are each supplied with a different variety of software packages which are pre-loaded, include full user manuals and disks and are ready to use. Here, we have briefly outlined each package to help you decide which Special Configuration is right for you.



**Microsoft® Works**  
Five essential tools for easier everyday computing. Word processing, spreadsheet, database, graphics and communications tools.



**Microsoft® money**  
A complete set of financial management and planning tools to manage your investments and expenditure.



**Microsoft® publisher**  
This desktop publishing software is the key to producing professional quality output, layouts and clip art.

## MULTIMEDIA TITLES



**Musical Instruments**  
Features 200 instruments – many rare and exotic – from around the world. Hear and play 1,500 authentic sound samples of instruments and jazz, classical and rock ensembles.



**ENCARTA® '95**  
The complete interactive Multimedia Encyclopedia. This best selling and award winning title condenses 28 volumes into one CD. Maps, charts, sound and pictures bring information to life!



**GOLF**  
Rise to the true-to-life challenge of Microsoft® Golf. Realistic graphics and sounds combine with true golf ball flight paths, accurate swing control and a choice of courses.

## SOFTWARE BONUS UPGRADES

All the special configurations shown can be further upgraded to include one of the following professional integrated software applications from Microsoft at a very special bonus upgrade price. If you require pre-installation please specify and allow extra delivery time for these options.



**Microsoft® Office 4.2**  
A popular and powerful integrated software package from Microsoft featuring the technology of Intellisense and including Word for Windows™6, Excel 5 and Powerpoint 4 as well as a licence to use MS Mail. Supplied pre-installed with full manuals and disks. Order code **WAPMMR30 Bonus Upgrade Price £159 (CD version with full manuals)**



**Microsoft® Office Professional 4.3**  
This is the same as Microsoft® Office 4.2 with the addition of the latest version of Access 2.0 the powerful yet simple to use Windows based database. Supplied pre-installed with full manuals and

disks. Order code **WAPMMX50 Bonus Upgrade Price £229 (for CD version with full manuals).**

Please note some software may be supplied in Viglen OEM packaging

## 17" MONITOR UPGRADES

Upgrade your special configuration Business System with one of our superb 17" Colour Monitors, the ENVY 17P or the even more enhanced ENVY 17PE.

**Upgrade from: Performance/Power/Ultimate 120**  
**to: ENVY 17P**  
**Price to add: £240 + VAT**

**Upgrade from: Performance/Power/Ultimate 120**  
**to: ENVY 17PE**  
**Price to add: £320 + VAT**

**Upgrade from: Ultimate 133**  
**to: ENVY 17PE**  
**Price to add: £80 + VAT**



## 3 POWER MULTIMEDIA PC

The Power Multimedia PC takes the Performance Business Multimedia PC a stage further, with a faster processor and higher Hard Disk capacity, providing increased performance capabilities.

**8MB RAM**  
**1GB HD**  
**15" SVGA Colour Monitor**  
**Fast 64 bit PCI Graphics card**  
**Quad speed CD ROM Drive**

### PENTIUM® PROCESSOR 90MHZ

- Viglen Genie® PCI Medium Tower with Intel Pentium® 90MHz Processor
- 2 serial, 1 parallel, 1 games port
- 3.5" Floppy Drive
- Ergonomic Compact Keyboard
- Plug and Play Software for easy upgrading
- Genuine Microsoft® Ergonomic Mouse
- Windows '95 Ready To Run
- Plus**
- Genuine 16 Bit SoundBlaster Chip
- Stereo Amplified Speakers
- Microphone
- Microsoft® Works for Windows
- Microsoft® Publisher
- Microsoft® Money
- Microsoft® Multimedia CD Titles from Microsoft®: Encarta® '95, Musical Instruments and Golf

**ORDER CODE: SPDN8100X1**



only **£63.73** per month  
APR 14.9%  
**EASY 2 DOWN** monthly payment scheme

**£1559**  
+ Delivery and VAT = £1849.45



Includes software for easy configuration of add-in cards



## 4 ULTIMATE 120 MULTIMEDIA PC

This configuration is 'the hottest PC money can buy' according to PC magazine which after reviewing 24 other top of the range systems awarded the Genie its Editors' Choice for the Ultimate PC. We have configured this system to be similar to the reviewed PC except that we have added a fast modem, and reduced the price. You will also need to add a 17" monitor option (see '17" monitor upgrades' above) to obtain the reviewed specification.

**16MB EDO RAM**  
**1GB HD**  
**15" SVGA Colour Monitor**  
**Stealth 64 Video VRAM with 2MB**  
**Quad speed CD ROM Drive**  
**14400/14400 Fax Modem, Internet Access Software**  
**256K Pipeline Burst Cache**

### PENTIUM® PROCESSOR 120MHZ

- Viglen Genie® PCI Medium Tower with Intel Pentium® 120MHz Processor
- 2 serial, 1 parallel, 1 games port
- 3.5" Floppy Drive
- Ergonomic Compact Keyboard
- Plug and Play Software for easy upgrading
- Genuine Microsoft® Ergonomic Mouse
- Windows '95 Ready To Run
- Plus**
- Genuine 16 Bit SoundBlaster Chip
- Stereo Amplified Speakers
- Microphone
- Microsoft® Works for Windows
- Microsoft® Publisher
- Microsoft® Money
- Multimedia CD Titles from Microsoft®: Encarta® '95, Musical Instruments and Golf

**ORDER CODE: SPDUA100X1**



only **£89.64** per month  
APR 14.9%  
**EASY 2 DOWN** monthly payment scheme

**£2199**  
+ Delivery and VAT = £2601.45



Includes software for easy configuration of add-in cards



June 1995  
Viglen Genie  
Pentium PCI  
120MHz

## 5 ULTIMATE 133 MULTIMEDIA PC

If the Ultimate 120 system was not powerful enough, Viglen offer you even more power and specification with this ultimate 133 configuration. This system provides more memory, higher capacity hard drive, a 17" monitor and the most powerful Pentium® processor yet.



only **£117.99** per month  
APR 14.9%  
**EASY 2 DOWN** monthly payment scheme

**£2899**  
+ Delivery and VAT = £3423.95



Includes software for easy configuration of add-in cards



This PC configuration is one of the fastest available and to take advantage of its full potential, you may wish to enhance it with an upgrade to one of the Microsoft Office applications (see 'Software Bonus Upgrade Section').

**32MB EDO RAM**  
**1.6GB HD**  
**17" ENVY 17 Colour Monitor**  
**Stealth 64 Video VRAM with 2MB**  
**Quad speed CD ROM Drive**  
**14400/14400 Fax Modem, Internet Access Software**  
**256K Pipeline Burst Cache**

### PENTIUM® PROCESSOR 133MHZ

- Viglen Genie® PCI Medium Tower with Intel Pentium® 133MHz Processor
- 2 serial, 1 parallel, 1 games port
- 3.5" Floppy Drive
- Ergonomic Compact Keyboard
- Plug and Play Software for easy upgrading
- Genuine Microsoft® Ergonomic Mouse
- Windows '95 Ready To Run
- Plus**
- Genuine 16 Bit SoundBlaster Chip
- Stereo Amplified Speakers
- Microphone
- Microsoft® Works for Windows
- Microsoft® Publisher
- Microsoft® Money
- Multimedia CD Titles from Microsoft®: Encarta® '95, Musical Instruments and Golf

**ORDER CODE: SPDVB160X1**

## 6 PROFESSIONAL BUSINESS PORTABLE PC

This configuration combines the fast 486DX2 66MHz with a large memory and Hard Disk capacity along with a fast modem and large colour screen to make it one of the most powerful and flexible notebook PCs for the Professionals on the move.



only **£69.40** per month  
APR 14.9%  
**EASY 2 DOWN** monthly payment scheme

**£1699**  
+ Delivery and VAT = £2013.95



**8MB RAM**  
**540MB HD**  
**10.3" Dual Scan Colour LCD Screen**  
**14400/14400 Fax/Modem**

### 486DX2 66MHZ

- Viglen Dossier® ADVANCED Sound notebook sized (6.5ft) portable PC with 486DX2 66MHz Processor
- 1 serial, 1 parallel, 1 PS/2 port
- 2 PCMCIA ports, socket for docking station option
- CPU Upgradeable
- 3.5" Floppy Drive
- Built in speaker and microphone for multimedia sound
- Built in large tracker ball
- Windows '95 Ready To Run
- Plus**
- Microsoft® Works for Windows™
- Microsoft® Money

**ORDER CODE: SSSG8034X1**

# CONFIGURATIONS

# At Viglen we believe in putting you first.



## At Viglen, PC also means Pleasing Customers.

Our customer first philosophy ensures every aspect of our business is geared to customer satisfaction. In recognition of this the 1993/4 Computer Weekly Datapro Survey consistently rated Viglen first for reliability, sales support and overall satisfaction. Viglen were also highly commended in The Daily Telegraph and First Direct Customer First Awards 1994.



The entire Viglen product range provides the best value for money available. Viglen topped the price performance ratings in the 1993/4 Computer Weekly Datapro Survey.



Widely regarded as the best support in the industry, each Viglen product purchased gives **FREE lifetime access to our technical support** telephone service and bulletin board.



Our sales staff will gladly guide you through the jungle of computer jargon with help on the ideal system for you.



Technical specialists are always available for more specialised advice.

Each Viglen system has a **12 months parts and labour warranty**, including collection from and return to you at our expense (mainland UK only). For complete peace of mind there is also a further choice of low-cost on-site service packages for up to 5 years. With mission critical systems, such as file servers, our 4 hour response premium on-site service is available.



Our pedigree is impeccable, with over 19 years experience in providing quality manufacture and support services.



Don't worry about compatibility - Viglen's PCs are guaranteed to run all software that operates on equivalent IBM PC/AT. Viglen is licensed under the relevant IBM patents.



Viglen's desktop systems are made in the UK to exacting quality control procedures to give you added confidence in our products.



Extremely competitive repair and upgrade services are always available from our service department.



As a Novell authorised OEM Viglen take the work out of networking by providing the very best in network solutions and support for 2 to 250+ users. In-house Novell certification labs and the availability of more than two Certified Novell Engineers at all times mean that Viglen are a networks supplier to rely on.



Our quality and reliability standards are second to none, thanks to the latest design and manufacturing processes approved to BS5750 quality standard. The Datapro survey rated Viglen first for reliability.

Remember to carefully read the small print of our competitors when comparing services. At Viglen we believe in giving you a choice and making that choice crystal clear.



**COMPUTERWEEKLY**  
Datapro  
IT SYSTEMS USER  
SATISFACTION  
SURVEY  
1993/94

**Viglen** - Once again, Viglen PCs take the hardware honors in the U.K. User Survey, with the highest ratings for Overall Satisfaction, Price/Performance, Expansion Capability, and Ergonomics.

## Ordering direct, couldn't be easier phone, post, or by fax.

If you require any help or advice on choosing a system to suit your requirements please call our Sales Department. To help us identify your requirements please state the product code (where applicable), description and price of items required.

When you have decided on your system please fax or phone your orders. You will need to add £15.00 per system for courier delivery, add 17.5% VAT on top. Collections may be made by prior arrangement. Please allow 7-10 working days for delivery, except for Viglen special configuration models which we will do our utmost to despatch within 3 working days from clearance of payment.

### BY PHONE

Credit card, Switch, Connect or American Express card holders can order by telephone. Just call us and ask for our Sales Department.



Official orders from educational establishments, government departments and PLCs accepted.

Very competitive Lease Rental arrangements are available for bona fide businesses, educational and government establishments.

**EASY2OWN** monthly payment scheme is available to private purchasers subject to status. Typical example of payment calculation of PC costing £799 ex VAT: £799+£15 (delivery) + 17.5% VAT = £956.45 total cash price. 10% deposit of £95.65 required followed by 36 monthly payments of £31.27 (APR=19.9%). For finance over £1499 ex VAT, APR drops to 14.9%. Additional payment protection insurance is available. Viglen Ltd is a licensed credit broker.

**EDI.** Purchase orders via electronic data interchange accepted using INS Tradanet service.

**Public sector** customers may also purchase at special prices through the HMSO.

Please ring 01603 694153



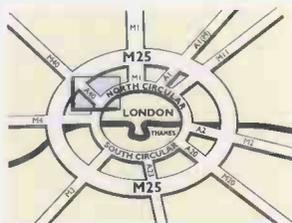
### BY POST OR FAX

You can place your order with our Sales Department by post or fax to the address or number shown below. We will require a cheque for the full amount by return post. Credit card, Switch, Connect or American Express card holders may authorise payment by quoting the credit card number and expiry date.



## See, Touch and Feel our products . . . Come and visit us in the showroom area.

Viglen Limited, Viglen House, Alperton Lane, Alperton, Middlesex HA0 1DX.



**Showroom open**  
Monday-Friday 9.00 - 5.30  
Saturdays 9.00 - 1.00  
**Showroom closed**  
Public and Bank Holidays

Viglen systems are exclusively distributed in Eire by Lendac Data Systems, Unit 6, IDA Enterprise Centre, Pearse St., Dublin 2, Ireland. Tel No: Dublin 710796 Fax No: Dublin 710135. Prices in Eire differ from those quoted in this advertisement.

## PHONE NOW FOR YOUR FREE COPY OF THE VIGLEN DIRECT GUIDE



Prices correct at time of going to press and subject to availability. Specification may be subject to change without notice. Vig, Contender, ENVY, are trademarks of Viglen Ltd, Genie and Viglen are registered trademarks of Viglen Ltd. IBM, PC, AT PS/2, and 8514/A are trademarks of International Business Machines Corporation. Microsoft, MS-DOS, Windows and Windows Ready-To-Run are all trademarks of Microsoft Corporation. Intel, Intel 386, Intel 486, i386, i486, Overdrive™, Pentium™, and the Intel Inside Logo are trademarks of Intel Corporation. Novell, Netware and the Netware Logos are trademarks of Novell Inc. The Energy Star emblem does not represent EPA endorsement of any product and service. All other trademarks are acknowledged. Subject to Viglen terms and conditions available on request.

RING 0181 758 7000



**Viglen**  
YOU'LL NEVER LOOK BACK

FAX 0181 758 7080

PCW OCT 1995

Viglen Limited, Viglen House, Alperton Lane, Alperton, Middlesex HA0 1DX.

677

# Special Configurations direct to you . . . .

Viglen produce a wide range of PCs and options to give you the ultimate choice. We have also designed a number of special configuration packages offering an abundance of software applications to suit specific needs and budgets.

For education, entertainment, personal accounting, business management or high performance computing, we have the package to fit your needs. We also have the latest multimedia systems combining sound, text, animation and video into one easy to use system. There is a Viglen Special Configuration that's just right for you.



We have a selection of special configuration Multimedia models which we can deliver within 3 days from clearance of payment. Simply, phone us for more details.

## 1 HOME BUSINESS MULTIMEDIA PC

The Home Business Multimedia PC provides everything you need for a good performance Multimedia system including an abundance of software to get you started.



only  
**£43.50**  
per month  
APR 19.9%  
**FAST OWN**  
monthly payment  
scheme

**£999**  
+ Delivery and VAT =  
£1191.45

**4MB RAM**  
**270MB HD**  
**14" SVGA Colour Monitor**  
**Double speed CD ROM Drive**

### 486 DX2 66MHz

- Viglen Contender® Professional PCI with Intel 486DX2 66MHz Processor
- Fast PCI Local Bus Accelerated Graphics
- 1MB Video DRAM
- 2 serial, 1 parallel, 1 PS/2 port,
- 1 games port
- 3.5" Floppy Drive
- Ergonomic Compact Keyboard
- Genuine Microsoft® Ergonomic Mouse
- Windows '95 Ready To Run
- Plus**
- Genuine 16 Bit SoundBlaster Sound Card
- Stereo Amplified Speakers
- Microphone
- Microsoft® Works for Windows™
- Microsoft® Publisher
- Microsoft® Money
- Multimedia CD Titles from Microsoft®: Encarta® 95, Musical Instruments and Golf



Includes software for easy configuration of add-in cards

**ORDER CODE: SHPG4027X1**

## 2 PERFORMANCE MULTIMEDIA PC

The Performance Multimedia PC brings together the fast 75MHz Pentium® processor, along with a fast VGA card and 15" monitor to provide one of the best price/performance systems available and is ideally suited for business and home.



only  
**£60.66**  
per month  
APR 19.9%  
**FAST OWN**  
monthly payment  
scheme

**£1399**  
+ Delivery and VAT =  
£1661.45

**8MB RAM**  
**530MB HD**  
**15" SVGA Colour Monitor**  
**Fast 64 bit PCI Graphics card**  
**Quad speed CD ROM Drive**

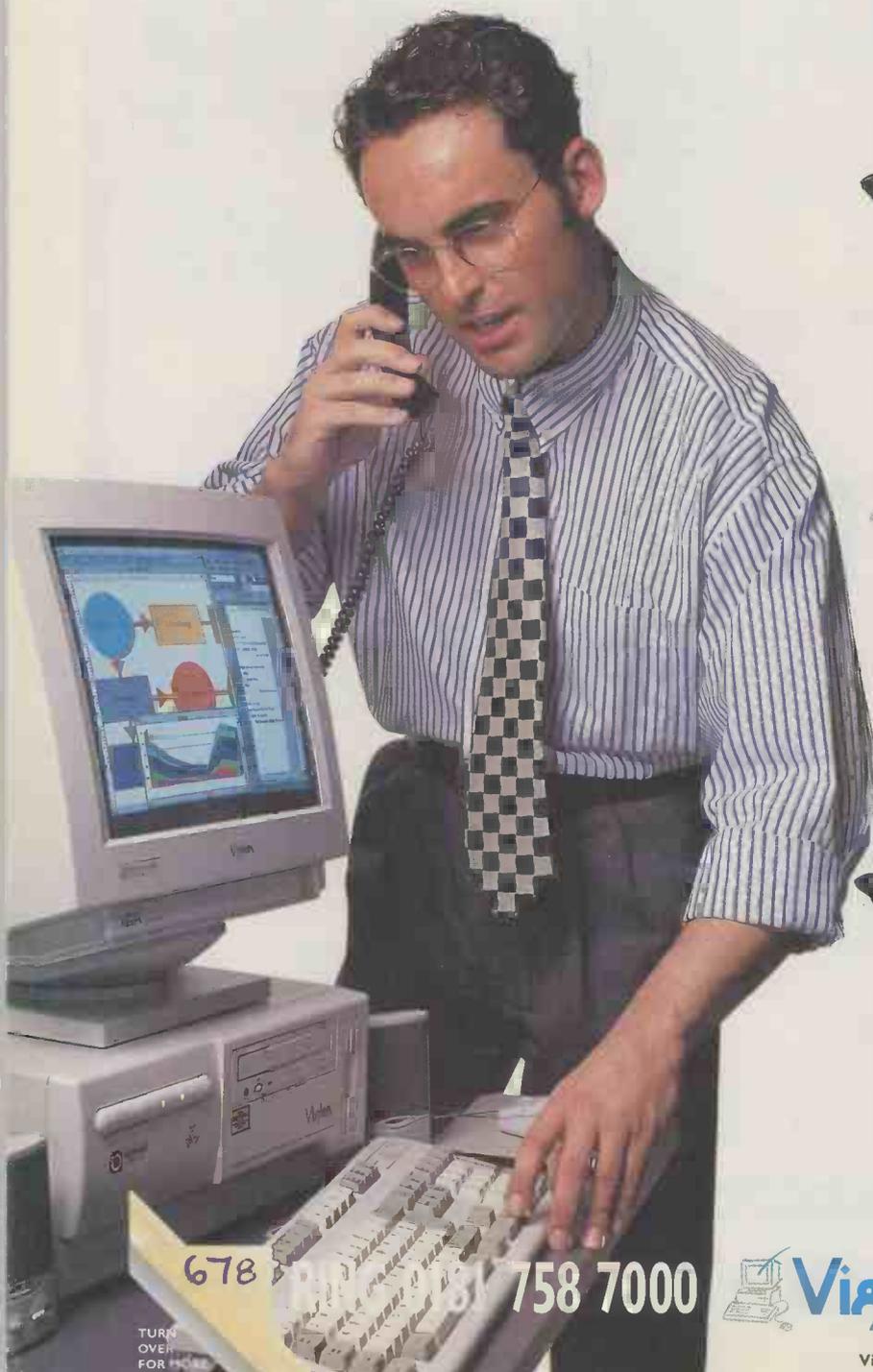
### PENTIUM® PROCESSOR 75MHZ

- Viglen Genie® PCI Professional with Intel Pentium® 75MHz Processor
- 2 serial, 1 parallel, 1 games port
- 3.5" Floppy Drive
- Ergonomic Compact Keyboard
- Plug and Play Software for easy upgrading
- Genuine Microsoft® Ergonomic Mouse
- Windows '95 Ready To Run
- Plus**
- Genuine 16 Bit SoundBlaster Chip
- Stereo Amplified Speakers
- Microphone
- Microsoft® Works for Windows
- Microsoft® Publisher
- Microsoft® Money
- Multimedia CD Titles from Microsoft®: Encarta® 95, Musical Instruments and Golf



Includes software for easy configuration of add-in cards

**ORDER CODE: SPPQ8053X1**



678 758 7000



**Viglen**  
YOU'LL NEVER LOOK BACK

**FAX 0181 758 7080**

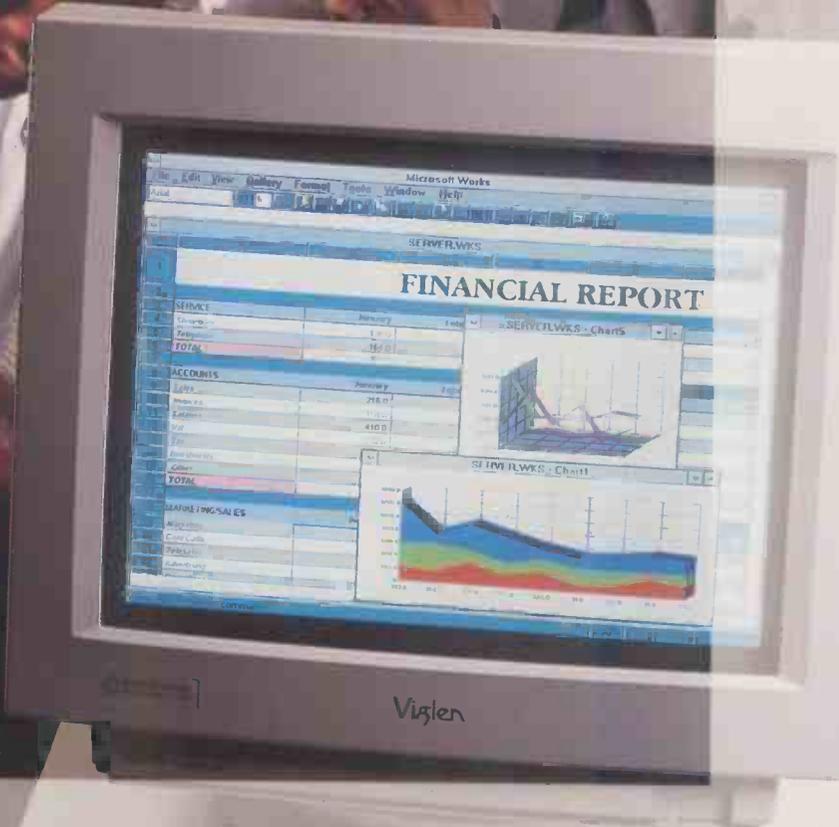
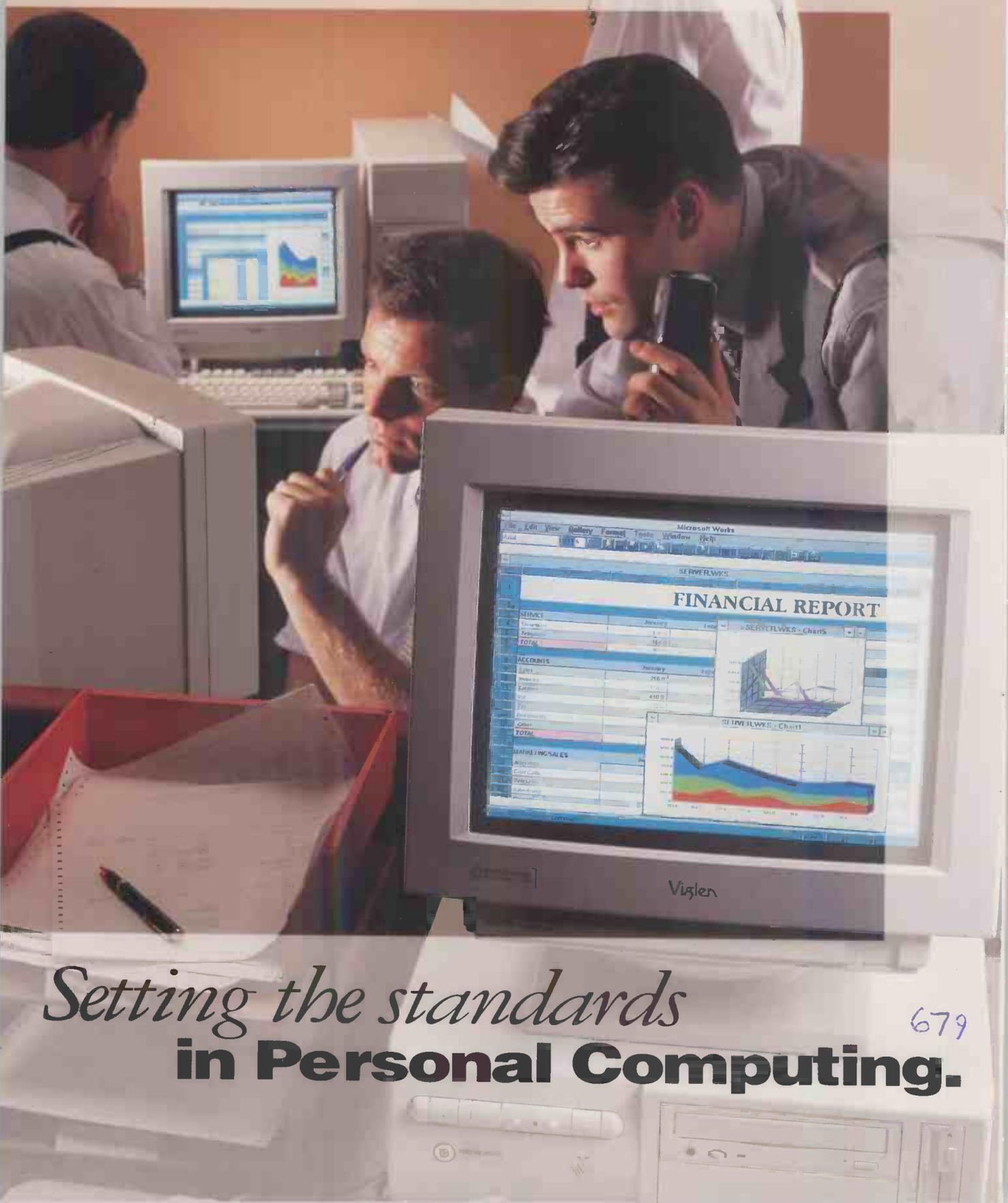
Viglen Limited, Viglen House, Alperton Lane, Alperton, Middlesex HA0 1DX.

TURN  
OVER  
FOR



**Viglen**<sup>®</sup>  
YOU'LL NEVER LOOK BACK

# Personal Computers



*Setting the standards*  
**in Personal Computing.**

679

**HP LASERJET 4 PLUS**



**£2,737**

**MORE ON THE BUDGET.**

**ECOSYS FS-1600**



**£2,737**

**MORE IN THE BANK.**

**W**hen do two very similar printers become very different?

When you look at their consumables costs.

New research\* shows that, *over 300,000 pages, you could be paying almost £2,800 more than you need.*



And that's on top of the purchase price.

Multiply the consumables costs by the number of printers in your organisation, and it could mean adding hundreds of thousands of pounds to your overhead.

The ECOSYS FS-1600 from Kyocera, on the other hand, can cut your consumables costs by around 80%.

Which keeps nearly £2,800 in the bank for every one you use.

The ECOSYS range offers a choice of 10 and 18 ppm speeds, 300 or 600 dpi resolution, and LaserJet and Postscript emulations. There are duplex and networking facilities, and a wide range of high capacity paper-handling options.

ECOSYS. No printers cost as little to run.

And you can bank on it.

**Use the coupon – or telephone for more details. Today.**



To: Kyocera Electronics (UK) Ltd, 8 Beacontree Plaza, Gillette Way, Reading, RG2 0BP. Fax: (01734) 311108.

Please send me full details on printers and printing costs.

Name \_\_\_\_\_

Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_ Tel no \_\_\_\_\_

PCW 10B

**01734 230700**

**PRINTING COSTS. STOP PAYING THE PRICE.**

\*Source: Independent research carried out by Pira International, using European Printer Manufacturers and Importers (EPMI) guidelines and prices at RRP ex-VAT. All prices correct at time of going to press.