electronic MUSICIAN

RECORD • PRODUCE • PERFORM

SKRILLEX

THE MASTER OF AMERICAN DUBSTEP WANTS YOU TO COP HIS PRODUCTION TRICKS

EMUSICIAN.COM

03 2012

$5.99 CAN $6.99

A MUSIC PLAYER PUBLICATION

Plus! Powerhouse Mixe
Focusrite, Phonic, PreSc

*BXNKXLW **********AUTO**5-DIGIT 50036
03048B4 0 EMOR 03048B4 R 1103
JAS EOM_2 MAR12 0001 #201 #36847
RON CARLSON
103 TAMA ST
BOONE IA 50036-3616

World Radio History

CASIO®

XW-P1

PERFORMANCE SYNTHESIZER

© 2012 CASIO AMERICA, INC. All rights reserved.

www.casiomusicgear.com

World Radio History

History in the making.

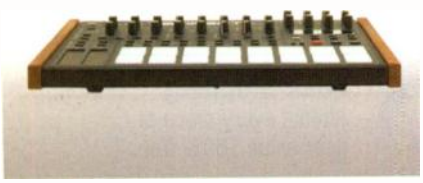
Tempest is an analog drum machine, the first full collaboration between legendary instrument designers Dave Smith and Roger Linn. If "analog drum machine" conjures up images of the pre-programmed, set-and-forget beat boxes of the past, rest assured: Tempest is nothing of the sort. Its innovative, performance-oriented operating system gives you an extraordinary level of control to create, edit, arrange, and manipulate beats in real time as they play. It is a revolutionary new musical instrument.

To see and hear what Tempest is really about, visit www.davesmithinstruments.com.

Tempest. Made to be played.

Dave Smith INSTRUMENTS

with Roger Linn DESIGN



World Radio History

Sweetwater® has the Newest, Hottest Gear for Your Studio!

M-Audio Fast Track C600
Innovative audio interface with hands-on transport control plus built-in DSP for adding delay and reverb to your monitor mixes!

HOT!

Creation Station
Our most powerful audio computers yet, built from the ground up and tuned to perfection to give you blazing-fast music production!

NEW!

Need more than just recording gear?

Call Sweetwater for all your live sound and musical instrument needs!

FREE Warranty*
We cover nearly every item for a minimum of two years.

FREE Shipping
Almost every piece of gear ships 100% free.

FREE Tech Support
Get professional SweetCare support, 24/7.

SweetCare
www.sweetwater.com/support

* Please note: Apple products are excluded from this warranty, and other restrictions may apply. Please visit www.sweetwater.com/warranty for complete details.

World Radio History

NEW!

PreSonus Studio One 2 Professional
PreSonus's DAW software has taken the world by storm, and v2 adds built-in pitch correction with Celemony's Melodyne!

HOT!

Alesis iO Dock
Turn your iPad into a portable music creation studio with pro-quality audio, MIDI, and video connections!

NEW!

Audix CX212B
Pro-quality performance, incredibly low noise, and multiple pickup patterns — at an amazingly low price!

NEW!

Moog The Ladder
The unbeatable sound of Moog's original ladder filter, updated for modern studios and packed into a 500 Series module!

NEW!

AEA RPQ 500
The perfect 500 Series preamp for your ribbon microphone, loaded with the gain you demand and the control you love!

Misa Digital Kitara
Innovative MIDI controller with multi-touch input and built-in synthesizer!

NEW!

Sweetwater
Music Instruments & Pro Audio

(800) 222-4700
Sweetwater.com

A Better Way to Buy Guitars
Sweetwater Guitar Gallery
Sweetwater.com/guitargallery

World Radio History

electronic MUSICIAN

COVER FEATURE

14 **Skrillex** The DJ, producer, and new label head talks about his improbable skyrocket to superstardom—and reveals some secret production techniques behind his dubstep anthems.

LISTEN

PROFILES 28 **Islands** Bright vocals, synth layers, and live tracking collide on the heartbreak-inspired *A Sleep & A Forgetting*.

36 **Behind the Grammy Nominees** On the eve of the 54th Annual Awards, we profile the creative forces behind some of the year's most successful projects.

PLAYLIST 40 Music reviews from *Electronic Musician* contributors

LUST

ROUNDUP 42 **Mixers** Craig Anderton checks out four distinct products that push the stale old "console" concept in exciting new directions.

REVIEWS 48 **Mojave MA-300** Large-diaphragm, multipattern tube condenser mic

50 **TC Helicon VoiceLive Rack** Effects processor for studio or stage

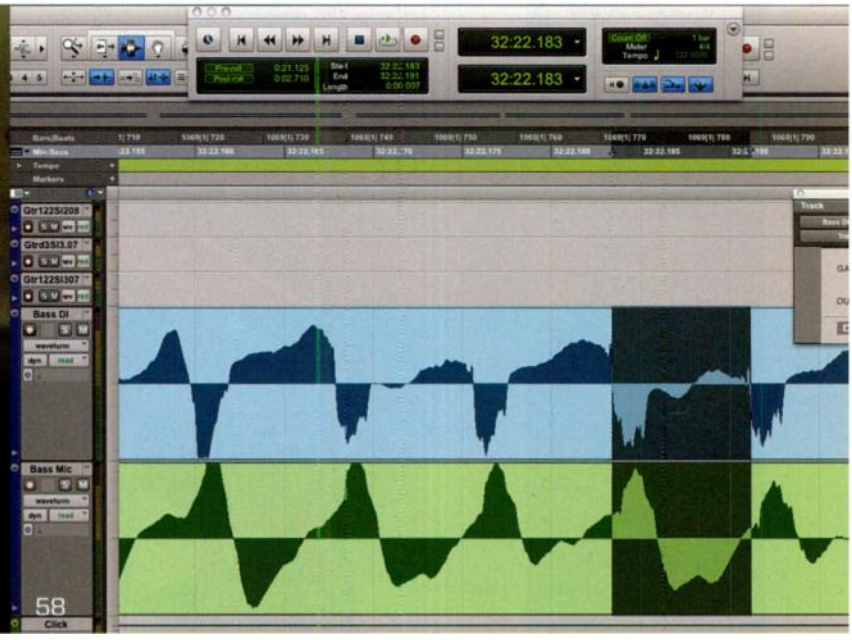
NEW GEAR 52 Production tools to help you make better music

SPECIAL FOCUS 54 **iOS Apps** Samples, effects, and more for your phone and tablet

Skrillex photo by Jason Ano

World Radio History

03.2012 contents



LEARN

SPECIAL FEATURE 24 **Do Everything Better!** Whether you're tracking, mixing, or gigging, these 30 easy tips and simple shortcuts will streamline your work, save your gear, and let you focus on making music.

MASTER CLASS 58 **DAW Power Tips** Workstation dragging you down? Software not cooperating? Try these advanced techniques to bring you back to those honeymoon days when you first fell in love with your system.

TECHNIQUE 68 **Career** Avoid Data Meltdown!

72 **Performance** Jingle Punks Share Secrets for Standing Out

78 **Power App** Discover secret vibrato FX in the PreSonus Studio One Pro 2

DEPARTMENTS

10 **Community**

FIRST TAKE 12 **The Crystal Method** Then and Now

CRAIG'S LIST 82 **Five Sure-Fire Ways** to Make Your Music Sound Real Good

EM (ISSN 0884-4720) is published monthly by NewBay Media, LLC 1111 Bayhill Drive, Suite 125, San Bruno, CA 94066. EM is a trademark of NewBay Media. All material published in EM is copyrighted (c) 2012 by NewBay Media. All rights reserved. Reproduction of material appearing in EM is prohibited without written permission. POSTMASTER: Send address changes to EM, PO Box 15605, North Hollywood, CA 91615. Publisher assumes no responsibility for return of unsolicited manuscripts, photos, or artwork. All product information is subject to change. publisher assumes no responsibility for such changes. All listed model numbers and product names are manufacturers' registered trademarks.

Canada Post: Publications Mail Agreement #40612608. Canada Returns to be sent to Bleuchip International, PO Box 25542, London, ON N6C 6B2. Periodicals Postage Paid at San Bruno, CA, and at additional mailing offices.

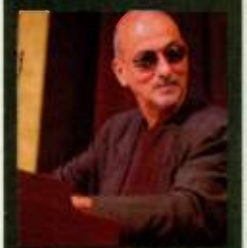
World Radio History

"Radial direct boxes make everything I put through them warm, punchy and clear. They are great DIs!"
~ Chick Corea

"My Radial DIs produce pure, transparent sound with full dynamics and do not color my keyboards."
~ Chuck Leavell
(The Rolling Stones)

"The JDI is the cleanest, warmest and best (!!) I've found for plugging my organ in direct."
~ Joey DeFrancesco
(Hammond B3 legend)

"Once you hear the difference between a Radial DI and the others, you'll never go back. After over 300 U2 shows around the world, they have worked flawlessly."
~ Terry Lawless
(Keyboardist & programmer - U2)

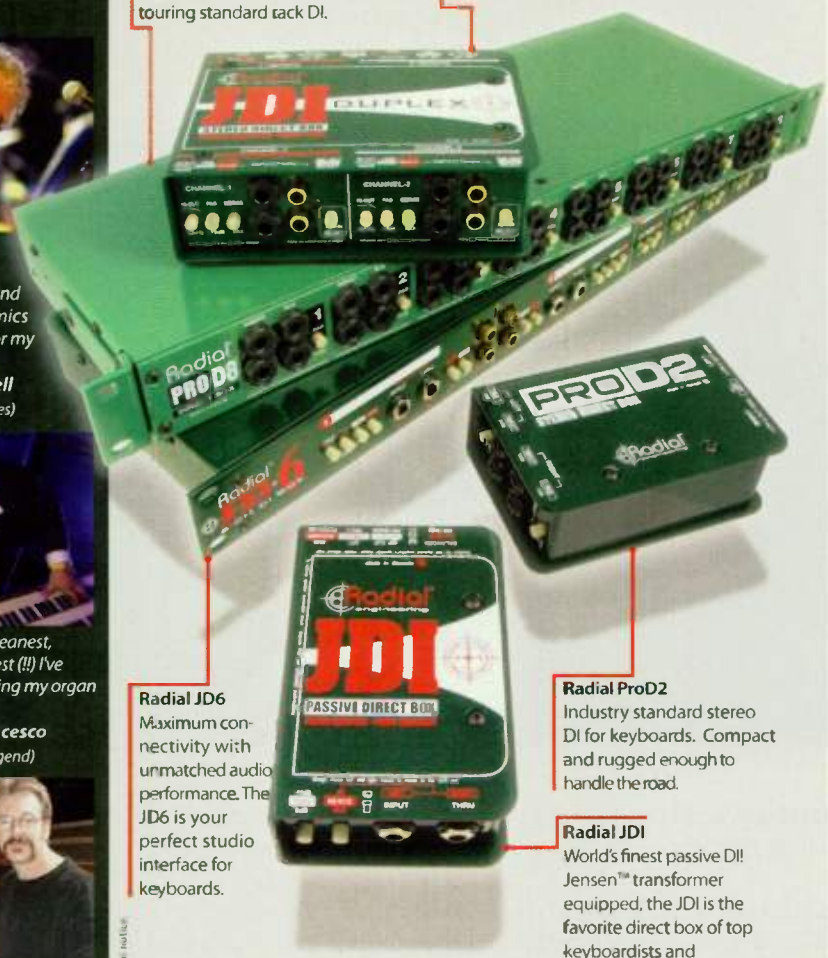


"My Duplex is musical and transparent and with me everywhere I go. Thanks Radial for a superior product."
~ Tom Coster
(Santana, Joe Satriani)

PowerTools...
for Power Keyboard Players!

Radial ProD8
8 channels with reversible rack rails to let you set up the ultimate tour rig and wire it your way. The touring standard rack DI.

Radial JDI Duplex
A stereo 'Swiss Army Knife' of direct box connectivity with world renowned Jensen™ transformers for optimum tone.



Radial JD6
Maximum connectivity with unmatched audio performance. The JD6 is your perfect studio interface for keyboards.

Radial ProD2
Industry standard stereo DI for keyboards. Compact and rugged enough to handle the road.

Radial JDI
World's finest passive DI! Jensen™ transformer equipped, the JDI is the favorite direct box of top keyboardists and engineers everywhere.

Radial passive DI boxes deliver the wide frequency response and headroom needed to properly handle today's ultra dynamic digital keyboards. The magic is in the transformers we use... unlike active DIs that square wave when hit hard, our high performance transformers naturally round out the tone, introducing a natural compression that is often described as vintage sounding. And with isolation, you immediately eliminate hum and buzz caused by ground loops. Plenty of great models to choose from for mono, stereo and full scale touring rigs.

Radial - the world's finest direct boxes!

Radial® engineering
...power tools for power players

Radial Engineering Ltd.
1588 Kebet Way, Port Coquitlam BC V3C 5M5
tel 604-942-1001 email: info@radialeng.com

radialeng.com

Copyright 2011 Radial Engineering Ltd. All rights reserved. Specifications and appearance are subject to change without notice.

electronic MUSICIAN
www.emusician.com | VOL. 28 NO. 03, MARCH 2012

EXECUTIVE EDITOR Craig Anderton
canderton@musicplayer.com

EDITOR Sarah Jones
sjones@musicplayer.com

MANAGING EDITOR Debbie Greenberg
dgreenberg@musicplayer.com

CONTRIBUTORS
Steve La Cerra, Craig Dalton, Carl Jacobson, Kaitlin McGaw, Ken Micallef, Phil O'Keefe, Gino Robair, Barbara Schultz, Tony Ware

ART DIRECTOR Patrick Wong
pwong@musicplayer.com

STAFF PHOTOGRAPHERS
Paul Haggard *phaggard@musicplayer.com*
Craig Anderton *canderton@musicplayer.com*

GROUP PUBLISHER Joe Perry
jperry@musicplayer.com, 770.343.9978

ADVERTISING DIRECTOR, NORTHWEST, MIDWEST, & NEW BUSINESS DEV.
Greg Sutton
gsutton@musicplayer.com, 925.425.9967

ADVERTISING DIRECTOR, SOUTHWEST
Albert Margolis
amargolis@musicplayer.com, 949.582.2753

ADVERTISING DIRECTOR, EAST COAST & EUROPE
Jeff Donnenwerth
jdonnenwerth@musicplayer.com, 770.643.1425

SPECIALTY SALES ASSOCIATE
Contessa Abono
cabono@musicplayer.com, 650.238.0296

PRODUCTION MANAGER Beatrice Kim

MUSIC PLAYER NETWORK
VICE PRESIDENT John Pledger
EDITORIAL DIRECTOR Michael Molenda
SENIOR FINANCIAL ANALYST Bob Jenkins
PRODUCTION DEPARTMENT MANAGER Beatrice Kim
DIRECTOR OF SALES OPERATIONS Lauren Gerber
WEB DIRECTOR Max Sidman
MOTION GRAPHICS DESIGNER Tim Tsuruda
MARKETING PROJECT MANAGER Tyler Reed
MARKETING DESIGNER Joelle Katcher
SYSTEMS ENGINEER John Meneses
ASSOCIATE CONSUMER MARKETING DIRECTOR
Christopher Dyson

NEWBAY MEDIA CORPORATE
PRESIDENT & CEO Steve Palm
CHIEF FINANCIAL OFFICER Paul Mastronardi
CONTROLLER Jack Liedke
VICE PRESIDENT, PRODUCTION & MANUFACTURING
Bill Amstutz
VICE PRESIDENT, DIGITAL MEDIA Joe Ferrick
VICE PRESIDENT, AUDIENCE DEVELOPMENT
Denise Robbins
VICE PRESIDENT, CONTENT & MARKETING
Anothony Savona
VICE PRESIDENT, INFORMATION TECHNOLOGY
Greg Topf
VICE PRESIDENT, HUMAN RESOURCES Ray Vollmer

REPRINTS AND PERMISSIONS
For article reprints please contact our reprint coordinator at Wright's Reprints: 877.652.5295

PLEASE DIRECT ALL ADVERTISING AND EDITORIAL INQUIRIES TO: ElectronicMusician, 1111 Bayhill Dr., Ste. 125, San Bruno, CA 94066 PHONE 650.238.0300 FAX 650.238.0262 EMAIL *electronicmusician@musicplayer.com*

PLEASE DIRECT ALL SUBSCRIPTION ORDERS, INQUIRIES, AND ADDRESS CHANGES TO: 800.289.9919, outside the US 978-667-0364, *emmag@computerfulfillment.com*

Back Issues are available for $10 each at 800.289.9919, 978.667.0364, *emmag@computerfulfillment.com*

Periodicals Postage Paid at San Bruno, CA, and at additional mailing offices.

Follow us on

World Radio History

ABOUT THE ONLY THING IT WON'T DO FOR MUSICIANS IS STAND UP AND APPLAUD.
Best-in-class microphones
Eight-track recording
Metronome
Tuner
XLR inputs
LS-100
OLYMPUS
MULTI-TRACK LINEAR PCM RECORDER
PEAK
REC LEVEL
F1
F2
F3
STOP
REC
PLAY
ERASE
OK
XLR-48/24V
L
XLR-48/24V
R
Get a versatile set of recording tools in the amazingly compact Olympus LS-100 Linear PCM Recorder. Capture the energy of any live performance with our most advanced, best-in-class microphones. Lay down clean, low-noise tracks by plugging in through two XLR jacks. Then, build your songs like a pro using the LS-100's two-channel recording and eight-channel playback. The Olympus LS-100. Performs so well, you might give it a standing ovation.
For news, reviews, tips and tricks, visit olympusamericaaudioblog.com.
OLYMPUS
getolympus.com/audio
World Radio History

insight

Art and Influence

WHEN THIS year's Grammy nominations were announced in January, the media were scratching their heads over some "unknown" 23-year-old dance producer/DJ named Skrillex earning five nominations, including one for Best New Artist. They wondered aloud: Are DJs *musicians*?

This is not a new argument. Look at the adversity that rap and hip-hop faced when they grew beyond the underground into the mainstream. Now they're the most dominant voices in popular music. Rejection of new musical ideas goes back through the eras: Stravinsky's *The Rite of Spring* caused riots in the aisles at its premiere.

These days, people tend to equate musical "success" with record sales. DJs create an experience, an event; although Skrillex, Tiësto, and deadmau5 draw hundreds of thousands of fans to their live performances, they'll never compete with Katy Perry on the charts. But they are influential, and music is an evolving art form. It's inspiring to witness artists at the forefront of electronic music finally getting the recognition that they deserve. "The coolest part about the Grammy nominations is that it proves something real is happening culturally," Skrillex says in our cover interview (starting on page 14). "And even though the mainstream is trying to latch onto it, they don't even know what to really latch onto yet."

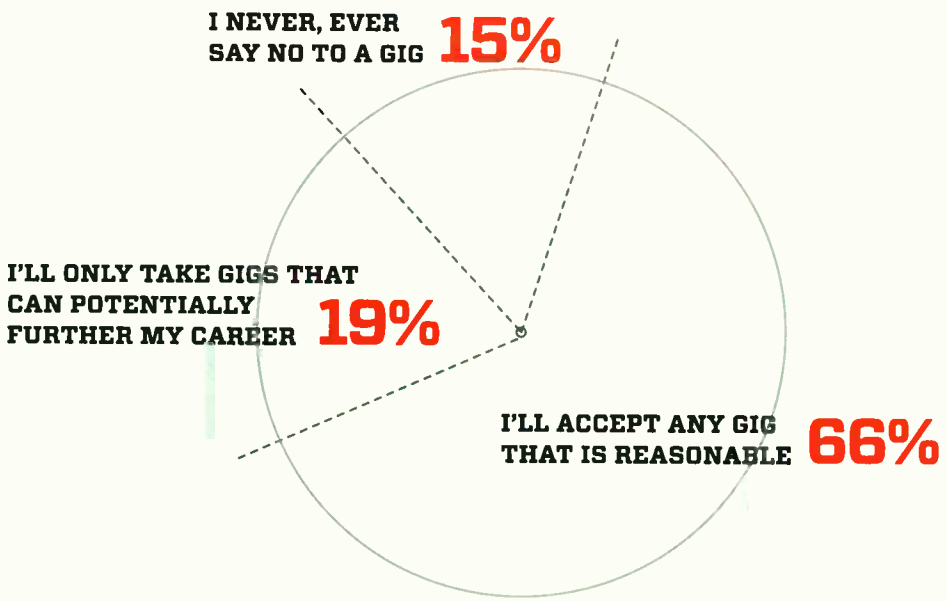
SARAH JONES
EDITOR
sjones@musicplayer.com

"JUST LIKE I ALWAYS SAY, GO PIRATE IT IF YOU DON'T HAVE THE MONEY . . . I JUST WANT YOU TO HAVE IT . . . OR YOU CAN BUY IT HERE . . . EITHER WAY, I'LL LOVE YOU."

Skrillex Facebook post promoting his new album Bangarang on Beatport, December 23, 2011

The *Electronic Musician* Poll

DO YOU TAKE EVERY GIG YOU CAN GET, OR ARE YOU SELECTIVE?



World Radio History

Gadget Geek

Want to connect mics, instruments, or other audio hardware to your favorite i-devices? Check out the Sonoma Wireworks GuitarJack Model 2 ($199, sonomawireworks.com). This upgraded iOS interface offers stereo recording and simultaneous voice and instrument recording with apps like FourTrack and StudioTrack; inputs include a 1/4" instrument in with Lo-Z and Hi-Z modes, and an 1/8" stereo mic/line input. (Both inputs feature a configurable pad and 60dB of continuous level control.) The unit also has an 1/8" stereo out, and tons of new features that give it a huge edge over Model 1 (which is now discounted to $49).

ask!

Can you really perform mastering in a DAW? I know PreSonus Studio One Pro has a mastering page, but programs like Samplitude, Cubase, Sonar, Pro Tools, etc. supposedly include mastering-quality plug-ins. Will these do the job?

ROB PERRY
W. PALM BEACH, FL
VIA EMAIL

It depends on whether you want to do "mastering" or "MASTERING." You can think of "mastering" as "the mastered version sounds better than the original mix" and "MASTERING" as "the sonic quality meets or exceeds anything out there, and with an album, all the songs flow together as a seamless listening experience."

Most DAWs can do mastering. MASTERING often requires specialized tools such as noise reduction, diagnostic plug-ins, restoration options, plug-ins that trade off CPU efficiency for sound quality, and optimally, the ability to integrate analog mastering processors. You also need to be able to

assemble all your cuts and create a master file suitable for duplication or uploading to the web (often in a data-compressed format). Of the current crop of DAWs, Magix Samplitude and PreSonus Studio One Pro have the strongest emphasis on mastering—but pretty much all DAWs include various mastering-oriented tools and options.

Remember that 90% of self-mastering is your ears, room, and monitors. If those elements aren't in place, you won't get good results with DAWs or dedicated mastering programs. But while mastering is a specialized skill where experience counts for a lot, it's something you can learn to use to improve the sonic quality of your music. Like everything else, the more you practice your craft, the more you'll improve—and the better your masters will sound.

THE EDITORS

Got a question about recording, gigging, or technology? Ask us! Send it to ElectronicMusician@musicplayer.com.

BY THE NUMBERS

Grammy Awards

31 awards won by conductor Sir Georg Solti, the most in a lifetime

26 awards won by Alison Krauss, the most won by a female artist

14 LeAnn Rimes' age when she won in 2000, making her the youngest winner

97 Pinetop Perkins' age when he won in 2011, making him the oldest winner

8 awards won by Michael Jackson in 1984—the most for a single person in one night

79 nominations for Quincy Jones, earning him a lifetime record

16 nominations for Brian McKnight—the most without a win

9 categories in which Béla Fleck has been nominated—a record for most categories

World Radio History

World Radio History

THE CRYSTAL METHOD, THEN AND NOW

LOS ANGELES, CA
NOVEMBER 9, 2011

Ken Jordan (left) and Scott Kirkland pause for a break in their CrystalWerks studio in Los Angeles. On the foreground screen is their previous studio, The Bomb Shelter, circa 2000. TCM star in the *RE:GENERATION* documentary project, which follows DJ Premier, Pretty Lights, The Crystal Method, Mark Ronson, and Skrillex as they remix, re-create, and re-imagine five traditional styles of music. For the film, which debuts during Grammy Week, TCM create an R&B track with Martha Reeves and the Funk Brothers. Jordan commented, "I just hope I have as much energy as Martha when I'm in my 70s." When Kirkland was asked what he would be doing if he wasn't an international superstar DJ, he replied, "A poor, homeless DJ."

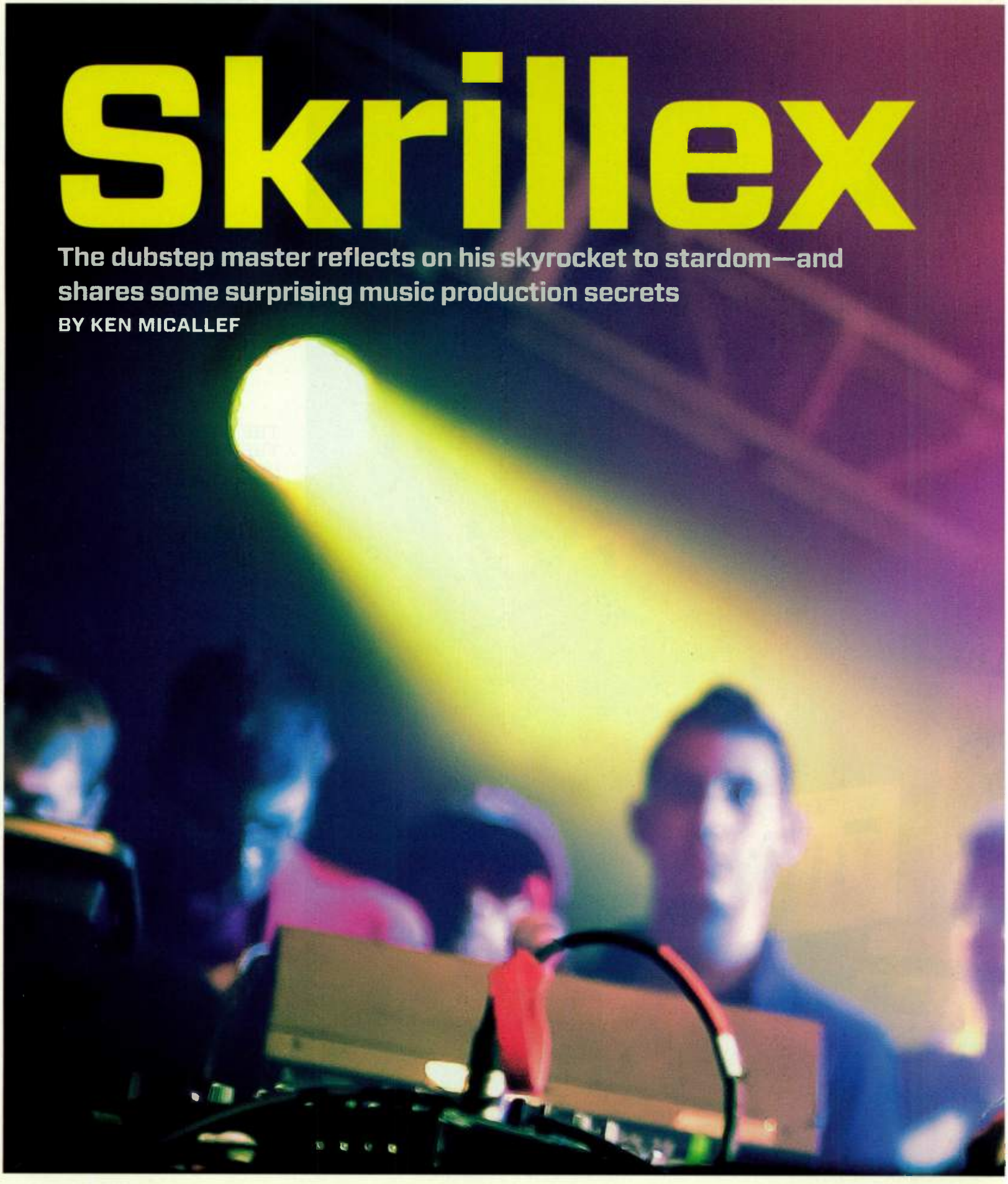
TEXT AND PHOTOGRAPH BY MR. BONZAI

World Radio History

Skrillex

The dubstep master reflects on his skyrocket to stardom—and shares some surprising music production secrets

BY KEN MICALLEF



Dave Vann

World Radio History

World Radio History

"I don't use a MIDI controller. I draw all the MIDI in—a lot of drawing, a lot of clicking and copying and pasting."

"I MIGHT be the biggest thing in dance music, but I don't have radio-friendly songs," proclaims Sonny Moore, a.k.a. Skrillex. "I don't have three-and-a-half-minute songs with a verse/chorus, verse/chorus, outro, whatever. I don't follow that sort of format, and I never will, for anybody. I'm making music for me."

The 23-year-old dance and dubstep producer garnered a whopping five 2012 Grammy nominations, indicating the kind of game-changing moment that only happens rarely in popular culture. Nominated for Best New Artist—the first time ever for a DJ—as well as for Best Dance Recording and Best Dance/Electronica Album (both titled "Scary Monsters and Nice Sprites"); Best Non-Classical Remixed Recording (Benny Benassi's "Cinema"); and Best Short-Form Music Video ("Scary Monsters and Nice Sprites," again), Skrillex represents the new face of dance music. Though the seeds for the movement were set in motion in the '90s with such acts as the Chemical Brothers, Prodigy, and Aphex Twin, the underground scene has finally evolved to where it's easy challenging the rock status quo for mass popularity and ticket sales.

"It's interesting how far [the scene] went without having to fit into a particular protocol to make it on the radio," Skrillex says. "We had no marketing for anything. Not one thing. The coolest thing about the whole scene is that we can sell over 100,000 tickets at the Electric Daisy Carnival [actually, 230,000, according to most estimates]. That's bigger than Coachella—and it's all dance music. Ninety percent of the acts, none of them are household names."

An extremely busy producer (including work on Korn's *The Path of Totality*) and performance artist, Skrillex also runs his own label, OWSLA, home to fellow dance artists Porter Robinson, Zedd, Koan Sound, Kill The Noise, and The M Machine. But get this punked-out and pierced DJ talking and he's more likely to get agro over his valuable collection of rare Aphex Twin vinyl (on Warp, natch) than what constitutes dubstep label success.

Skrillex's three EPs—*My Name Is Skrillex*, *Scary Monsters and Nice Sprites*, and *More Monsters and Sprites*—are like watching 20 years of dance-music history flashing before your eyes. "First of the Year (Equinox)," from his last recording, is a particularly stunning amalgam of magic editing, mad vocal cut-up, and unique production techniques. Creating bass riffs that sound like fire-breathing dragons, vocal melodies that closely resemble Central African Mbenga-Mbuti Pygmy music, and deftly placed vocal samples that typically propel huge rave crowds into a frenzy, Skrillex defies his diminutive presence with the kind of awe-inducing techniques that light up message

Dave Vann

World Radio History

boards and nerdy production forums. And he achieves this with a minimal recording rig that doubles as a performance platform.

Mirroring his sensitive, artistic soul, Skrillex models his message after *Watership Down*, the 1972 fantasy novel about a band of renegade rabbits battling the world's ills to live in peace.

Your music is incredibly emotional. Is emotion something you can conceptualize or quantify as a production esthetic?
I never work off concepts. My songs are natural; that's how my mind works. I'm just making music and it's natural and it doesn't feel too special, really; it just makes me happy.
The tonal dips and cut-up syllables of your vocals sound like Central African Mbenga-Mbuti Pygmy vocal music. It's uncanny. Deep Forest sampled it for a hit in the 1990s.
I've never heard that. Whoa! That's crazy. That part of my production: the vocal treatments, and the melodies I make with vocal sounds. . . .
You have a rather minimal setup: Apple MacBook Pro, Ableton Live, and a few plug-ins. Is that current?
I have that same rig; it's even smaller now. I am on the road 322 days a year. So everything is composed and recorded in that same rig. I don't use a MIDI controller. I draw all the MIDI in—a lot of drawing, a lot of clicking and copying and pasting.
In general, how does your music evolve from the original idea through the various phases of production? Can we break down "First of the Year (Equinox)"?
Whether I'm writing with pen and paper or on the laptop, it evolves as it's moving. "Equinox" began when I was making some new drum samples; I'd made a new snare. Then I put that into this triplet-grid swing beat [he sings the song's reggae groove], then I added violin using Native Instruments Kontakt samples. I started cutting up a vocal loop that was actually my voice. I use my vocals for most of my tracks, resampled. By the time it got to the drop in the song, I had opened some older passages that I'd made before and tweaked them to make new sounds on the fly, just started drawing in MIDI. I made the track in four days.
How do you record vocals and cut them up? Generally, how do you effect your vocals to create those unusual dips and bends?
It's a combination of things. When I'm recording in, sometimes I pre-record [vocals] with an SM58 into whatever soundcard is in my computer. When I'm tracking, I'm using different vocal compressors: [PSP] VintageWarmer with multi-band compressor/limiter, [iZotope] Ozone; I do most everything in Ozone. There is so much shit you can do with it: multi-band, compression, everything. I'll take [Celemony] Melodyne and detune it for vocals. From there,

"We're artists; there's an art in making records and traditional DJing, absolutely, but it's merging."

World Radio History

"The coolest part about the Grammy nominations is that it proves something real is happening culturally. And even though the mainstream is trying to latch onto it, they don't even know what to really latch onto yet."

I render it to audio, and start manually chopping it up in Ableton Live, using the pitch envelopes and the transpose wheel right in Live and doing manual pitching of the melody for all that crazy editing. I even use that Chris Lord-Alge [CLA Vocals] plug-in from Waves for vocal effects.

You use some very twinkling piano sounds in "Equinox."

That is the stock Ableton piano on everything; then I just compress the crap out of it in Ozone. It really squashes the sound, almost like resampling. Sometimes I will render it to audio so I can get that sampled [sound]. Piano emulators are all built from recording pianos in different rooms; they have different decays and different attributes. There is so much happening around the emulation.

The drums almost sound live. Are these stock Ableton sounds as well?

No, I take the most pride in my drums. I build them from scratch and layer them, mostly from Roland 909s and different acoustic elements layered over the top. A lot of compression chains and rendering them repeatedly.

At one point in "Equinox," the synth, vocal melody, and bass riff start madly cutting-up across the bar. The bass riff in particular sounds like a fire-breathing dragon.

A lot of the bass is, of course, [NI] Massive, which is [produced from] wavetable sounds and different form oscillators—wavetable oscillators. Probably the best vocally-sounding bass is all from [NI] FM8. It's an FM synth, a different approach to synthesis 'cause it's fundamental. It's not like granular, which is basically resampling. FM synthesis is a fundamental idea in that you're taking a sine wave and twisting it and modulating it and turning it into something else.

What produces that very prog-rock sounding synth in the song? It mirrors the little demon girl's hands in the song's video.

That's a few different synths; one is a [NI] [Sequential Circuits] Prophet 5 emulator, the Pro-53. It has some cool, vintage-sounding hard-sync oscillators, and then I mixed it with FM8 and Massive, and just layering to give it its own depth and flavor.

Are you improvising and creating with these tools as you're composing, or do you have design elements configured beforehand?

Maybe one or two beforehand, but really, the song changes so many times before completion. "Equinox" had so many different riffs and drops and sounds before it became what it was. Even if I do go in with an idea, chances are, I will end up doing something that I like better.

Are your vocal melodies also generally a work in progress?

Actually, the vocal usually stays the same. I get that the first time. Often I start with the vocal melody.

Your vocal melodies are so strong. Why do you go for that syllabic, non-literal lyric approach?

I like vocals; they are fun to resample and they sound cool—the same as how you like a piano in a sampler. Vocals sound really fun and playful and they make me feel nostalgic in some way when they are chopped up like that. Aphex Twin's "Windowlicker" is a perfect example of that. That is one of the first things I heard as a kid that I really loved. Or even, "To Cure Weakling Child" from the *Richard D. James* album. It had all these really sick vocal chops; I thought that was genius.

You often create this drilling sound that is reminiscent of Squarepusher or Aphex Twin. Is that made with iZotope Stutter Edit?

No, I do all my edits 100% manually in audio. It just depends on what I'm doing. All my drums are audio as well, in groups, using Ableton track grouping so I can collapse and fold them so they become like my own little MIDI template in the sense that they are grouped together. It's fun to take bits of pieces on the grid and move them around on the timeline and just pitch them right there with the pitch envelope, the vocals, or drums.

The section in "Equinox" where all the fast cutting happens between the synth, vocal, and that stalker bass riff; can you describe that process?

That took a lot of time in editing. I did that song relatively quick, three or four days including mixing and mastering. But it's still work—I am in it. It's hard to pull me off. I work pretty steadily. And all that editing took a long time.

Where did you find the "Call 911 now!" sample?

That is a sample from YouTube. It was random. These kids were skating at this spot that

Bruno Postigo

World Radio History

Arturia
MUSICAL INSTRUMENTS

Beat the future

SPARK
Creative **Drum** Machine

Spark is a highly creative drum machine, combining the hands on control of hardware with the power of software.

By merging TAE® synthesis with physical modelling and samples, Spark sets a new standard in drum design while keeping it extremely easy and inspiring to use.

Built for live, Spark includes unique features such as the XY Pad with real-time filtering and slicing, the advanced looper, and complex effects taking your beat performance to a whole new level.

New Update 1.4

- 50 New Kits
- 5 New FX's
- 768 New Instruments
- FX Pad Latch Mode
- Advanced MIDI Control
- New Shortcuts
- And More...

www.arturia.com

World Radio History

was illegal to skate at, and this lady just comes out of nowhere. She screams "Call 911 now! I'm calling the police!" If you hear the original sample, you'll hear that I had to time-stretch it to fit into the rhythm. It's originally a lot longer. The vocal sample was originally more drawn out. It has a different vibe. Time-stretching makes it sound so urgent and crazy.

As production tools have evolved, how has your approach to making music changed?
Every day, you can get a new plug-in. But that question can be applied more probably to someone who started on ADAT. Now computers dominate. But I have always been in the box. I used to use 4-track recorders when I was young. You'd actually have one input, an XLR in to tape. So now I get new plugs and I always like to try them out. Even if it's a new synth, it can get you to the same place, but having a different layout will inspire you to do different things than you would normally.

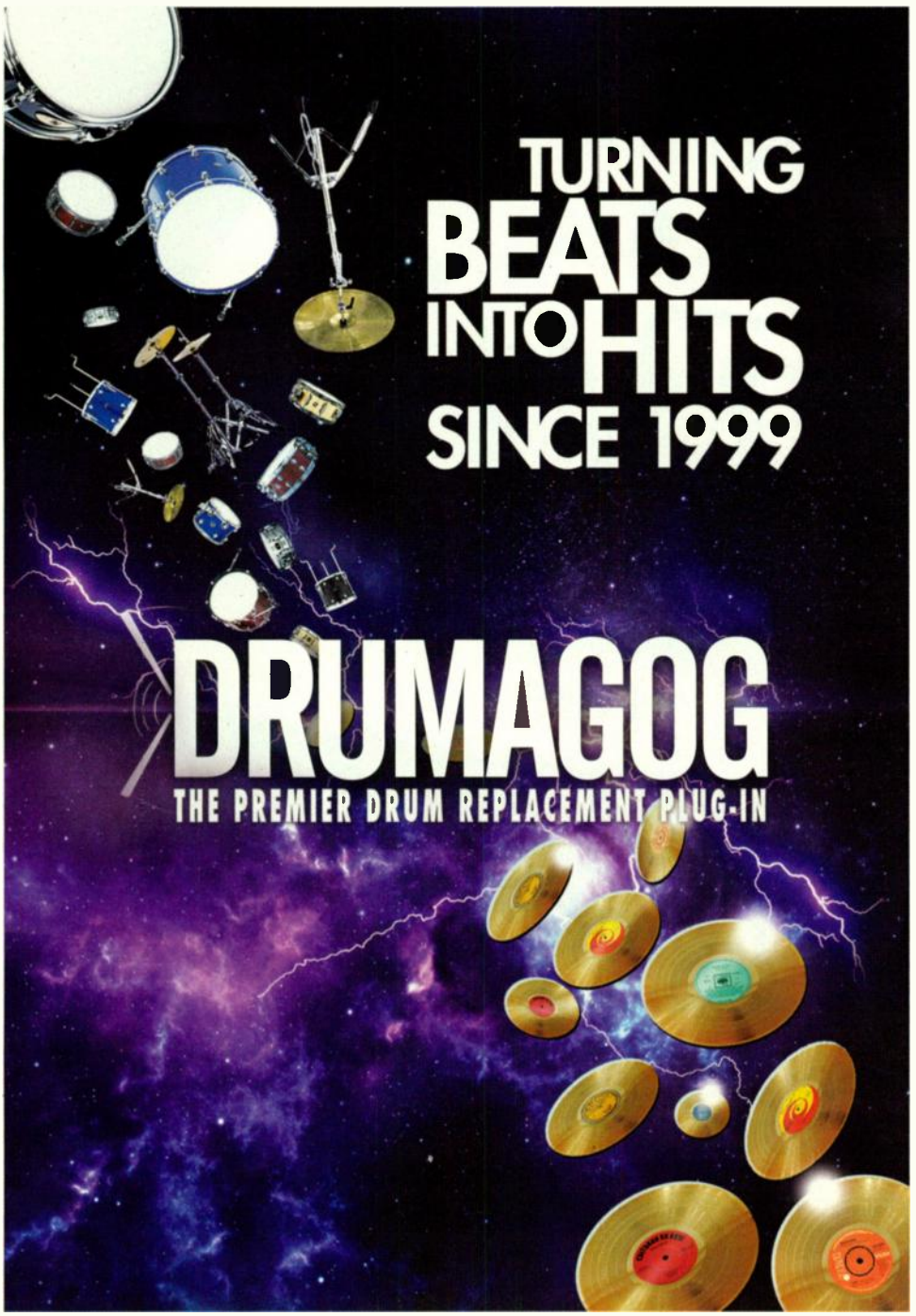
So the art and the tools all become the same thing, eventually.
It's like comparing wavetable to FM synthesis. It's all gets you to the same place. You can virtually create the same thing. But it just takes you on a different route. You sometimes come up with a result that you normally wouldn't have with a process you were more comfortable with.

Your tracks cover so much ground; they're dynamic both in the material and in the production. Even down to the fine details, such as the string machine pad at the end of "Equinox."
Kontakt, baby! I am like a Native Instruments commercial. Their samples are great. Those strings are one-shot audio samples. Just little bits in an extended line you can bring in as sample players or in audio and crossfade and do different things to extend them longer if you want to build pads.

What recent plug-ins are you fond of?
There is so much that I need to get. I'm using what I am used to, 'cause I have to do shit quick on deadline. Over Christmas, I am buying so many new plug-ins and learning. Everyone tells me [Sinevibes] Strobe is really badass. Rob Papen Albino Red is another I like; it's an old drum-and-bass synth that everybody likes to use. He's got some cool presets in there.

Why are you fond of *Watership Down*?
It was my favorite story growing up. I like the idea of having an elite band of rabbits called the OWSLA, they are the army. Then this skiddish young rabbit has this vision of the whole world being restored. He is the one who has to take on everyone. It's a really beautiful story. That is the way I feel sometimes in this whole crazy race in this world, running around following our dreams and creating this crew of, not soldiers in a militant sense, but they're my friends at the label, they love music. It's like a family; we're all here to draw on each other's vibe and cover each other's back at all times.

Why did you start your own label, and what does an artist need now from a record label?
In the old days, you needed a record budget, you needed a producer. Studios were expensive. You needed money for that. But now you don't need studios, you don't need to spend money on another producer. All an artist needs these days is a platform



World Radio History

TOTAL VOCAL CONTROL

VOICELIVE RACK

MIC-CHANNEL & VOCAL EFFECTS PROCESSOR

- Full mic channel with digitally controlled gain, phantom power and pre effects
- Complete vocal effects path; if you dream it, VoiceLive Rack does it
- Direct access editing and performer control via Mic Control and footswitch input
- Includes MP-75 Modern Performance Vocal Microphone with Mic Control

tc-helicon.com/voicelive-rack

TC·HELICON
YOUR VOICE IS OUR PASSION

World Radio History

and a voice. As a label fan, you fall in love with a label because you have trust in them. Their catalog has continuity, also spontaneity; you can't wait for what's next. We've done that really well with OWSLA. We have an awesome following and [the fans] are waiting for every release. They trust what we're doing. With electronic music, you don't need to spend money on things like production, producers, or videos. It's all about the timing, being at the right place so people can get the music.

Your five Grammy nominations are a real game changer. A DJ has never been nominated in the new artist category before. Is this about mass acceptance of the DJ as an artist and producer?

That's a good question. I don't really care about winning or anything like that. I do know we deserve a nomination for just how hard we worked this year alone on just making great shows. We did 322 shows this year. I hope they consider the fact that we're artists, there's an art in making records and traditional DJing, absolutely, but it's merging. Like with Aphex Twin: When he puts a show on, his live show is amazing, the lasers and his visuals, and just the emotion he puts into it; it's a real performance. That's become more valid. Aphex and Daft Punk have really raised the bar and helped establish putting on a live experience with electronic music.

Many contemporary hit singles sound like '90s rave music with a more conventional vocal. Dance music has infiltrated modern production on myriad levels.

For sure. Any trait that you see in a popular art form always has its roots in a strong underground movement. Everything I have created and everything people in this scene have created, it's completely organic. When I was making music in my bedroom, there wasn't a dubstep wave to ride. It wasn't cool when I started doing it. We could play dubstep on the smoking patio at [L.A. club] Cinespace, at low volume. It wasn't cool. People accuse me of jumping on the dubstep wave. No, I didn't do this overnight. I didn't learn my production and synthesis overnight. It takes time—a lot of trial and error. The coolest part about the Grammy nominations is that it proves something real is happening culturally. And even though the mainstream is trying to latch onto it, they don't even know what to really latch onto yet.

What's next for you and OWSLA?

I have a new EP, *Bangarang*. I'm always producing music; I want to do stuff that's fun and new and challenging. That's how the whole OWSLA team is—we think of ideas and we get them done. Next year, we're doing five-night runs in L.A. and New York, going from the smallest underground venue to the biggest venue I can play. For 2012, look out for more releases, more collaborations, more OWSLA releases, and completely next-level on the touring side. That's our focus. ■

Ken Micallef covers various genres of music for domestic and global publications. He lives in Greenwich Village with his cat Monty and his Shindo hi-fi.

World Radio History

EVENTIDE
NATIVE PLUG-INS

Introducing Native plug-ins from Eventide

Omnipressor™
Dynamics processor with an attitude!

H3000 Factory™
Ultra-Harmonizer®

2016 Stereo Room
Classic stereo reverb

Eventide

One Alsan Way Little Ferry, NJ 07643 eventide.com audio@eventide.com

Eventide and Harmonizer are registered trademarks; Omnipressor and H3000 Factory are trademarks of Eventide Inc. ©2012 Eventide Inc.

World Radio History

The *Electronic Musician* Guide to Doing Everything Better

Whether you're in the studio or on the road, try these 30 easy tips and simple shortcuts to streamline your work, save your gear, and focus on making better music

BY CRAIG ANDERTON

World Radio History

Don't let your cellphone ruin the take. It's not enough to turn off your ringer—if possible, remove the battery so EMI caused by background updating doesn't get picked up by high-gain circuits.

Boost your lead guitar's ego. Add a slight 900Hz–1.2kHz boost before distortion to articulate leads better; this also adds sustain by making notes in that range distort more readily.

Convert your open-back guitar amp to closed-back in five seconds. To record a closed-back amp sound with an open-back amp, lay the back of the amp on a rug, and point a mic down toward the speaker. (Be careful about ventilation!)

Manage "harmonies" onstage. Using one of those whiz-bang harmony synthesizers on your live vocals? Monitor the dry signal, because monitoring the harmonies is going to mess with your mind. And your pitch.

Loosen the chokehold on master compression. For a lift in dynamics without the "sound" of compression, set low ratios (below 1.5:1) on two compressors, and run them in series.

Give amp sims some sugar. Add a steep, narrow notch post-sim; sweep *slowly* in the 5–10kHz range and notch out any "fizzy" frequencies. Then, precede with a de-esser to compress the highs before going in. If you still need more sweetness, cut a bit at 2kHz before going into the sim.

QC your CD. Listen to your reference CD all the way through *in mono* to make sure no strange phase things will come back to haunt you. Check the CD-Text entries for typos. Push Play, then push the Next Song button repeatedly to make sure there's a track marker for each song.

Put a nervous singer at ease. If you're doing loop recording, leave plenty of space before and after the punch points so the vocalist doesn't feel pressured. Oh, and turn the lights down.

Work your computer like Lisbeth Salander. Set up a dual monitor. Master keyboard shortcuts! When you have a lot of tracks in a project, use track icons—the mind parses images faster than text. The same is true for color; use a consistent color protocol for tracks.

Make over your computer USB for $25. If hard drive noise and other artifacts are

World Radio History

invading your audio, install a USB port card (*not* a combo FireWire/USB card) and use that for your audio interface(s) instead of motherboard ports.

Take the "machine" out of drum machines. Create virtual room ambience by adding four delays in parallel as send effects, with prime-number delay times. (Try 11, 13, 19, 23ms.) Mix these in at low levels to support the drums. Overdub real cymbals instead of using the drum machine's sampled ones. Final touch? Adding even 52% swing can liven up the sound.

Control your gear from afar. Buy a wireless QWERTY keyboard and use your program's key commands for control—this is great for recording vocals from a vocal booth. For more range, add a USB extender cable to the wireless receiver that connects to your computer.

Save your BIOS butt. When you get a new PC, go into the BIOS during startup and write down all the parameter values. You'll be glad you did if you ever need to reset, or the battery dies.

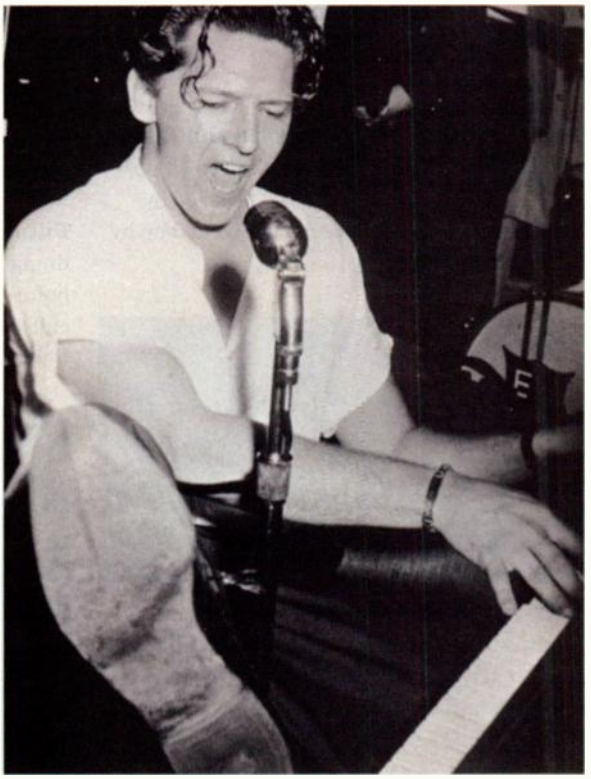
Don't blow a fuse on stage. And I mean *actual* fuses. Some gear has a fuse *inside* the case—carry a spare for those too, not just the gear with external fuse posts.

Tighten your mix with one tweak. Use a highpass/lowcut filter on all tracks to cut lows below an instrument's range, to get rid of "flab."

Remember the mono test. Start your mix with all instruments panned to center (mono). This will highlight tracks that "step on" each other, as well as phase issues. Get levels and EQ sorted out, then exercise the panpots.

Make one VSTplugins folder to rule them all. Create one VSTplugins folder, install all VSTs there, and set it as the sole VST search path for all programs that use VSTs. When you install a new VST plug-in, install it to that folder—don't let installers scatter VSTs all over your root drive.

Be better about backup. Establish a regular backup schedule. I nag my Twitter followers the first week of the month.



Get an instant Sun Studio slapback. Set delay time to 150–160ms. Great balls of fire!

Try some E-Z multiband processing. Multiband compressors make great crossovers for multiband processing. Duplicate a track to create as many copied tracks as multiband compressor bands, set each band's compressor for no compression (ratio 1:1), solo a different band for each track, then process each track/band individually.

Kill computer noise with a faux vocal booth. Option 1: Grab a wireless mic like the Line 6 XD-V70, leave the noisy room, and close the door. Option 2: Bring an SD card-based field recorder (no moving parts!) with XLR ins and +48V phantom power, and a premix of the song on one track. Go someplace quiet, sing to another track, then transfer when done.

World Radio History

Bump up the bass track. Compress it, big-time. Seriously. Granted, too much compression is worse than too little, but bass is different, because playback systems have such nasty bass response. The more even the notes on your bass, the better the odds they'll make it through to the consumer's ear—even through (gack!) cheap earbuds.

Extend an Li-Ion battery's useful life. Storing rechargeable Li-Ion batteries either fully charged or discharged shortens battery life. A 40-50% charge is good. And when you use gear with rechargeable batteries for the first time, charge them *fully* before using the gear.

Remove master bus effects when mixing for mastering. If material is going to be mastered, don't put any effects on the master bus—no dynamics, EQ, imaging, *nothing*. That's the mastering engineer's job, who has better plug-ins and analog processors than you do anyway.

Get better Windows 7 performance with your DAW. In Win7 (not XP), give priority to "Programs" instead of "Background Services." Go to Start > Control Panel > System > Advanced System Settings > Advanced tab > Settings button > Advanced tab.

Practice safe copy protection. If you use System Restore (Windows) or Time Machine (Mac) to return to a point prior to where a copy-protected program was authorized, you may lose the authorization.

Nuke latency, seven ways. 1) Wear headphones to avoid the delay from speaker to ears. 2) Freeze instrument tracks for less CPU loading. 3) Do a full bypass on processors (*e.g.*, disconnect from CPU) until mixdown. 4) Download the latest audio interface drivers. 5) On laptops, disable internal wireless functionality when doing audio. 6) Use zero-latency monitoring judiciously. 7) Upgrade your CPU.

Document your sessions—painlessly. 1) Dedicate an audio track to narrating all the details about the session. 2) Take pictures of settings of your outboard gear, string the pix together in iMovie or Windows Movie Maker (a free component of Windows Live Essentials), render the video, and store it in your DAW's video track. 3) Save all your MIDI device data as Sys Ex within your project. 4) Some DAWs let you write really long track names—instant documentation! 5) Aim for having *everything* you need contained in one project; if there's a notepad function, write the lyrics in there.

Improve MIDI guitar tracking. 1) Enable legato mode and mono mode on each synth channel. 2) Add a short attack time (10–20ms) to the amplitude envelope. 3) Mute strings slightly. 4) With magnetic pickups, make sure they're not getting interference from transformers, fluorescent lights, or other "dirty" EMI generators.

Help your ribbon mic live long and prosper. Although newer ribbon mics aren't quite as picky as older models, it's good practice to store them vertically so that the element is straight up and down. ■

World Radio History

World Radio History

Bassist Evan Gordon plays for keyboardist Geordie Gordon and singer Nick Thorburn.

Islands

Bright vocals and synth layers meet live, full-band tracks on *A Sleep & A Forgetting*

BY BARBARA SCHULTZ

ISLANDS FRONTMAN Nick Thorburn is open about the inspiration for the soulful songs he wrote for the group's latest Anti release, *A Sleep & A Forgetting*: "Well, heartbreak," he says.

After leaving a relationship and his home in Brooklyn, Thorburn found himself alone in a borrowed house on the left coast, with a piano for company. "Generally, my writing process starts with a guitar," he says, "So, it was a different mode of working, and it forced ideas to come through a different conduit.

"The overall concept was about leaving New York," he continues. "I made some very loose demos, just recording the essence of the songs. In Brooklyn, I had been working differently—making more fleshed-out demos, but this reduced everything to its essence, and that also dictated the direction of the record: simple arrangements and minimal production."

Thorburn worked through that heartache by writing a very personal collection of songs, which he says he "cobbled together," as he will do, from "fragments, ideas,

World Radio History

Islands (left to right)—Evan Gordon, Nick Thorburn, and Geordie Gordon (not pictured: Luc Laurent).

"[The demos] dictated the direction of the record: simple arrangements and minimal production."
—Nick Thorburn

More Online
Read interview extras.
emusician.com/march2012

and phrases—sometimes even just titles and words that I like." By the time the songwriting was complete, he had a pretty well-formed idea that this album would be Islands' take on an old-school soul record—with a more live sound and direct approach than previous Islands records.

It still sounds like Islands, of course, with their layers of synths and Thorburn's bright vocals, but those elements are more judiciously applied to a foundation of live, full-band tracks that were recorded in a fast two weeks in L.A. last February.

After a week of pre-production, the band-members—vocalist/guitarist/co-producer Thorburn, bassist/co-producer Evan Gordon, drummer Luc Laurent, and keyboardist/guitarist Geordie Gordon—went into Studio A of Kingsize Soundlabs in the Glasser Park neighborhood of Los Angeles to start recording. Thorburn says that, as is their way, the band went into the sessions well-prepared.

"I like to have an idea of the record conceptually even before we start tracking," he says. "I often have an idea of the sequence. I think I get so excited about the whole process that I kind of obsess over the end result even at the beginning."

They kicked off basic tracking with studio owner Dave Trumfio, but when he was pulled away by other projects within his six-studio complex, staff engineer Celso Estrada stepped up.

"We started out to do some basic tracking," says Estrada, who's worked his way from assistant to engineer at the studio. "We set up the rooms so we could jump ahead to overdubs as soon as we finished the basic tracks, thinking we would replace a lot of the parts, but a lot of the basic tracks that we

World Radio History

Ivory II

"Superb. Stellar. Excellent. Outstanding. Best in class. Pick a superlative, and it won't adequately convey how real Ivory II sounds, nor how immersed in the music you'll feel when playing it... Ivory II is the platinum standard."
—KEYBOARD MAGAZINE

Ivory II Grand Pianos | Ivory II Italian Grand | Ivory II Upright Pianos

SYNTHOGY

www.ivory2.com

ILIO

Contact your favorite dealer!

800.747.4546 www.ilio.com

World Radio History

recorded with the band together in the room ended up being kept."

Estrada says that one of the reasons many of those basics were keepers is the effort he and the musicians put into dialing in instrument sounds on the front end. "We experimented with different miking techniques. For guitars, for instance, we didn't just set up one close mic and one room mic; we'd set up different ones to see which sound we liked, which one gave us the tone we wanted.

Among the mics Estrada says they used were a Royer 121, a Neumann U49, and a Shure SM57. "Depending on what type of song it was," Estrada explains, "we would switch those out. If it was more of a rock guitar, then the 57 would give us a little more edge."

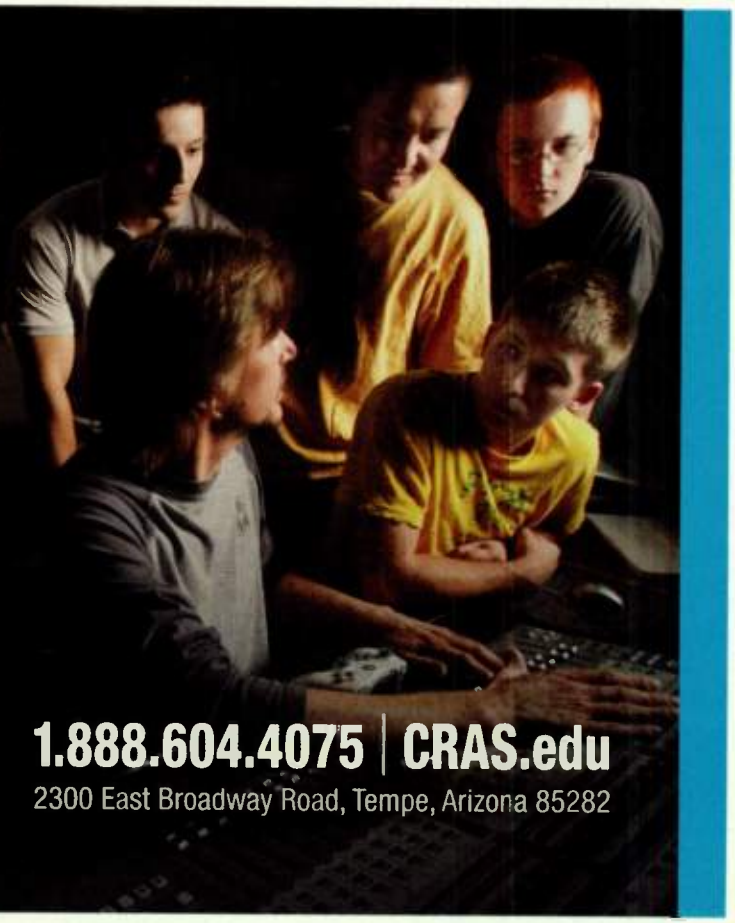
From there, Estrada says the guitar-recording chain went to the Studio's 32-channel Neve 8086 board—he used the inboard EQ—and then usually to a UREI 1176. "If it did need a little more EQ'ing besides the Neve, we had some API 500s—maybe a 550B or 560 for a little extra EQ if we needed it."

The various guitar sounds on the album—from tight Stax-style licks to more dreamy washes, must come from Thorburn's technique as well as from switching out gear, as Thorburn says he stuck almost exclusively to one guitar on this session: "I have a lot of gear in storage in Brooklyn, but I only really had one guitar with me in California, and that's a National Airline guitar that's re-issued by a boutique guitar company in Canada called Eastwood," Thorburn says. "I wasn't planning on playing it at all. I planned to use guitars they have in the studio, because they had some nice ones. But every time we went

Experience CRAS

and be surrounded by passionate, driven people like yourself.

CRAS students come from coast to coast and all over the world to learn from our experienced audio recording faculty, who've produced and engineered platinum, gold and Grammy winning albums, TV and movie soundtracks, video game soundscapes and more. Learn from the pros and BE CRAS, secure in your knowledge and ready to succeed in the field you love. CRAS IS UP-CLOSE AND PERSONAL, CLASSES ARE LIMITED TO 12 STUDENTS AND FILL UP QUICKLY, SO RESERVE YOUR PLACE NOW.



CRAS® CONSERVATORY OF RECORDING ARTS & SCIENCES

1.888.604.4075 | CRAS.edu

2300 East Broadway Road, Tempe, Arizona 85282

Consumer information available at: www.audiorecordingschool.com/consumer.html

World Radio History

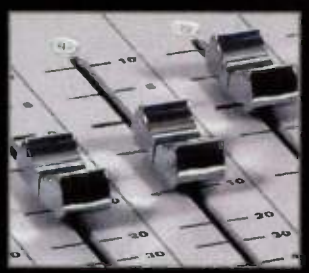
Small footprint. Big studio sound.

The Focusrite Control 2802 with Dual Layer Control – combining a superb analog console with powerful digital workstation control and fader automation, for the very best of both worlds.

Eight Class A mic pres and ultra-wide-bandwidth signal path for superb performance. A fully-featured master section. Latency-free monitoring and up to 32 mix inputs. 100mm long-throw motorised faders.

ANALOG **DUAL LAYER TECHNOLOGY**

Ethernet-based DAW control surface. Full transport controls. Instant flip between mix and control modes. Your favourite music software is always at your fingertips – without leaving the console.



DIGITAL **DUAL LAYER TECHNOLOGY**

Sound and control at your fingertips.

Focusrite's Control 2802 is both a small-format analog recording/mixing console and a DAW control surface in one. Eight smooth Class A mic preamps and an ultra-low-distortion extended-bandwidth audio path deliver the very best performance. Eight long-throw motorised faders, 24 mix channels and up to 32 mix bus inputs deliver maximum flexibility for tracking or mixing. There's a stereo bus compressor featuring parallel compression, a fully-featured master section and unrivalled routing capabilities.

At the same time, Control 2802's fully-featured Ethernet-based DAW control surface handles plug-ins, auxes, automation and more. The faders function in both analog and digital layers. Clear DAW feedback lets you manage channels without leaving the console: ten meters read channel input, output or DAW returns.

The best hybrid analog console in its class, Focusrite's Control 2802 brings you both the flexibility of a fully-specified analog studio console, plus a powerful, versatile DAW control surface – in a single desktop package.

INCLUDES: Focusrite's classic EQ and Compression plug-in suites MIDNIGHT & FORTÉ worth over $500.

Focusrite Control 2802. Your sound – under your control.

For more information: (310) 322-5500

www.focusrite.com/control2802

Focusrite®

CONTROL 2802

World Radio History

to track, it always won out as the best sound, which was strange. I think it's just kind of bonded to me.

"It's new, it's a re-issue, it's not a cool guitar," he says, "so I'm reluctant to embrace it and give it a cute nickname or something, You know, it's not like it's a '57 Strat or something beautiful like that. On all accounts, it's kind of dorky, but the tone I get from it—I just know it so well."

Other than Thorburn's trusty National, however, the band did make use of the facility's impressive collection of amps and instruments. Evan Gordon played Trumfio's '60s Ventura bass, which Estrada captured direct and by miking an Ampeg SVT410HLF amp (also part of the studio's arsenal).

Thorburn and Geordie Gordon made use of the studio's Mellotron, piano, and a Farfisa organ on the brutal track "Can't Feel My Face."

"They also have a relationship with this guy [Curt Anderson] who loans out his gear, like this keyboard called a Rocksichord [an electronic harpsichord], which we used on some overdubs to texture some things," says Thorburn. "The studio itself is relatively modest, but the gear they had was awesome, and the people who run it are so lovely. It couldn't have been a better place to make this record."

Estrada says that he also worked closely with the band to develop rough mixes that were as close as possible to the finished product the band desired. "I think probably every musician feels this way," says Thorburn. "When I come out of tracking sessions, it's nice to walk away with something that feels like it has a shape, and you can feel the contour of the songs, and I think that because these songs are more minimal in their style it was relatively easy to achieve that. Things went really smooth, and that's also because Celso is the sweetest and really efficient, and all the gear was working so great."

Another benefit of working in Kingsize Soundlabs was the B room, called Mant, at the complex is operated by engineer Rob Schnapf, who not only was available to mix the album, but also made a lot of his recording gear available to the band. "Rob would come by and say, 'How's it going? You need a tape echo? You need a pedal? There's my room; just go over and get it,'" says Estrada.

After Schnapf's mix, the tracks just had to go a little farther down the hall to Mark Chalecki's Little Red Book mastering studio. Thorburn says he liked keeping everything "local," and he's pleased with what has turned out to be a pretty different-sounding record from previous efforts.

"The last thing I want to do is repeat myself," he says. "That's stagnation, and I might as well stop. I don't think I've made the same record twice yet, and that's very important to me. And I think I took a bad situation and—made lemonade. I used it as inspiration, and discovered new ways of making songs." ■

Barbara Schultz is a freelance editor, and a frequent contributor to Electronic Musician *and* Mix.

World Radio History

LIGHT WEIGHT. HEAVY HITTER. LOWER PRICE!

Grab hold of the very portable Korg M50. At less than 15 lbs*, it's light enough to go wherever your music takes you. The M50 is packed with over 1,000 Korg-quality sounds and tons of performance extras, all at your fingertips in Korg's exclusive TouchView display. And now the M50 is even lighter on your wallet.

KORG.COM/M50

KORG

*M50 61-KEY

World Radio History

The 2012 Grammy Awards

Honoring the creative forces behind the nominees

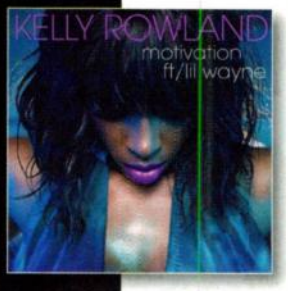
BY GINO ROBAIR

EACH YEAR, the National Academy of Recording Arts and Sciences recognizes the most influential music-makers of the year through its Grammy Awards. With 78 categories available—including recognition for albums, singles, videos, and multimedia works—the nominations are voted on by the members of the Academy and celebrate a range of artists with styles as diverse as Americana and rap, bluegrass and Classical, gospel and electronica.

As the nominees were gearing up for the 54th annual ceremony (taking place on February 12th), we talked to the producers and engineers behind the year's biggest projects to get their perspective on the awards.

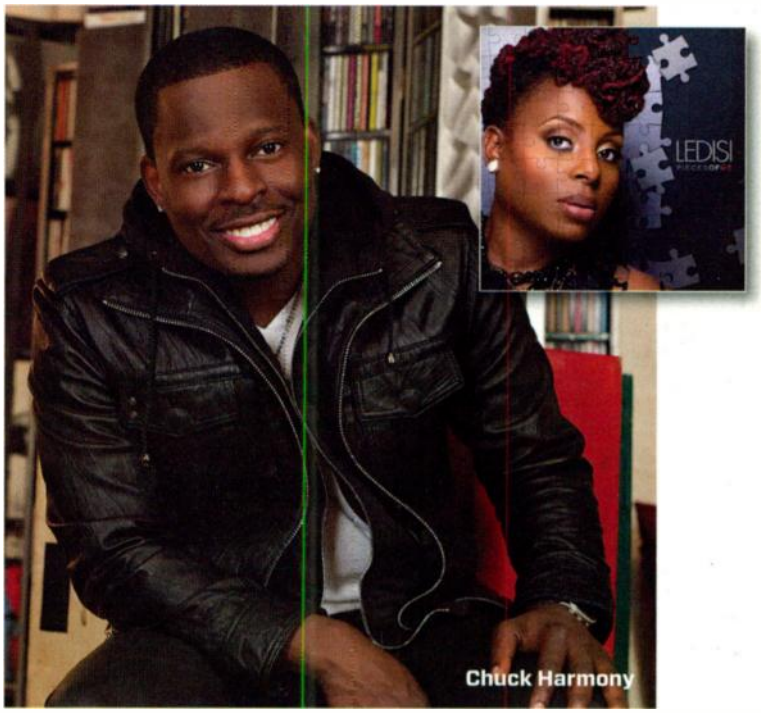
More Online
Check out our Grammy Week coverage.
emusician.com/march2012

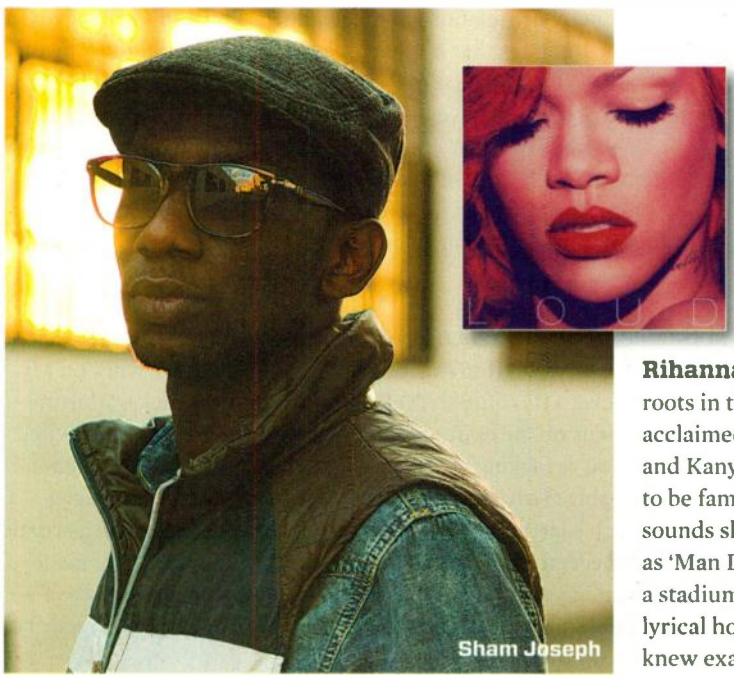
World Radio History



Kelly Rowland & Lil Wayne "Motivation" (Universal Motown) Nominated for Best Rap/Sung Collaboration, Rowland's single from *Here I Am* was co-written by Rico Love, a Grammy veteran with his work with Beyoncé and Usher. "It's always a blessing being acknowledged by the Grammys," says Love. "It's just like a dream come true." As with earlier projects, the stars were in alignment when it came to working with Rowland. "I wrote the song, and she jumped right in the booth immediately and cut it. It was amazing. She's a world of sunshine—always positive; always in a great mood; always ready to sing. So it was easy."

Ledisi *Pieces of Me* (Verve Forecast) Ledisi's thrice-nominated album got its title (and single of the same name) from a last-minute contribution by Grammy-winning songwriter Chuck Harmony, known for his work with Mary J. Blige. "When [Ledisi's] record label commissioned me, she was pretty much done with the record," Harmony explains. "But I wanted to give her something really special. I came up with those chords at home, just sitting at my piano. For it to go from that to being her first single and the title of her album, and then to be Grammy nominated, it's so amazing." While this isn't his first nomination, he says it's his favorite "because it doesn't seem like a fluke. This time I feel like people on the committee really appreciate what I'm doing."

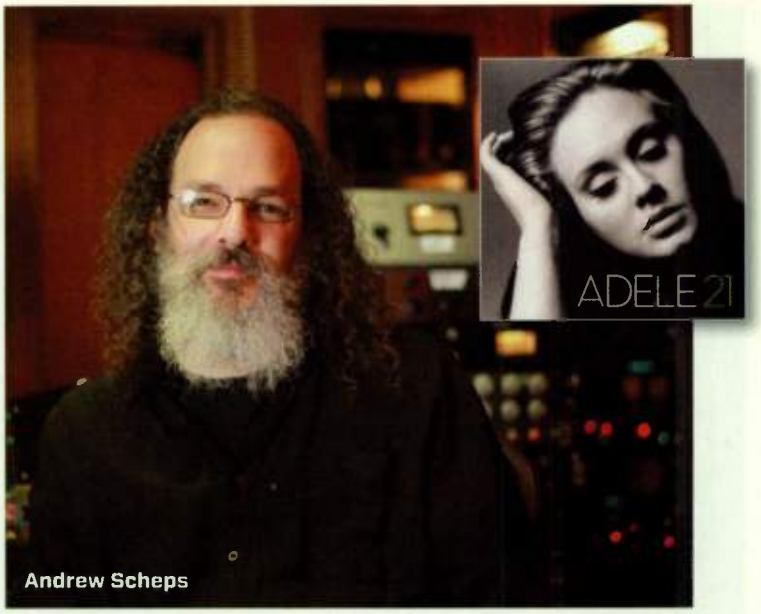




Rihanna *Loud* (Def Jam) The Caribbean-inspired single "Man Down" has its roots in the legendary L.A. writing camp that gave birth to Rihanna's internationally acclaimed album. Songwriter Sham "Sak Pase" Joseph, who also contributed to Jay-Z and Kanye West's Grammy-nominated *Watch the Throne*, wanted the song's vibe to be familiar to Rihanna and to her audience, in terms of where she's from and the sounds she grew up with. "I felt like she had yet to do something that was as cultural as 'Man Down'," notes Joseph. "I thought she'd get the biggest response in terms of a stadium of people if it felt like a reggae song." Once he fleshed out the music, the lyrical hook sealed the deal. "As soon as the writers said the 'rum pa pa pum' part, I knew exactly what that song was going to be."

World Radio History

James Brown, right, with producer Butch Vig.



Andrew Scheps

The Foo Fighters *Wasting Light* (RCA/Roswell Records) Generating a whopping seven nominations (including Album of the Year), the Foo Fighters' seventh studio album was cut to analog tape in Dave Grohl's home studio. The engineer, James Brown, (whose credits include projects with Nine Inch Nails, Arctic Monkeys, and Jane's Addiction) says that the team is humbled that their "little homemade record" has garnered so much recognition. "Dave's home was the most wonderful environment to create in," says Brown. "It was a pleasure to come to work every day. Plus we had the coolest, most creative, funniest, most handsome, and most fantastically bearded group of people to work with in the history of mankind. We all pretty much agree that we're spoiled for life now."

Adele *21* (XL Recordings/Columbia Records) Adele's sophomore release has garnered eight nominations, and among the list of collaborators is Andrew Scheps, nominated for his role as engineer and mixer in the Album of the Year category. "It's a really cool feeling to work on something that enough people like that you get nominated," Scheps says about *21*. "Rick Rubin produced a few of the songs, and I do a lot of mixing for him. So I mixed the tracks and sent them in, expecting a set of notes for recalls and stuff like that. And there were no notes." Scheps was last nominated for his work on the Red Hot Chili Peppers' *Stadium Arcadium* (Warner Bros.), and he mixed *I'm With You* (Warner Bros.), which is nominated this year for Best Rock Album.

Katy Perry *Teenage Dream* (Capitol) With potential Record of the Year and Best Pop Solo Performance awards in the queue, the album's single "Firework" adds two more Grammy nominations to mix engineer Phil Tan's extensive list. But Tan notes that hits at this level are the result of teamwork. "My role as the mixer is one small part of the process. Writers and producers have to do their job. Artists have to perform. The label, the marketing people, the promo people, the sales force—it's a big group of people who all have to do their jobs for it to work. And hopefully everyone does their job well. Mine is just one part of it."

Tucker Martine

The Decemberists *The King Is Dead* (Capitol) Although excited about the nominations for *The King Is Dead* as well as his work on My Morning Jacket's *Circuital* (ATO Records), producer Tucker Martine prefers to focus on the craft of recording. "It's a nice club to be invited into when you're looking the other way," he says about the nominations. "Probably the best part about it all is seeing friends get recognized on such a large scale by their peers for doing high-quality, artistic work. The Decemberists and My Morning Jacket albums were made in a barn and in a church, respectively—really cool places to make a record. I think the personality (or lack thereof) of a place you record finds its way onto the album." ■

Brown—Don Letz, Sheps—Brian Petersen, Tan—Cara Pastore F22Studio

World Radio History

Reminder.

This is the m101 microphone preamplifier from Grace Design. Maybe you own one, or perhaps you have heard or read about it. We originally introduced it way back in 2000. Since then we have sold thousands upon thousands of them. Not simply because they are affordable, but because they are one of the best values in pro audio. While its big siblings are in service in many of the most illustrious recording facilities in the world, the m101 dutifully serves to make any recording sound better, regardless of budget.

For relatively little money, the m101 gives you one channel of gloriously detailed, open, musical mic amplification. With it, a thoughtfully placed microphone, and an honest musical idea, **YOU** can make a beautiful recording.

GRACE
DESIGN

www.gracedesign.com

World Radio History

Roundup

A New Mixer Paradigm

Four innovative solutions for a DAW-centric world

BY CRAIG ANDERTON

MIXING USED to mean one thing: A large piece of analog hardware with inputs, outputs, buses, and lots of controls. The number of each of these varied, and of course there were variations on a theme, but mixers were mixers were mixers. Were mixers.

No more. This roundup started as a collection of reviews, until I realized that these four devices took very different approaches to mixing and integration with digital audio workstations—and reviewing them would be not just comparing apples and oranges, but comparing apples, ice cream, and salmon. Yes, they're that different. Even the two units that have the most in common—the PreSonus StudioLive 16.0.2 and Phonic Digital Console—offer different solutions to the same problem.

These are deep devices, and any one of them could justify taking up the entire roundup. So rather than try to describe every aspect in detail—that's why companies have websites, and besides, you're not going to commit some serious bucks to a mixer just based on a magazine article—the point here will be to analyze these different approaches, what they mean to you in terms of recording and workflow, and zoom back a bit to take a look at the bigger picture because we'll be seeing more variations like this in the years ahead.

World Radio History

LUST

Focusrite Control 2802

Live outside the box, but commute into the box

$4,999.99 MSRP

On the surface, the 2802 appears to be a traditional analog mixer: If you want to plug in a bunch of mics into Class A discrete preamps and record a drumset, perform analog summing for your DAW, or bring in multiple analog inputs, no problem.

However go a little deeper, and you'll find it's designed to integrate the best of the analog world with DAWs—so much so that there's no digital audio I/O (FireWire, AES/EBU, whatever), as the 2802 prefers to use DB-25 connectors for its eight direct analog outs, eight DAW ins, and eight summing ins. (To interface these with your DAW, you'll need either DB-25 cables for interfaces like Avid's HD series, or breakout cables for interfaces with 1/4" TRS ins and outs.)

The crucial 2802 design decision is its focus on users who basically want to get the hell out of the box as soon as possible, and linger for as long as possible in the analog world before going into the box. The 2802 assumes that outstanding mic pres and outboard gear matter. It also has a sweet-sounding, VCA-based bus compressor, but it's patchable and accessible for other routings. For example, it could compress a drum bus mix using other available 2802 I/O.

The mixer's jack field is typically analog. Each of the eight inputs has an XLR mic jack and 1/4" TRS line in, as well as insert jacks, 75Hz highpass filter, and polarity flip. Additional XLR inputs cover an external stereo in, DAW mix, and DAW foldback. It has two sets of speaker outs, as well as mix, cue, and aux outs (again, all on XLRs). TRS connections include two sets of stereo returns, compressor in and out, and stereo mix bus inserts. Bottom line: You can stuff up to 32 stems from your DAW into the 2802 for analog summing, as well as set up creative I/O routings.

The top panel has typical mixer controls—gain, phantom, 100mm motorized faders, pan, cue, aux send, etc. One of the coolest features is its four options for direct out routing: In addition to pre-fader and post-fader, other options are pre-insert/pre-fader, and post-preamp/filter/polarity flip, but pre-anything else. (If you use the line in, this also bypasses the mic pre.) This is about preamps, routing, and mixing; there's no onboard EQ, as it's assumed you'll be doing that in your DAW or by patching in hardware. The master section is conventional and functional.

Digital Control The 2802 has a dual identity as a DAW control surface that connects to a Mac or Windows machine (or larger network) via Ethernet, allowing you to control software levels, pan, and aux sends for every DAW channel in your project. It's based on the HUI protocol, and is compatible with Cubase/Nuendo, Pro Tools, and Logic. (Currently, the company doesn't plan to support other programs, instead concentrating on updating for these core programs as appropriate.) The reason why the 2802 and its motorized faders are equally at home in the analog and digital worlds is that no audio passes through the faders, as they generate control signals for VCAs. Navigating with the control surface is pretty transparent, and the OLED displays identify the current rotary encoder functionality.

Final Mix There's an Internet rumor that when Focusrite took over the 2802 from Audient, they shifted manufacturing to China. The 2802's final assembly (built like a tank, too) and testing is done in the UK as it always was, and possesses a solid, robust feel. Absolutely nothing feels like corners were cut.

Overall, the 2802 is an ingenious melding of analog routing, accommodation of outboard gear, analog signal path automation, and sound quality with digital recording and control. The compact format doesn't take over your studio, but doesn't feel cramped, either. The sound has that indefinable "width" associated with analog, coupled with excellent mic pres and superior routing options. While the 2802 will be overkill for some small studios, when you consider everything it does, it's a cost-effective solution for those who remain skeptical of the all-digital studio—yet need the recording and editing elements of today's DAWs.

It's said that the shortest distance between two points is a straight line. If those two points are analog sound and digital control, the 2802 is a straight line.

World Radio History

Phonic Digital Console

Live mixing with a next-generation interface

$2,749.99 MSRP

Phonic has flown under some people's radar, but the company has been quietly honing its chops at creating high-quality, cost-effective pro-audio gear. The Phonic Digital Console (PDC for short), also called the Summit, is intended primarily for live performance, but it's also a studio mixer and (with an optional card) FireWire and USB computer interface. It has motorized 100mm faders, but not for mix automation—they allow switching among fader layers (channels, aux groups, outs, etc.) and making edits, then having the faders snap back to where you left them.

The basics are standard: 16 input channels with mic/line ins, TRS insert jacks for each channel, and phantom power switchable as four groups, with four inputs per group. You'll also find select, solo, and on buttons for each channel.

So where are the EQs, sends, and effects controls? This is all about the touchscreen interface, and I must admit to approaching the concept with skepticism. For live performance, the idea of going through menus and scrolling did not appeal. And at first, I felt that assessment was justified—there were too many screens, and too many options. But . . .

The Touchscreen With other mixers, the display is a readout showing what's happening within the mixer, and that's fine. But the heart of the PDC is the touchscreen. The key to the user interface is that there are many ways to access the same functions, and once you understand the logical layout as virtualized in the touchscreen, you can really fly around the mixer. To summarize, I originally saw the touchscreen as supplementing the mechanical elements like the faders, switches, controls, etc. Now, I understand that the mechanical elements supplement the touchscreen.

For example, you can adjust delay parameters when you're viewing an individual channel. However, another screen lets you see, for example, the delay parameters for channels 1–8 simultaneously. So if you're working in one channel and you want to make a tweak, it's easy. However, for setting up delays on multiple channels, it would be more time-consuming to flip through the different input channels compared to just going to the delay page and doing everything there. Although sometimes the touchscreen is slower to respond than I'd like, this isn't something that interferes with the functionality. I'm just a fan of snappy response.

Basically, we're not necessarily dealing with a linear workflow but something more like "parallel processing"—the way you'd work with the PDC depends very much on how you like to work, what you need to do, and the context (*e.g.*, live performance vs. recording).

Effects All channels and buses have comprehensive "bread and butter" effects—EQ, dynamics, gating, delay, limiting, etc.—with useful graphs for visual representations. These processors are equal to or better than what you'd find in any similar-class mixer. Unlike some mixers that include delay only to tune out timing differences between channels, here, you can tune out delays in 0.1ms increments but use the balance and feedback controls to create delay effects.

Phonic touts the PDC's two effects processors, but they are actually multi-effects processors that can serve as inserts in channels or buses. One has 11 effects that feature reverb but also have modulation effects, while the second has eight effects that feature echo but also include other modulation effects. I'm very picky about effects, particularly reverb, and I don't expect much from "built-in" effects. But these are excellent. Even the reverb is outstanding; I would not hesitate to use it if the PDC was a standalone processor. Couple the effects with the ability to store presets and scenes, and again, this mixer scores some major points for live performance.

Final Mix The PDC turns the digital mixing paradigm on its head so the virtualized part—the touchscreen—does the hard work, and the physical controls are more about touch-up and edits. In that respect, there's something quite futuristic about this mixer; taken to its logical extreme, you have something like the SmithsonMartin Emulator interface for DJs, which is all touchscreen. Meanwhile, Phonic has hit a sweet spot with the integration of digital operation with physical control.

World Radio History

PreSonus StudioLive 16.0.2

Talking 'bout my . . . i-i-i-i-integration

$1,499.95 MSRP

PreSonus' philosophy here goes beyond using a mixer for both studio and live applications. The StudioLive 16.0.2 is one element of a cleverly-designed system that encompasses both hardware and software.

In fact, the 16.0.2 is really about StudioLive, not "studio" and "live," because of the way it bridges DAWs and live performance. It includes Capture software for streaming audio through the FireWire interface to your computer's DAW (laptop live recording, anyone?) as well as Virtual StudioLive software that treats the 16.0.2 more like a computer peripheral. But if you just want to use the 16.0.2 as a standalone mixer, it's more than happy to oblige.

What's more, PreSonus has stolen liberally from itself. The mixer includes the excellent Class A XMAX preamps originally introduced in the company's audio interfaces, as well as the "Fat Channel"—a landmark feature in their original, larger StudioLive consoles. It also has something the other mixers don't have, and that also emphasizes the system aspect: a MIDI input.

The Mixer StudioLive has eight mono inputs and four stereo ins (12 faders), although they all have mic inputs with individually-switchable phantom power. There's also a talkback mic input with trim (but you can't record it, so it's not another recordable input). Four additional faders control aux bus outs, and there's a master fader. XLR outs include a mono out with trim and stereo outs, also with trim.

The 16.0.2 interface departs from the norm with its "Fat Channel," which covers most of the top panel. This is a complete channel strip, with full hardware/hands-on control, that includes highpass filter, gate, compressor, limiter, and three-band EQ—low and high are semi-parametric (no Q parameter) but also switchable to shelf, while the semi-parametric mid offers a choice of two Q settings. You can assign it to any channel for editing; another nice touch includes extensive use of color-coding for the switches so it's easy to parse at a glance what's going on.

The Fat Channel encoders can also change parameters for a 31-band graphic and sends to two different effects processors that are dedicated to ambience and delay effects.

The feel is substantial—the knobs don't wobble, the buttons have a positive touch, and there's a standard IEC AC cord receptacle instead of a wall wart. The 60mm faders aren't as smooth as I'd like, but they do the job, and despite the unit's extremely compact footprint, nothing feels squeezed.

The Software Virtual StudioLive is your window into the 16.0.2. It makes it easier to do some things, like show all bands of the 31-band EQ instead of showing different sections in the physical Fat Channel display, but it also displays thumbnail EQ curves and gain-reduction metering for the dynamics. An additional setup page, also accessible from the mixer itself, specifies which parameters will be exempt when recalling different Scenes. For example, you could choose to recall EQ and dynamics, but not fader settings should you need to make on-the-fly adjustments.

The Capture software could also be called "recording for dummies." If you know how to plug in a FireWire cable and understand the meaning of "record," you can stream 16 tracks into your computer as well as perform (very) limited editing, like deleting sections. This is not a DAW, by any means; it is really just for capturing audio to disk. If you want something more full-featured, the package includes Studio One Artist, a "downsized" version of Studio One Professional.

Final Mix It's a given that mixers need to interface with DAWs these days, but it's usually as a complementary pair, like with the other mixers/control surfaces in this roundup. StudioLive 16.0.2 does that, but you can also treat this mixer as a computer peripheral, or your computer as a StudioLive peripheral—as the FireWire interfacing is bi-directional, you can even insert plug-ins into your computer's DAW and have them "inserted" in StudioLive. And even the peripheral can have a peripheral: You can control the Virtual StudioLive software with an iPad.

This is one slick mixer with multiple identities, but the most important aspect is that all of them are implemented extremely well.

World Radio History

SSL Nucleus

The equation: Complete studio minus DAW equals Nucleus

$5,149 MSRP

Nucleus is clearly designed for smaller studios that function primarily in the box, as it consolidates multiple elements needed to turn a DAW into a studio: Ethernet-connected control surface with 16 100mm motorized faders, rotary encoders, and user-assignable "soft key" buttons; 4 x 4 (two analog + stereo optical S/PDIF) audio I/O via a USB interface; the Duende Native Essentials VST/AU/RTAS plug-in bundle (SSL Channel EQ & Dynamics, and Stereo Bus Compressor); SSL's "SuperAnalogue" monitoring; 4-port USB hub; two quality analog mic pre channels (with combo jacks and inserts) that even have enough gain (75dB) for ribbon mics; footswitch input; and of course, the SSL cachet.

Shortly before I fnished this review, version 1.5 software appeared, and it was noteworthy not just because of its added compatibility and profiles, but the well-documented and painless installation and updating process. The main updates are Mac Lion support and OS X 64-bit support for the USB I/O (Windows 64-bit was already supported), along with DAW profiles for Ableton Live and Reason. These kinds of updates are always encouraging for those who fret over whether they bought a future doorstop or not.

In a way, Nucleus resembles a baby SSL Matrix. It has an open layout, and takes up more space on your desktop than the other mixers reviewed here. However, this means there's more room for controls—not just the 16 faders, but also two sets of V-pots, multiple buttons, and LCD "scribble strip" displays that are extremely readable, even from a distance. Visual feedback is excellent, and raising the back up a couple inches makes it even better. A "master control" section in the middle includes large transport controls, data wheel, and USB keyboard emulation buttons. (Why doesn't every controller have that, given the importance of keyboard shortcuts?)

One Size Fits . . . Most Nucleus offers variants of both HUI and Mackie Control, and can switch among three DAWs at once. This functionality makes the Live and Reason templates even more useful, as ReWiring them into more traditional DAWs is a common technique. Although I was not able to test Nucleus with Sony Vegas, it too is Mackie Control-compatible and I often use it in conjunction with DAWs when working on audio-for-video. The inclusion of only two audio input preamps (albeit very high-quality ones) underscores the idea that Nucleus is designed for voiceovers, solo artists, and mixing/editing more than, say, tracking a rock band.

In addition to the new profiles, Nucleus supports Pro Tools, Logic, and Cubase/Nuendo. However, it can also control Reaper, and while Sonar isn't officially supported, the Nuendo default (basically Mackie control) imparts general functionality, including control of Sonar's various ProChannel parameters. Although I had some head-scratch moments (I figured out how to get into bus control mode, but not how to get out of it), it seems like Nucleus could be compatible with more DAWs without too much effort.

For non-HUI/MCU applications, Nucleus offers the "trap door" of being a general-purpose MIDI CC data controller. In this respect, it can control pretty much anything with a learn function, including virtual instruments, signal processors, and the like. I had no trouble getting it to work as an ACT controller in Sonar, and with Pro Tools, this kind of control is built in without even having to go into the MIDI CC "layer."

Final Mix Like with any controller, it takes a while to get used to grabbing a control instead of reaching for the mouse; you need to learn a controller like you would an instrument. That said, once you do, it's easy to fly around the control surface.

The price may seem high, but considering the "sum of the parts" gives a different perspective. The control surface is first-class, but so is the audio path—the preamps (the same used in Duality and the AWS consoles) and monitoring are excellent, and of course, you can do zero-latency monitoring if needed. Being able to switch among programs is a big deal for those who need that kind of capability, and while it's a small touch, having two headphone outs is appreciated. Throw in the plug-ins, and the extra details like a USB hub, and it adds up to quite a complete package. ■

More Online
Read and download detailed mixer manuals.
emusician.com/march2012

World Radio History

Products on command, knowledge on cue.

www.BandH.com

A wealth of options at the tip of your finger. Find exactly what you need through advanced search filters and Live Help. With in-depth product demos, podcasts, and customer reviews, you'll know exactly what you're getting. Knowledge is expansive. Get more of it at B&H.

Download from Android Market

Available on the App Store

Subscribe to the B&H catalog
www.BandH.com/catalog

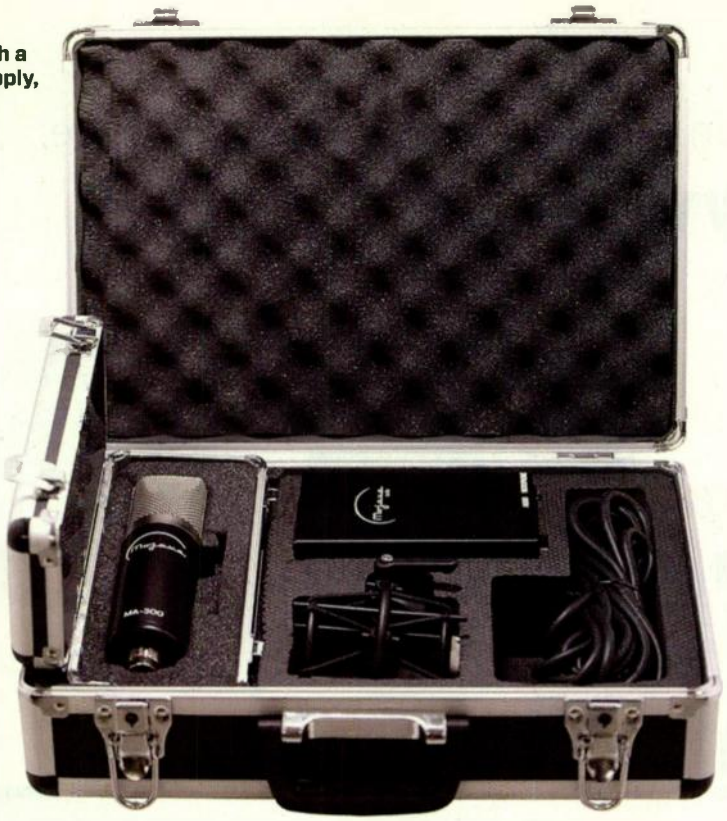
Visit Our SuperStore
420 Ninth Ave, New York, NY 10001

800-947-5509
Speak to a Sales Associate

B&H PHOTO - VIDEO - PRO AUDIO
The Professional's Source™

NYC DCA Electronics Store Lic #0906712. NYC DCA Electronics & Home Appliance Service Dealer Lic #0907906. NYC DCA Secondhand Dealer - General Lic #0907908. © 2011 B & H Foto & Electronics Corp. JN111003

World Radio History



The MA-300 comes with a shockmount, power supply, cable, and "dual" case.

Mojave Audio MA-300

Large-diaphragm, multi-pattern tube condenser mic

BY PHIL O'KEEFE

SUMMARY

STRENGTHS: Outstanding transient response. Warm, "vintage" characteristic. Continuously variable, remotely selectable multi-pattern control. Handles up to 135dB SPL with -15dB pad. Rich, detailed midrange. Performs above its price class.

LIMITATIONS: Aside from no mic being perfect for every situation and sound source, there are no significant limitations.

$1,295 MSRP
mojaveaudio.com

THE MA-300 large-diaphragm tube condenser microphone is the follow-up to Mojave Audio's (mic designer David Royer's condenser brand) MA-200. The 1"-diameter diaphragm is a mere 3 microns thick, which contributes to the MA-300's excellent transient response. (Typical diaphragms are 6-10 microns). Externally, the MA-300 closely resembles the MA-200, with a flat black body and nicely contrasting chromed head grille; the fit and finish exhibit a very high standard of quality that belies the reasonable price.

The MA-300 adds several features missing in the MA-200, including switches for a -6dB@100Hz bass roll-off filter and -15dB pad, and most significantly, a fully-variable multi-pattern control (mounted on the mic's power supply "brick") that can go from omni to cardioid and figure-8 polar patterns, and anywhere in between.

Bundled accessories include the power supply and 16′ seven-pin connecting cable, shock mount, and double "camera style" case—a smaller case to hold the mic itself, and a large case to hold everything.

Exceptional Sound It's hard to write about this mic without sounding like an advertisement. It's smooth, accurate, very versatile, and works well on a wide variety of sources. It's is a quiet mic by tube condenser standards (self-noise level of 14dB), and with the -15dB pad switch engaged, handles up to 135dB SPL—it loves loud guitar amps. Combine it with a ribbon, print each to a separate track, and enjoy the tonal options at your disposal during mixdown.

On hand percussion (e.g., shakers, sleigh bells, and tambourine), the MA-300 captures the note attacks without spiky high frequencies. It's also great on acoustic guitar (especially ones that sound overly bright with other condenser mics), and makes an excellent choice for drum overhead and room-miking duties—particularly because the remotely-variable pattern lets you dial in the room-mic coverage's "width."

While an excellent general-purpose instrument mic, the MA-300 handles male and female vocals with equal authority and class. This isn't a harsh-sounding mic; the midrange character is full and rich, and the top end, while exceptionally detailed in its transient response, is never strident. Sibilance is generally not a problem.

The sonic resemblance to the classic vintage U67 is hard to ignore. According to Mojave, the MA-300 uses a hand-selected K67 style capsule; while known for its high-frequency emphasis, the smooth highs are due more to the high component quality, not an electronic de-emphasis circuit, as used in the U67. You'll find a mil-spec JAN 5840 tube and Jensen output transformer—a company known for their high-quality iron.

Consistently Great If you had handed me this mic with no markings, told me to use it for a few months, and didn't tell me its origins, I would have assumed it was a world-class mic in the $3K price range. Yes, it's really that good. While some may have concerns about a mic manufactured in China, the MA-300 squashes *any* doubts with solid design, quality parts, and stringent, multi-level quality control.

The MA-300 isn't just an MA-200 with more patterns—the ability to remotely widen or tighten the pattern really adds to the flexibility, as do the pad and bass rolloff switches. But it's the sound that knocked me out, especially at this price point. The MA-300 offers a much-needed alternative to the past decade's flood of brightly-voiced condenser mics; it's a true modern-day microphone classic. ■

Phil O'Keefe is a recording engineer/producer, multi-instrumentalist, and associate editor of HarmonyCentral.com. His articles and product reviews have also appeared in Keyboard, Electronic Musician, *and* Guitar Player *magazines.*

World Radio History

SADiE

PrismSound

MASELEC

PMC®
ULTIMATE MONITORING

The Perfect Mix

PMC AML2
Active Studio Monitors

Three band compressor with comprehensive controls for a very wide range of sounds.

Adjustable crossover frequencies and exceptionally accurate summing of the three bands.

MLA-3
Multi-band Compressor

ORPHEUS
Professional FireWire Audio Interface

SADiE 6
Professional DAW Hardware and Software
for Recording, High Speed Editing,
Mixing and Mastering

East Coast #973-983-9577 | West Coast #949-861-3350
www.prismsound.com | www.sadie.com | www.maselec.com | www.pmc-speakers.com

World Radio History

TC-Helicon's VoiceLive Rack package includes the MP-75 mic, which features a useful hands-on control button.

TC-Helicon VoiceLive Rack

Sophisticated vocal-processor strip for stage or studio

BY CRAIG ANDERTON

SUMMARY

STRENGTHS: Excellent-sounding, varied effects. Easy navigation despite deep set of parameters. Includes MP-75 mic with hands-on control over a selected preset parameter. Follows musical input to create harmonies. Good I/O. Solid construction.

LIMITATIONS: Optional triple-footswitch does latching control, but not momentary. 1/8" headphone jack.

$945 MSRP
tc-helicon.com

VOICELIVE RACK (VLR) adds a more studio/live sound overlay to the performance-oriented VoiceLive Touch. VLR is more complex, more capable, and more expensive, but folds in multiple pro options in addition to TC-Helicon "trademark" features like an obvious interface, excellent sound quality, and keying harmonies to guitar, MIDI, or MP3 input.

The package includes the MP-75 mic; yes, I know you have a favorite mic, but don't underestimate the MP-75. It flatters my voice, might do the same for yours, and the hands-on control it offers is limited, but welcome.

Effects The six main effects blocks are µMod (various modulation effects), Delay, Reverb, Hardtune, Double, Harmony with up to four intervals, Transducer (distortion, megaphone, etc.), and Rhythm (chopper, stutter, panner, etc.). Each is loaded with parameters—for example, the reverb has 30 different "styles" (algorithms), with editable reflections, mix from other modules, decay, diffusion, ducking, etc. The VLR also includes a Pitch block and Tone block with compression, EQ, and gating that can adapt automatically to your voice (or be tweaked manually) so even without effects, you can get full, rich vocals.

All editing is front-panel-based, but the LCD is big and readable, with three lines per page and up to four parameters per line that you tweak with four physical knobs below the display. Each effect block has its own tab, and navigation involves the usual up/down/right/left buttons coupled with a data wheel. I had no problem getting around without opening the manual.

I/O Analog ins include XLR with switchable phantom power, line in from a mixer or other mic pre, aux in (either for backing tracks or a harmony reference), and a guitar input for harmony reference that can feed dedicated effects and mix with the voice, or be taken out of the mix and sent to a thru jack. XLR and 1/4" outs are configurable as stereo, mono, or dual mono (*e.g.*, for voice and guitar on separate channels). Digital I/O includes MIDI in/out/thru for control, S/PDIF I/O—don't overlook using VoiceLive Rack with audio other than voice!—and USB for interfacing voice and/or guitar with computers. (Mac fans will need to create an aggregate device if you're using other USB devices.)

Surprisingly, the headphone jack is 1/8". I feel a pro unit like this virtually demands a 1/4" jack, particularly because a singer would likely want to use circumaural headphones, not earbuds. Well, use an adapter.

A jack accommodates TC's three-switch footswitch for preset control, effects bypass, harmony hold, and the like. While these switches offer latching control, but not momentary (*e.g.*, press and hold to bring in a harmony, release to turn it off), mic control does offer momentary control—and it's more convenient than using a footswitch.

Is it for You? TC-Helicon's rep for effects is outstanding, with good reason—it seemed like any preset I called up made my voice sound better. So, the question becomes whether you need VLR's extra functionality. VoiceLive Touch is 5/8 the price, but nonetheless includes a looper and the effects you'd need for most performance situations. However, VoiceLive Rack is definitely a more capable choice for live sound, and is wonderful in the studio as a ready-to-go vocal processing strip. (And it stores ten different profiles for different vocalists.) If you can afford the *ne plus ultra* of live sound/studio vocal processors, this is it. ■

World Radio History

DEEP VOICE

Introducing the complete family of KRK subwoofers. The **KRK12sHO** powered subwoofer is the perfect High Output choice for professional studios, where ultra-accurate bass extension and maximum sound levels are required – it is is the no-compromise way to hear what is happening in the depths of your mix. The **KRK12s** features the powerful, accurate and low distortion sound that is the hallmark of all KRK monitor systems making it perfect for project and professional studio applications that require increased signal pressure. Both of these new 12" subwoofers feature Kevlar woofers and sophisticated bass management controls.

The extremely popular **KRK10s** powered subwoofer has a smaller form factor than the 12" models and features a front-firing bass port and KRK's signature yellow woofer ensure accurate and powerful low-end punch.

THE KRK FAMILY OF SUBWOOFERS

POWERFUL. ACCURATE. DEEP.

www.krksys.com

KRK SYSTEMS

World Radio History

1

2

3

4

1
MXL
Tempo
USB mic
$79.95

HIGHLIGHTS USB-compatible, Mac or Windows • iPad-compatible with optional Camera Connection Kit adapter • lightweight • integrated headphone out allows monitoring without going through a computer • available with black body and red grill (Tempo KR) or silver with black grill (Tempo SK)

TARGET MARKET On-the-go recording, podcasts

ANALYSIS With more and more devices—from laptops to iPads—going mobile, there's a need for mobile mics that don't require preamps or elaborate interfaces. MXL, known for studio and live performance mics, now has an entry in the USB arena.

mxlmics.com

2
Wave Alchemy
Pro II
Virtual analog synth
£39.95, approx. $62

HIGHLIGHTS For Kontakt 4 or higher • 3.9GB core library, 6,500+ multi-sampled sounds • emulates Sequential Circuits Pro One • five main editing pages: Preset, Synthesizer, Sequencer Page, Effects, Controls • 195 presets • alternate, somewhat lower-cost versions available as Ableton Live Pack or Reason Refill

TARGET MARKET Users of Native Instruments Kontakt 4/5 (full version required) who want to add a Pro One emulation to their sonic arsenal

ANALYSIS Although there are many modeled analog synths, Pro II relies on multisamples taken from a vintage Pro One, and mapped to Kontakt's playback and scripting engines.

wavealchemy.co.uk

3
Switchcraft
SC702 Series
Stereo A/V direct boxes
$184.99

HIGHLIGHTS Converts outputs from MP3 players, laptops and DJ mixers to balanced, mic-level signals for feeding audio consoles, mic preamps and house sound systems • two shielded isolation transformers isolate input/output connections to minimize hum and buzz from ground loops and RF interference • 20dB pad • merge switch for mono systems

TARGET MARKET Live performance, DJ, and studio applications

ANALYSIS The need to interface consumer and mobile gear to pro systems is becoming more common, but this brings a variety of problems that need a solution—as provided by the SC702 (or SC702CT, with Jensen transformers; $359.99).

switchcraft.com

4
Hosa
Hosa Pro
Speaker cables
$14.70 to $167.10

HIGHLIGHTS Available in 3-, 5-, 10-, 25-, 50-, and 100-foot lengths • loudspeaker to loudspeaker, loudspeaker to 1/4-inch TS, and 1/4-inch TS to 1/4-inch • REAN Neutrik connectors have silver contacts, TS connectors have tin contacts • 14 AWG oxygen-free copper conductors, black PVC jacket

TARGET MARKET Live performance, studio, worship, other applications requiring pro-level speaker cables

ANALYSIS As the last link in the audio chain, speaker cables are crucial. The Hosa Pro line of cables (also includes guitar and mic cables) is designed to deliver pro performance, but at a price within reach of typical users.

hosatech.com

All prices are MSRP except as noted

World Radio History

5

6

5

KMI

QuNeo

Pad controller

$200 pre-release price

HIGHLIGHTS iPad-sized • 27 pads, sliders and rotary sensors with 3D Multi-Touch recognition for pressure, velocity, and location sensitivity • pads also respond to X (left/right) and Y (up/down) gestures, as well as pinching and swiping • 251 multi-color LEDs provide visual feedback • works with USB, MIDI or OSC

TARGET AUDIENCE DJs, VJs, DIY hackers, and electronic musicians

ANALYSIS KMI's multi-touch controllers, of which QuNeo is the latest, go beyond two-dimensional control to more accurately translate physical gestures into signals that can control electronic music instruments, processors, etc.

keithmcmillen.com

6

SKB

1SKB-R102

Rack/mixer case

$179.99 MAP

HIGHLIGHTS 10U slanted top and 2U front-facing one-piece rack case • steel threaded rails, hard lid and doors, side access ports (for cable routing) • two TSA-locking SKB trigger latches secure the lid, while the flat hard top allows stacking for transport/storage • case is roto-molded of linear medium-density polyethylene • "no-fault" lifetime warranty

TARGET MARKET Live performance, presenters, DJs

ANALYSIS Compact audio, DJ, mixer, and computer systems still need a sturdy case to prevent damage during transport or performance; the 1SKB-R102 can even mount the AV-8 computer shelf for laptops, with the cases's lid closed.

skbcases.com

7

IK Multimedia

StealthPedal CS

Interface/software bundle

$229.99

HIGHLIGHTS Wah-style USB audio interface and controller • AmpliTube Custom Shop software • 100 gear credits for the AmpliTube Custom Shop online store (amps, cabs, effects) • "smart jacks" auto-detect and adjust for different types of instrument inputs • sample rates up to 96kHz

TARGET MARKET Guitarists, bassists, and other musicians needing a portable interfacing and processing solution

ANALYSIS The StealthPedal itself isn't new, but bundling it with the Custom Shop software and gear credits allows musicians to put together a convenient, portable, *à la carte* songwriting and performance rig.

ikmultimedia.com

8

Softube

Mix Bundle for SONAR X1

VST/ProChannel plug-ins

$299 (download)

HIGHLIGHTS Package with five plug-ins for SONAR's ProChannel format: TSAR-1 Reverb, Passive Equalizer, Active Equalizer, Focusing Equalizer, FET Compressor • also includes all plug-ins in VST format • 32- and 64-bit native versions available • download only, requires iLok

TARGET MARKET Users of Cakewalk SONAR X1 who want to expand the options for the ProChannel channel strip, yet also have the plug-ins available to other applications

ANALYSIS Softube supports products from multiple companies with their plug-ins, but this bundle not only supports SONAR's proprietary ProChannel format but also standard VST hosts (of course including SONAR).

softube.com, cakewalk.com

World Radio History

LUST iOS apps

Native Instruments

iMaschine

$4.99

WHY: Bang for the buck

DESCRIPTION: Based on the company's popular beat-production platform, iMaschine presents 16 pads for CD-quality sample playback, and a keyboard for melodies, chords, and bass lines. The app has 4-track recording capabilities, effects, and a note-repeat function—all the features you need to create pro-level projects. You can even export your work as a project to Maschine or as an audio file to SoundCloud. Includes 100MB of sample content.

native-instruments.com

Line 6

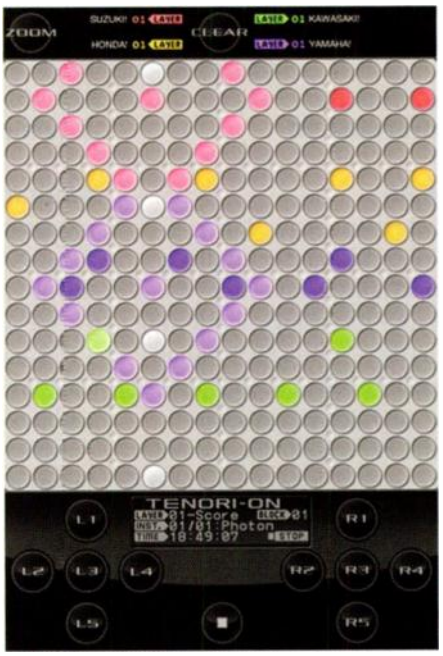
Mobile POD

Free (guitar interface required)

WHY: Great sounds, fun

DESCRIPTION: It should come as no surprise that the folks who pioneered amp and effects modeling would offer a great-sounding version for mobile devices. Mobile POD, which requires the Line 6 Mobile In interface, gives you 32 amps, 16 cabinets, and 16 effects that you can configure at your leisure. It even comes with 10,000 presets to keep you busy (and a chromatic tuner to keep you honest).

line6.com



Yamaha

TNR-i

$19.99

WHY: Unusual and inspiring to play

DESCRIPTION: Tenori-On for the iPhone! The mobile version of Toshio Iwai's unique, grid-based sound sculpture offers 16 sound layers, each of which can work in one of six performance modes (score, bounce, random, push, draw, solo). You can save 16 song patterns and network the app wirelessly with four other players. Compare the price of the virtual version to the original, and you'll see this is a bargain.

usa.yamaha.com

IK Multimedia

SampleTank Free

Free

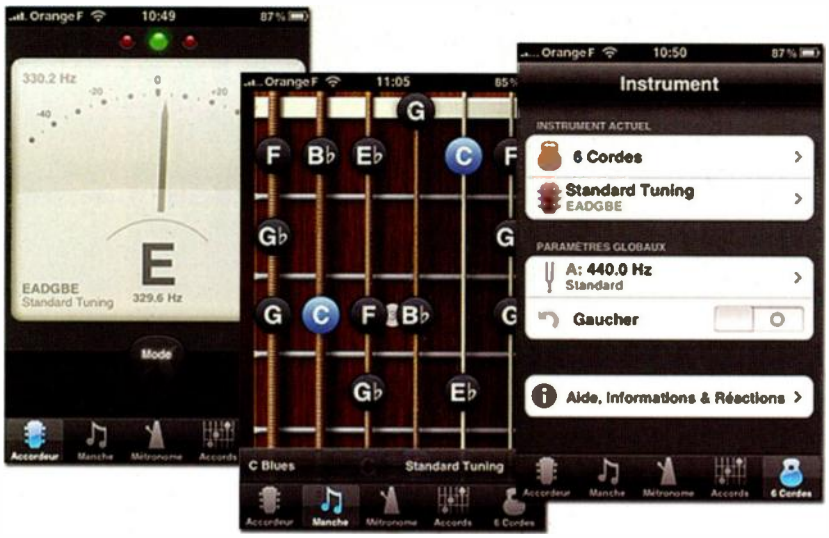
WHY: Useful and, well, free!

DESCRIPTION: You can't beat the price of this 4-part multi-timbral sample player. While the basic version comes with eight instruments, the app offers a keyboard, virtual drum pads, a 4-track MIDI recorder, studio effects, and 1,000 patterns. You can add just the libraries you want—drums, guitars, basses, keyboards, strings, and winds—with individually-priced add-ons ($4.99 to $9.99), or purchase them as a bundle.

ikmultimedia.com

All prices are MSRP except as noted

World Radio History



Agile Partners

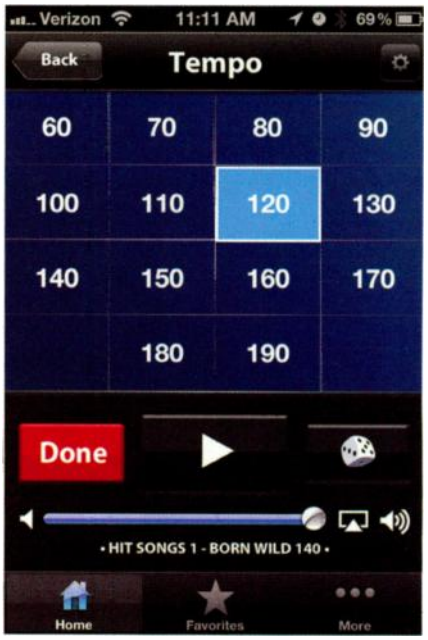
GuitarToolkit 2.0

$9.99

WHY: Essential!

DESCRIPTION: An all-in-one app for any fretted-instrument player (guitar, bass, ukulele, mandolin, banjo) that offers a chromatic tuner, a metronome, and an easily readable layout of chords, scales, and arpeggios—even for lefties! It has options for open tunings and capo placement. Add GuitarToolkit+ ($4.99) for interactive chord sheets, more metronome features, and amps and effects. It's useful for every level of player—from beginner to advanced.

agilepartners.com



Ninebuzz Software

Beats+

$0.99

WHY: Simple to use

DESCRIPTION: This no-nonsense drum-loop app comes with more than 50 beats, in a variety of styles that are ready for demo work and jamming. Each pattern is available at 14 different tempos (from 60–190 BPM), and the basic app includes a dozen beats based on hit songs. Additional beat collections are also available. You can save favorites, as well as randomize your selections. Beats+ even supports AirPlay.

ninebuzz.com

Korg

iKaossilator 2.0

$9.99

WHY: Fun, expressive, great sounding

DESCRIPTION: What could be cooler than playing a virtual Kaossilator with a full-color display from your iPhone? This synth app gives you traditional two-dimentional Kaoss control over 150 sounds, which you can automatically map to scales and keys. The realtime features include five layers of loop recording, breaks and fill creation, and the ability to export your track as an audio file or upload it to SoundCloud.

korg.com

Algoriddim

djay

$0.99

WHY: Cool, fun, inexpensive

DESCRIPTION: djay lets you spin the songs in your iTunes library using a pair of virtual turntables and mixer. It offers scratching, pitch-bend, looping, tempo matching, EQ, and effects (highpass/lowpass filter, bit crush, echo, gate, and more). Record your mixes, then take advantage of the app's integrated SoundCloud and AirPlay support. It'll even create mixes for you automatically when you need your hands free for (ahem!) more important things.

algoriddim.com

World Radio History

vintageking audio

NEW | USED | VINTAGE

WORLD CLASS AUDIO | WORLD CLASS SERVICE

SHADOW HILLS INDUSTRIES MONO OPTOGRAPH 500 COMPRESSOR

The Mastering Compressor's Optical section adapted for 500 Series racks. Feature-packed for tracking & mixing. Phenomenal compression for bass and vocals.

shadow hills industries

TRUE SYSTEMS pT2-500 MIC PREAMP/DI

Serious analog depth and warmth, ultra-resolution musicality, 70dB of gain, exceptional headroom and low noise - our new TYPE 2 design gives you all that plus a discrete FET instrument DI with THRU connection for easy and accurate signal splitting applications.

TRUE systems

WHY CHOOSE MOGAMI?

It's simple: Mogami is unmatched for accuracy, extremely low noise, ease of installation, flexibility and superior quality. Professionals and enthusiasts alike rave about the amazing clarity and silent background of Mogami. There's a reason why Mogami is considered "the cable of the pros."

MOGAMI
THE CABLE OF THE PROS

SE ELECTRONICS VOODOO VR1 & VR2 RIBBON MICROPHONES

These new mics from sE Electronics will make you rethink ribbons entirely! With a naturally flat frequency response out to 20kHz, you no longer need to worry about EQ'ing the highs back in - just set 'em up and let that sweet, warm ribbon midrange magic do its thing.

Tough enough for touring guitarists, sensitive enough for symphonic sheen, these mics are the new workhorses for everything from vocals to drum OHs.

SOUNDTOYS NATIVE EFFECTS V4

Inject your mixes with analog attitude and rhythmic mojo with the powerful plug-ins of the SoundToys Native Effects bundle, including EchoBoy, FilterFreak, Decapitator and more.

soundtoys
plug-in some attitude.

LITTLE LABS VOG ANALOG BASS RESONANCE TOOL

The VOG is a high-fidelity microscope for the low end you want while eliminating mush. Rapidly enhance voices, kick drums, toms, bass and timpani with ease.

Little Labs

WHY SHOP VINTAGE KING?

SATISFACTION GUARANTEED | WORRY FREE WARRANTY | LIFETIME TECHNICAL SUPPORT | FREE SHIPPING | EASY FINANCING | EASY RETURN | BillMeLater

World Radio History

Let Us Service Your Gear

Repair, customize, refurbish & install.
Visit our TECH SHOP
vintageking.com/tech-shop

FREE TWO-YEAR WARRANTY
Most new items covered for two years.

TRADE OR SELL YOUR GEAR
Recycle today!

FREE SHIPPING
Online orders.

METRIC HALO ULN-2 MOBILE I/O

Boutique pres. Pristine converters.
Truly pro audio packaged in a powerful yet mobile FireWire interface complete with integrated DSP Processing.

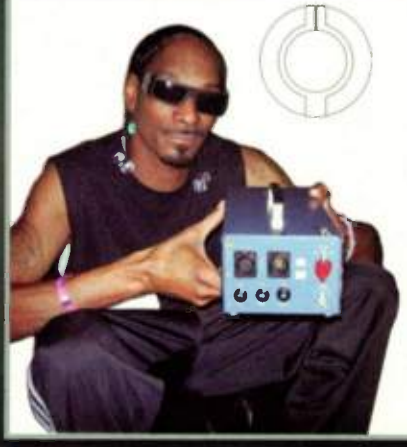
METRIC HALO

MAAG AUDIO EQ4
500 SERIES EQ WITH AIR BAND

Following its NTI EQ3 and EQ3-D predecessors, the EQ4 provides unparalleled transparency and top end presence while maintaining the true natural sound behind the mix.

"The AIR BAND is by far the best top end I've ever heard."
Dylan "3-D" Dresdow
Grammy award-winning mixer
(Black Eyed Peas, Usher, Michael Jackson)

maag AUDIO



BAE 1073 DMP
PORTABLE MIC PRE

Endorsed by the pros, loved by many. Now YOU can take the legendary 1073 sound anywhere from the studio to the stage with the portable DMP mic pre, complete with DI input.

BAE

ADAM AUDIO A7X

The A7X features an extended-range ribbon tweeter (up to 50kHz!) perfectly integrated with a newly designed 7" midwoofer for extremely detailed sound at exceptionally high SPLs.

ADAM PROFESSIONAL AUDIO

TONELUX 500 SERIES

Paul Wolff makes it easy to add some Tonelux to your life! The famous Tonelux sound in a common format that puts the unmistakable Tonelux tone in your studio!

Tonelux

PELUSO P-12

Inspired by the legendary AKG C12 large-diaphragm tube condenser, the P-12 faithfully conjures its esteemed predecessor in all its sonic glory.

Peluso

GET A FREE 500 SERIES RACK!
WHEN YOU BUY FOUR NEW 500 SERIES MODULES

Contact us today! | 888.653.1184 | info@vintageking.com

World Radio History

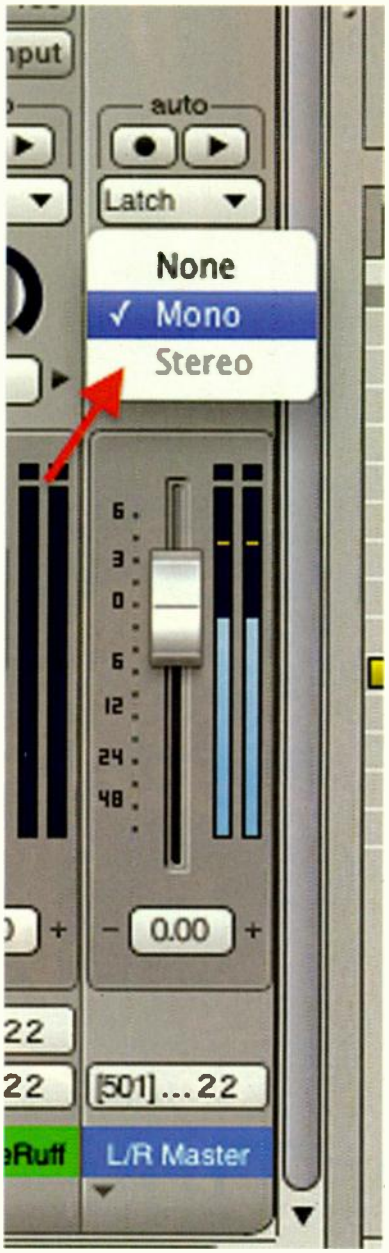


Fig. 1. Adding a master fader to your session makes it easy to see the level of the L/R mix bus—and in the case of Digital Performer, also provides an easy means of summing the mix to mono.

that's hundreds of pages long, but many software manufacturers provide an appendix of shortcuts. If you don't already know the following shortcuts in your DAW, shame on you: cut, copy, paste, erase, create new session, open session, close session, new track, play, stop, record, go to start, go to end, quantize, transpose, and create group. Once you get those, add: split audio/divide region, merge audio, trim, create fade, bounce, click on/off, nudge left/right, zoom in/out, add marker, arm all tracks, mute all tracks, and clear peaks. Compile a list of 15 or 20 shortcuts that apply to your method of working. Print the list and stick it on a wall somewhere near your monitor so that you can refer to it without searching for a manual. Before long, you won't need the sheet.

Create Templates Make custom templates specifically for your clients. For example, if you do a lot of work recording live bands, create a template with enough tracks to accommodate the mics you'll use to record the band, aux sends, and send masters to route the headphone mixes they typically request, and inserts and/or effect sends and returns that you think you'll need for the instruments. Save this template to your library so that (a) you can easily create a new session for each song in a project, and (b) you can re-create the session framework when a band returns to your studio for their next project.

Create Separate Session Files for Every Song in a Project Using a single DAW session file for an entire project of multiple songs might seem like a good idea at the outset. After all, the instrumentation and cue mix requirements in a project tend to remain fairly consistent across the songs. And sometimes it feels like creating a new session file for each song interrupts the artist's workflow. But problems become evident as you begin overdubs, sweetening, and mixing. Inserts applied to a track on one song may not be appropriate for another song, and the session quickly becomes difficult to manage. I have seen engineers track an entire project as a single session and then break each song out to a separate session file after the fact—and then lose audio files in the process. Unless you want to duplicate *all* of the audio files for every track in every song (which will create many huge song files), you have to be extremely careful not to erase audio from one song when creating a new session for another song that existed in the original session. Use templates for each song to speed workflow, use the DAW's export session data feature, or "Save A Copy" without duplicating the audio. Most DAW software lets you choose the data you wish to borrow or import from one song to create a new song session. You don't want to duplicate the audio files, but if you export track names, I/O routing, mixer settings and configurations, insert assignments, etc., you'll have an advanced starting point (including rough control room and headphone mixes) for the next song.

Add a Master Fader to the Session One of the real drags about working in the box is that you don't always have a L/R bus meter the way you do when working in the analog world. True, some hardware interfaces provide meters on their front panel, but many do not. A master fader gives you an indication of the level at which you are hitting the mix bus, plus it facilitates fade-ins or fade-outs, adding EQ or compression to the entire mix, gives you an easy way to mute the session, and in some cases provides the ability to sum to mono (see Figure 1).

Name Tracks *Before* Recording Sooner or later, you are going to lose an audio file, due to either hard drive failure or your own mismanagement. Nothing says, "shoot me" quite like digging through a folder containing hundreds of files called "audio 1.X" to find that piece of a missing vocal take. Naming the track before you start recording will transfer the track name to the audio file(s) associated with the track, but renaming a track after you have started recording does not transfer the track name to the audio files associated with that track.

If You Ignored the Previous Tip, Fix Things Now Let's say you forgot to name the vocal track before you started recording and you have three or four pieces of audio in the track with names like "audio 1.0," "audio 1.1," etc. Name the track and merge the pieces. This will assign the track name to the merged audio file, which translates to the regions that will be created when you start punching in or editing the track.

World Radio History

Fig. 2. A Pro Tools session with a bass DI track and a bass mic track. In the highlighted area, note that when the waveform in the DI track goes negative, the waveform in the mic track moves positive. This opposition in signal polarity will cause weak bass when the tracks are added together. The solution is a trim plug-in (shown), with the polarity reversed (yellow Ø indicator).

World Radio History

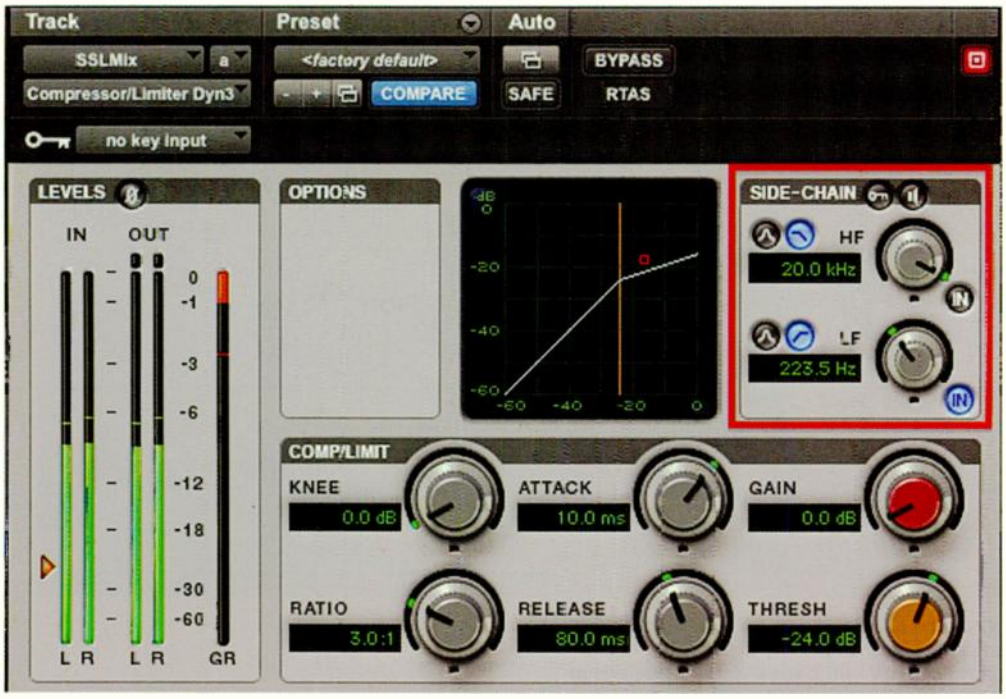


Fig. 3. This compressor plug-in provides a filter for the sidechain (inside the red square). In this instance, the Low Filter has been switched in and raised to 223 Hz, which helps avoid pumping every time the kickdrum hits, while still letting the compressor do its job. The blue speaker icon at the top is a "sidechain listen" switch that lets the user temporarily listen to the filtered signal.

Take Accurate Session Notes At the very least, use the comments boxes provided for each track to archive the signal chain used for that track. Note the brand and model of microphone (add serial number if you have multiples of the same model), preamp, EQ, compressor, and all gear settings, plus any special points about the recording method. I prefer to take this process up a notch by keeping paper track sheets for every song, mic positioning diagrams, and recall sheets for any device used in the recording. At the end of the project, my client gets a binder with detailed records of the session.

Render MIDI Tracks to Audio A client recently called because she needed to remix an 11-year old project in which almost all of the tracks had been sequenced, and some of the mixes were "live MIDI to mix." In other words, there were no audio tracks for many of the instruments, only MIDI data. This process is fine while you are working on a project and need the flexibility to easily change synth timbres, etc., as the arrangement evolves. However, once the song is ready to mix, render all MIDI tracks to audio so that if you need to remix 11 years down the line, you are

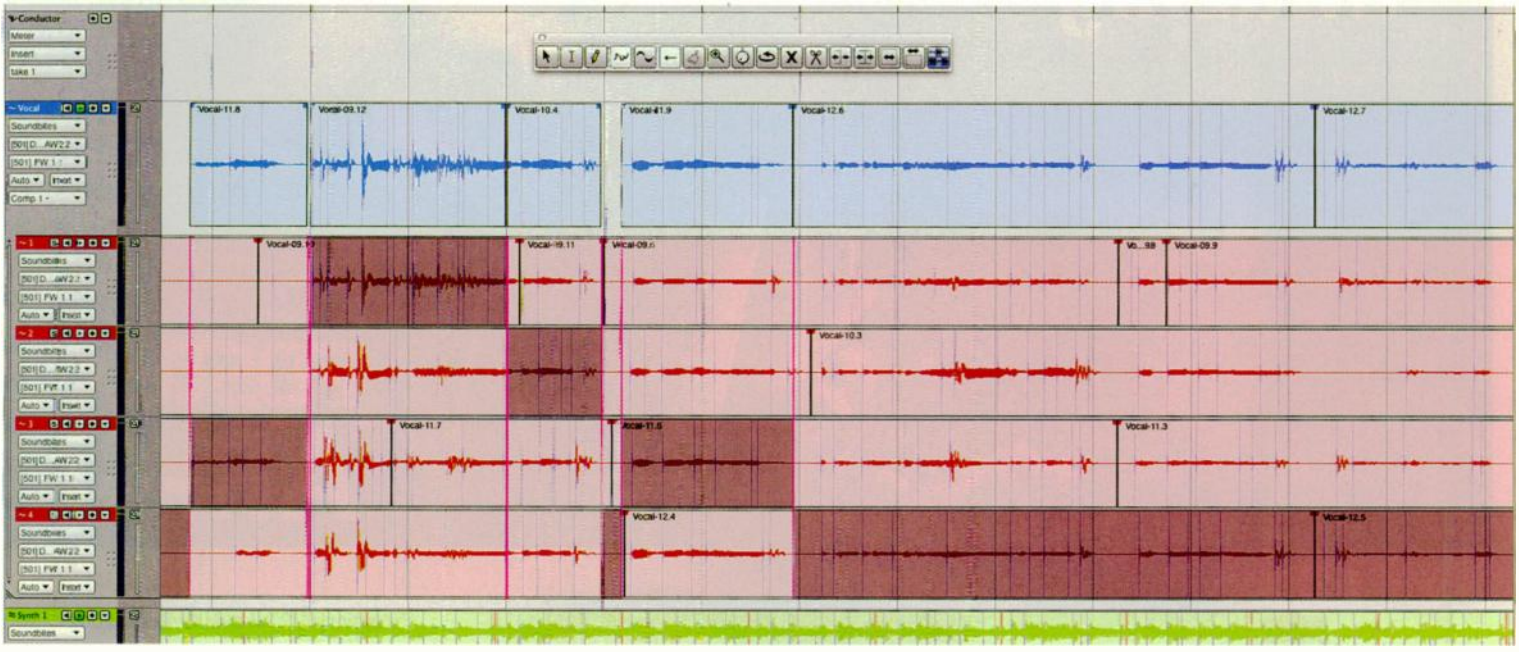


Fig. 4. This screen shows a vocal comp track in Digital Performer. The blue track at the top ("Vocal") is the composite track. The four red tracks ("1," "2," "3," and "4") are the vocal takes from which the comp is derived. After selecting the comp tool from the Tool Bar (shown top center), you simply select any piece of audio from the takes and DP automatically brings the audio clip into the comp track. The shaded areas in the red takes are the "contributors" to the comp track.

World Radio History

not trying to find, say, a Yamaha DX21 for a particular sound that cannot be duplicated by another synth or virtual instrument. (True story.) Don't forget to name the tracks!

Render Audio Tracks at the End of the Project Consider this the audio equivalent of the previous tip. After you have mixed a song, bounce the audio on every track to a common start point, such as bar 1/beat 1. You need to make your archived files idiot- and future-proof. There is no guarantee that you can revisit a DAW session file several years from now. Rendering or bouncing each track ensures that EQ, effects, and automation moves are married to the audio files. If you don't like the idea of committing those characteristics to the audio file, merge each track to a common start point so you'll be able to reconstruct the session in any DAW software.

Delete Unwanted Takes and Tracks at the End of a Project This will reduce the session file size for archiving, and avoid confusion if you revisit the project at a later date—at which point, you won't remember which tracks or takes were "preferred."

Encourage Clients to Purchase Their Own Hard Drive(s) Back in the analog days, my clients would bitch and moan about paying for tape, which could easily cost several thousand dollars per project. Hard drives are a bargain these days, so send your clients off with the session files on their own drive—after the bill has been paid.

If You Ain't Got It in Two Places, You Ain't Got It For each project, have a work copy plus at least one backup copy (I prefer two) of every song. There are no excuses for crashes, and if ever the adage "an ounce of prevention is worth a pound of cure" was applicable, here it is. Hard drives—which combine the media with the mechanism—are subject to failure. If the hard-drive mechanism fails, you can no longer access the media (prohibitively-expensive data recovery techniques notwithstanding). If a tape machine goes belly-up, you can move the tape to another machine to access the audio. This is a good reason for copying session files to DVD—which is still not fail-safe (in spite of manufacturer claims, we really don't know the lifespan of a DVD), but if a DVD drive fails, at least you have a shot at putting the DVD into another drive. If you're rich and famous, buy yourself an old Sony PCM3348 DASH machine and archive your DAW sessions to digital tape.

Leave Room for Mastering Happily, the trend of making music loud for sheer volume's sake is abating, and people are starting to pay attention to sound quality again. If your mixes will be sent for mastering, leave the mastering engineer at least 3 to 6dB of headroom. If your mixes already hit 0dBFS, there is no place for mastering to take the file without generating distortion when, say, boosting the bass. Stop worrying so much about how loud your mixes

World Radio History

are and pay attention to the sound quality. Broadcast is going to compress the crap out of it anyway.

Make the Click Track Friendlier Know what happens when a good drummer locks in with a click track? It disappears, and he or she can't hear it. Instead of the typical quarter-note-on-the beat-click, create something that's easier to hear, such as a two-bar drum loop, or a click track that has one sound on the downbeat and a different sound on the upbeat. When the drummer locks in, the downbeat disappears but the upbeat does not. Put this into your templates.

Record to the Grid Whenever Possible You never know when you might need to edit MIDI data.

Pay Attention to Signal Polarity Loosely referred to as "phase," the polarity relationship between certain tracks can make or break a mix. Phase issues are often heard as a loss in bass or a "hollow" sound when tracks are added together. Any time that you have more than one microphone on the same instrument, check phase between the two (see Figure 2 on page 61). Most gain or trim plug-ins feature a phase-reverse button and take up minimal DSP resources so you can use them without worrying about clogging up your CPU's arteries. Big offenders include snare top and bottom mics, kick drum inside and outside or beater side, bass mic and DI and electric guitar close and far mics. Check phase between overheads and kick, as well as overheads and snare.

Conserve DSP Resources When Possible Instead of inserting the same effect (*e.g.*, reverb) on multiple individual backing vocal tracks, set up an aux send and stereo return for the effect and let the backing vocals share it. This accomplishes two things: It conserves DSP resources because you can use one effect for many vocal tracks, and it makes your workflow more efficient. Suppose you have a reverb on each of ten backing vocal tracks. If you decide to change that reverb, you'll have to remake the change ten times, or do it once and then copy the modified plug-in to every track. Lame!

Use an Analog Mixer to Deal With Latency As your projects become more complex, your computer works harder to keep up, and latency can become an issue. Circumvent this problem by using a simple analog mixer for monitoring while tracking or overdubbing. (You don't have to use this mixer to do your final mixdown.) Latency is generated in the time it takes for a signal to go from your DAW interface's input to the computer and back out to the monitor path. Patch the main DAW output to a pair of mixer channels for monitoring. Use a third channel for the overdub signal (mic, DI, line input) and monitor the overdub signal on its way *to* the DAW. A fourth channel can be used to monitor *playback* of the overdub

World Radio History

There is no undo on your mic preamp.

Input channels can magnify the signal by more than 1000:1. There's no "Undo" after this point.

Coloration or distortion become part of the signal. Lost information can never be recovered.

Data compression algorithms can't distinguish signal from noise, so preserving absolute signal integrity through the recording and production process is critical to communicating your intention and individuality.

Millennia's unique designs avoid circuit-induced artifacts, giving you total control.

Amplify the original sonic information with an absolute minimum of alteration, or apply tonal shading so natural and translucent that it seems to become an integral element of the source itself.

Make every take count.

Millennia
Music & Media Systems

www.mil-media.com
530-647-0750

TD-1

PAR REVIEWER'S PICK 2005

World Radio History

Sooner or later, you are going to lose an audio file, due to either hard drive failure or your own mismanagement.

track. You'll probably need to mute this channel when recording and un-mute it for playback out of the DAW. Alas, this won't help much when a plug-in is critical to the sound you are recording (for example, if you are using a guitar or bass amp simulator).

Filter the Sidechain on a Compressor If you are using compression on the master bus, beware that low end from a kick drum or synth bass can trigger compression that makes the midrange pump. This is particularly a concern on dance tracks where kick and bass are prominent and may modulate the volume of a lead vocal. If the compressor has a sidechain filter, use it! Filter out the lows from the compressor sidechain (*not* the audio path) by applying a highpass filter to the sidechain at around 250 Hz. (See Figure 3 on page 62.)

Learn How to Comp Most DAWs provide an efficient means of comping multiple takes. Digital Performer, for example, provides a comping feature in which simply clicking on an audio region in a take adds the clip to the comp track (see Figure 4 on page 62). This is *way* faster than cut/copy/paste, plus it ensures that the audio regions do not slip out of time when you move them to the comp track. ■

Steve La Cerra is an independent audio engineer based in New York. In addition to being an Electronic Musician *contributor, he mixes front-of-house for Blue Öyster Cult and teaches audio at Mercy College White Plains campus.*

World Radio History

KEYS to SUCCESS

"Kurzweil gives me the touch sensitivity to perform without limitations, the sounds to spark creativity & the flexibility of control to add & mix layers of sounds on the fly."

~Myron McKinley
Musical Director- Earth Wind & Fire

KURZWEIL®

It's the **Sound.**

american music & sound AM&S
A division of Jam Industries Ltd
World Radio History

For more info call:
800.431.2609
kurzweil.com

#Occupy YourFans

The three essential tweets for staying fresh with your fans

BY CARL JACOBSON

YOU AREN'T tweeting enough. There, I said it.

Twitter provides an incredible opportunity to keep your fans engaged and to reach new fans, but you need to be active. I've heard a number of artists say that they're concerned about tweeting too much. The reality is, Twitter isn't like Facebook: On Facebook, too many updates can be overkill, but on Twitter, the average effective active lifespan of a tweet is about one hour. So if you're not doing it enough, you're not going to rise above the noise floor.

On the other hand, if you are always tweeting the same thing . . . @you will be #ANNOYING. To keep things fresh with your fans, I'd like to propose you send out a mix of these three essential tweets: I Tweet, We Tweet, and You Tweet.

I Tweet The I Tweet is a personal tweet. This is an opportunity for you to give insight into your personal life: what you're doing, what you care about, what you're listening to, what you're into. Fans are following you because they want access to you. Twitter provides them a little glimpse of what's going on in your life, or your perspective on things, and that helps them feel connected to you.

We Tweet The We Tweet is how you keep your fans in the loop about "official" news about the band or you as a solo artist. Some examples:

We're playing the Roxy next Friday; get your tickets now. Hope to see you there.

We've just released a new single, take a listen.

Screw the labels, we're doing it ourselves & asking our best fans to help us fund our recording. Please give at PledgeMusic.com.

We've made it to the final round in the songwriting contest; please vote for us.

World Radio History

ACADEMY *of* ART UNIVERSITY®

FOUNDED IN SAN FRANCISCO 1929 BY ARTISTS FOR ARTISTS

TAKE CLASSES ONLINE OR IN SAN FRANCISCO

Acting*
Advertising
Animation & Visual Effects
Architecture*
Art Education
Fashion
Fine Art
Game Design
Graphic Design
Illustration
Industrial Design
Interior Architecture & Design
Landscape Architecture*
Motion Pictures & Television
Multimedia Communications
Music Production & Sound Design for Visual Media
Photography
Web Design & New Media

ENROLL NOW

EARN
YOUR AA, BA, BFA, MA, MFA OR M-ARCH ACCREDITED DEGREE

ENGAGE
IN CONTINUING ART EDUCATION COURSES

EXPLORE
PRE-COLLEGE SCHOLARSHIP PROGRAMS

WWW.ACADEMYART.EDU
800.544.2787 (U.S. Only) or 415.274.2200

79 NEW MONTGOMERY ST, SAN FRANCISCO, CA 94105
Accredited member WASC, NASAD, CIDA (BFA-IAD), NAAB (M-ARCH)

**Acting, Architecture (BFA) and Landscape Architecture degree programs not currently available online.*

Visit www.academyart.edu to learn about total costs, median student loan debt, potential occupations and other information.

World Radio History

@Supercoolblog just said our album was the hottest thing since Rebecca Black's "Friday"—check out the review.

Have a look at this video we shot last night, you won't believe what Gonga did during rehearsals, etc.

You Tweet The You Tweet may be the most important. This is where Twitter stops being a broadcast, and starts getting personal. In my recent Facebook Strategies article ("Engaging Your Facebook Audience," *Electronic Musician*, February 2012), I described a concept of the "Virtual High Five," in which you reward fans by personally acknowledging them. This is the same concept. When a fan follows you, retweets you, or tweets something cool about the band or your music . . . make sure you send out an "@fansname thank you" tweet, and if appropriate, retweet what your fan said.

The "You" Tweet can also be used to engage fans in conversation. A perfect way to do that is to ask questions. For example:

We're picking songs for Friday night's set list; what do you want to hear?

This is a subtle way to remind your followers that you have an upcoming gig, and they'll feel more obligated to come if they responded with a request. Especially if you reply, "Thanks @fansname, we'll play it, see you Friday!" Bonus points—if you can remember, shout out, "@fansname requested this," when you play it; I guarantee you'll make a lifelong fan and also let the audience know you are active on Twitter.

More #WordsOfAdvice

Remix Yo'Self Considering the one-hour shelf life of a tweet, and the fact that different fans log on at different times, it's perfectly acceptable to send out repeat news. That being said, Twitter won't allow you to send out an identical tweet within too short a timeframe, so get creative and remix it.

Don't Sweat the Grammar Tweeting is the new haiku. U only have 140 char, so don't lose the msg. by using proper English. Abbreviate, drop non-essential words; people understand the medium and are forgiving.

Remember Your ABCs Always Be Converting. Twitter is great, but it's a shallow experience, and people are easily distracted by the next tweet. Whenever possible, use links to take fans somewhere else that they can have a richer experience of you and your music. Capture their email with a free download on your Facebook store, or send them to your website to see an embedded video or read a blog post, etc.

Always Be Explicit If you want people to take action, say it in the tweet. And if you have spare characters, especially for "We" Tweets, ask them to "Please RT," or better yet, "please retweet."

Always Be Authentic Your true fans can tell if it's you or not. So make sure that whatever you tweet is true to you, and true to your band's image. ■

Carl Jacobson is VP of marketing at Nimbit (nimbit.com). He is also co-executive producer of Masters of Sound *(mastersofsound.net), an online series dedicated to documenting the work of recording engineers and producers. Follow Carl on Twitter: @carljacobson.*

World Radio History

"TAXI Taught Me How to Write What the Music Industry Needed."

Vikki Flawith – TAXI Member
www.vikkiflawith.com

My name is Vikki Flawith. I'm a classically trained singer who used to write meandering folk-style songs, and had several demos produced by a Rock guitarist. I spent lots of money on those demos and wasn't very happy when TAXI didn't send them to Nashville for Country opportunities. I was somewhat skeptical about that. But then I realized that other people *were* successful with TAXI and maybe I needed to look at what I was doing rather than blame the messenger.

My fellow members on TAXI's Forum helped me realize the value in writing and producing what the market was looking for. I started using the feedback I got from TAXI's A&R team and my friends on the forum to re-shape and re-focus my music.

Opening My Eyes and Ears

I also started going to the Road Rally, TAXI's free convention for members and guests.

I was overwhelmed by all I heard and experienced. After panels and classes in all aspects of songwriting and the music business, I began to recognize when songs went nowhere. I began to listen for the lift. I began to hear what good production meant.

Building a Network...

I met lots of other musicians and songwriters, many of whom had deals and placements through TAXI. I realized that my writing and production weren't anywhere near the level of those successful writers. If I wanted to be like them, I'd have to do what they were doing.

TAXI®

The World's Leading Independent A&R Company

1-800-458-2111

It Paid Off!

I listened, learned, and focused my writing at what the music industry really needed. No more meandering folk songs for me. I refocused my efforts on writing music for film and television. TAXI started sending my new material to Film and TV music publishers. I began to get deal offers, and also gained the confidence and skills I needed to start pitching to contacts I developed on my own.

Because of the connections, co-writes and relationships I've made through TAXI, my music industry network has expanded geometrically and my catalog of *marketable* music is growing every year. Thanks to "TAXI U," I've signed over 70 tracks in the past few months to several different publishers.

My Dream Has Come True

If you'd like to create music that the industry really needs, then contact TAXI to see if they can help you realize your dreams too!

World Radio History

San Francisco-based singer/songwriter Garrin Benfield permorms at a house party in Berkeley, CA.

Booking House Concerts

Maximize your gigs by going off the grid

BY KAITLIN MCGAW

SOMETIMES IT can take convincing to get your friends and fans out to hear you in an 11 p.m. slot at the club downtown; you'll draw out those with evening jobs and those who love the nightlife, but your early-to-rise fans will likely wait for an earlier show to be posted to your mailing list. And solo performers might be looking for an alternative to the café gig, playing for tips to the backing track of hissing cappuccinos. Off the grid, you'll find the house concert—an engagement that is both profitable and intimate, where the audience comes to listen, socialize, and get to know you as an artist.

For singer-songwriters, house concerts are an absolute dream: You perform for a captive audience, who's hanging on every word. For bands, they can be a great way to perform acoustic versions of your songs for a truly unique evening for your fans.

Ian Crombie, executive director of the West Coast Songwriters organization (westcoastsongwriters.org), suggests that house concerts are ideal shows to book in this challenging economy. "The audience you'll get at a house concert is totally different. Even though they might not go to a show at a club, they are happy to donate $20 and watch you at their neighbor's house, drink wine, visit and hear all about you, and not worry about driving home. Guests are happy to take home a CD or merch item as a memento.

If this kind of gig sounds like something you would be interested in adding to your calendar, consider a few tips from San Francisco-based house concert promoter KC Turner. He has built a strong brand for house concerts. KC Turner Presents (kcturnerpresents.com), featuring talent of his choice, both national and local. Turner offers a few tips for artists interested in booking a house concert:

Go to your fanbase first Rather than pitching yourself directly to promoters of house concerts (who are typically picking the talent based on their own tastes), reach out to your fans. See who might be interested in hosting you for a concert. Then work out the details of production. Tips on hosting concerts are available on Concerts in Your Home: concertsinyourhome.com.

Understand production needs "In planning your show, think about how to make it

More Online
Watch video tutorials on hosting your own house concerts.
emusician.com/march2012

Dave Vann

World Radio History

Pro Tools
The software that won a Grammy*

Mbox Pro
Hear it to believe it: avid.com/shootout

All-New BX5 D2
Tells the truth about your mixes (for better or worse)

For keepin' it old school

Venom
The Jason Bourne of synths*

Elevate your studio.

See Venom in action

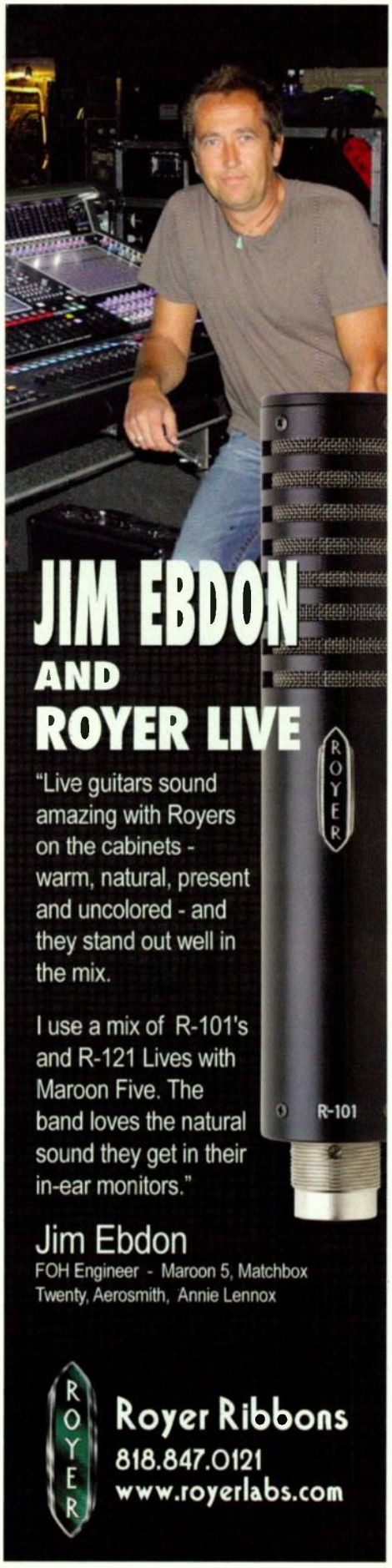
The latest Avid® gear is designed to make your studio smile. Compose, record, edit, and mix with industry-standard Pro Tools® software. Enjoy premium, studio-grade audio with Mbox® Pro. Get down and dirty with the aggressive sound of the M-Audio® Venom® synth. And experience every detail of your mix with the new M-Audio® BX5 D2 studio monitors. When you hear the results, you'll be smiling too.

* *AIR Users Blog (January 18, 2011)*

Experience the Venom sound at avid.com/hear-venom

© 2011 Avid Technology, Inc. All rights reserved. Product features, specifications, system requirements and availability are subject to change without notice. Avid, M-Audio, Mbox, Venom, and Pro Tools are trademarks or registered trademarks of Avid Technology, Inc. or its subsidiaries in the United States and/or other countries. All other trademarks contained herein are the property of their respective owners.

World Radio History



Dig Deeper: Web Resources

Check out these online performer resources and a few examples of successful house concerts.

See Sean Hayes' KC Turner Presents House Concert performance of "Powerful Stuff," which was featured in a Suburu commercial. (youtube.com/watch?v=soSEmwGw8qE)

Watch John Craigie's performance—complete with audience sing-along—of "Chuck Norris' Tears Cure Cancer; Too Bad He Never Cries." (youtube.com/watch?v=RKEz1M9dlbE)

Visit KC Turner Presents (kcturnerpresents.com) to review some of the artists he has booked, as well as his approach to promoting house concerts in your city.

Visit Megan Slankard's website (meganslankard.com) for an example of a way to engage your fanbase in house concerts.

Check out West Coast Songwriters (westcoastsongwriters.org) for insights on advancing your career as a songwriter.

successful and interesting from the audience perspective. It's important to schedule time for breaks for stretching, socializing, and getting to know the artist, whether there are ten or 80 folks in the audience," says Turner. With his shows, he advances all of the production, including pre-production, sound, scheduling, introductions, and so forth. If you are working with a new host, KC recommends he or she watch the videos on hosting to optimize the experience. Be sure to confirm that the host understands that donations will be accepted; otherwise it should be set up as a private party.

Be ready for high interaction with fans

Turner adds that artists should plan to bring more energy to a house concert than they might for a venue, as they will be expected to interact with every fan that attends. "You'll be making personal connections with everyone before the show—connect with every attendee, and have the energy to really embrace the people who are there," he says. "Make this concert as special as possible."

Turner adds that house concerts are great shows to fill in dates on tours. Reaching out to your fans via your email list and social media, you may find you can fill in dates that otherwise were maxed out in markets on the road. For a recent tour he booked for artist Megan Slankard (meganslankard.com), they successfully notched 80 shows in 90 days—filling in club dates with house concerts from her fan base, and often turning the profit in these intimate shows. Often, hosts and bookers will want to see clips of your live shows before committing, so get started by hitting up the open mics and have a friend video you—and/or perform for a few friends in your own living room. You might consider adding a "house concert" tab to your website as well, letting your fans know that you are available to offer this experience.

Try another angle: Host a house concert at your own home, for an exclusive fan experience. You could pick your top ten fans and host a show sharing your brand-new songs and get their feedback—or perhaps host a show in connection to your next album fundraiser. I hosted an industry-only concert after my album was released and found my peers in the industry were thrilled to have the social time together and also hear music in this intimate space. ■

Kaitlin McGaw is a freelance writer and musician, who can be found rocking for kids with her hip-hop group Alphabet Rockers, or behind the piano composing as a singer-songwriter. For more information, visit kaitlinmcgaw.com.

World Radio History

FRIENDS DON'T LET FRIENDS MIX ON HEADPHONES.

INTRODUCING THE NEW EVENT 20/30 BAS.

EVENT®

eventelectronics.com/2030bas

World Radio History

Take your MOTU high-end studio even higher

Achieve superb world-class sound running DP7 and MachFive 3 on the new, faster Mac mini along with high-end MOTU audio I/O and and the latest advances in studio technology

Turbocharge your Mac mini Digital Performer sessions with MachFive 3.

Apple Mac mini

Up to 2x faster processors and graphics. It's mini in size only.

With its sleek aluminum design, removable bottom panel for easy access to memory, and space-saving built-in power supply, the Mac mini packs a powerful punch, especially for music and audio production with Digital Performer and MachFive 3. The new Mac mini features high-performance graphics that make it up to two times faster than before.

MOTU 896mk3 Hybrid

192 kHz audio I/O with 8 preamps

With 8 flexible combo-style XLR/TRS analog inputs, 8 pristine mic preamps, 192 kHz state-of-the-art converters, and professional metering, the 896mk3 Hybrid serves as the ideal hub for your high-end MOTU recording system.

MOTU

World Radio History

Radial Workhorse
3U frame for Radial 500 Series modules

The Workhorse is the perfect interface to bridge vintage-sounding analog with your digital MOTU desktop studio. Eight slots let you mix and match 500 Series modules to create the ultimate channel strip. Load it up with Radial PowerPres to instantly add the warmth and character of old-school transformer isolation to your signal path. Parallel process signals with direct outputs to the 896mk3 while sending a stereo mix via the built-in stereo bus for instant audio nirvana.

Shure Beta 181 Stereo Set
Ultra-compact side-address instrument mics

Designed for discrete placement and control in live or studio environments, the Sweetwater-exclusive Beta 181 Stereo Set includes interchangeable cardioid, supercardioid, omnidirectional, and bidirectional capsules for superior versatility. The small-diaphragm design provides superior audio with consistent, textbook polar response in a form factor small enough to get close to the source in the tightest conditions. High SPL handling, ultra-smooth frequency response, and interchangeable polar patterns make this the perfect stereo mic pair for any technique in the book. This must-have mic bundle comes with two mic bodies and eight capsules in a custom case.

Genelec 8040A
Active bi-amplified studio monitor

With performance comparable to much larger systems, but in a compact package, the bi-amplified Genelec 8040A is ideal for use in MOTU studio situations where wide frequency response is needed but space is limited. Use the 8040A for nearfield monitoring in project/home studios, edit bays, broadcast and TV control rooms, and mobile production vehicles.

©2011 Sweetwater, Inc.

Sweetwater®
Music Instruments & Pro Audio

(800) 222-4700
www.sweetwater.com

Value Added Reseller
Professional Audio

FedEx FREE SHIPPING
NO MINIMUM PURCHASE
ON MOST ORDERS. CONTACT US FOR MORE INFO.

World Radio History

PreSonus Studio One Pro 2

Discover SOP2's secret vibrato effect

BY CRAIG ANDERTON

OBJECTIVE

Construct a vibrato effect from available components in Studio One Pro 2.

BACKGROUND

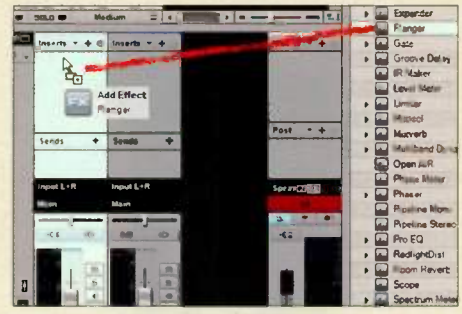
Flanging combines a varying delayed signal with a dry signal; removing the dry signal can produce vibrato, but the SOP2 Flanger effect doesn't allow for delayed sound only. The solution is to sum the Flanger with a dry signal that's out of phase, cancel the dry signal, and get true vibrato.

TIPS

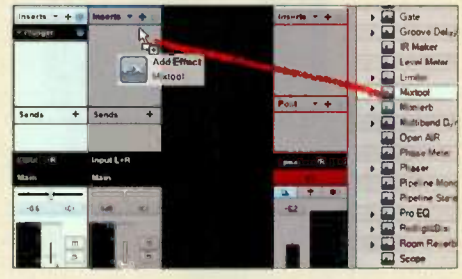
- Step 4: LFO Width determines the vibrato depth; controlling this by a mod wheel or footpedal allows for expressive control.
- Step 4: Shorter delays are more responsive, but don't allow for as much vibrato width.

Step 1 Copy the primary track to which you want to add vibrato by alt-dragging it to a secondary track.

Step 2 Insert the Flanger processor into the primary track.



Step 3 Insert the Mixtool processor into the secondary track.



Step 4 Adjust the Flanger and Mixtool parameters as shown.

Step 5 Vary the secondary track's level. Above or below the "null point" where the dry portions of the signals cancel you'll hear flanging, but at the null point you'll hear vibrato.

World Radio History

Want to advertise in the Marketplace?

Please contact:

Contessa Abono
Specialty Sales Associate
cabono@musicplayer.com
650-238-0296

GIK Acoustics
Quality Treatments at Affordable Prices
"The GIK Monster was the perfect trap to reduce a resonance that I detected in Studio B."
Bob Katz - Mastering Engineer
1 888 986 2789 • www.gikacoustics.com
"Bringing your sound to life!"

Whitewater Recording
Audio/CD Mastering • CD/DVDs
Complete Mastering $375
After complete analysis of your mixes, we will creatively adjust necessary dynamics, equalization, stereo enhancement, maximize volume, clean up fades/starts, encode CD text and ISRC codes and create a PMCD or DDP file set ready for replication.
UP TO 12 SONGS
FREE BAR-CODE WITH ALL RETAIL CD ORDERS
1000 Retail CDs $1199 Short-run CDs · 50 $169 100 $299
(includes graphic design, color insert, color cd print, box, wrap)
828-684-8284
184 Sleepy Gap Rd.
Asheville, NC 28704
Check us out on the Web and Facebook
Serving the recording industry since 1987
www.whitewaterrecording.com

World Radio History

CLASSIFIED ADVERTISEMENTS

CATEGORIES

SOFTWARE

EDUCATION/TUTORIALS

STUDIO FURNISHINGS

PARTS/ACCESSORIES

ACOUSTIC PRODUCTS AND SERVICES

Buying or selling instruments through our Classified Ads offers you convenience, a big marketplace, and a wide range of instruments and prices. Electronic Musician suggests the following guidelines to help the buyer and the seller in these transactions: 1) Get a written description of the instrument, which should include the serial number. 2) Get front and back photos of the instrument. 3) Get a written purchase agreement, with a 24-hour approval clause allowing the buyer to return the instrument for a full refund if it does not meet his/her reasonable expectations.

SOFTWARE

BAND-IN-A-BOX IMPROVEMENT PRODUCTS***

You can put a Better-Band-In-Your-Box.

Norton Music (since 1990)

www.nortonmusic.com

EDUCATION/TUTORIALS

STUDIO FURNISHINGS

PARTS / ACCESSORIES

JustStrings.com

World's Largest Selection of Guitar & Bass Strings!

www.juststrings.com (800) 822-3953

ACOUSTIC PRODUCTS & SERVICES

The MixPack

- Send us your tracks
- We mix it
- You download it

www.themixpack.com/em

(510) 338-1240

High-end acoustics for serious professionals

REALTRAPS is the premier source for high performance acoustic treatment. Our customers include Bob Katz, Barry Gibb, Charles Dye, Tony Maserati, Nile Rodgers, Bob Clearmountain, Butch Vig, and many others. Whether you're a seasoned pro, or a hobbyist wanting the very best acoustics possible, REALTRAPS has the ideal solution.

Please see our web site for a wealth of product information, demo videos, and amazingly clear explanations of acoustics.

www.REALTRAPS.com

Call Toll-Free: 866-732-5872

small ads work too

Acoustics First

www.acousticsfirst.com

Materials to Control Sound and Eliminate Noise™

Toll Free 888-765-2900

World Radio History

PLAY-IT DIRECT
play-itdirect.com

Your local CD and DVD replicator with offices in NYC and on Long Island.

Play-It Direct: one stop production services for world class quality CD and DVD Duplication and Replication, Graphic Design, Printing, DVD authoring and CDROM programming, all under one roof. Think of us as your personal production team. Choosing Play-It means: Unparalleled 1 to 1 service - Strict attention to detail - Competitive pricing!
800-815-3444
www.play-itdirect.com

BoomBot2 (BB2)

BoomBotix
Now Available!
The BB2 Portable Speaker packs a punch for it's small size. With wireless Bluetooth connectivity and a sturdy clip on the back of it, you can take this product anywhere-giving you ultimate mobility with your music. Rechargeable battery and 3W rated/5W Max
MSRP: $64.99
www.boombotix.com
650 -204-7900

Tempest

Available now
Dave Smith Instruments
Tempest is an advanced analog drum machine that generates its sounds using six powerful synthesis voices, and uses an innovative, performance-oriented operating system to create, edit, arrange, and manipulate beats in real time without stopping.
US MAP: $1,999
www.davesmithinstruments.com

ISO-L8R155 Speaker Stands

IsoAcoustics
Adjustable height and tilt speaker stand improves any speaker system. Patented technology provides low frequency decoupling and improved midrange imaging. Designed for 4" to 7" studio monitors.
MSRP $119 per pair.
www.isoacoustics.com

World Radio History

Five Sure-Fire Ways to Make Your Music Sound Real Good

BY CRAIG ANDERTON

1

If a part is substandard, then layer it lots and lots and lots of times. The quickest way to make sure people don't notice a putrid part is to layer it so many times it turns into a kind of sludge that's so repellent, people don't listen to it at all. Not listening = not knowing it's bad. *Problem solved!*

2

Presets rule. Got keyboards? Use presets! Even if your listeners don't *specifically* remember hearing those sounds in commercials about erectile dysfunction and as bumper music for Nancy Grace, the familiarity will give them a warm, fuzzy feeling as it triggers those memories. Or then again, maybe not. Hmmm . . . on second thought, forget it. Don't use presets. Never mind.

3

Record at 192kHz. Hardcore gear geeks say it doesn't make a difference. *Hogwash!* If ad copy written by some marketing dude who can't tell the difference between Britney and Beethoven says it's better, well duh . . . then obviously, it's better.

4

Snap all your music to the beat. That's why sooo many people like to turn on a metronome and just listen to it for hours on end: They love things that are boring and predictable. Don't believe me? Well, isn't *American Idol* in like its 56th season or something?

5

Record *everything* using tubes. Once a radio station called me and said, "We were going to play your CD, but *didn't you use a solid-state preamp on the vocal mic?* I tearfully confessed that yes, I had. They slammed down the phone, took the song out of rotation, it never became a hit, my tour tanked, Oprah canceled my appearance, and I ended up as Executive Editor at a magazine. You've been warned. ■

World Radio History

From Live Mixing to Studio Recording,

The 01V96i's Faders Move Smoothly.

Yamaha just (re-)invented the small format digital mixer. Over ten years ago, we were the first company to make an affordable moving fader mixer for stage and studio. When you are mixing live, motor faders let you easily see exactly where your main, aux and monitor levels are at the touch of a button. In the studio, they let you take full control of the powerful automation features of your DAW. The 01V96i continues our tradition of digital mixing innovation with 16-in/16-out USB 2.0 computer connectivity, Virtual Circuit Modeling effects and advanced DAW control for Cubase® (as well as Pro Tools,® Logic,® Sonar® and Digital Performer®).

So if you need a mixer that moves easily between live mixing, live recording and home studio, you need to check out the 01V96i.

- 24-bit/96kHz digital mixing console with 40 mixing channels
- 24 inputs built-in (8 digital)
- 16-in /16-out USB 2.0 audio streaming at 96kHz
- Full suite of VCM DSP effects (Master Strip, Channel Strip, Vintage Stomp FX) and high resolution REV-X reverb
- Studio Manager Editor with complete mixing control via PC, Mac® and even iPad® (with Air Display)
- Advanced DAW control
- Improved studio-quality head amps
- 100mm motor faders
- Mini YGDAI expansion slot

For more info visit 4wrd.it/01VEM2

YAMAHA

©2012 Yamaha Corporation of America. All rights reserved.

Scan code for 01V96i info

World Radio History

MOTU
motu.com

MICROBOOK II

The MicroBook II turns your Mac or PC into a 4 x 6 recording studio with all the audio I/O and mixing you need to make pro-quality recordings. Plug in your mic, guitar, and keyboard and record up to four analog inputs simultaneously. Mix using CueMix FX software and apply DSP-powered multi-band EQ and compression. Listen to everything on headphones or studio monitors. From initial inspiration to polished track, MicroBook II gets you there with broad compatibility, bus-powered convenience, and professional quality.

- 4-input, 6-output bus-powered USB audio interface for Mac and Windows.
- 6-bus digital mixer to route and mix live inputs with live computer tracks.
- Mic input with Precision Digital Trim™, 48V phantom power, and 20 dB pad.
- Guitar input with Precision Digital Trim.
- Stereo line input (1/4-inch or stereo mini).
- Stereo 1/4-inch balanced main outs, plus 1/8-inch mini line-level out.
- S/PDIF digital out at rates up to 96 kHz.
- Multi-band EQ, compressor, and test tone/noise generator.
- Instrument tuner and analysis tools, including FFT display and oscilloscope.
- Includes AudioDesk DAW software for Mac OS X and a USB cable.

PERSONAL STUDIO RECORDING. EVOLVED.

©2012 MOTU, Inc. • 617.576.2760 • 617.576.3609 fax • www.motu.com • info@motu.com • MOTU and MicroBook are a registered trademarks of Mark of the Unicorn, Inc. All other trademarks are the property of their respective owners

World Radio History