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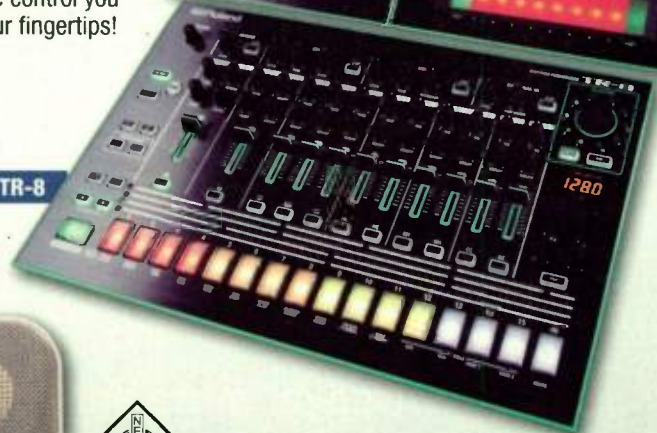


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VT-3

TB-3



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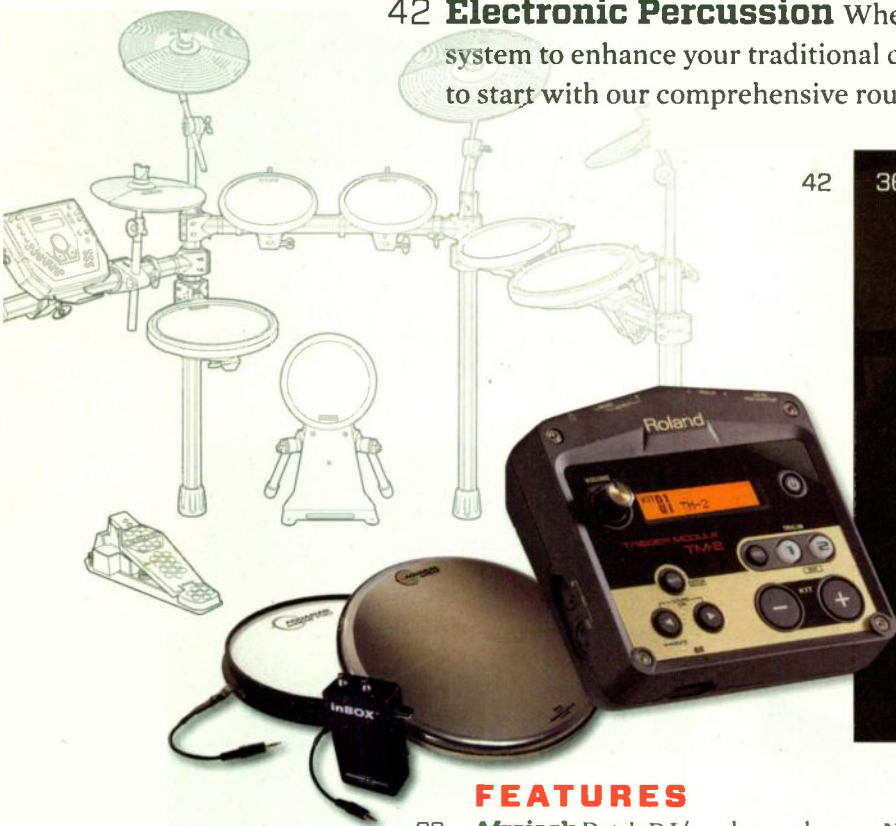
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42

36



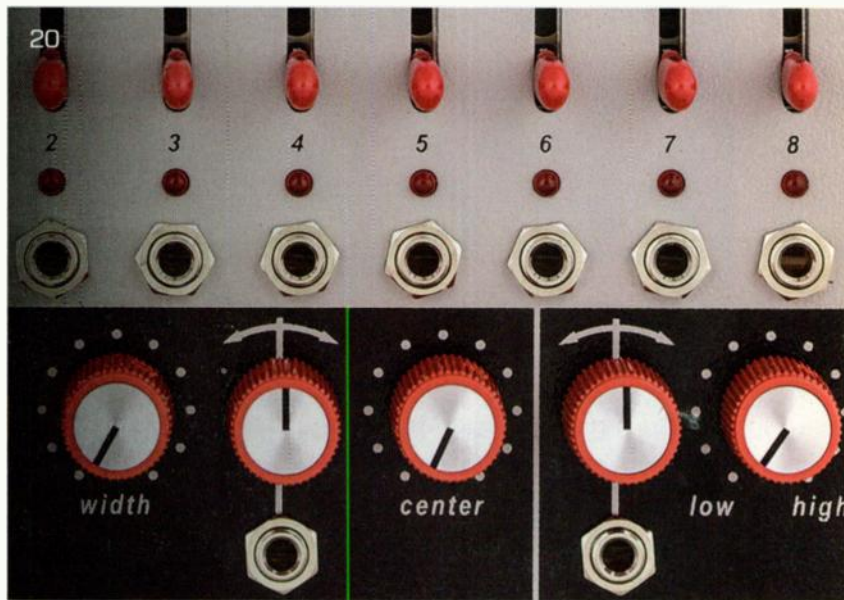
FEATURES

- 22 **Afrojack** Dutch DJ/producer phenom Nick van de Wall can often be found producing tracks aboard his private jet between festival and club gigs spanning numerous continents, occasionally checking in at his studio compound outside Amsterdam. But ten years ago, he was just a kid making music on a laptop in his attic. Here, he talks about the evolution of his success, and his debut major-label release, *Forget the World*.
- 30 **Chrissie Hynde** After more than three decades fronting The Pretenders, Hynde debuts her first solo record, *Stockholm*, recorded at Ingrid Studios with producer/co-writer Bjorn Yttling, and featuring Neil Young, John McEnroe, and Joakim Ahlund. We take you inside the studio sessions.
- 36 **James Iha** Guitarist Iha is best known as co-founder of the Smashing Pumpkins and part of A Perfect Circle. But he's also found success as a label head, producer and composer; we learn about his most recent project, the score for Hulu original series *Deadbeat*.

GEAR

- NEW GEAR** 16 Production tools to help you make better music
- MOD SQUAD** 20 **Verbos Electronics Harmonic Oscillator** Vintage-style Eurorack module
- REVIEWS** 50 **Waves/Abbey Road Reel ADT** Effect plug-in
- 54 **Heavyocity DM-307** Drum machine/groove library
- 58 **Bitwig Studio** Workstation
- 60 **EastWest Steven Wilson's Ghostwriter** Instrument library

08.2014



MASTER CLASS 62

HOW TO

Funding Your Project The good news? Producing and distributing an album costs less than ever. The bad news? You still need *some* startup money. We walk you through innovative ways to finance your dream, from sponsorships to crowd funding, patronage, and grants.

TECHNIQUES 68

Recording Craft amazing synth leads

70 **Production** Six project killers to avoid

72 **Career** Studio Gear: When to rent, when to buy

POWER APP 76

Apple Logic Pro X Construct and customize drum tracks

DEPARTMENTS

10 **Community**

PLAYLIST 40

Music reviews from *Electronic Musician* contributors

CRAIG'S LIST 82

Five Reasons Why Cats Make Wonderful Studio Peripherals



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~ Mick Glossop
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~ Al Schmitt
(Barbra Streisand, Madonna, Quincy Jones, Ray Charles)



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~ Ed Cherney
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"My nearfields sound better on the Recoil Stabilizers. It's a great product."

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People Who Rock

WHEN READING up on Chrissie Hynde's new album, *Stockholm*, I came across a lot of colorful descriptions of Hynde in the media: "Pioneering feminist." "Rock diva." Even "sex kitten." The danger of using adjectives like these is that they send the message, intentional or not: "Not bad for a girl."

People often ask me why *Electronic Musician* doesn't publish a "Women in Music" issue. While we strive for diversity in our content, we prefer to profile people who have earned success on their own merit, not just because they fall into a certain category. Otherwise, the implication is that these individuals need some kind of special treatment or deserve recognition that they wouldn't have earned in a bigger playing field.

Gender is only an issue for people who make it an issue.

Certainly, there's an imbalance in the studio world, but we see this disparity in every technical field, and it can generally be traced back to early education, where girls are not always encouraged to explore math and science.

And while segmentation may work to empower, say, girls in grade school, it does everyone a disservice to praise people solely (read: conditionally) based on their gender, race, or age.

Let's agree to stop using un-

necessary labels and focus on talent, which never needs a qualifier.



SARAH JONES

EDITOR

sjones@musicplayer.com

COMMUNITY

"MUSIC IS DYING. IT HASN'T BEEN GROWING...THIS PAST YEAR IN ITUNES, IT'S THE SMALLEST NUMBER OF NEW RELEASES WE'VE HAD IN YEARS."

Apple executive Eddy Cue, explaining how Apple's \$3 billion acquisition of Beats Music and Beats Electronics would be beneficial for the health of the music industry, at the Code Conference in Los Angeles, May 28, 2014

The Electronic Musician Poll

HAVE YOU EVER BUILT OR MODDED STUDIO GEAR?

I'VE DONE SOME CIRCUIT BENDING

7%

I'VE MODIFIED RECORDING GEAR

15%

I'VE BUILT GEAR FROM SCRATCH

9%

NONE OF THE ABOVE

40%

ALL OF THE ABOVE

28%

IN THE STUDIO

>> Wayne Gordon and The Reigning Sound

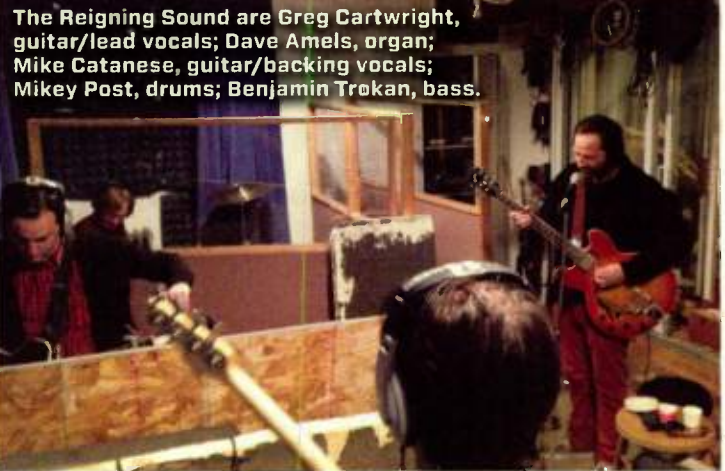
BY BARBARA SCHULTZ

LED BY MUSICIAN/SONGWRITER GREG CARTWRIGHT, THE REIGNING SOUND carry a major torch for '60s garage soul. They recorded their new album, *Shattered*, in Daptone Studios (Brooklyn, N.Y.), where Reigning Sound drummer Mikey Post works in the Daptone label's shipping department, and kindred spirits Gabriel Roth (of the Dap Kings) and Wayne Gordon produce and engineer projects for their label and outside artists.

"Everybody here wears multiple hats," says Gordon, who recorded *Shattered*. "It's a family, and I'm just one of the brothers."

The MO at Daptone has been to embrace limits: Finite options breed creativity and thoughtful decisions. The band were tracked live to an Ampex 440 8-track machine, while most of Cartwright's lead vocals were overdubbed.

Gordon put up two mics on Cartwright's voice: "One was a Bock 241 and the other is one we call the 'million-dollar mic.' It's a mic that my brother Lawrence Gordon built. Gabe had a shootout of all these great mics, and this one won, so we dubbed it the million-dollar mic. Those two main vocal mics were going through a Purple Biz pre and a Purple MC77 compressor. That captured the deepness of Greg's voice, but also the clarity."



The Reigning Sound are Greg Cartwright, guitar/lead vocals; Dave Amels, organ; Mike Catanese, guitar/backing vocals; Mikey Post, drums; Benjamin Trokan, bass.

Gordon's mic choices were fairly basic, but he played with placement on Post's drums to get different sounds. B3/Leslie went through the million-dollar mic or a RØDE Classic, and guitars were taken with a 57. Those cool vintage sounds, the engineer points out, really come from the players and their rigs.

"For Mike (Catanese)'s and Greg's guitars, they used [the studio's] Ampeg Gemini, a couple of Magnatones, and Greg brought in a boutique amp of his own. Mike plays a '70s Silvertone that sounds f*cked up in a good way, which helps.

"There's definitely certain types of amps that you use [to get their sound], and certain guitars, but honestly, 99 percent of it is the musicians. It's just having the knowledge and understanding of that music. It's ingrained in them."

ask!

I KEEP HEARING THAT 24-BIT, 96KHZ MEDIA WILL BE 'THE NEXT BIG THING.' I RECORD AT 16/44.1 BUT MY DAW CAN DO 24/96 IF I CHANGE THE PREFERENCES. SHOULD I DO THIS TO "FUTURE-PROOF" MY SONGS?

**MATTHEW RAWSON
TORONTO, CANADA
VIA-EMAIL**

Regardless of whether 24/96 gains traction, if you record at higher resolutions, you can always convert to lower resolutions. Although you can convert 16/44.1 to 24/96, you won't gain any extra quality—just compatibility.

However, selecting 24/96 isn't "free." File sizes are more than three times bigger than 16/44.1 files, so you need more storage space. Higher sample rates stress out your computer more and reduce the amount of audio you can stream with audio interfaces.

Given today's powerful computers, this won't matter in most projects, but could be a deal breaker if you have high track counts or need to record lots of signal sources simultaneously. Further muddying the waters, rigorously conducted studies are inconclusive about whether people can hear a difference with audio recorded at higher sample rates.

Ultimately, if your system is up to the task, there are no major downsides

to recording at higher resolutions other than what's noted above, and those limitations will become less relevant in the future as computers become more powerful and Thunderbolt becomes part of more studios. But we do recommend that you at least record with 24-bit resolution, as many people notice improved quality compared to 16 bits.

THE EDITORS

You typically set resolution in a program's Preferences file, or when you create a new project. Clockwise from top left: Cakewalk Sonar, Steinberg Cubase, Sony Vegas, and Ableton Live. All are being set to 96 kHz.



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



Sweetwater GearFest 2014

BY GEARY YELTON

EVERY SPRING since 2002, musicians and music equipment manufacturers have converged on the mid-sized Midwestern metropolis of Fort Wayne, Indiana, for GearFest, an event hosted by Sweetwater Sound, the world's top online retailer for musicians and the largest music gear retailer in the U.S.

GearFest grows bigger every year, and this year's event, held June 6-7, drew more than 8,000 musicians and audio professionals.

Unlike NAMM and similar tradeshows, GearFest is staged entirely for retail customers instead of industry insiders. Sweetwater generously invites vendors as well as the public to attend at no cost, providing manufacturer reps, instrument makers, and even magazine and book publishers with exhibit space in more than a dozen gigantic tents on Sweetwater's sprawling 44-acre campus.

Alongside tents dedicated to electric and

acoustic guitars, electronic music production, and pro audio were a variety of food trucks, a performance stage, and Sweetwater's huge and impressive facility, which includes the biggest music store I've ever seen. Guitar maker Gibson had its own tent, and Fender brought a decked-out vintage Airstream trailer.

GearFest '14 gave Sweetwater customers a chance not only to meet and talk to manufacturers, but also to attend workshops and performances by celebrated musicians, recording engineers, and product specialists, too. This year's featured guests included bassist Billy Sheehan, guitarist Jason Hook, and drummers Kenny Aronoff and Jason Bonham. A standing-room only crowd attended a producers' roundtable featuring the likes of Bruce Swedien, Bob Clearmountain, Ed Cherney, and Ross Hogarth, moderated by Sweetwater editorial director Mitch Gallagher. Swedien stole the show with his tales of recording Michael Jackson's megahit album *Thriller*.

But the biggest star of GearFest '14 was the gear itself. Everything that Sweetwater carries was on sale with barely believable discounts. Rock-bottom prices were the business of the day. Certainly the most popular sale was on classic Shure microphones, with SM57s on sale for \$57 and SM58s for \$58. In addition, Sweetwater gave away more than \$72,000 worth of gear to some 180 lucky winners. All in all, it was an incredible event in which everyone was a winner.

Music Biz 2014 Breaking into Commercials and Trailers

THE FIRST day of the Music Biz 2014 conference, held May 6-8 at the Hyatt Regency Century Plaza (Century City, Calif.), offered a panel entitled "Beyond the Jingle: How to Get Your Music into Film Trailers and Commercials."

Moderated by Sally House, executive producer for music-production company The Hit House (L.A.), the panel also included Hit House's director of music supervision and business development, Danny Exum; Dan Silver, VP of creative with Riptide Music Group; Ali Pistoresi, creative director at Immediate Music; and Jesse Goodwin, music supervisor at Seismic Productions.

"Being able to use music from new artists is the lifeblood of what we do, and to be able to help an artist climb the ladder to a huge sync is something I take pride in," Exum said. "People need to know what the best way is to get their music heard."

Toward that end, Sally House shares a few of the panel's tips for composers:

Do Your Research. Make sure you're sending your songs to the right place. Listen to the music in TV shows, trailers, and commercials and find out what music supervisors work on what projects. Most online resources for this research cost money, but for free, you can go to IMDB.com, research the shows and movies that your music is suited to, and target those supervisors. There's also helpful information in *Variety* and *Hollywood Reporter* online and in print.

Send Your Best. When you're ready to reach out, make sure your music is ready too. Don't send rough, unfinished work; make sure everything you do and send out is professional and sounds



that way. If your music comes as a cold call or an e-mail, the supervisor will hit Stop after ten seconds if the production is bad and it doesn't grab him or her.

Add the Metadata. Be sure to label your tracks correctly, and always attach metadata to your files, so you can be found (and paid), and your track can be licensed if they love it.

AT GUITAR CENTER

PHANTOGRAM

THE NEW VOICE OF SYNTH-POP

Drawing on influences as diverse as hip-hop artists like Outkast and Madlib, rock and alt-rock artists like Sparklehorse and John Frusciante's solo recordings and '60s French pop music, electro-pop duo Phantogram, comprising childhood friends Josh Carter and Sarah Barthel, have transcended those roots with their latest release, *Voices*, while mounting riveting live shows that continue to grow their audience.

Despite the intensity and lyrical darkness of much of their material, offstage they are self-described as "kind of goofy." As Barthel says, "We just like to mess around and have fun and laugh a lot." The seriousness pops out, though, when they start to talk or think about their music. "Whenever we switch over to music, [even] if we're just talking about [it], we switch

completely over, to the point where people are [asking], 'Are you guys clinically depressed or something?' It's so interesting, because we don't even notice it—like we don't even realize that it's happening."

Barthel, who handles the bulk of the keyboard playing live, is overjoyed at having been able to work with Moog instruments, especially the Moog Voyager. "It's just this warmth and gritty thickness that you can find with Moog," she says. "We've always wanted to use them. I think it's a huge element in our sound. I mean, I'm a super bass head, I'm always like yeah, more bass. Let's feel it. I just love it so much. And Moog is, 'it.'"

See the whole interview and the gear at guitarcenter.com.



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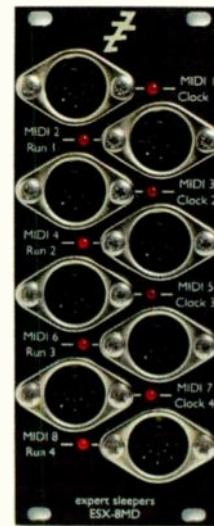
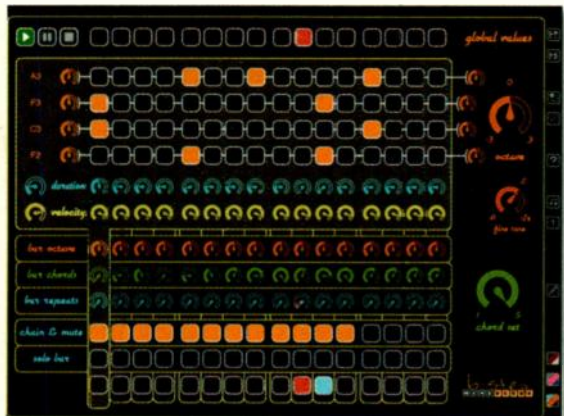
MOTIF XF WHITE



Visit 4wrd.it/40thEM for more details.



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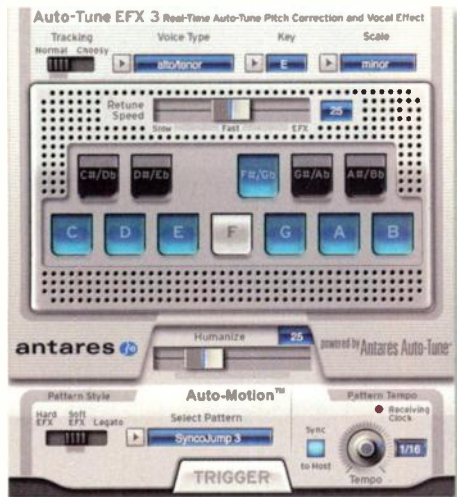


1
Monoplugs
B-Step Sequencer
 Software step-sequencer; VST, standalone, and iPad
\$16.99
HIGHLIGHTS 16th-note resolution • 4 tracks • 16 bars, with pattern auto-chaining • 5x6 chords per project • duration, velocity, octave, chord, and repeat controls on each step • supports up to two Novation Launchpads • Core MIDI, virtual MIDI ports, and Network MIDI • MIDI learn mode • use as master clock (up to 400 bpm) or sync to external clock
TARGET MARKET Musicians, composers
ANALYSIS An easy-to-use interface designed for live performance
b-step.monoplugs.com

2
Future Retro
Zillion
 Algorithmic MIDI sequencer
\$300
HIGHLIGHTS Based on the early '70s Triadex Music algorithmic sequencer/synth • uses 32-bit shift register, which can be the source for Melody, Rhythm, Velocity, and Theme modes • Swing, Direction, and Loop modes • stores 99 scales • MIDI In, Out, Thru • internal sync or to MIDI Clock • saves the parameter settings of most recent session • includes universal power supply
TARGET MARKET Composers, performers, producers who enjoy adventurous music
ANALYSIS The perfect device for creating endlessly changing melodies and rhythms.
future-retro.com

3
IK Multimedia
iRing
 Motion-control system for iOS
\$24.99
HIGHLIGHTS Package includes a pair of double-sided ring controllers that enable your iDevice's camera to detect their position in space and translate that information into MIDI data • includes two free iOS apps: iRing Music Maker provides loops, bass, and lead synths; iRing FX/Controller processes external sources running through your iDevice • control up to 6 effects parameters at a time
TARGET MARKET Musicians and DJs
ANALYSIS An inexpensive way to add real-time, 3D control over software instruments and effects.
ikmultimedia.com

4
Expert Sleepers
ESX-8MD
 Eurorack MIDI module
\$155
HIGHLIGHTS Expansion module for the ES-4, ES-40, and ES-5 that adds eight MIDI or DINsync outputs on one panel, with sample-accurate timing • supports any MIDI message, including MIDI clock • MIDI Out works with sampling rates of 48 kHz and higher and Silent Way software • 10HP panel width
TARGET MARKET Musicians who want to integrate a DAW with their modular synthesizer and outboard MIDI gear
ANALYSIS The module packs a lot of power behind a single panel.
expert-sleepers.co.uk



5
Antares
Auto-Tune EFX 3

Pitch-correction software
\$129

HIGHLIGHTS Powered by the same audio engine as Auto-Tune 7 • re-tune speed control • Humanize function for realistic sounding pitch correction • auto-motion pattern generator with user customization capabilities • 64-bit AAX Native, Audio Units, VST • customizable scales • accepts DAW automation for control • upgrade paths available from Auto-Tune EFX 2 32-bit and 64-bit, as well as original Auto-Tune EFX

TARGET MARKET Producers, engineers, musicians
ANALYSIS An affordable way to get state-of-the-art Antares pitch correction.

antarestech.com

6



6
Samson
CO1U Pro
USB condenser microphone
\$79.99

HIGHLIGHTS Hypercardioid polar pattern • 0.75" diaphragm • 16-bit at 44.1 and 48kHz resolution • front-facing headphone output for zero-latency monitoring • Mac/Win/iOS powered • cables included • die-cast metal body • LED peak indicator • includes tripod stand and swivel mount
TARGET MARKET Podcasting, Internet communication, home recording

ANALYSIS Samson has improved the signal-to-noise specs of its popular USB microphone.

samsontech.com

8

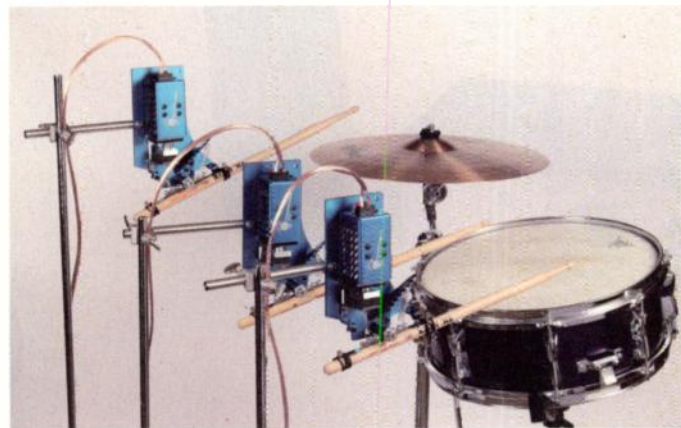


8
iThirtySeven
iPro.DJSampler
DJ app for iPad
Free

HIGHLIGHTS 16 trigger pads display sample names • x/y pad for controlling effects • 8 effects buttons • 5 playback styles • pad editor • tempo keypad • 16 free samples including loops, sound effects and vocals • 8 free effects including reverb, delay, filters • additional effects, time stretching, and the ability to load WAV and mp3 files available as in-app purchases

TARGET MARKET DJs, producers, musicians
ANALYSIS The intuitive interface and included content make this free app a no-brainer download.

ithirtyseven.com



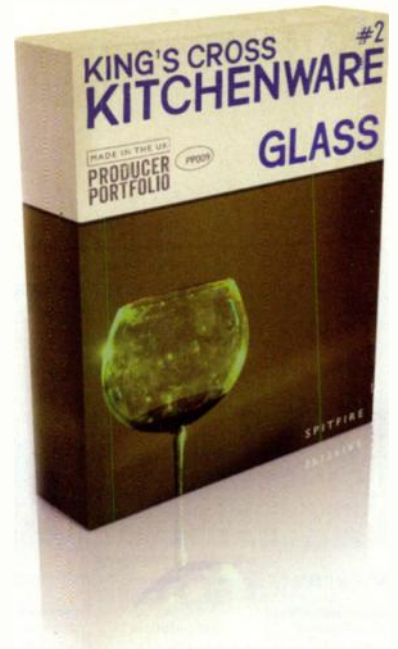
7
iGnonn
ST-1 Striker
MIDI-controlled
electromechanical actuator
\$595

HIGHLIGHTS Actuator receives MIDI data and plays acoustic percussion instruments using a drum stick or mallet • powered by velocity-sensitive CB-2 (\$295) controller board and USB MIDI interface • includes set-up program for assigning MIDI note and channel numbers

TARGET MARKET Composers, sound artists, experimental musicians
ANALYSIS An interesting percussion controller for DIY types that would be fun to use with programs such as Cycling 74 Max/MSP or Native Instruments Reaktor.

ignonn.com

Continued

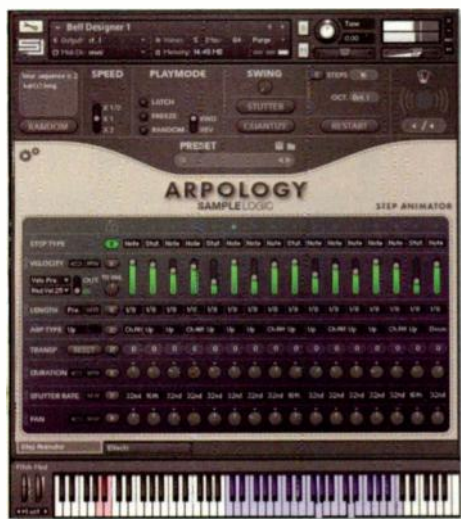


9
 sE Microphones
X1T
 Tube condenser microphone
\$TBA
HIGHLIGHTS Cardioid pattern • 20Hz–20kHz frequency range • 135dB dynamic range • lowcut switch • -10dB pad • includes mic clip and power supply • 3-year Zero Downtime Free Replacement warranty
TARGET MARKET Engineers and musicians who record at home
ANALYSIS In addition to covering vocals, the X1T was designed for use on acoustic string instruments, piano, and percussion.
seelectronics.com

10
 Focusrite
Saffire Pro 26
 Digital audio interface
\$349.99 street
HIGHLIGHTS FireWire 800 • supports Thunderbolt using an adapter (not included) • 18 inputs • 8 outputs • 4 mic preamps with XLR/TRS combo jacks • 2 additional TRS rear-panel line inputs • 2 front-panel instrument/line inputs • 2 headphone outs with separate volume controls • 24-bit, 96kHz resolution • S/PDIF I/O, MIDI I/O, and ADAT Lightpipe input • FireWire bus powered
TARGET MARKET Studio and mobile recording
ANALYSIS An affordable and portable way to get four Focusrite mic preamps and plenty of I/O.
focusrite.com

11
 CAD
MH-320
 Studio headphones
\$109
HIGHLIGHTS Closed-back, circumaural design with 45mm neodymium drivers • soft leather earpads with high-density memory foam • 10Hz–26kHz frequency response
TARGET MARKET Musicians, educational facilities, project studios
ANALYSIS Designed for use when tracking, editing, or auditioning mixes.
cadaudio.com

12
 Spitfire Audio
Kitchenware—Glass
 Sound library for Kontakt 4 and 5
\$112
HIGHLIGHTS A collection of glass and enamelware played with a variety of beaters and performance techniques (hitting, bowing, rubbing), with and without water in the vessels • 10.7GB of WAV files • more than 12,000 samples; 5 round-robin samples per instrument • chromatically tuned instruments • includes Ostinatum pattern-builder software
TARGET MARKET Sound designers, film and game composers
ANALYSIS A complimentary addition to Spitfire Producer Portfolio's Kitchenware—Metals library.
spitfireaudio.com



13

Sample Logic

Arpology

Step sequencer/arpeggiator for Kontakt 5.3 Player

\$399.99

HIGHLIGHTS Step Animator combines step-sequencer and arpeggiator functionality • each step is highly configurable • 150 presets • real-time automation and multiscript macros • LFO and pitch control • triggers with 48 effect chains • additive synth engine • randomization feature • TouchOSC control for iPad • 5.25GB sample library; 550 instruments and multis • 24-bit, 44.1kHz resolution

TARGET MARKET Composers, DJs, producers, performers

ANALYSIS A sophisticated controller with a well-organized user interface designed for creating rhythmically complex music.

samplelogic.com

14

Sennheiser

MK8

Multipattern condenser microphone

\$TBA

HIGHLIGHTS Five polar patterns: omni, wide-cardioid, cardioid, super-cardioid, figure-8 • 1" dual-diaphragm capsule • 20Hz–20kHz frequency range • pad (-10 dB, -20 dB) • lowcut switch (-18dB/octave, 60 Hz; -6 dB/octave, 100 Hz) • handles SPLs up to 140 dB (when pad is off) • 130dB dynamic range • includes mic clip and storage pouch

TARGET MARKET Engineers and musicians recording at home

ANALYSIS Built to last, this mic can handle a wide variety of studio chores thanks to its many polar patterns, pad, and highpass filter.

sennheiserusa.com

15

PreSonus

Monitor Station V2

Desktop monitor/headphone controller

\$299 street

HIGHLIGHTS Analog input: 2 pairs of 1/4" TRS; 1 pair of RCA inputs; unbalanced 1/8" TRS • 3 pairs of 1/4" TRS speaker outputs with trim • 1/4" TRS Main and Cue outputs • 4 headphone jacks with level controls and Source buttons • built-in talkback mic • mono, mute, and variable-level dim buttons • S/PDIF digital input

TARGET MARKET Personal studios

ANALYSIS A significant update that adds 1/8" analog and S/PDIF digital input and simplifies the user interface.

presonus.com

16

Universal Audio

UAD Neve 1073 Preamp & EQ Collection

Plug-in for UAD platform

\$299

HIGHLIGHTS Models the full Class A transformer/transistor circuit path of the 1073—preamp, EQ, and output amplifier, including clipping and nonlinear behavior • 3-band EQ and passive highpass filter • mic, line, and high-impedance instrument input settings • supports Unison technology when used with Apollo audio interfaces

TARGET MARKET Musicians and engineers with UAD gear

ANALYSIS Designed to provide the most accurate re-creation of this classic preamp/EQ, while adding emulation in hardware via Unison for Apollo owners.

uaudio.com

Verbos Electronics Harmonic Oscillator

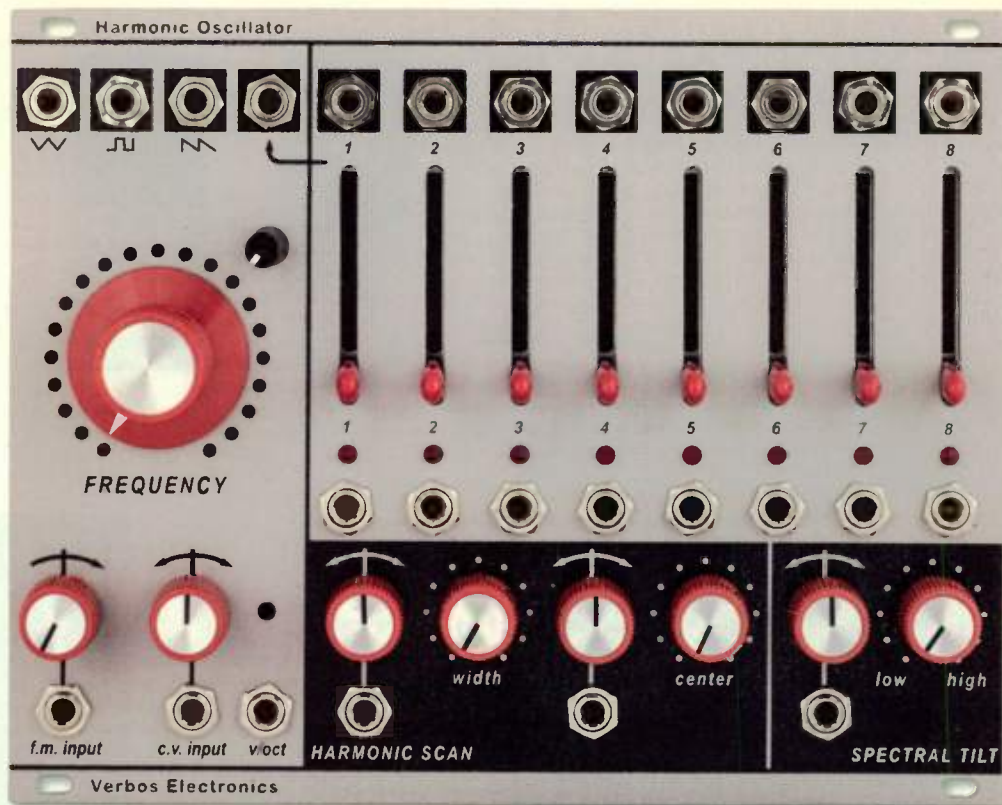
A full-featured sound source offering vintage West-Coast flavor

BY GINO ROBAIR

WELL RESPECTED for his custom modules in the Buchla 200 Series format, Mark Verbos officially entered the Eurorack scene when he unveiled a new line of products at the 2014 NAMM show. While some of his new modules reflect earlier designs, Verbos plans to expand the line while maintaining a focus on what he calls “old-school analog,” which includes the use of discrete transistors and voltage control over every parameter.

One of the Buchla-based designs he carried into Eurorack is based on the '60s-era Model 148 Harmonic Generator, which offered individual outputs for a fundamental pitch and its first nine harmonics: The Verbos Electronics Harmonic Oscillator (\$649) re-imagines the design, adding sliders to set the level of the fundamental and each of the first seven harmonics, CV inputs to control a dedicated VCA for each partial, and a variety of musically useful modulation capabilities that, all told, differentiate this module from all others in the Eurorack format.

Harmonic Convergence The Harmonic Oscillator is a triangle-core oscillator providing individual outputs for square, triangle, and sawtooth waveforms. The fundamental and harmonics from the waveshaping portion of the module are summed to a mix output, but



The Harmonic Oscillator's CV inputs allow you to individually address the fundamental frequency and its first seven harmonics as well as scan through them in several ways.

are also available individually at pre-VCA direct outputs. With each fader down, you can play the partials melodically using pulses or CVs: I used the eight outputs of a Doepfer A-149-1 and -2 Quantized/Stored Random Voltages module to address each stage of the Harmonic Generator— instant gratification.

The module's Harmonic Scan section provides ways to linearly step through the partials. The Center knob selects the partial, around which you can scan the others back-and-forth using a CV that can be altered with the associated inverter knob. The Width control determines how many harmonics are heard at one time, based around the setting of the Center control. When Width is turned fully clockwise, the fundamental and all partials are present. As you dial it down, fewer partials are heard. You can scan outward from the center partials using the Width's CV input, which has its own bipolar control.

The Spectral Tilt section can be used to favor one end of the frequency spectrum or the other: Turn it fully counter-clockwise to add the fundamental and lower harmonics, fully clockwise to open up the highest harmonics. A CV input (with bipolar knob) is there for modulation. The position of the Spectral Tilt control alters the movement created by the CVs used for harmonic scanning.

And what would a module like this be without frequency modulation capabilities? The Harmonic Oscillator provides both types—a linear FM input with dedicated level control and an exponential FM input (marked CV Input) with a bipolar knob. The 1V/octave CV input controls the fundamental frequency for all audio outputs.

West Coast/East Coast The sum of these features adds up to a module that has a bold sound and a strong personality. The timbres from the waveshaping section (the mix output and discrete outputs of the fundamental and its individual harmonics) are by no means pure sounding. Each is harmonically rich, which provides a wonderful source for aggressive filtering. I especially enjoyed tuning the fundamental frequency to its upper registers while modulating the FM inputs to create heterodyning effects that were inspiring to work with.

Overall, the Harmonic Oscillator is perfect for exploring basic additive synthesis techniques (an important part of the so-called West Coast modular style) while providing filter-like subtractive synth sounds when you need them. To take full advantage of the Harmonic Oscillator, you'll want plenty of modulation sources, such as LFOs and envelope generators. But whatever you throw at it, this 32HP powerhouse will give you something you didn't expect in return. ■

STUDIO BLISS.



• RXA5: 5-inch: 70 watts, 50Hz-27kHz

• RXA6: 6-inch: 100 watts, 45Hz-27kHz

RESOLV RXA ACTIVE STUDIO MONITORS deliver the sonic elements essential to any studio setup, featuring Samson's newly-developed *Air Displacement Ribbon Tweeters* for extended high-frequency response and increased dynamic range.

Sold individually in 5 and 6-inch models, RXA monitors offer a true reference sound with no hype, just precise audio imaging for authentic and critical sound reproduction.



GLOBAL EXPANSION

While releasing his major-label debut *Forget the World*, DJ/producer Nick van de Wall's life of performing, producing music, building a label, and designing clothes and light shows has become a world unto itself

BY MARKKUS ROVITO

NO ONE could have seen coming the present state of electronic dance music (EDM), especially not a young Nick "Afrojack" van de Wall, who says he once made the decision to become a broke musician rather than a banker. Since then, EDM has blown up, perhaps replacing hip-hop as the minter of young multimillionaires. *Forbes* magazine has ranked the top earners in EDM, and the plump figures from 2012 to 2013 just about doubled, with Calvin Harris sitting pretty at the top with \$46 million for 2013.





W 270



Sting and Afrojack collaborated on the *Forget the World* track "Catch Tomorrow."

An advertisement for Epidemic Sound. The background is a close-up of a guitar fretboard. A piece of crumpled white paper with red text is draped across the fretboard. Below the paper is a dark red banner with white text. At the bottom, there is a URL and the Epidemic Sound logo.

**WHEN THE GOING GETS LAME
CHANGE THE GAME**

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**Epidemic
Sound**

EDM has even been dubbed the savior of Las Vegas following the 2008 crash. Club after posh club now enter bidding wars to secure annual contracts with top DJ talent to fill 3,000-person venues backed by technological wonders of LED screens and light shows.

In 2014, if there's a producer who wants to start producing, and if they're saying, "It's too difficult, I don't know what to do," they are just lazy.

At the center of this maelstrom stands 26-year-old Dutch DJ and producer Afrojack. A top-10 standard on both the *DJ Mag Top 100 DJs* and *Forbes Electronic Cash Kings*

money lists, Afrojack taxes his private, logo-emblazoned "Afrojet" to the extreme, bouncing from top club to epic festival and back again to The Netherlands to finish tracks in his studio. Following his debut major-label album release for *Forget the World*, Afrojack's schedule saw him blanket the world from Cannes to Los Angeles to Ho Chi Minh, hitting 10 destinations in 20 days.

In the ultra-flooded dance music market, an artist has to stand out. Afrojack set himself apart by developing a bouncy, high-energy style, punctuated with signature pitch-bent, slightly disorienting lead synth lines. Then he produced singles and remixes at a blistering pace.

Starting as a teenager with just a laptop and Fruity Loops software, Afrojack honed his style, and by his early 20s, he was remixing the top names in club music, like Steve Angello, Laidback Luke, David Guetta, and Benny Benassi. He earned a Grammy for remixing Madonna in 2010 and reached mainstream status in 2011, producing with Pitbull on the international hit "Give Me Everything."

By 2014, Afrojack had become something of a pop-culture phenomenon even before *Forget the World* dropped. Life-affirming, anthemic singles from the album like "The

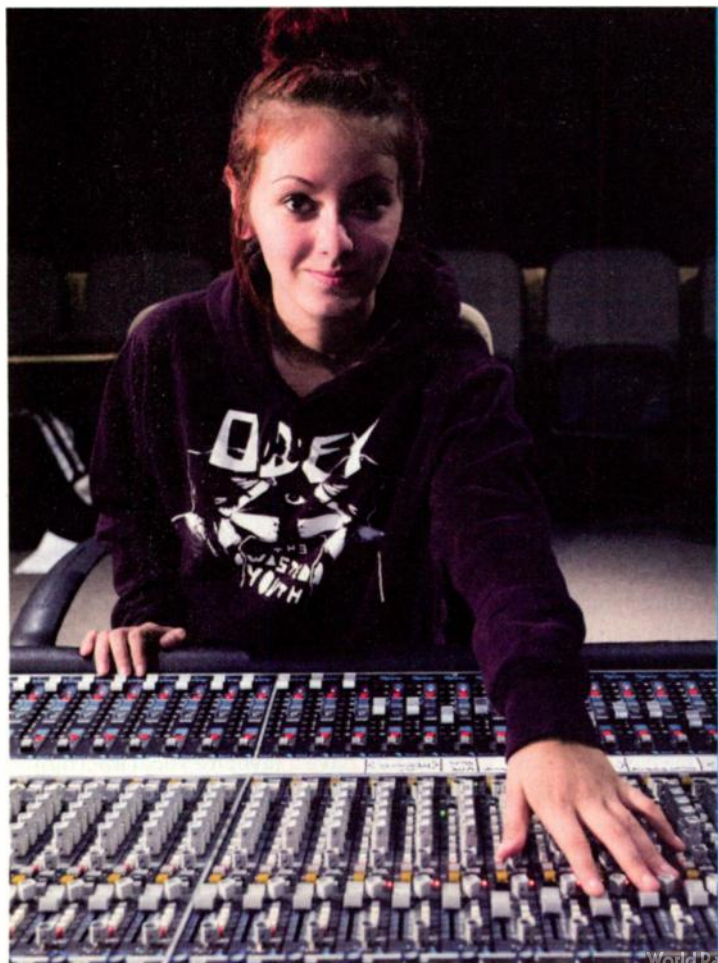
Spark" and "Ten Feet Tall" had already topped 20 million YouTube views; he had launched an Afrojack clothing line with G-Star Raw; he regularly fills Vegas mega-club Hakkasan; and he's building a studio compound outside of Amsterdam for his Wall Recording label artists. Everyone seemingly wanted a sip of the Afrojack juice. The star-studded album features guest spots from Snoop Dogg, Chris Brown, Wiz Khalifa, and Sting, as well as up-and-comers handpicked by the producer.

Yet though it all, he preaches a positive, "If I can do it, you can do it" attitude, and still writes all his music in Image Line FL Studio running on a Mac laptop off of a booted copy of Windows. Only now, instead of in his mom's house, he does it while soaring in the Afrojet.

How do you fit in recording with all the touring and other activities you're involved with?

As soon as I hit my plane, I start making music. All of my songs start in my plane and will be finished in my plane. The time in between is when I work on them in a real studio.

My schedule's pretty crazy, but I don't really take time off, so then it becomes a lot easier. When you work seven days a week, 16 hours a day, it becomes easy to fit everything in. It's not



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a bad thing. I love my job; it's still my hobby. Everything I do is all part of my favorite thing to do in life, so it makes it really easy to do this.

You make music in all different environments, from just a laptop on the road to high-end studios. What are your favorite working conditions?

It doesn't really matter. I prefer working in a big studio with big speakers, so I can hear the sound loud but banging. But I also love to work on my headphones in airplanes and in my hotel. I actually sometimes produce on just my laptop speakers to get ideas out there—melodies and stuff.

Making music on my laptop is what I've done since I was 15. I always knew I wanted to create music with my computer. I can play the piano too, and drums, but sitting behind my laptop creating music is just something I love doing. I create the music everywhere, all over the world, but I finish it off in the studio to make sure it sounds like it's supposed to sound.

There are two different sides to making music: You have the musical side of making a

sound—the melodies and good ideas, and then the technical side, the production side—the engineering and stuff. I do everything myself, so that's all happening on my headphones and in my own home studio in Holland, where I have gigantic PMC speakers. That's where I mix and do all the technical stuff.

So you do everything yourself. Do you even record all the vocalists?

No, I'm actually born from being a producer in my attic studio at home, so I never had any experience with professionally recording in Pro Tools. But I do put the compressors in there, the equalizers and the delays and create my own effects on all the vocals.

The only thing that I don't actually do is recording through Pro Tools, because I have no idea how the hell that works. I know how to tune Autotune; I know how to work with Melodyne; I know how to hook up my hardware, but I actually have no idea how Pro Tools works. I hate that software. It's so... how you say? It's like working in a hospital when you're working on Pro Tools. Like all the energy gets sucked out of it, and you

have to get too into mixing, engineering, and mastering mode, and it's so technical. I like creating while I'm mixing and mixing while I'm creating.

So through that experience, you've kind of created your own system for mixing?

Yeah, usually I test out the tracks in clubs: I have the ability to play them in night clubs, which is a really nice extra to make sure the sound is clean, especially for club tracks. I think it's like your ear gets used to hearing if it sounds good or if it sounds shitty compared to the other songs. If it sounds good, then you're happy, and if it sounds even better, then I'm jumping around like a crazy man in my room. I've never attended any kind of mixing school or music school or anything, but I'm just lucky; when something sounds good on the radio, I'm really happy.

Do you have a favorite vocal microphone?

I have no favorite for recording vocals for my songs; I'm not professional on that. I actually use my iPhone to do all the talks for radio shows and stuff.



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Engineer Gustav Lindelöw

honesty is first apparent when she discusses whether digital technology changed the way she approached recording her first-ever solo album, *Stockholm*, with Björn Yttling (Sahara Hotnights, Lykke Li, Franz Ferdinand) of Swedish pop royalty Peter Björn and John handling production and co-songwriting.

"It certainly did when we wanted to rearrange something or take a few bars out," Hynde explains, from her home in London. "It used to be a razor blade to tape or you had to replay the whole thing. I did something recently where I sang a song in seven different keys. It could get really ugly if I asked a band to transpose something seven times. But it's easy now to do that in the studio. But I am tempted to say it's all going in the wrong direction and it's not getting better because ultimately it's fine the way it was— and that's the truth."

Hynde never sugarcoats when a slap in the face will do. "Technology makes life easier," she continues. "But I don't know if making life easier is a good thing. Often when you get everything perfect, it has no vibe anymore. You lose the personality and it's all over. I can't imagine what James Brown would have thought if a producer said 'let's Auto-tune you.' My blood runs cold at

the thought of it. It's too easy for artists to blame other people for the way things are going. The buck has to stop with you. But the smart money goes on allocating people who are better at doing things than you are and getting on with the job. Just control the little thing that you're good at. Otherwise you just disappear up your own ass."

Hynde and Yttling share writing credits on nine of *Stockholm's* eleven tracks, the album reflecting her skills and Yttling's sounds. She'd never heard of Yttling, much less his whistling hit ("Young Folks"), before working with him. One of her daughter's friends (and her old pal, John McEnroe) gave Yttling the thumbs up.

Stockholm's rocking opener, "You or No One," recreates a '60s Wall of Sound style with happy tambourine and booming instrumentation. "Dark Sunglasses" is tougher, Hynde's subtle sneer about "the ruling classes" backed with wiry guitar and funky drumming. The acoustically driven "In the Movies" and the Bowie-ish "You're the One" are lusciously dark, hard-knuckled pop, like most of *Stockholm*. Yttling's knack lies in placing Hynde's consummate vocals and supreme intellect into a variety of plug-and-play productions. The wonderfully distorto-guitar in "Down the Wrong Way" is none other than Neil Young. "House of

Cards" rocks and rattles, as raunchy as '70s Stones. Near the end of *Stockholm*, soundtrack-ready ballad "Tourniquet" finds Hynde's voice floating ethereally over acoustic guitar, Celesta and organ, all played by Yttling.

Recorded in Stockholm at Yttling's Ingrid Studios with engineers Gustav Lindelöw, Hans Stenlund, and Nille Perned, the album also features Yttling's choice of musicians: drummer John Eriksson, bassist Ulf Engstrom, various string players and on one track, guitarist John McEnroe of the ill-fated Johnny Smyth Band.

"Esthetically, I really had no goal except to avoid making a sh*tty second-rate wannabe Pretenders album," Yttling says. "Chrissie didn't prepare songs at all; as it worked out she wanted to write lyrics to my ideas. As soon as she got into the song, we worked together to finish them."

"I didn't bring a bunch of songs to him," Hynde confirms. "Björn didn't want to produce at first, but I think he was seduced by the music. Björn would have some real basic chords. I'd chase him away for a half hour, leaving his laptop with the music on it, and I'd scribble some lyrics. Then we'd rough something together. I would sing the songs through a handheld mic. Half of the songs are the rough guide vocal. You can hear me fumbling some words. I'd re-sing them later but I preferred the rough vibe of those first takes. On other tracks I would chase everyone out but the engineer and do a few takes to get a vocal comp. That's the more traditional way in contrast to the rough punk ones. Then Björn would layer it up with the musicians."

"The recording process was very back and forth," explains Lindelöw (Lykke Li, Anna Ternheim, Peter Björn and John). "Often we started from the demo, which could be just an iPhone recording, then put down some acoustics and maybe a piano and build from that. We focused a lot on getting the rhythm and vocals right, but you have to build a suitable world for that at the same time to know that the rhythm and vocals are right. We also went back and forth between different versions of a song a lot, comparing song structure, beats, and vocal performance."

Though Hynde has lived in the UK for 40 years, *Stockholm* is her first album that was not recorded in the US or the UK. She quickly warmed to the Swede's relaxed methods which thoroughly suited her rock-'n'-roll ways. "I like that Björn and [co-producer] Joakim [Åhlund] would grab these f*cked-up guitars," Hynde says. "But these guys made them sound great. I've always been skeptical of spending a long time being meticulous getting sounds. It's rock 'n' roll. How long can it take? If you listen to the all the things we loved growing up there is no producer



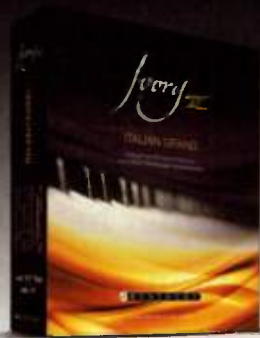
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How was it to work with an orchestra for album tracks like "Mexico?"

That was one of the coolest things I've ever done in my life. I've always been into classical music, and I've always loved the sounds. But I've never really been able to re-create them with software. I had my own composition that I prepared in Fruity Loops—the whole composition of the strings, and horns and stuff. But I did it together with a guy who runs a big symphony in Holland. I went into the studio with him; I presented my composition; he made a professional version of my composition—because I'm not a professional classical composer. But then he worked it out even more, and we went to a studio together to record it. That was one of the coolest things ever. It's like, I don't know how to play guitar, but I can make a guitar song, and then to have a real guitarist play it [for example, on "Three Strikes" from the album], that's one of the most awesome things ever.



will find one sh*tty one, one decent one, and one that also tells you how to mix it. Like, I've seen this tutorial about how they remade Prodigy's "Smack My Bitch Up," and it's so exactly what they did. In 2014, if there's a producer who wants to start producing, and if they're saying, "It's too difficult, I don't know what to do," they are just lazy.

With the album title *Forget the World*, was this a concept album in a sense? Were you looking at this like a completely cohesive collection?

The only thing that I wanted to say with *Forget the World* is that people shouldn't worry about what other people say, what other people do, or what society tells you you should be doing. You should just do what you love, and then you'll be way happier. Like, if you could be the most successful banker in the world, but if you really love baking cookies, you will never be happy until you're actually baking cookies. I see a lot of kids who are lost, and they don't know how to follow their



something so different from what you see in Vegas; just make sure you catch me there!

For the new visuals you worked on for that club, do you work with partners on that?

I work with a visual graphic team, but I'm really the creative director. I got together with a team of five or six people for the light show and the visuals. Again, I'm not a visual professional, but I know what I like. So I work together with these guys. I tell them what I want, how I want it to look, and they make it sort of like that.

With your growth in your musical sound and your club projects, do you also have any goals to expand your live show?

Yeah, that is my goal eventually. Right now, there's no space for that. I'm already putting so much back into the shows. I'm trying to make sure that the promotion is right if it's something special, 'cause if the events are special, you have to rent special staff.



How are the studios you're building for Wall Recording?

I just bought a new house and it will have studios next to it. It's in the middle of nowhere ... countryside. If you open one of the studio doors, you can actually hear the birds whistling in the trees. It has its own lake. It also has a swimming pool. It's 45,000 square meters. And it's four tiny writing studios, one mixing studio, and one gigantic studio for myself. I also have a guesthouse if we want to keep working all night long.

Are you going to have Pro Tools in there?

Yeah, I need to have a whole session. But I also have a friend who worked with me on the album for engineering the vocals, and he's also going to help me when I record into Pro Tools.

Being a self-taught producer, do you think that's the way to go?

I could tell you a lot of stuff, but the nice thing about the society we live in today: We have Internet, and you can find everything there. You type "YouTube tutorial" for a certain sound, and get three different tutorials. You

The reason I found my dreams was because at one point I had to make the decision: I'd rather be a poor musician than a rich banker.

dreams because they're so afraid of what people will say or what their parents will say. Because no one is following their dreams, I'm trying to tell the world the reason I found my dreams was because at one point I had to make the decision: I'd rather be a poor musician than a rich banker.

So switching gears, how are your shows going at the Hakkasan Club in Vegas?

They are going good. Sold out and people jumping up and down. It's a big part of my life. I want to bring a special experience to Hakkasan,

I did a show in Holland and we had 25 dancers, sh*tloads of guest vocalists, a moving DJ booth, a moving piano, and the biggest LCD screen they'd ever had in that venue in Holland. It was the most expensive production they ever had. It was like the homecoming, so I wanted to give them something special.

Out of all the stuff you're doing in your life right now, what excites you the most?

Right now, producing. There's a lot of new sounds available; a lot of people are not making [music with those sounds], so there are a lot of options to make new sounds. I'm excited when I'm in the studio right now. ■

Markkus Rovito drums, DJs, and contributes frequently to DJ Tech Tools and Charged Electric Vehicles.



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Chrissie HYNDE



Thirty five years after she stormed the the rock and roll scene fronting The Pretenders, Hynde and Swedish producer Björn Yttling marry a punk-rock approach with modern technology to record *Stockholm*, her debut solo album.

“I’ve always been skeptical of spending a long time being meticulous getting sounds. It’s rock ‘n’ roll. How long can it take?”

—CHRISSIE HYNDE



BY KEN MICALLEF

IN 1979, while Chic danced “Le Freak,” Gloria Gaynor vowed to survive, and Donna Summer talked about “Bad Girls,” the Pretenders brought rock ‘n’ roll back with two remarkable singles, “Kid,” “Brass in Pocket,” and one of the greatest debut albums ever. Already a fully formed rock star, Hynde, with her immense songwriting skills, style, and brilliant rhythm guitar work, stirred up the serious mojo that inspired fellow Pretenders drummer Martin Chambers, bassist Pete Farndon, and innovative guitarist James Honeyman-Scott. (The latter two were lost to drugs after the band’s second album, *Pretenders II*.)

Hynde has used a revolving cast of musicians through the years while she’s kept the hits coming including “Back on the Chain Gang,” “My City Was Gone,” and “I’ll Stand by You.” Today, she stands out as a humble yet outspoken presence, and honest to a fault. This



Engineer Gustav Lindelöw

honesty is first apparent when she discusses whether digital technology changed the way she approached recording her first-ever solo album, *Stockholm*, with Björn Yttling (Sahara Hotnights, Lykke Li, Franz Ferdinand) of Swedish pop royalty Peter Björn and John handling production and co-songwriting.

"It certainly did when we wanted to rearrange something or take a few bars out," Hynde explains, from her home in London. "It used to be a razor blade to tape or you had to replay the whole thing. I did something recently where I sang a song in seven different keys. It could get really ugly if I asked a band to transpose something seven times. But it's easy now to do that in the studio. But I am tempted to say it's all going in the wrong direction and it's not getting better because ultimately it's fine the way it was— and that's the truth."

Hynde never sugarcoats when a slap in the face will do. "Technology makes life easier," she continues. "But I don't know if making life easier is a good thing. Often when you get everything perfect, it has no vibe anymore. You lose the personality and it's all over. I can't imagine what James Brown would have thought if a producer said 'let's Auto-tune you.' My blood runs cold at

the thought of it. It's too easy for artists to blame other people for the way things are going. The buck has to stop with you. But the smart money goes on allocating people who are better at doing things than you are and getting on with the job. Just control the little thing that you're good at. Otherwise you just disappear up your own ass."

Hynde and Yttling share writing credits on nine of *Stockholm's* eleven tracks, the album reflecting her skills and Yttling's sounds. She'd never heard of Yttling, much less his whistling hit ("Young Folks"), before working with him. One of her daughter's friends (and her old pal, John McEnroe) gave Yttling the thumbs up.

Stockholm's rocking opener, "You or No One," recreates a '60s Wall of Sound style with happy tambourine and booming instrumentation. "Dark Sunglasses" is tougher, Hynde's subtle sneer about "the ruling classes" backed with wiry guitar and funky drumming. The acoustically driven "In the Movies" and the Bowie-ish "You're the One" are lushly dark, hard-knuckled pop, like most of *Stockholm*. Yttling's knack lies in placing Hynde's consummate vocals and supreme intellect into a variety of plug-and-play productions. The wonderfully distorto-guitar in "Down the Wrong Way" is none other than Neil Young. "House of

Cards" rocks and rattles, as raunchy as '70s Stones. Near the end of *Stockholm*, soundtrack-ready ballad "Tourniquet" finds Hynde's voice floating ethereally over acoustic guitar, Celesta and organ, all played by Yttling.

Recorded in Stockholm at Yttling's Ingrid Studios with engineers Gustav Lindelöw, Hans Stenlund, and Nille Perned, the album also features Yttling's choice of musicians: drummer John Eriksson, bassist Ulf Engstrom, various string players and on one track, guitarist John McEnroe of the ill-fated Johnny Smyth Band.

"Esthetically, I really had no goal except to avoid making a sh*tty second-rate wannabe Pretenders album," Yttling says. "Chrissie didn't prepare songs at all; as it worked out she wanted to write lyrics to my ideas. As soon as she got into the song, we worked together to finish them."

"I didn't bring a bunch of songs to him," Hynde confirms. "Björn didn't want to produce at first, but I think he was seduced by the music. Björn would have some real basic chords. I'd chase him away for a half hour, leaving his laptop with the music on it, and I'd scribble some lyrics. Then we'd rough something together. I would sing the songs through a handheld mic. Half of the songs are the rough guide vocal. You can hear me fumbling some words. I'd re-sing them later but I preferred the rough vibe of those first takes. On other tracks I would chase everyone out but the engineer and do a few takes to get a vocal comp. That's the more traditional way in contrast to the rough punk ones. Then Björn would layer it up with the musicians."

"The recording process was very back and forth," explains Lindelöw (Lykke Li, Anna Ternheim, Peter Björn and John). "Often we started from the demo, which could be just an iPhone recording, then put down some acoustics and maybe a piano and build from that. We focused a lot on getting the rhythm and vocals right, but you have to build a suitable world for that at the same time to know that the rhythm and vocals are right. We also went back and forth between different versions of a song a lot, comparing song structure, beats, and vocal performance."

Though Hynde has lived in the UK for 40 years, *Stockholm* is her first album that was not recorded in the US or the UK. She quickly warmed to the Swede's relaxed methods which thoroughly suited her rock-'n'-roll ways. "I like that Björn and [co-producer] Joakim [Åhlund] would grab these f*cked-up guitars," Hynde says. "But these guys made them sound great. I've always been skeptical of spending a long time being meticulous getting sounds. It's rock 'n' roll. How long can it take? If you listen to the all the things we loved growing up there is no producer

now who would let background vocals go so out of tune as even the Supremes were. That was the beauty of it. As soon as you start correcting one thing, like with Auto-Tune, it throws the balance off and everything else sounds even more f*cked up. Correct a bum note, a wrong word, sure. But once you start re-pitching yourself, then everything else has to go.”

While Hynde may appear brassy and bold, when recording vocals she likes her volume and the band to be quiet. Talk of volume levels will eventually lead to a discussion of noise pollution.

“The recording process was very back-and-forth... often we started from the demo, which could be just an iPhone recording, then put down some acoustics and maybe a piano and built from that.”

— GUSTAV LINDELÖW

“I like things real quiet,” she says. “I don’t like to hear my voice very loud. I like everything real dry, and I never use any reverb. And I record vocals in mono. Hearing a stereo mix while I’m singing just confuses me. I like the music level around me very quiet, and I use in-ear monitors. I know a lot of bands listen to themselves really loud, but then there’s nowhere to go. If you listen to it pretty quiet you can hear more of the nuances and the vibe. Then you can crank it and get off on it. But you don’t have to get off all the time. I have a bit of an autistic approach. I don’t like any surprises.”

Ytting recorded Hynde’s vocals in steps: “Chrissie and Gustav would record three passes and then comp them, then record three more and comp those,” he says. “Then I would listen and comment, maybe have them record some changes and patches. Then we would let it rest until the next session. If it still felt solid we would keep it. If not we would repeat the procedure. Sometimes we’d keep the handheld Shure SM 58 from the demo, sometimes we would redo with a Neumann or something else. Not really a big deal what preamp we use as long as there’s a good performance. And even if we got a good take, we would go back and listen to the demo vocals just to see that we didn’t miss out on any good stuff.”

“We mostly used a Neumann 269, the desk preamps from the API 3232 and an LA-3A or a Bluestripe 1176,” says Lindelöw. “Chrissie stood in the big live room most of the time, but some of the vocals were done with a Shure SM58 or SM7 standing in the control room. Mostly she didn’t

want any reverb, but sometimes she got some from Pro Tools, like a plate simulation or from our Micmix Master Room XL-305 stereo spring reverb. Chrissie’s voice is so good, expressive, and powerful, that she will sound good through any mic you throw at her. The 269 worked well though, bringing out the subtleties.”

“When you’re making a record, I believe in getting the job done and not agonizing,” Hynde adds. “If you can still live with a vocal that is a little rough after two days, you might see the charm in it that we loved on the records we grew up with. If

you look at yourself you will only see the faults. It’s like sending an angry email. If you leave it a day, you will probably be glad you didn’t send it.”

Lindelöw, Stenlund, and Perned tracked *Stockholm* in Ingrid Studio’s various live rooms and iso booths. An API 3232 desk ran for the sessions, “for its preamps and routings,” Lindelöw explains. “I love the sound of the transformers in that desk, especially when tracking through the buses. The mix was summed in Pro Tools and monitored on two faders on the desk. I don’t believe in aural benefits of analog summing; might as well just use two channels. We did some tracking at our smaller studio as well, using an API 1608 or a Neve BCM 10 in the same way.” Lindelöw explains that Ytting is a hands-on producer, and keeps things simple. For effects, they used the Waves SSL-bundle, Waves CLA-76 Compressor, Avid Space, and some SoundToys “stuff for echoes and distortion.”

Guitarists Hynde, Ytting, Mattias Boström, John McEnroe, and Anders Pettersson played Gretsch hollow-body, Silvertone, and steel guitar through Fender Twin, Fender Deluxe Tweed, an old Gibson, and Vox Pathfinder amplifiers, miked with a Shure SM57 or a Sennheiser 421. “Old nylon-string Levin guitars” and a Gibson Hummingbird were miked via Coles 4038, Shure SM57, AKG D190, and sometimes a Neumann 269. The 57s were pointed at the body, the 4038 at the neck joint, and the D190 somewhere in between, all running through the API’s onboard preamps. Bass guitar was recorded into a Radial DI, or the API’s DI-inputs when working on the API 1608.

For keyboards, “we used a small upright piano, a big upright piano, and a grand piano miked with a Neumann SM2 on the grand and the big upright, alternating between mid-side and Blumlein miking setups,” Lindelöw explains. “On the small piano we used a Shoeps 221 or a Neumann TLM103. We miked the big upright from the back, the small upright from the top, the grand piano at the middle of the body. We also used a Mellotron, both the analog and digital models. The digital Mellotron is such an amazing production tool, super-fast to get down ideas with! Farfisas, Moog Minimogs, and Celesta were used as well.”

For drums, Lindelöw placed Sennheiser 421s on snare drum top and bottom heads, Coles 4038s on the toms, AKG D12s inside the kick drum, and “some cheap ribbon on the outside.” A Pearl condenser was used on the hi-hat and Bang & Olufsen BM5s for overheads. “Mostly no room mics, but sometimes some small-diaphragm condensers in the next room, and sometimes a D190 for dirt. The Coles had to go kind of high to not distort on the floor tom, the rest of the setup is kind of conventional,” Lindelöw adds.

Lindelöw’s go-to session gear? “For mixing, definitely the Micmix Master Room XL-305,” Lindelöw says. “It sounds good on anything whether you use it for reverbs or just for distortion/sound shaping. It’s a solid-state spring unit. It always remains smooth and dark without getting that ‘sploing’ that other springs have. I like the AKG BX20 as well, but the Master Room sounds more unique to me. I first heard it when assisting for Simon Nordberg, a great Swedish mix engineer, and bought one when I saw it used on vend.se (Sweden’s version of Craigslist). It’s all original but I’m thinking of adding real pots for the outputs instead of those stupid trimmers.”

“Technology moves so fast now and it escalates and there’s no time for any kind of protocol,” Hynde adds. “That’s why people shout on their phones in public places. There are no rules now and it’s harder to pull back and re-access things. I spend time in Paris where the cafes still play really cool mid-’60s jazz. They understand atmosphere; it’s part of the culture. In England, there’s too much cocaine and alcohol in the music, and that’s what you’re hearing. Now in a restaurant, I listen first to see if I can stand sitting in there for an hour listening to the music. It is a trend, and I hope things will be pushed in a different direction.” ■

Ken Micallef is based in New York City.



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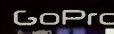
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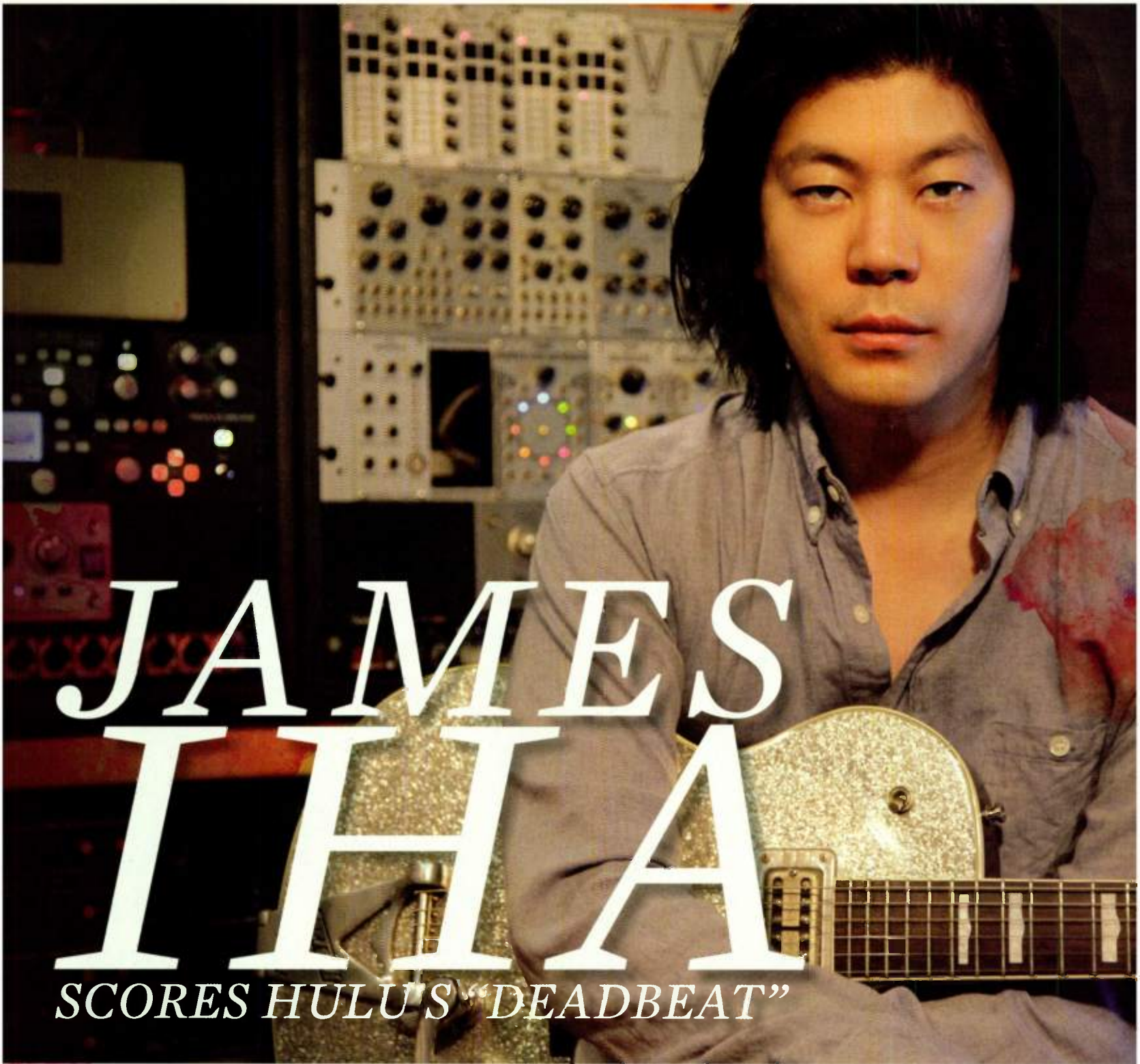


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JAMES IHA

SCORES HULU'S "DEADBEAT"



Guitarist infuses
supernatural online comedy
series with rock 'n' roll edge
and musical slapstick

BY BARBARA SCHULTZ

POST-SMASHING Pumpkins, founding member James Iha has been playing regularly with Tool frontman Maynard James Keenan's other band: alt-metal outfit A Perfect Circle. Combine that gig with session and solo projects, a lot of writing, and a little bit of indie film scoring, and you have an overfull career. However, a recent move from New York to L.A. has amplified Iha's interest in music for picture, and he recently completed his first TV series score—for season one of Hulu's original series *Deadbeat*.

The central character of *Deadbeat*, Kevin Pacalioglu (played by Tyler Labine), is a medium in present-day New York City; he has the ability to see and speak with ghosts, which allows him to rid mortals of unwanted supernatural guests. He just has to find out what the ghost's unfinished business is on earth, and then help finish it.

However, the job is always complicated and Kevin's not too bright. So, he's always broke and in some mess, and he expends too much energy bumming recreational drugs off of his dealer and best pal, Roofie (Brandon T. Jackson). Meanwhile, there's a beautiful but unscrupulous fake medium in town, Chamomile White, who will stop at nothing to protect her

reputation as an authentic ghost whisperer.

The show is more funny than spooky, and lots of the humor comes from contrasts. It's often the juxtaposition of scary music with visual/verbal jokes, or the undercutting of spooky scenes with comic audio cues, that gives the show its edge. The theme for the show, also composed by Iha, sets the musical stage, with driving Stooges-esque electric guitar, ghostly growls, and choral-synth howls, and twinkling distant chimes.

Now that season one is complete, Iha has a little time to talk about what he enjoys about scoring vs. playing with a band, and the elements that went into the spooky, funny, guitar-centered score he developed for *Deadbeat*.

How did you get involved with the *Deadbeat* show?

I had scored three very little known indie films before. One's called *Luck* (2003); it's a Canadian film and Sarah Polley is in it. The

There's a little bit of trial and error in terms of matching the right scene with the right instruments, and referencing some supernatural scores but also playing against them at the same time.

two others were Japanese films: one called *Linda Linda Linda* and the other was called *Kakera*. But now that I've moved to L.A. I've been looking to get into scoring more. I had to audition for the director [Troy Miller] and the people from Lion's Gate, and I got it.

Did the theme for the show come first?

Yeah, the title theme was one of the first things I did. I sent them a couple different ideas for that before I got too deep into the first episode. I think the theme had a couple of elements they liked: They liked that it was a little bit retro rock but also fun at the same time, and there's a little bit of spookiness in it. Those parts became a reference for the themes that we would come up with in the show for the characters and moments that happen a lot in the episodes.

Where do you write and record the music?

I have a room locked out in Clear Lake Recording [in North Hollywood]. Actually, I share the space with another guitarist, and I used all of his amps on this project.

How do you approach creating the cues for each episode—what's your process like?

I drink a lot of Mountain Dew. [Laughs] I take a lot of direction from the director and from what the writers are intending. There's a little bit of trial and error in terms of matching the right scene with the right instruments, and referencing some supernatural scores that have come before but also playing against them at the same time. I think that, because it's a comedy with a very contemporary

character, we always want it to have a somewhat fresh, indie-rock feel but also have a supernatural, spooky, funny thing going on, too.

For the episodes, I see a script, and I'd get an edit of the episode that is close to being done. They put in temp music, and they'll say what they like about the temp music, what they don't like about it, and where they want to see it going. But a lot of it is like, there's direction, but in the end, just do what you think is cool.

Walk us through the instruments that create the different effects of the score. How do you make things sound spooky, or funny, for example?

First, to keep it fresh and upbeat, I use the guitar as the main instrument: a Gretsch 6-string electric, an acoustic, and a Jerry baritone guitar. The baritone was one of the key instruments; when you play certain guitar lines, it can be a spaghetti western kind of thing, it can be ominous and heavy, or it can be really comedic, too. We also used a Thunder bass and a Hofner, stand-up bass, piano, certain kinds of strings, and drums, too. Drums give a scene a little bit of energy, if there's a beat going on, but also not too much of a beat to overpower the dialog.

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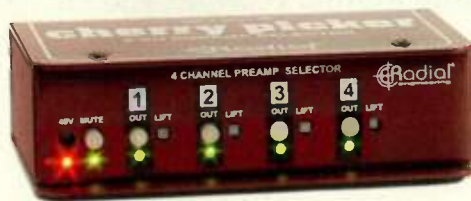


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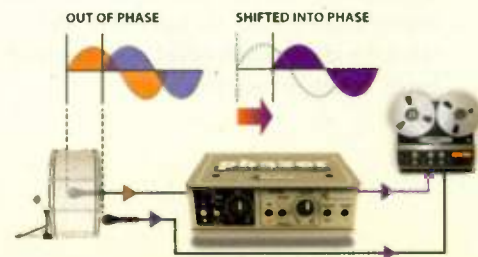
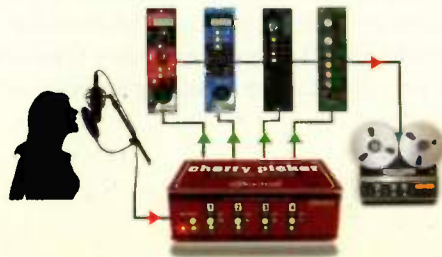
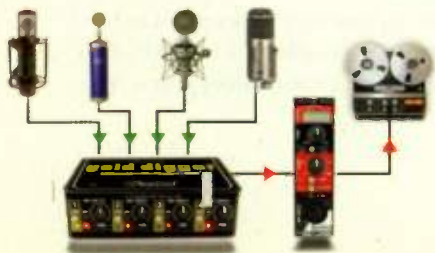


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JAMES IHA's Studio Gear

Thanks to Clear Lake Recording and engineer Brian Blake for the specs on James Iha's *Deadbeat* music and recording equipment:

Recording/Studio: API DSM console, KRK V8 monitors, Mac Pro, Pro Tools 11

Guitar Recording Chain: Neumann U87 and M49B mics, Focusrite ISA 215 mic pre/EQ, Focusrite Red 2-channel compressor, Neve 1073 mic pre/EQ

(Borrowed) Guitar Amps: Matchless DC30, Swart AST, Ampeg B15, Fender Deluxe

Other Essential Recording Pieces: API 2500 compressor, API Channel Strip, Empirical Labs EL8 Distressor, Radial Dis

using the Gretsch and a minibar on it, and the whammy bar helped also in that kind of retro spaghetti western-sounding way. We used the baritone a lot for the character Chamomile White, to give her this ominous, scheming sound we came up with.

There's also a lot of funny, light, playful stuff, which tended to lend itself to a standup bass and piano and pizzicato strings. Or there's funny percussion; we used a lot of Latin percussion. It turns out, bongos work really well for supernatural comedy. In the first episode, it didn't really occur to us to use bongos, but I realized it provides percussion without being loud like a kick drum or snare drum, because you're always trying to stay out of the way of the dialog.

Do you play everything yourself, or do you bring in other players?

I thought about bringing people in, but there's just not enough time to schedule outside session people. You're right there doing the cue, and you have to get it done. You only have seven or eight days—ten days at the most—to do, on average, about 50 cues that vary in length from four or five seconds to a sequence or montage that goes on for a minute-and-a-half.

How do you balance this work with a career as a performing musician?

When I'm doing this [scoring work], I don't have time to do anything else. It's all in for three months, and then it's done. It's kind of like making an album. That's all you know. I would go home at night and have all these cues popping up in my head: bongos, baritone guitar. It was kind of funny. If I watched TV or a movie, I would just notice the cues. It's not a great way to watch a movie.

What do you love about this scoring work vs. playing in a band?

I've spent my whole life making songs in bands and as a solo artist, and writing songs with other people, and producing other people. There's a vocal, and a verse, and a chorus and a bridge. Scoring for picture is fun because it's different and it's exciting when you hit the picture just the right way that fits the edits and the character's mood. I feel like the picture is the lyrics or the vocal that's not there in scoring, and it's great to see how music can totally change the feel of the show. ■

Barbara Schultz is a frequent contributor to Electronic Musician and Mix.

So, some of the specific sounds would be, we used a lot of tremolo, reverbed-out guitar

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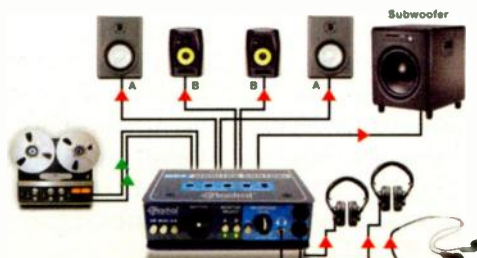
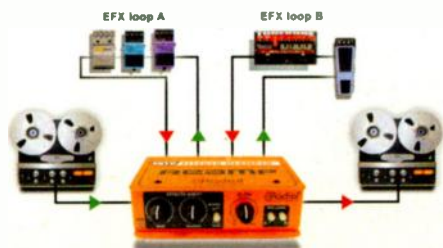


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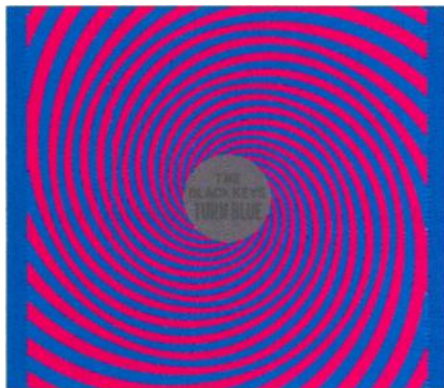
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The Black Keys

Turn Blue

NONESUCH

Recorded at Sunset Sound with shared songwriting duties and keyboard by Danger Mouse, The Black Keys' *Turn Blue* builds on the mojo of *El Camino* for their most fulfilling album yet. The soul-sanctified R&B vocals and melodies of *El Camino* remain, sweetened by bizarre, experimental production. Guitars cry, drums drag, strings swirl like demons, basses go all tumescent; *Turn Blue* is a darkness-on-the-edge-of-town tale of lust gone wrong ("In Time"), fever-mad dreams ("Bullet in the Brain"), and swamp-rock majesty ("Year in Review"). The Black Keys warp the spirit of Muscle Shoals via a shared beautiful nightmare.

KEN MICALLEF



Röyksopp & Robyn *Do It Again*

CHERRYTREE/INTERSCOPE

A Scandinavian synth-pop power trio, Röyksopp and Robyn explore melancholy and progression on this 36-minute mini-album. "Monument" is a paced entry, melodic ripples leading into "Sayit," robotic come-ons writhing along peristaltic bass. The stroboscopic title track is a bittersweet anthem of stomping hedonism and flickering regrets, while "Every Little Thing" is slow-burning Italo-disco balladry. Following constricted synths, "Inside the Idle Hour Club" is a pensive instrumental that treats melody like wet clay, methodically digging in and swelling out.

TONY WARE



Will Saul *DJ Kicks*

IK7

The latest *DJ Kicks* installment serves as a guide to Will Saul's production style and DJ sets, as well as his Simple and Aus labels. Featuring a number of original solo and collaborative compositions, this collection also includes exclusive material from Saul's stable of artists. Bare-bones techno and house rhythms are spiked by Leon Vynehall's moody "Time," Axel Boman's shuddering "Dubbel," October's sinister "KR-100," and Jabru's soulful "Church." Saul's choices, and his touch, are understated but nonetheless impactful.

LILY MOAYERI

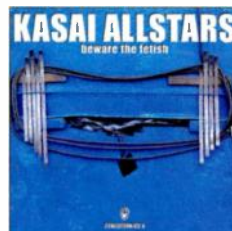


Jonah Tolchin *Clover Lane*

YEPROG

Singer/songwriter Jonah Tolchin's debut album has everything going for it: a stellar roots-rock band of multi-instrumentalists, including Mickey Raphael (Willie Nelson), Steve Berlin (Los Lobos), John McCauley (Deer Tick), and Chris Scruggs; delicate yet dynamic arrangements; and the enthusiastic support of a well-matched indie label. Listen to Tolchin and you'll hear echoes of Beatles and The Band, Dylan, and Delta blues. But mostly you'll marvel at the depth and talent of this promising artist.

BARBARA SCHULTZ



Kasai Allstars *Beware the Fetish*

CRAMMED DISCS

The latest in the acclaimed Congotronics series finds the Kasai Allstars, a collective group of musicians taken from five separate, previously warring Kasai region tribes, playing joyous music on resonant homemade instruments, including slit & buzz drums, xylophones, electric guitars, and distorted thumb pianos with DIY amplification (and vocals). At once simplistic and complex, such tracks as "In Praise of Homeboys" provide a refreshing dance with the African spirits. Utterly timeless and magical.

KEN MICALLEF



Mastodon *Once More 'Round the Sun*

REPRISE

Mastodon has a catalog piled deep with gnarled thrash, tinnitus-inducing percussive thunder, and grinding catharsis. Having shelved its early-period focus on epically driving concept albums, Mastodon's newest 11 tracks align the band's undertones of Thin Lizzy-style harmonized boogie and Melvins-like sludge with its strengths in monolithic, pitch-bent rampage and equal parts scorched, celestial processing. The result is looping, melodic and punchy, a triumphant, atmospheric assault that delivers both density and dexterity.

TONY WARE



Nikki Lane *All or Nothin'*

NEW WEST

Americana artist Nikki Lane opens her latest album with "Right Time," a bad-girl rockabilly tune with mighty drums, lap steel twang, and extra guitar crunch. It's just the sort of beginning to help a singer/songwriter type pull away from the outlaw country pack. Lane seriously rocks this twangfest, with the help of a not-so-secret weapon: Her producer was Dan Auerbach, and his vintage-with-an-edge sensibility also raises the bar on songs like the fuzzy and *Munsters*-spooky "I Don't Care," and surf-y "Seein' Double."

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Roundup

Electronic Percussion



GEAR

The latest in sound modules, drum kits, and other controllers

BY GINO ROBAIR

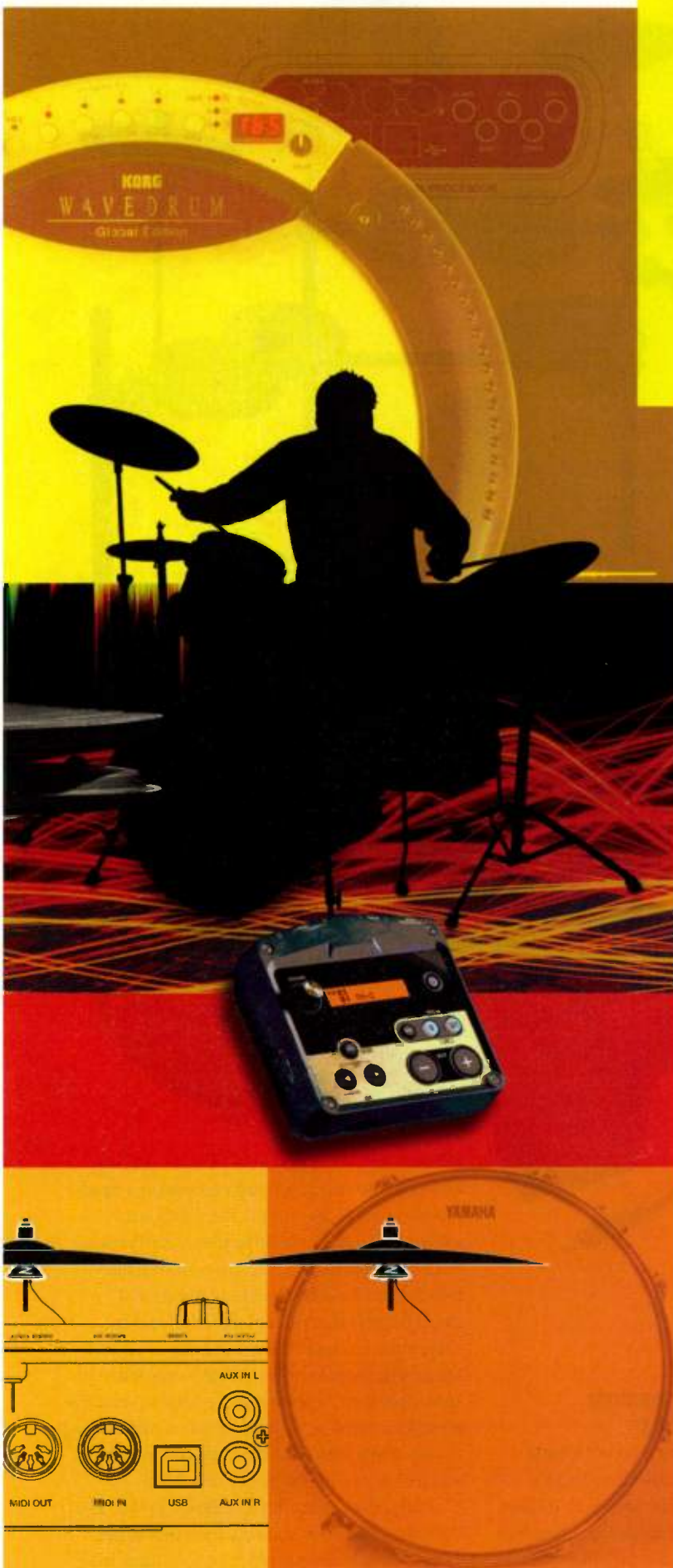
ELECTRONIC PERCUSSION controllers fill many roles. In the studio, they can be used for tracking realistic drum parts into a MIDI sequencer or for cutting demo tracks using a software drum library to avoid miking up an acoustic kit. Onstage, they can be used to augment the sounds of your drum set by doubling the kick and snare, or simply to provide extra colors. And because pads are quieter than acoustic percussion when struck, they work well in low-volume performance situations, such as small venues, schools, and houses of worship.

The Right Feel Whether you're assembling a hybrid electronic/acoustic system to enhance your traditional set or looking for a complete electronic drum kit, the system you choose should not only be based on price and the way you'll use it (e.g., gigging, recording): You will want to take into consideration the feel and response of the pads, and what it's like to play them.

Drummers who are used to hitting acoustic drumheads and cymbals often have to alter their playing technique much more when playing lower-priced trigger pads, which are made from cheaper materials and provide minimal rebound. The more responsive instruments, such as the drum triggers with mesh heads, tend to be higher priced, but in my opinion, as a drummer, they're worth it.

On the other hand, if you're new to drums, the way the pads feel when you play them might be less influential on your purchasing decision than the internal sound set or the I/O options (such as having USB MIDI connectivity). In either case, you will make the most informed purchase decision by spending some time behind the kits you're interested in, hitting the pads, and checking out the sounds.

Following is a sampling of recent releases in the world of electronic percussion by manufacturers who are leaders and innovators in the field, many of whom have decades of R&D behind their products. Not included in this roundup is the outstanding Nord Drum 2 and Nord Pad combo: You can read our recent review of that system in the June 2014 issue. All prices are MSRP unless otherwise noted.



Alesis DM10 Studio Kit Mesh, DM10 X Kit Mesh

ALESIS.COM

\$999.99 STREET AND \$1,499 STREET

The Alesis DM10 Studio Kit Mesh and DM10 X Kit Mesh are 6-piece sets that improve upon the company's other DM10-based systems by swapping out the Mylar-covered RealHeads for heads made with tightly woven mesh. This softer, flexible material is much quieter than rubber pads, and it provides a satisfying rebound that drummers enjoy.

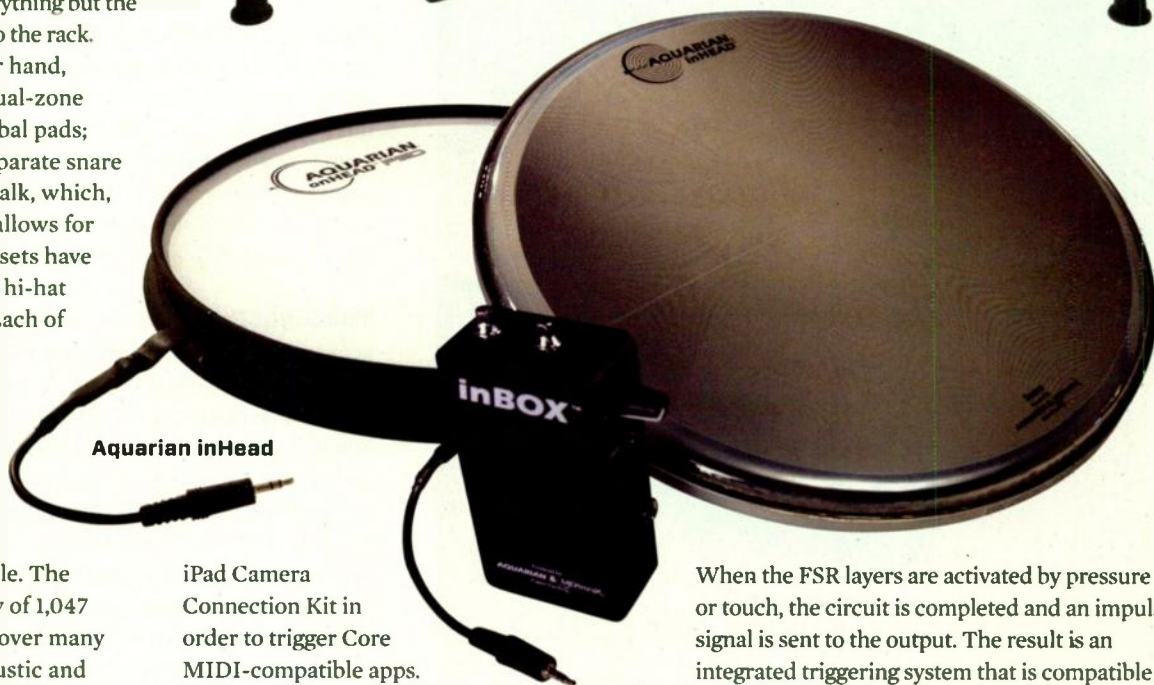
The Studio and X kits differ in two important ways: drum- and cymbal-pad sizes, and the heftiness of the rack. The Studio Kit Mesh features a 10" dual-zone snare, four 8" dual-zone toms, 12" and 14" cymbals, and the solid StageRack. When assembled, everything but the kick pad and hi-hat pedal attach to the rack.

The X Kit Mesh, on the other hand, features two 10" and three 12" dual-zone drum pads; 12", 14", and 16" cymbal pads; and the heavy-duty XRack. A separate snare stand is provided to avoid crosstalk, which, according to the manufacturer, allows for higher sensitivity settings. Both sets have identical kick pads, a 1-piece 12" hi-hat pad, and a 3-zone ride cymbal. Each of the 4-post racks is large enough to accommodate extra triggers, cymbals, and other accessories and still hold a solid footing.

The two configurations use the DM10 sound module, which provides 100 factory kits, all of which are customizable. The kits are assembled from a library of 1,047 16-bit/44.1kHz audio files that cover many different instrument types—acoustic and electronic. The DM10's built-in mixer lets you set levels for each instrument quickly and without scrolling through menus. The internal sequencer holds 75 preset patterns and 25 user-created patterns, and you have the ability to overwrite all 100 of them.

The DM10 has 12 TRS 1/4" trigger inputs and includes stereo aux inputs on RCA jacks, main and aux outputs on 1/4" jacks, standard 5-pin MIDI I/O, and a USB port for transferring MIDI data with your computer. You can also connect the module to an iPad using the Apple

Alesis DM10 Studio Kit Mesh



Aquarian inHead

iPad Camera Connection Kit in order to trigger Core MIDI-compatible apps.

Aquarian inHead

AQUARIANDRUMHEADS.COM

\$59.95 - \$66.95 STREET

Drummers who are creating a hybrid kit and want the feel of a standard drumhead under their sticks should check out Aquarian's inHead triggering system, which embeds force-sensing resistor (FSR) technology into a multi-ply head.

When the FSR layers are activated by pressure or touch, the circuit is completed and an impulse signal is sent to the output. The result is an integrated triggering system that is compatible with the majority of hardware- and software-based drum modules. Unlike conventional drum triggers that react to vibration and are susceptible to sympathetic misfiring or double triggering, the inHead will trigger only when it senses pressure. This makes the inHead sensitive enough to respond to sticks, brushes, mallets, and fingers while providing the high-quality timbre and feel Aquarian heads are known for.

Each inHead includes an inBox to power the FSR, as well as boost and condition the output signal. A gain control is provided for dialing in an

accurate output level, and the unit is powered by a 9V battery.

The inBox has inputs labeled “head” and “rimshot” (the latter designed to accept the company’s rimShot sensor), which can be sent to separate channels of your sound module from the inBox’s 1/4” TRS output. The unit attaches securely to one of your drum’s tension rods, but stays out of the way when you play. The inHead Kick and Snare Pack (\$169.95 street) adds a rimShot sensor and a kickZone bass-drum trigger to create a 3-input triggering system. The inHead is available in sizes ranging from 10” to 16” and can be purchased separately.

Aquarian also offers the onHead PED (Portable Electronic Drum-surface), which, as the name implies, is a standalone, FSR-based trigger that can turn an acoustic drum or any flat surface into a quiet, expressive electronic drum pad. The onHead PED is available in sizes ranging from 10” (\$99.95 street) to 16” (\$139.95 street) in diameter. An inBox is required for each. The onHead EBD, the kick-drum equivalent, is available in 18” to 24” sizes (\$139.95 - \$179.95 street).

ddrum Digital Drum 4-Pad Sample Station

DDRUM.COM
\$499 STREET

For a ready-to-go pad system to complement your acoustic setup, ddrum offers the Digital Drum 4-pad Sample Station. You get four 8” dual-zone pads, the DD3X sound module, and a stand with boom arms to hold it all.

The DD3X is also the heart of the company’s 5-piece DD3X drum kit (\$699 street). The module offers 50 factory kits compiled from 218 drum and percussion sounds, with another 30 slots available for storing kits you’ll build. The I/O includes 9 trigger inputs, MIDI I/O, a USB port, a stereo audio input, and a headphone jack.

Kat Percussion KTMP1

KATPERCUSSION.COM
\$119.95 STREET

For a lightweight, inexpensive percussion controller with built-in sounds that can be played with sticks or fingers, the KTMP1



ddrum Digital Drum 4-Pad Sample Station

Multipad is worth checking out. The playing surface is divided into quadrants, each of which can be assigned its own instrument; with foot pedals attached, you can play as many as six sounds at a time. You can adjust the pitch, pan position, reverb level, sensitivity and output level of any of the 50 internal sounds you select. The module focuses heavily on auxiliary percussion—cowbell, timbale, triangle, conga, tabla, shaker, and so forth—but a few acoustic and electronic drum-set sounds are thrown in for good measure.

Powered by the included AC adapter, the KTMP1 has 1/4” stereo outputs, as well as a headphone output, and external trigger inputs—one for a hi-hat pedal (such as the KT-HC1, \$49.95) and another for a kick pedal (such as the HC-KP1 kick trigger, \$79.95). As you would expect, you can use the MIDI Output and USB connector to control external instruments and sound libraries. A stand bracket is also included.



Kat Percussion KTMP1

Korg Wavedrum Global Edition

KORG.COM

\$599.99 STREET

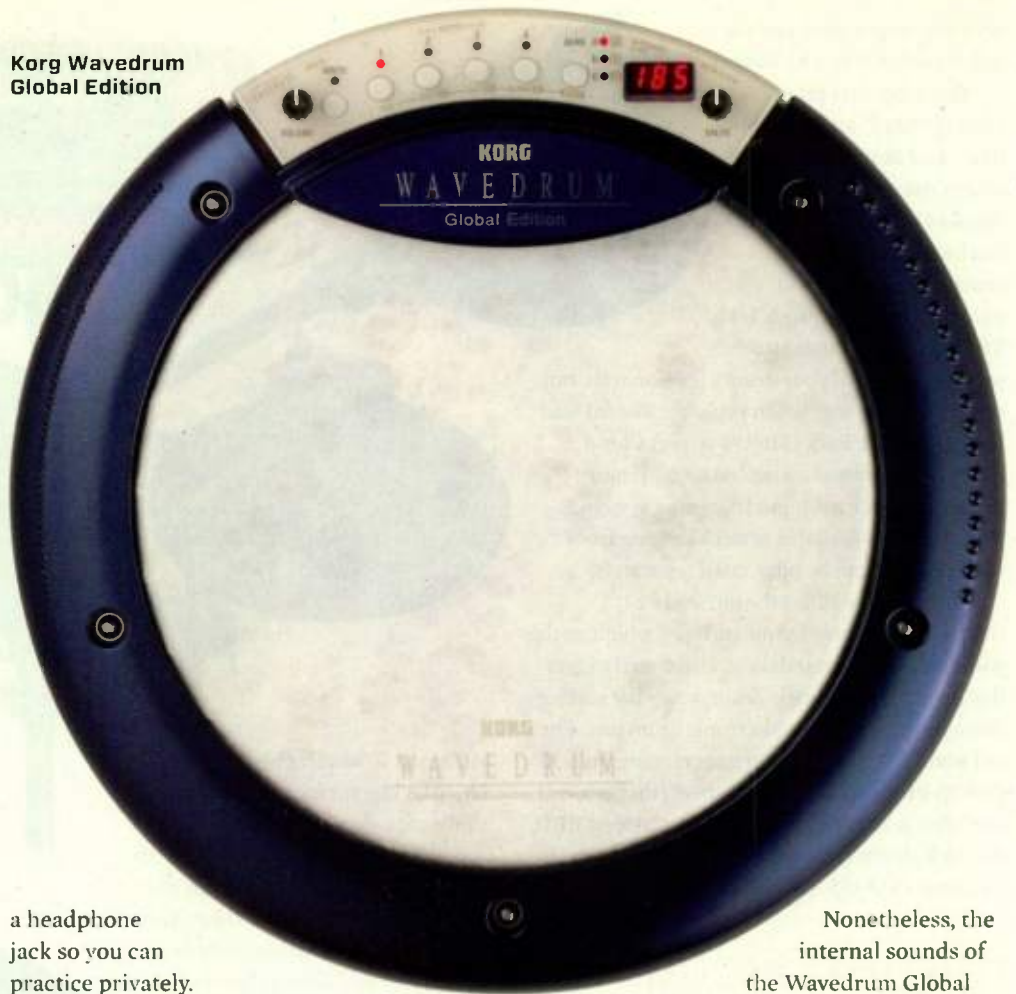
At the higher end of the 1-piece electronic percussion instruments is the Korg Wavedrum, which has gone through several iterations over the past two decades. The most recent model, the Global Edition, expands the original sound library with realistic instrumental colors from around the world as well as unconventional and impressionistic electronic timbres. The sound engine combines PCM sounds and physical modeling that can be triggered from the head and rim sensors. The unit also has 140 phrase loops to play along with.

Like previous Wavedrums, the Global Edition has a tunable head and notched rim that respond well to sticks, mallets, and hands. The head is also pressure-sensitive, and can be mapped to modify pitch and timbre.

The internal sound library provides 200 factory programs and 200 additional slots for user-created sounds and setups. Performers will want to take advantage of the Wavedrum's Live mode, where they can store and easily recall a dozen of the programs they use most.

The unit has a 1/8" stereo audio input for playing along with your favorite tracks, and

Korg Wavedrum Global Edition



a headphone jack so you can practice privately.

Unfortunately, the unit has no USB or MIDI I/O, so unlike the other products in this roundup, it is unsuitable for playing external drum modules.

Nonetheless, the internal sounds of the Wavedrum Global Edition are of the highest quality and provide plenty of useable timbres. More importantly, the instrument is fun to use on its own, thanks to its highly sensitive playing surface and ergonomic design.



Roland TM-2 Trigger Module

Roland TM-2 Trigger Module

ROLANDUS.COM

\$199 STREET

For drummers who want to trigger high-quality electronic sounds with minimal setup and fuss, Roland created the TM-2 Trigger Module. This diminutive device provides a pair of 1/4" TRS inputs, each of which accepts single- and dual-zone triggers, so you can play up to four sound files at a time. The module can be used with Roland's RT-series acoustic-drum triggers and many of its V-drum controllers, and it is well-suited for use with the single-zone BT-1 Bar Trigger Pad (\$99 street) and the low-noise KT-10 Kick Trigger Pedal (\$229 street).

The factory library includes more than 100 sounds, from natural-sounding and electronic kicks, snares, and toms that can supplement your kit when you're using acoustic-drum

triggers; to auxiliary percussion that extends your sound palette. You can assemble the drums and percussion samples into 99 kits for easy recall.

The thing I like best about the TM-2 is that it can load 16-bit/44.1kHz WAV files—stereo or mono one-shots, loops, and song-length tracks—from an SDHC card. You can alter the files using the internal multi-effects processor that offers reverb, delay, tape echo, ring modulation, flanging, distortion, compression, wah, phase shifting, chorus, and EQ.

The module's user interface is easy to navigate for basic triggering work, yet it provides deeper editing features when you want to get tweaky about sounds or adjust playback parameters such as velocity curves, threshold, and sensitivity. The TM-2 has stereo outputs, a mini-plug headphone jack, and standard MIDI I/O for controlling the TM-2 from an external source or when you want to track MIDI parts in your DAW sequencer or incorporate other drum modules.

The TM-2 weighs just 13 ounces and can be powered via an AC adapter or four AA batteries. It's small enough to clamp onto your hi-hat or cymbal stand, making it easy to reach without schlepping yet another stand in your trap case.

Simmons SD1500KIT

SIMMONSDRUMS.NET
\$999.99 STREET

Simmons has lowered the entry price into electronic percussion with a range of affordable kits. The more you pay, of course, the more features you get, and the sturdier the system is. The SD1500KIT is a pro-level kit that provides a significant increase in feature-set and ruggedness, while keeping the price under a grand.

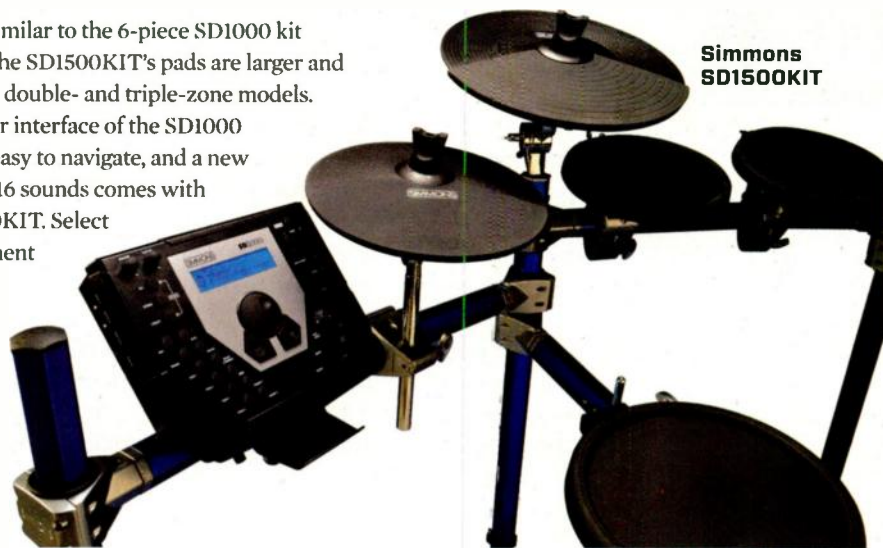
An appealing aspect of the SD1500KIT is that it uses a heavy-duty rack to hold everything and feels very stable when you play the kit with some force. In addition, the instruments connect to the underside of the SD1000 sound module with a single multipin D-sub connector; it sets up quickly and you don't have a bunch of 1/4" cables sticking out of the module.

The SD1000 accepts 10 trigger inputs, including a pair of 12" triple-zone snare/tom pads, three 9" dual-zone drum pads, a 14" triple-zone ride, and two chokeable 12" dual-zone cymbal pads. The 9" kick pad is mounted on a floor stand, and a multiposition hi-hat controller is included.

The pads' playing response is similar to that of a practice pad, so drummers will feel right at home. The cymbals are made from hard plastic with a rubberized wedge on one end that serves as the striking surface. Though the number

of pads is similar to the 6-piece SD1000 kit (\$799.99), the SD1500KIT's pads are larger and include the double- and triple-zone models.

The user interface of the SD1000 module is easy to navigate, and a new library of 516 sounds comes with the SD1500KIT. Select the instrument



you want to audition or edit using its top-panel button. You get 99 kits, with 44 slots for your own creations. Sensitivity, threshold, velocity curve, and crosstalk are among the settings you'll use to match pad response to your playing technique. The sequencer stores 100 factory and 100 user songs, offers four Play modes (One-Shot, Loop, Hit, Tap), and provides a metronome. Internal effects include 4-band EQ and reverb.

For I/O, the sound module has stereo 1/4" audio outputs, a 1/8" headphone jack, and an SD card slot to save and load kits and MIDI files. The 1/8" stereo aux input can be used for practicing

along with tunes from any line-level audio source. The SD1000 module includes standard MIDI DIN jacks and as a USB port that supports MIDI.

Yamaha DTX502 Drum Module

YAMAHA.COM
\$399

The DTX502 is not only the brains behind three outstanding Yamaha electronic drum kits—the DTX522K (\$2,200), DTX532K

(\$2,450), and DTX562K (\$3,225)—but it can serve as the lightweight and portable heart of a hybrid kit for gigging and recording. The sound module offers stereo 1/4" audio outputs, a 1/4" stereo headphone jack, and a stereo minijack input.

The DTX502 accepts 12 trigger inputs, which can be acoustic-drum triggers or pad controllers. These triggers include the 8" triple-zone XP80 DTX pad, the 7"

single-zone XP70 DTX pad, and the 7.5" single-zone TP70 rubber pad, which are used in the DTX kits. As a drummer, I enjoy the playing feel of the DTX pads, which have a squishy center and a more realistic acoustic-drum rebound than are found in the TP70 and other less-expensive pads. The raised rubber rim on the XP80 makes it easy to play sounds assigned to those trigger zones.

In the top-of-the-line DTX562K kit, the sound module divides the triggers between a 3-zone snare, two 3-zone cymbals, three single-zone toms, the kick pad, and two

inputs dedicated to the dual-zone hi-hat pad. The cymbals in the DTX-500 series have a weighty rubber covering that softens the blow of a stick, so you don't hear the clacking sound that you get from hard plastic cymbal pads.

The DTX502's sound set comprises 691 drum and percussion instruments, which you can process using the internal 2-band EQ and reverb effects. In addition to the 50 kit presets, you can create and save another 50 of your own. A metronome and various rhythm training functions are also provided.

If you're interested in creating a custom sound set, you can import 20 of your own 16-bit/44.1kHz WAV or AIFF files by connecting the module's USB port to your computer, using the MusicSoft Downloader, or to an iOS device via the MusicSoft Manager app. You can also use MIDI over USB to control software drum modules. The Yamaha DTX502 has an internal MIDI sequencer for recording your own playing; it also includes 60 song sequences, covering a variety of musical styles, for you to jam along with.



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Zildjian Gen 16 Buffed Bronze Cymbals

ZILDJIAN.COM

\$189 - \$449 STREET

It's hard to beat the feel of a real metal cymbal: Whether you're using a hybrid setup or a fully electronic kit, Zildjian's Gen 16 "reduced volume" cymbals are big improvements over the rubber and plastic triggers that are commonly used with electronic kits.

This year, Zildjian unveiled a new series, the Gen 16 Buffed Bronze, available in seven sizes: 12" splash, 16" crash, 16" China, 18" crash-ride, 20" ride, and 13" and 14" hi-hat pairs. The company says that the larger cymbals get extra lathing, which results in an increase in the lower fundamental overtone structure, while the buffed bronze finish warms up the overall tone of all of the instruments. Acoustically, they sound remarkably different from the original Nickel Plated cymbals, and I can feel a subtle difference in response between the two types when playing them.

The Gen 16 AE reduced-volume cymbals are designed to be used with Zildjian's Direct Source Pickup, which provides a wide



For more information contact your local Hosa dealer or visit www.hosatech.com



dynamic range without any feedback or audio bleed. These are plugged into the Digital Cymbal Processor (DCP), which shapes the tone of each cymbal, rather than triggering samples.

The DCP can accommodate five Gen 16 cymbals. Each of the five channels comes with 10 Tone Shapes, but will hold up to 99 Tone Shapes. Additional Tone Shapes can be downloaded for free from zildjian.com at the Gen 16 downloads page. (Note that new Tone Shapes from drummers Russ Miller and Simon Edgoose will be available in June, with



more to follow). Each cymbal input has its own pan and volume control, so the player can mix the instruments as needed.

The audio output of your drum module can be blended in with the Gen 16 cymbals using the DCP's balanced inputs and mix control. The DCP also includes a digital reverb with 12 presets, a 1/8" aux input for use with portable audio-playback devices, and a headphone output. ■

Gino Robair is the technical editor of Electronic Musician magazine and a contributor to Mix magazine.

Zildjian Gen 16 System with Buffered Bronze Cymbals

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Waves/Abbey Road Reel ADT

Unique plug-in delivers killer modulation effects

BY MICHAEL COOPER

REEL ADT emulates the seminal double-tracking effect first created using two vintage tape machines during Beatles sessions at Abbey Road Studios in the 1960s. For the uninitiated, ADT is shorthand for automatic or artificial double tracking. The lush effect makes a track sound like separate takes of the same part played back simultaneously.

You can readily produce a generic ADT effect using any plug-in that modulates delay, but Reel ADT is different. Reel ADT's deeper sonic complexity comes from emulating two tube-based tape recorders—one using Varispeed control—working in combination to re-create the historical effect. (Waves wouldn't say which tape machines were modeled for the plug-in or whether they

SUMMARY

STRENGTHS Unique. Modulation effects sound terrific. No apparent bugs.

LIMITATIONS Saturation effect adds more distortion than sparkle. Operation manual is vague in key places.

\$200 MSRP
(\$99 introductory price)
 Waves.com



Fig. 1. Waves/Abbey Road Reel ADT provides a Varispeed control that lets you change modulation patterns in real time.

were the same ones used by The Beatles.)

An alternative configuration of the plug-in, dubbed ADT 2V, adds a second effect voice with independent modulation controls to double the effect's intensity. Reel ADT can also produce excellent flanging, phasing, and chorus effects. Note to Pro Tools TDM users: Reel ADT is only available in Native formats.

Tape Operator In the display area at the top of Reel ADT's GUI, you'll see a virtual tape head for the wet (ADT) signal. Drag it left or right along a horizontal time axis to voice the signal up to 20ms before or after the plug-in's input signal, respectively. This is the ADT signal's initial time offset with respect to the plug-in's source or dry signal. It's important to realize that the time axis does not represent your DAW's timeline but rather the relative positions of the source and ADT signals before modulation of the latter; a virtual tape head for the source signal stays immutably parked at the 0ms mark along this time axis, and the ADT's tape head similarly stays parked wherever you place it. (A Varispeed tape head constantly moves along the time axis to illustrate the wet signal's modulation; more on that in a moment.)

You use the LFO's controls—Range, Rate and Shape—to automatically modulate the ADT signal by up to 20ms. Available LFO wave-shape selections include sine, triangular, reverse sine, reverse triangular, and random. You can sync the LFO to your DAW and specify how many bars it will take to complete one cycle; of course, sync-to-host mode precludes random LFO action.

Left to its own devices, the LFO will modulate the ADT signal's initial offset earlier and later an equal number of milliseconds. By dragging a rotary Varispeed control to the right or left of its noon position, you move the axis around which LFO modulation occurs either earlier (left) or later (right) in time with respect to the ADT tape head's fixed position (see Figure 1). The sonic result is similar to what you'd get by automating the ADT's tape-head position while keeping the LFO's parameter values unchanged.

Set the Varispeed's range between ± 1 and ± 20 ms to determine how far its rotary control can skew the modulation's axis with respect to the ADT's tape head. Choose either Latch or Touch mode to dictate whether the Varispeed control will jump back to 0ms setting when you release it. In the display area,

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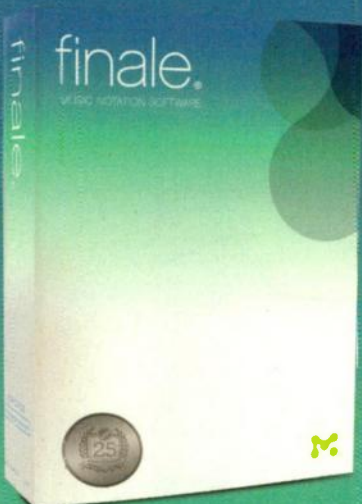


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Fig. 2. The plug-in's ADT 2V configuration adds another voice, with independent controls, to awesome effect.



the aforementioned Varispeed tape head moves along the time axis to illustrate the dynamically changing offset of the wet signal with respect to the source signal.

If this sounds confusing, it is—at least on paper. (The cursory and somewhat vague documentation doesn't help.) But once you start using the GUI's controls, you'll pretty quickly grok how the plug-in works. The main thing to remember is that it's the Varispeed tape-head's changing position, and not the ADT tape-head's placement, that denotes the wet signal's time offset to the dry signal from moment to moment.

Why It's Powerful The beauty of the Varispeed control is that it allows you to dynamically change the plug-in's modulation pattern from moment to moment using only one control and, in Touch mode, instantly snap the wet signal back to the LFO's original range. It lets you “play” the modulation in real time, achieving unusually complex variations that convincingly create the illusion of a recording artist tracking their performance twice and with varying degrees of synchronicity.

Once you've got the wet signal's modulation dialed in, adjust the output level, Pan, and Drive (saturation) controls provided separately for the source and ADT signals. (Setting equal output levels produces the most intense effect.) Mute and phase-inversion switches are also provided for each signal path.

In stereo configurations, you can select whether the left, right, or both (summed)

channels are input. Another switch lets you monitor the stereo plug-in's output in mono to assess how much phasing the processing is introducing—nice! In the plug-in's ADT 2V configuration, separate level, Pan, Drive, Mute, phase-inversion, LFO, and Varispeed controls are provided for the second ADT signal path (see Figure 2).

Like all Waves plug-ins, Reel ADT also includes multiple levels of Undo and Redo, A and B workspaces and preset management tools. I was really happy to discover the Undo function could even reverse a preset recall. And like the dozens of other Waves plug-ins I use, Reel ADT is apparently free of bugs. Few other manufacturers are so conscientious.

How's It Sound? I first tested Reel ADT on female lead vocals, busing the track to a stereo aux channel where the plug-in was instantiated. I dragged the ADT tape head's position to +20ms, or 20ms later than the source. Setting the ranges for both LFO and Varispeed to 10ms, this made the effective modulation range +10 to +30ms when the Varispeed control was parked at 0ms. I liked these initial settings because they precluded the wet signal ever getting too close in time to the dry vocal to cause flanging. I raised the Drive controls for dry and wet signals a bit to add a little velvet. Panning the source and ADT signals to nine and three o'clock, respectively, the sound was lush and wide. But this was just the beginning.

On phrases where I wanted the vocal's

double tracking to sound looser, I cranked the Varispeed control fully clockwise (+10ms), instantly changing the modulation range to +20 to +40ms. Because I had the Varispeed control set to Touch mode, I could simply release my mouse at any moment to return to the original modulation range instantly and tighten the effect. I also lowered the ADT signal's output fader a bit during verses to dry up the effect slightly. Whenever the song's chorus began, I option-clicked the fader to snap it to 0 dB and parity with the dry signal, maximizing the effect's intensity and putting an exclamation point on the vocal.

The Drive controls' effect sounded more like tube than tape saturation. It varied in intensity from subtle distortion to overload, responding very dynamically to input level. For best results and to avoid over-the-top distortion and compression from happening occasionally, I automated the Drive controls, riding them lower during the loudest and brightest vocal passages. Other plug-ins provide more euphonious tube emulation, but Reel ADT's is useful when you want to add a little grit.

The plug-in's ADT 2V configuration lent the best fidelity to vocals when one of its ADT voices was earlier and the other later than the dry signal. Otherwise, the signal tended to sound phase-y at times. But if your vocal—or guitar, keys, whatever—needs an outstanding flanging effect, drag the ADT's tape head position to less than 0.5ms offset relative to the source signal. To create phasing, activate the ADT's phase button and plunge its LFO rate. I also created great chorus effects with the ADT 2V plug-in by boosting LFO and Varispeed ranges to the max and hard-panning the two ADT signals away from the center-panned dry output. Boost the Drive controls on electric guitar for extra attitude. Waves offers terrific phasing and flanging presets.

Two Thumbs Way Up I won't mince words—Reel ADT sounds awesome. Whether doubling, flanging, phasing, or chorusing, this plug-in delivers the goods. Reel ADT is going to make a whole lotta mix engineers very happy. ■

Michael Cooper is a recording, mix, mastering and post-production engineer, a contributing editor for Mix magazine and the owner of Michael Cooper Recording (myspace.com/michaelcooperrecording) in Sisters, Ore.



Studio

| stoo-dee-ō |, noun

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Heavyocity DM-307

Mix it up good while staying in the groove

BY MARTY CUTLER

HEAVYOCITY HAS long been at the forefront of unique sound libraries that have a strong rhythmic inclination. With DM-307, the developer offers an enormous number of grooves and sounds, while providing novel ways to put them together.

In a sense, DM-307 is an impressionist's drum machine. Although its sound library hosts a decent number of conventional-sounding kit elements, DM-307 is anything but conventional, serving up processed and warped drum sounds with apologies to no one.

The instrument takes advantage of the deep feature set of Native Instruments' Kontakt 5 sampler; you'll need version 5.3 or later of the free Kontakt Player or the full Kontakt sampler. DM-307 is only available as a download and includes a standalone version as well as AU, VST, and AAX plug-ins.

Once installed, the software takes its place in the Kontakt browser, where its instrument patches and multitimbral configurations are immediately available. The Instrument browser hosts a menu comprising kit grooves, kits, and loops. Kit grooves are patches with drum maps and patterns, whereas kits are blank slates awaiting user input.

Kit subfolders harbor drums arranged for DM-307 pattern sequencing as kits or in a separate subfolder as kit elements. (The

SUMMARY

STRENGTHS Great sounds and grooves in a flexible, musical sequencing environment.

LIMITATIONS Step input for pattern creation only.

\$299
heavyocity.com



Fig 1. The Main Window is common to all DM-307 patches and grants access to the multieffects, the amp envelope, and Twist and Punish. You can apply the amp envelope to individual sounds on the patch key map.

latter makes it handy to build patterns by kick, snare, cymbals or other components.) The Standard MIDI drum folder mirrors the DM-307 kits (minus the pattern grids) with mapping more or less consistent between kits. Though not quite conforming to a Standard MIDI drum map (kicks are on C1 and D1, for example), these are intended for conventional sequencing in the host program's MIDI tracks and make it easy to replace previously recorded MIDI tracks with DM-307 sounds.

Common Ground Common to all patches and multis are Heavyocity's prodigious DSP and real-time control via T-FX, which uses MIDI notes at the upper range of the keyboard to momentarily trigger any of five different processor types—distortion, lo-fi, filter, pan, and delay. Alternatively, each effect has a sequencer for tempo-based modulation. Tempo-synched gating effects with successive keys trigger different note values.

Another common feature is the panel of controls on the Main screen (see Figure 1). Master Effects and Volume Envelope controls flank a central bank of controls labeled Twist and Punish, as well as a context-sensitive field for selecting a sample or a loop. All Master effects, including Twist and Punish parameters, apply globally to loops and kits. Twist affects the tone of the selection, and appears to be some sort of multimode filter, while Punish is a compression and saturation effect. Volume Envelope controls have a drop-down menu, letting you choose a note number or a kit piece by name to control the envelope of a kit element, or a loop from a loop menu. Because loops and kit samples are mapped to MIDI notes, you can select one for editing from your controller and alter its pitch, pan position, and level.

Modus Operandi With the exception of the Standard MIDI drums, all grooves are created in step time; there is no real-time keyboard



Fig 2. The Grid Window is where most of the pattern sequencing happens. Each of the five banks contains its own sample map.

input. All patches and multis (except for the Standard MIDI kits) rely on step sequencers for groove creation and sonic animation.

Groove building starts with the Grid window, which is immediately visible when loading a kit with a pattern (see Figure 2). You will find up to five lanes of banks, which are either numbered or named after the kit element represented, depending on whether you have chosen an element kit (for example, a percussion, kick, or hi-hat kit). Change the time signature by globally lengthening or shortening the number of steps per pattern.

Below the sample maps, every sequenced instrument (multis included) has a key switch to globally trigger playback. Keys above the key switch mute individual banks in an instrument, while in a multi, the individual instrument tracks are muted. In this way, you can additively or subtractively create dynamic rhythm tracks with a single keystroke.

Add patterns to an instrument via a knob

that extends the number of patterns (up to 8), and a drop-down menu for each pattern that lets you order them in any way you'd like. Of course, you can copy and paste patterns, as well as add variations.

But there's a lot more going on in the sequencers. Clicking on any bank reveals another group of sequencers—Step Velocity and Step Sample. The ability to edit velocity is an expected feature, but Step Sample is the real eye-opener. Each bank's sequencer lane—whether it is a kit element or a full-blown drum-and-percussion kit—contains its own key map of instruments, usually a variation on a theme (e.g., a map of different kicks, or possibly, snares). Dragging up or down on a step will select a related sample, providing a wealth of sonic variety (see Figure 3). The samples can be wildly diverse in timbre and effect, but because they are related functionally, they add tremendous sonic interest without disrupting a groove with the wrong kit element. (Find audio clips at eumusician.com/august2014;

this example references Clip 1.)

Loops operate differently. Loop menus lay out a variety of grooves across the key map, and you play them by holding down the keys you want. Single loops work more like a REX file, arranging the loop slices above a key that triggers the entire loop. You can select (by MIDI note) any slice of the loop, and edit its panning, tuning, and level, or randomize any or all parameters. Single loops and loop menus have a Mutate window which works like an arpeggiator and lets you alter the way loops play back with respect to duration, note number, and velocity. With Singles, note number affects the slice selection, while with loop menus, it can select a different loop.

Multi instruments take advantage of the modular nature of the DM-307 library and often combine groove elements as well as full-kit grooves. Although time signatures and note values are global in single patches, multis can easily handle polyrhythms by changing the pattern lengths in the constituent patches (reference audio Clip 2). A common panel gathers composite patches under a global trigger button and faders, with a mute

button for each composite patch. I created some serious rhythmic turbulence by merging several multis at once; one button triggers them all in sync, and even if they don't all fit together, there's plenty of room for experimentation (reference audio Clip 3).

Truly Groovy DM-307 combines an enormous set of tools for customized groove creation, with a number of ways to use these tools. However, the most compelling aspect of DM-307 is its collection of sounds, loops, and grooves. Kits and sounds range from pristine and realistic to punchy, distorted, and abused. For ambient music, industrial, dance, soundtrack—this is a go-to library for situations where interesting sounds matter.

The loops and kit grooves are supple and musical, and the multis are masterfully assembled and orchestrated; the Latin and ethnic material is a standout, with a wealth of authentic, and sometimes esoteric, styles represented. That said, don't neglect any of the industrial, pop, or hip-hop folders—they're all



Fig 3. The Step Sample feature lets you trigger different samples attached to a bank's key map. Clicking and dragging the white bar under an event in the sequencer transposes the event, causing it to trigger a different sound (indicated just below the event at the top of the panel).

packed with compelling grooves and sounds.

Heavycity DM-307 emerges at the very top in a bumper crop of great drum machines and groove libraries. ■

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Hear the DM-307 in action.
Emusician.com/August2014

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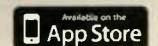
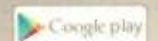
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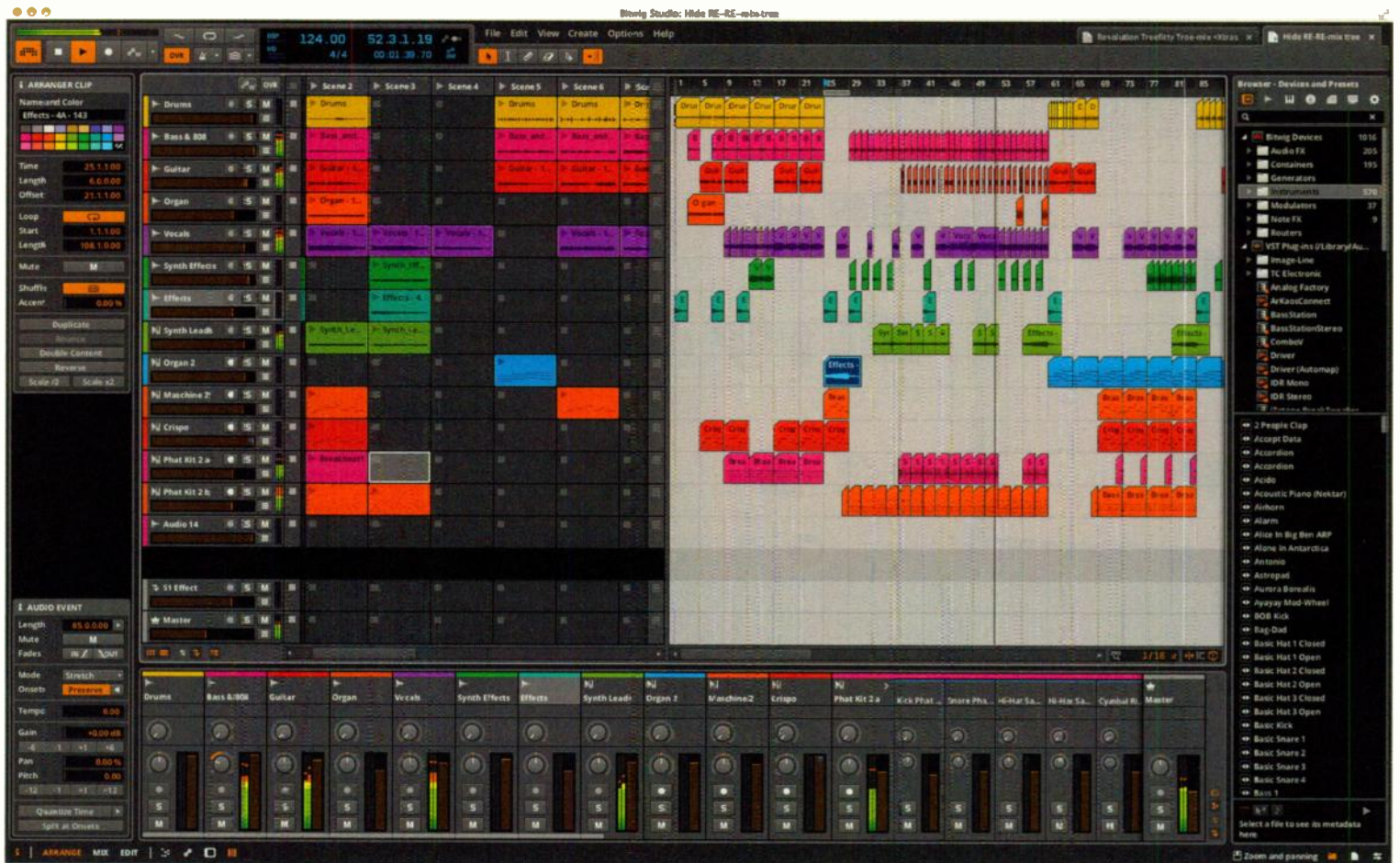


Fig. 1. Bitwig Studio should earn some fans with its Clip Launcher, Arrange view, and Mixer visible all in one window.

Bitwig Studio

New DAW imitates to innovate

SUMMARY

STRENGTHS Flexible interface focuses on speedy workflow and customization. Integrated clip launcher and arrangement views. Unified Modulation System and nested device chains. Drag-and-drop between open projects. Good audio bouncing, slicing, and stretching features.

LIMITATIONS Limited MIDI controller support if you don't have Javascript skills for creating a map. For the price, its instrument, effect, and sound collection needs some filling out. Several omissions, such as lack of ReWire support, MIDI export, and multiple audio outs for VSTs.

\$449 MSRP, \$399 street
bitwig.com

BY MARKKUS ROVITO

BUILT FROM the ground up to comprise a sort of “greatest hits” collection of DAW features - without too much clutter, Bitwig Studio borrows heavily from Ableton Live and a bit from Cakewalk Sonar, Apple Logic, and Steinberg Cubase. However, in the end Bitwig succeeds in creating a production environment with its own character, novel features, and a speedy, customizable workflow.

Bitwig's development team includes some Ableton veterans, and Bitwig Studio's stretching of audio material to tempo, flexible one-window layout, nested devices (such as the Drum Machine), selection and design of instruments and effects, and especially its Clip Launcher with Scenes, are all reminiscent of Live.

However, some simple, yet crucial, differences make Bitwig surprisingly

attractive. In the Arrange (linear timeline) view, you can access the Clip Launcher's Scenes (with clips ordered horizontally) at the same time (see Figure 1). This lets you quickly switch between working in each space as well as drag-and-drop audio from one view to the other. As a longtime Live user, I quickly adapted to using the timeline and the Clip Launcher together more than ever before, and it was a welcome change.

Bitwig Studio also lets you view the Mixer below its Central Panel while the Clip Launcher and Arrange view are open, another nice option you don't have in Live. Tabs under the main window (as well as keyboard shortcuts) let you toggle between the main Arrange, Mix, and Edit Panels, as well as smaller Mixer, Note Editor, Automation Editor, and Device views along the bottom.



Fig. 2. An XY Instrument nested device with the Polysynth showing and the Macro controls being assigned.

Bitwig Studio borrows heavily from Ableton Live, Cakewalk Sonar, Apple Logic, and Steinberg Cubase, yet succeeds in creating a production environment with its own character, novel features, and a speedy, customizable workflow.

The Inspector and metadata-based Browser views flank the main window and can be hidden to save space. The Inspector shows vital data, function shortcuts, and a channel strip for selected tracks and note or audio clips. You can use it for many quick edits, like quantize, duplicate, reverse, etc. The Browser organizes all the Devices, plug-ins and their presets, samples, and MIDI clips, including a Previewer. You can conveniently set shortcut folders from your Desktop to the Browser.

Bitwig Studio lets you optimize your available display space and figure out your preferred workflow. It also supports up to three displays, with various modes for splitting windows across monitors.

Devices and Modulation With 54 total instrument and effect devices and around 4GB of audio download material, you can cover most of your bases with Bitwig's Sampler, Drum Machine, FM-4 synth, and

subtractive Polysynth instruments. These are rounded out with a wide selection of effects, many of which come with very useful presets. Compared to many other DAWs, this area could still use some filling out. However, Bitwig scores points with its various nested devices such as Instrument and FX Layers, which are single devices that contain stacks of instruments or effects; XY Instruments and XY Effects, containers that hold four effects or instruments in parallel and let you crossfade their outputs from an XY axis; FX Chains; and the Mid-Side Split and Multiband FX-2 devices.

When you click on a modulation source on any device, the list of possible destinations lights up, and you just need to drag the parameter's desired range to assign it (see Figure 2). It's quick and easy. Similarly, each device has a set of eight Macro controls, to which you can assign any number of parameters at a control range that you set.

You can add your own VST plug-ins (32- or 64-bit) to any of the nested device types, and whether the VSTs are used on their own or nested, Bitwig Studio's VST crash protection works very well: If a VST plug-in crashes, it won't take down the DAW at the same time. You simply get a blank area where the plug-in was and a dialog box that asks if you want to relaunch the plug-in.

Bitwig, itself, did crash on occasion, however. Each time thankfully, the work was recovered.

Editing and Automation You can edit notes (velocity, gain, pan, timbre) and audio (event, gain, pan, pitch, onsets, Stretch), as well as automation, from the large central panel or smaller secondary panel. For groups of notes or audio events, the Histogram introduces some wonderful randomness to the edited values. Layered editing also lets you edit multiple instrument tracks in the same window.

Per-note "expression" editing only works for Bitwig's internal instruments for now, but its different automation modes

work for VSTs, as well as almost every Mixer function and device parameter. You can attach automation to a clip so that it duplicates along with the clip. Two very cool relative automation modes—additive and multiplicative—move a parameter $\pm 50\%$ of its total range and scale a parameter toward zero, respectively. You can even use all three automation types at once for some pretty wild curves.

To Wig or Not to Wig Out After developing its DAW for two years under public scrutiny (done to create buzz), Bitwig Studio launched to the delight of some and to the cries of foul by others who said it was a rip-off of Ableton Live and/or a beta program disguised as commercial software. The similarities to Live are obvious and intentional, yet a clone it is not.

The complainers have a point that Bitwig Studio 1.0.8 doesn't include every feature available in other, more mature DAWs. However, I question their historical appreciation of 1.0 software. Although times have changed a lot, Ableton Live 1.0, for example, was scarcely a shell back then of what it is now.

By comparison, version 1 of Bitwig Studio leaves off some important items, such as multiple audio outputs and undo for VSTs, ReWire capabilities, a MIDI export function, the ability to host Audio Units plug-ins, and wider MIDI controller support, among other things. But as a niche product initially aimed at electronic dance production, Bitwig Studio is a DAW worth watching as it continues to grow. ■

Markus Rovito drums, DJs, and contributes frequently to DJ Tech Tools and Charged Electric Vehicles.



More Online
Watch a demo of Bitwig Studio.
Emusician.com/August2014

EastWest Steven Wilson's Ghostwriter

Get progressive
with this otherworldly
sound library

BY MARTY CUTLER

WELL-KNOWN for his sound-design and mixing expertise, Porcupine Tree founder Steven Wilson prefers to do his own sampling from scratch rather than rely on presets and prefabricated libraries. EastWest tapped Wilson's talents, along with drummer Marco Minneman, guitarist Laurence Juber, and co-producer Doug Rogers to create *Steven Wilson's Ghostwriter*, a library of processed instruments, often played with unorthodox techniques. With more than 60 GB of content, the library is available on a set of DVDs or a USB 3.0 drive. You'll need an iLok to authorize it.

Ghostwriter uses the EastWest Play instrument, which carries a great-sounding convolution reverb, a separate set of amplifier impulse responses, and a generous set of controls for tweaking. The Player screen is where you access much of the processing for each patch, including delay, reverb, amp selection, amp envelope, filter settings, and more.

The Sum of Its Parts *Ghostwriter* organizes its sounds by instrument, and the top level divides into guitar, bass, keys, drums, vocals,

SUMMARY

STRENGTHS Intriguing, edgy sounds that work well together.

LIMITATIONS Some solo patches sound a bit static.

\$395 retail
soundsonline.com



In addition to offering plenty of editing capabilities from the main screen, *Ghostwriter* offers various sounds and articulations through key switching.

and miscellaneous, with subfolders as needed. Some instruments are organized into a number of variations and playing techniques.

If you are expecting sounds rife with hyper-arpeggiated performance features, or sparkling pads to decorate the high end, look elsewhere. *Ghostwriter* explores dark, distorted, and cloudy timbres, with everything aimed at fitting into a mix in which no single sound dominates the sonic picture.

That said, the collection is intriguing and, as a whole, provides a refreshing set of instruments that are meant to work together, while exploiting the animation that comes naturally from such things as the chaos of plucked strings or feedback. A case in point is the Vocals folder. Played individually, a number of patches seemed to be synthetic sounding and static. However, when judiciously layered, the sounds sprang to life, with an organic quality few digital extravaganzas could equal.

Other standouts include the ambient, Leslie-processed Clavinet that sounds nothing like a Clavinet, yet holds an atmospheric, old-school analog charm. The Ebow guitars are expressive, as are the volume-pedal guitar swells, which could easily be tweaked into service as a pedal steel for ballads.

Prog Chords offers a key-switch menu of jangly chords in different voicings. Many of the patches feature distorted guitars and are exceptional, especially the Sigur guitars, which are bowed. The key switches shuttle between

overdriven sounds, some played with a slide, and others presenting a menu of dive bombs and various articulations. The thing that makes these stand out is the extended length of the samples, which provides chaotic, yet musical, inconsistencies between notes.

Don't overlook the folder of drums, which offers many processed instruments, including mono amp kits. These are powerful drum sets laden with attitude.

There are no multis in the collection. However, creating your own is easy, and a drop-down menu in the Player window offers easy access to the main screen for each patch. I like that *Ghostwriter* is laissez-faire regarding multis; once you load sounds, you can configure your own velocity splits, key switches, transpositions, and even different micro-tunings for each patch. Once you've created your sound, just save it; there is no differentiation between saving multis or single patches.

Ghost Notes Designed with film, television, and game soundtrack work in mind, *Steven Wilson's Ghostwriter* occupies a niche that's different from the typical all-in-one library. However, the edgy and distorted sounds in this collection would also provide a great resource for musicians working in rock, fusion, and funk.

What is most remarkable is the attention to the big picture as well as details. These sounds were meant to go together, and in doing so, they provide a go-to progressive songwriter kit with little need to look outside of the library. ■

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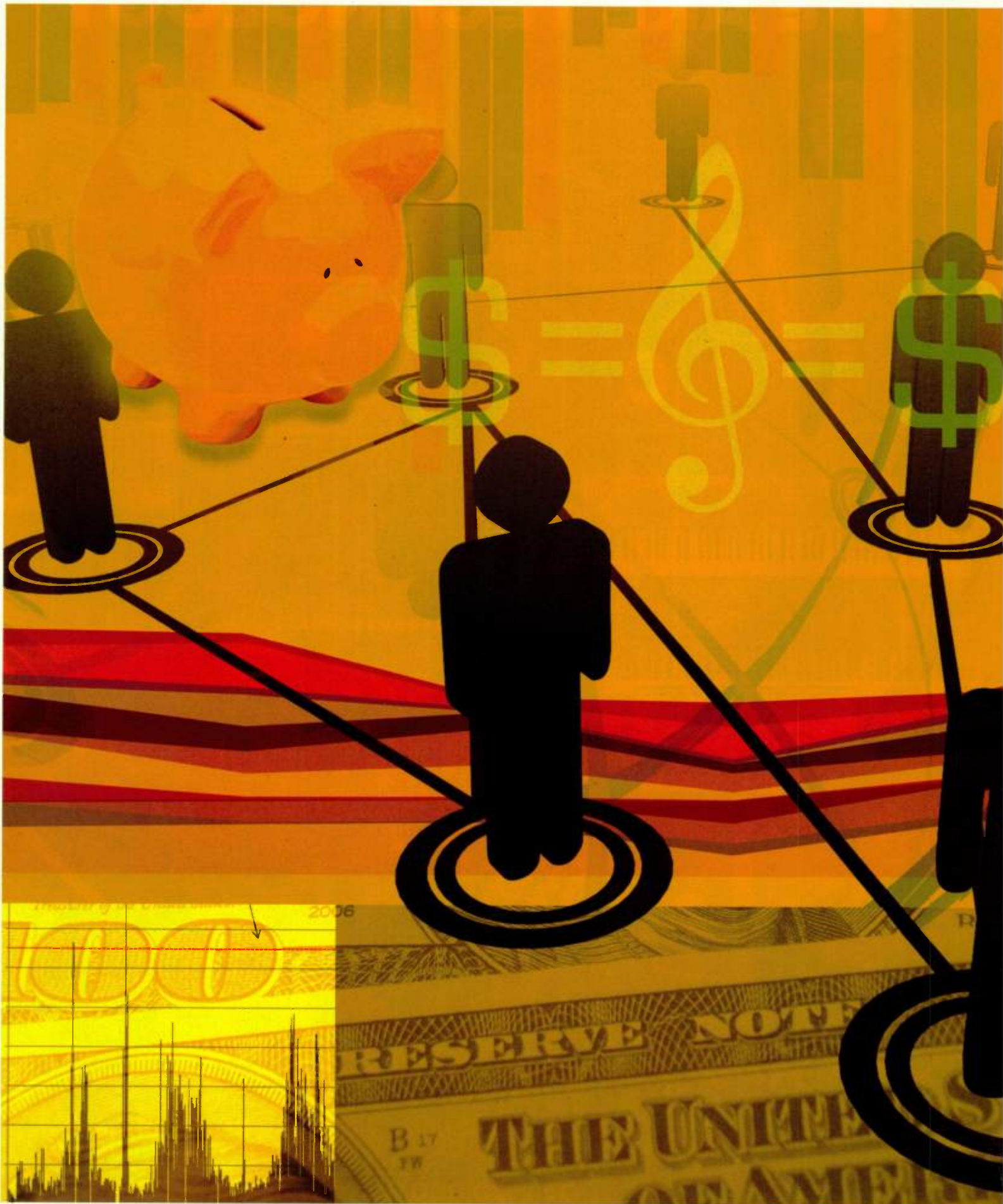
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An illustration on the left side of the page shows a silhouette of a person standing on a glowing, multi-colored path that leads towards a 3D pie chart. The background is a warm, orange-toned gradient with vertical lines. The path is composed of several parallel lines in shades of red, orange, and yellow. The pie chart is light blue and green, with one slice cut out. A large, faint dollar sign is visible in the background behind the path.

HOW TO

Master Class Get Funded

Four ways to find money for
your music project

BY RANDY CHERTKOW AND JASON FEEHAN

YOU WANT to record an album, go on tour, create new merchandise. The problem is, you don't have the cash on hand to make any of these things a reality. How can you raise the money to help fund your next musical project?

Fortunately, as we explained in our October 2013 article, "Starting a Music Business for \$0," you might not need very much money, because you can get worldwide music distribution, merchandise, promotion, and licensing for free. But beyond being smart about expenses, and driving income through music sales, licensing, shows, and merchandise, there are many other opportunities to fund your music.

This article introduces you to four music-funding streams that you can tap before you even start your project: sponsorships, patronage, crowd funding, and grants.

A Word About Sponsors Although many musicians think that getting sponsored is only possible for well-known or established acts, the truth is, sponsorships actually are within reach of nearly every musician. Every business out there—from corporate behemoths to your local mom-and-pop shop—is looking for the same thing: opportunities to grow their business and get exposure to new customers. As a musician, your fan base, public appearances, shows, blog, and online presence can provide advertising and marketing opportunities for their businesses. All you need to do is work out an arrangement that benefits both sides.

When you're approaching a business to talk about getting sponsored, you'll need to share information about the size of the audience you can help them reach, so be prepared to talk numbers.

Getting sponsored can be as simple as asking Jake's Pizza Palace to pay you \$200 to put their logo on the banner that's behind the stage. But some musicians take it a bit further, and seek out specialty brands that match their music or style. For example, Frankendread is a steel-drum artist whose shows are laid-back with a beach-party vibe. He worked with a Caribbean-style beachwear company that complemented his music perfectly. He wore their clothes at shows, and it was natural for him to plug the brand from the stage.

In exchange for company sponsorship, you need to offer the business something in return, in the form of access to your audience and/or your skills as a musician. You can help promote and market the business' product or services through a variety of ways, such as giving them advertising opportunities to reach your audience: online sponsorship announcements on your web site, social media, or videos; ad placements on your site; co-branding shows or

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events; product placements in live shows and videos; or even endorsements.

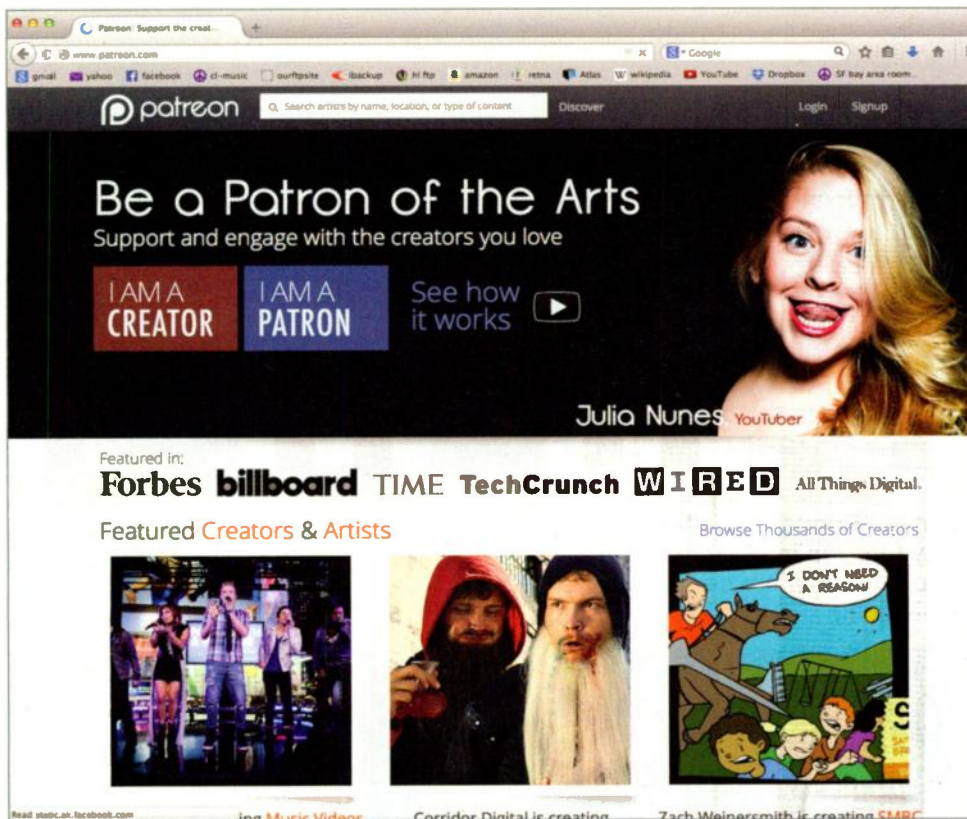
When you're approaching a business to talk about getting sponsored, you'll need to share information about the size of the audience you can help them reach, so be prepared to talk numbers. You can support your case by sharing the size of your average draw or your mailing list. Other statistics that can help include the number of social media followers you have; your Eventful Demand number (eventful.com), which proves how many fans attend your shows; and the number of views you get on your YouTube channel. When you're talking to a potential sponsor, be sure to mention other businesses that have already sponsored and signed on with you.

Music for Money Sometimes businesses will be interested in using your music or having you create content for them in exchange for funding. You can offer them original music that you already recorded, or you might suggest that you write new music that they can use in their marketing campaigns, on their website, or in promotional videos. You'd be surprised how often businesses need licensed music; so many marketing assets and videos are needed today. If you have a studio, another option could be to barter studio time that they might

need to make their own radio/video spots or commercials; small businesses rarely have the budget to pay for time in a professional recording facility.

Plus, keep in mind that sponsorships don't have to involve just money. You can also ask for giveaways or discounts for fans, cross-promotion through a company's press contacts, advertising or marketing, and even free services or products. Just remember to be creative when working out these deals. You never know what you can get until you ask! Note that if the deal you make involves a significant amount of money, you may want to ask an attorney to review any agreements before you sign them.

If you're not sure where to look for a sponsorship that suits your music, there are a number of services that can help to connect you to potential sponsors worldwide. For example, some of the opportunities listed on SonicBids (sonicbids.com) involve big name brands. These companies are looking for ways to reach a target demographic that your fans may already fit. Some active brands like RedBull are actually particularly musician-friendly, and will be predisposed to create events and opportunities for musicians to work with them (redbullmusicacademy.com).



Patreon.com lets fans fund their favorite artists generally, up to a chosen limit. This form of patronage is not attached to a specific project.

Patrons of the Arts In an article called “1,000 True Fans” on his website The Technium, Kevin Kelley suggests that if a musician can get 1,000 fans to spend \$100 a year, that musician will earn an annual gross income of \$100,000: a very good living. This idea seems plausible mathematically; the problem is, it’s hard to get \$100 out of a fan if all you’re selling is an album, a t-shirt, and a few tickets to a show. Plus, even if your fan buys everything that you put out in one year, in year two, you’d need to put out another album, new t-shirts, and put on more shows, and hope that the same fan will spend another \$100. It all adds up to very flawed business model.

However, one way to get a stable income out of your fans is through their patronage. Historically, artists were often supported by royalty, wealthy individuals, or large organizations. Today, there’s an app for that.

Modern patronage comes in at least two different forms. Services like Patreon (patreon.com) give your fans a way to set a dollar amount they will pay you each time you release something like a video or a new song. They can even set a monthly maximum so that they can stay within their budgets. For example, the band Pomplamoose releases popular videos on a regular basis; they make a few thousand dollars from their patrons for each video they release. To encourage

patronage, the service also allows musicians to give their patrons exclusive content.


Another model of patronage works on a

Historically, artists were often supported by royalty, wealthy individuals, or large organizations. Today, there’s an app for that.

subscription basis. Services like Patronism (patronism.com) allow patrons to pay you in regular monthly installments that they set. In return, the service allows artists to offer exclusive access to unreleased material, live recordings, backstage videos, blogs, and more.

Of course, the simplest way to ask fans for financial support is to have a virtual “tip jar” on your website. All you need is a Paypal link. Paypal will take a cut, but any money a fan donates above this amount will be all yours.

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Perhaps the best feature of the patronage model is that you can get funding from it while continuing to make revenue from other income streams, including music sales, merchandise, licensing, video advertising, and more.

The In Crowd Crowd funding services let artists ask the public to help fund a particular project or product. You set an overall target dollar amount that you're trying to raise by a specified date, and offer rewards for different levels of pledges. As funders pledge, the service collects the money (minus fees) and provides a platform for you to communicate and market your project and campaign to your backers.

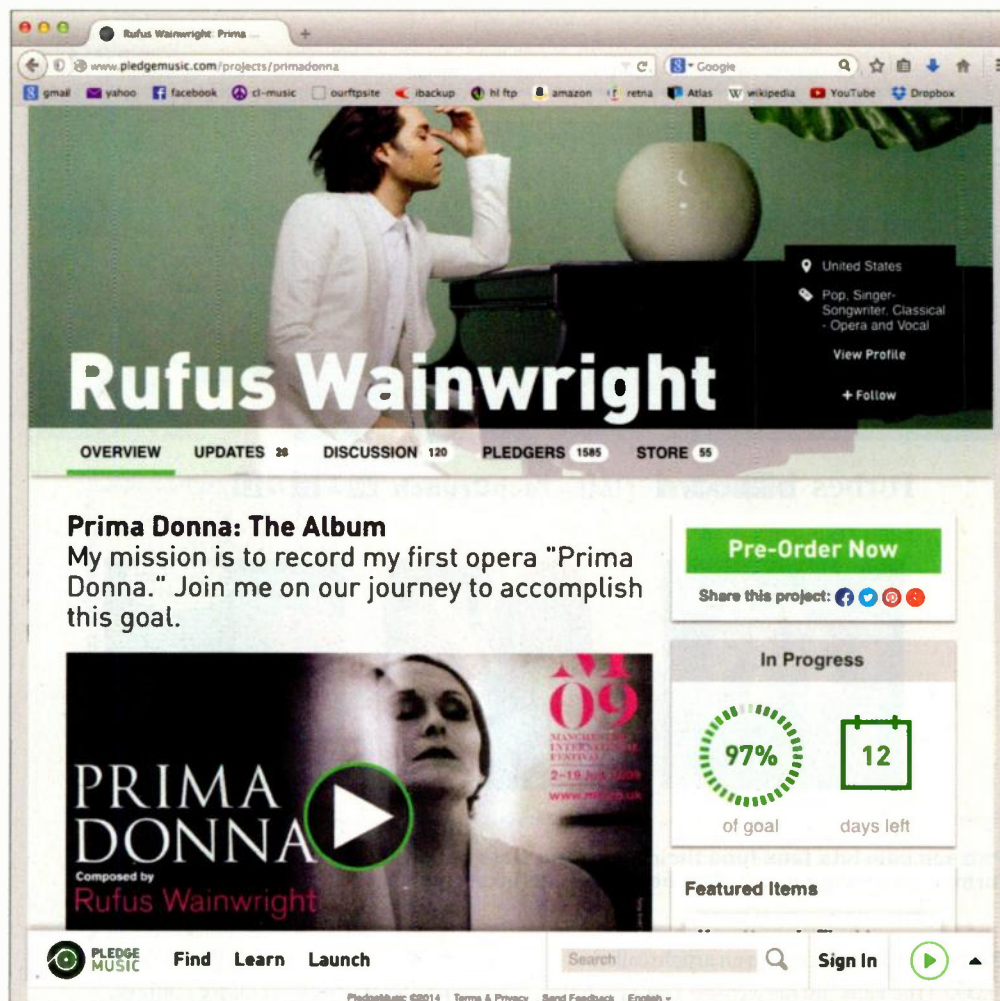
Crowd funding accomplishes two things. First, it allows you to pre-sell your albums, merchandise, or concert tickets to fans so you get their money up front. This reduces the risk of putting out a product without knowing how much money you can recoup. Second, crowd funding offers the opportunity to involve larger backers, especially if you offer enticing rewards to get them to pledge more than they would pay for a regular album, event, or show.

Crowd funding takes time and effort; it's not something you want to jump into without a plan. In fact, more than 44 percent of music campaigns on Kickstarter (kickstarter.com) fail. Musicians who succeed at crowd funding are the ones who plan their campaign, choose the right rewards, time the campaign right, and, perhaps most importantly, put together great marketing that sells the project. There are five elements to running a successful crowd funding campaign:

1. Choose an appealing project. People want to fund projects that are intriguing and compelling to them.

2. Set realistic but adequate funding goals. Be sure to set a target funding goal that is achievable but will allow you to fund your project. Keep in mind that crowd funding services take a cut, so you'll need to build in an amount to cover those fees. However, if your goal is too ambitious, you may run the risk of your campaign failing; people might not pledge if they get the impression that the project won't get made.

3. Select the appropriate crowd-funding service. There are many services that you can use to raise money. These include: Kickstarter, IndieGoGo (indiegogo.com), PledgeMusic (pledgemusic.com), ArtisteConnect (artisteconnect.com), Oocto (oocto.com), Sell-



One of several crowd-funding sites that let fans help artists meet project-based goals, Pledgemusic.com has been the choice of name artists like Rufus Wainwright and OK Go as well as newer bands.

A-Band (sellaband.com), and Feed the Muse (feedthemuse.com). Each one has different terms and conditions, features, fees, and funding models. For example, Kickstarter campaigns that don't reach their target don't give you any of the funds you might have raised, while IndieGoGo allows partial funding. Do plenty of research to find out which one is best for you.

4. Plan your rewards. It's essential to offer rewards that will ensure a successful campaign. This topic will be explored further in a future *Electronic Musician* article; we'll explain the best ways to structure incentives to maximize pledges but keep your costs down.

5. Execute your campaign. Successful campaigns are not only well planned, but they're also sequenced and timed effectively to get the most money out of the backers. This is another big topic that we'll cover in a future *Electronic Musician* article.

In addition to the five elements above, take time to check out successfully funded campaigns on crowd-funding services to get ideas for your

own campaigns. Look deeper than the crowd-funding page and explore the artist's online and social media activity to learn how they promoted and marketed their project.

Get a Grant When most people think of getting a grant to support their art, they think of applying to governmental agencies. But the government is only one source of grant money. Private companies, trusts, charities, nonprofits, and even individuals offer money to musicians too.

One way to increase the odds that you'll get grant funding is to apply for those whose mission statements and goals align with your project and music. You'll need to research what opportunities are out there. For a list of agencies that provide grants for music and the arts, see the National Assembly of State Arts Agencies (nasaa-arts.org). Also check out the Savvy Musician's funding page (savvymusician.com) for other public and private organizations and nonprofits that offer grant funding.

Grant associations establish criteria that you must meet and rules that you must follow in

order to qualify. Applying for grants requires a lot of paperwork, too, so be sure to follow all of the submission instructions carefully and meet submission deadlines. And if you are awarded a grant, make sure you follow all of the reporting requirements afterwards. Grant associations will often want an accounting of how the project went and how their money was used.

Keep in mind that most grants make a distinction between nonprofit and for-profit business. Most musicians are for-profit and lack the necessary 501(c)(3) tax status that that is required to be eligible for many grants. One way around this is to be sponsored by a non-profit. Services like Fractured Atlas (fracturedatlas.org) specialize in this.

Finally, keep in mind that there are a lot of options out there when it comes to grant funding. Some are very simple and within reach. For example, check out the Awesome

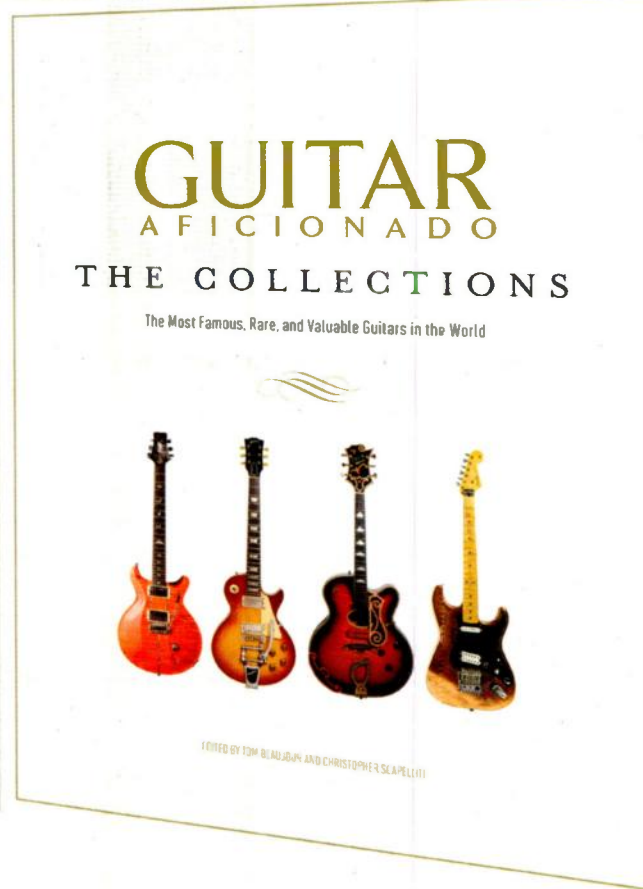
The government is only one source of grant money. Private companies, charities, nonprofits, and even individuals offer money to musicians, too.

Foundation (awesomefoundation.org). This organization gives away \$1,000 to any project they determine is “awesome”—no strings attached! There are Awesome Foundation groups in major cities all over the world, and they meet regularly to review projects and award money. So, ask yourself: Is your project awesome?

Next time you record an album, decide to go on tour, or create a new line of merchandise, remember that there’s money out there waiting for you; you just need to claim it. Sometimes, the only difference between musicians with money and ones without is that the ones with money took the trouble to ask. ■

Randy Chertkow and Jason Feehan are authors of [The Indie Band Survival Guide](#) (St. Martin's Griffin), now in its second edition.

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Dutch-House Lead Synth Sound for Pop or EDM

Make a sharp, intense synth that will cut through your anthemic productions

BY MARKKUS ROVITO

IN HONOR of one of this month's featured artists, Afrojack, we bring you tips on creating a big, cutting lead synth sound for EDM or pop music in the Dutch-house style that Afrojack helped pioneer. We used Native Instruments Massive and Propellerhead Reason's Thor synths, but you can build these sounds in just about any analog or analog modeling synth.

Oscillators Start with an initialized synth patch, and select three analog oscillators: a sawtooth, a square, and another sawtooth. Pitch up the second two oscillators by 12 semitones (one octave) each. If your synth offers detuning (sometimes labeled Tune), detune the second two oscillators—one by +10 cents and the other by -10 cents. Detuning oscillators by cents in an equally positive and negative amount helps make huge lead stabs (or thick pads, too) and keeps the tuning coherent, rather than leaning sharp or flat.

Now route the Pitch for oscillators 2 and 3 to an LFO with a sine wave shape and its rate turned all the way up. If your synth lets you choose the range of pitch modulation, choose a small value like 1 semitone (Figure 1). That will give the sounds a grinding, alarm-like quality.



Fig. 1. The oscillators and their waveshapes, tuning, and LFO pitch modulation are the cornerstones of this sound.

General Settings The oscillators should route into a lowpass filter with the cutoff most or all the way up, and the resonance most or all the way down. Any filter envelope should have a fast attack and fast decay. The amp envelope should have the fastest attack and longest sustain. If your synth has a hardclipper (in the Shaper of Thor or the Inserts of Massive), turn that on (Figure 2).

Voicing Portamento/glide characterizes many Dutch-house leads, so turn on glide in the oscillator section, portamento in the global section, or wherever your synth houses it. Along with that, turn your voicing or keyboard mode to monophonic and retrigger (or always trigger) (Figure 3).

Effects A few key effects will help round out the sound of this lead synth. Some synths

will have enough internal effects, but you may also need to add them to a DAW track. If possible, create a macro instrument that you can save with the effects included, like a Combinator in Reason or Instrument Rack in Ableton Live.

The most important touch is a little dab of reverb. Add a reverb and be sure to keep its Size and Dry/Wet settings low—in the lower quarter of the range. Chorus is also quite helpful to enhance the disorienting effect of the portamento/glide. Add a chorus either in parallel to the reverb or in serial after the reverb. You will want to keep the Dry/Wet, Rate, and Depth settings of the chorus fairly low as well. Finally, add a compressor or, preferably, a good multiband EQ as the last stage of the signal. Roll-off some of the lows and highs with shelf filters, and if your EQ has a frequency analyzer, try to tame any problem frequencies that you hear.

At this point, if you haven't already, you should experiment with the sound and see what subtle or extreme differences you get with adjusting any parameters. Save anything you like along the way as a separate patch. If it's starting to feel too aggressive for your taste, try rolling down the cutoff of the filter. Or to make it even more biting, add a distortion or amp simulator effect. Your particular synth, effects, and settings will all make a difference to the sound, but if you follow these guidelines, you'll have a sharp, energizing lead synth that'll cut through your mixes. ■



Fig. 2. Reason's Thor, where the Filter, Shaper, LFO 1 and envelopes all come into play.



Fig. 3. In addition to making the sound monophonic and always retriggering, increasing the Unisono voices in Massive will thicken the sound even more.



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Six Big Production Mistakes

Project killers you'll want to avoid

BY MICHAEL COOPER



MANY FACTORS contribute to a successful music production, including a great song, inspired playing, honed recording chops, a sterling mix, and skillful mastering. Unfortunately, every step along the way presents potential landmines that can blow up a project. Here are seven big project killers you'll want to steer clear of.

Choosing Friendship over Music It's common practice to invite a friend to play on one's project. If your bud's playing doesn't enhance the production (or it's downright ruining it), you may be reticent to cut him or her loose. You may feel pressure to keep the damaging track in the mix in order to preclude offending your compadre and preserve the friendship.

None of your listeners—including record execs, publishers, and music supervisors—will care whether or not your pal played on your flawed record. But any pimples in the production may cause them to doubt your potential. It may sound harsh, but serve the music and ditch the inferior track. If your friend is a pro, he or she will understand.

Hiring a One-Trick Pony If you'll be enlisting a singer to perform the lead vocal for your song, make sure you vet at least three of his or her demos sung in your song's style. Anyone who's watched *American Idol*'s early-season auditions has seen tons of singers totally nail one particular song they've

evidently practiced for years, only to fall flat when asked to belt out a new tune. Using today's recording technology, anyone can sound great on one song. Make sure your hired pipes can consistently make magic happen before you give them the nod.

Skipping Pre-Production Improvisational recording can sometimes yield incredible results, especially during songwriting and arranging. But if you'll be hiring a wrecking crew to lay down tracks to your song, you don't have the luxury to wing it (unless you're made of money). Make sure you thoroughly work out a battle plan before you bring in the mercenaries. You don't want to spend a ton of money tracking an arrangement that's DOA. Make sure the key, tempo, harmony structure, and charts are all bombproof well before your session date arrives.

Needless Highpass Filtering Before you stamp out boomy low frequencies during mixdown, be certain they need it. Your room or monitoring chain might be lying to you, and the boomy sub-bass you're hearing might not be on your recording at all. Maybe the bottom plate of the rear wall of your control room is fastened too tightly to the floor, thereby acoustically reinforcing very low frequencies. Or perhaps your subwoofer's gain is set too high. In these situations, rolling off the boomy bottom end will only make your mix sound like it lacks punch on virtually everyone else's system.

If you're not sure your room and monitoring chain are accurate in the low end, use low-shelving cut instead of a steep highpass filter to treat boomy bass. Then have your mixes professionally mastered to place the bottom end in perfect balance with mids and highs. Mastering can correct unnecessary shelving cut far more readily than steep highpass filtering, which permanently removes bass frequencies below its cutoff.

Rushing Through Mixdown I'm always amazed and frustrated when clients spend months or years tracking an album, only to insist the entire project be mixed in a single day. Nobody will ever love a crummy mix of a great performance. Standout mixes take time. Allowing insufficient time and budget for mixing is one of the surest ways to kill a project's potential.

Prematurely Locking in a Release Date The surest way to guarantee rushed, substandard mixes is to schedule an album-release party or concert before tracking is even finished for the project. (I've seen this happen too many times to count!) As the replicator's deadline for receipt of the master approaches, the last tambourine solo is committed to disc. Next task: Mix the 14-song project in two hours, before the replicator's cutoff time. Oh, and forget about mastering; there's no time for that! ■



The Truth About TAXI...

An Unedited Forum Post from TAXI Member James Kocian

<http://forums.taxi.com/post353820.html#p353820>

Hi Friends,
It's been awhile, but I'm still here!!

TAXI has been the singular catalyst for me in the past 2 years. I am closing in on 2 years of membership and my experience has been overwhelming. I will be at the Road Rally this year, as I've recently been invited to speak at the 'Successful Members' panel.

This is all beyond humbling to me, and I feel indebted to Michael and his incredibly talented staff.

Taking Risks...

In a nutshell, TAXI has motivated me and allowed me to take creative risks; to dabble in genres I didn't even know existed, and to develop relationships with high-level music professionals I otherwise would NEVER have had access to.

Major Publishers

So far this year I've signed 13 songs with major publishers. I'm writing with people all over the USA, and have made regular trips to Nashville a part of my routine. I've been co-writing with a guy who has had multiple (recent) #1's. It boggles my mind actually.

Once in a Lifetime Opportunity!

I'm writing Hip Hop tracks for a well known rapper's next project, and I'm connected to a Multi-Platinum, Grammy-Winning Producer who allows/asks me to regularly send him material to pitch to the biggest artists in music. That in and of itself is enough is a once in a lifetime opportunity, and it's been ongoing for nearly a year.

There's more, but this isn't about me. It's about: T-A-X-I Have I mentioned that I live in GREEN BAY, WI? I mean, sure, we have the Packers — but it isn't exactly a music hub for anything more than Journey tribute bar bands.

I really can't stress how invaluable TAXI is to people who are willing to put the CRAFT into the ART of songwriting and music production. The "Forwards" section of the [TAXI] forum itself is worth the membership fee. Why?

Figured Out What Elements I Missed...

It's not to brag about Forwards. What I did was hit the [TAXI] Forums after I got "Returns" and found members who received "Forwards" for the same listings. Then I went and LISTENED. I analyzed the differences in our songs. Lyrics. Vocals. Arrangements. Instrumentations. Productions. I re-read the listings, and figured out what elements I missed. And I adjusted accordingly.

Where else can you get that?

The success of members (at least this member) is a TEAM effort. And I am honored to consider TAXI part of my team. It is possible to succeed. To "make it." To realize our dreams.

Don't quit. Don't settle. Don't lose hope. And stick with TAXI.

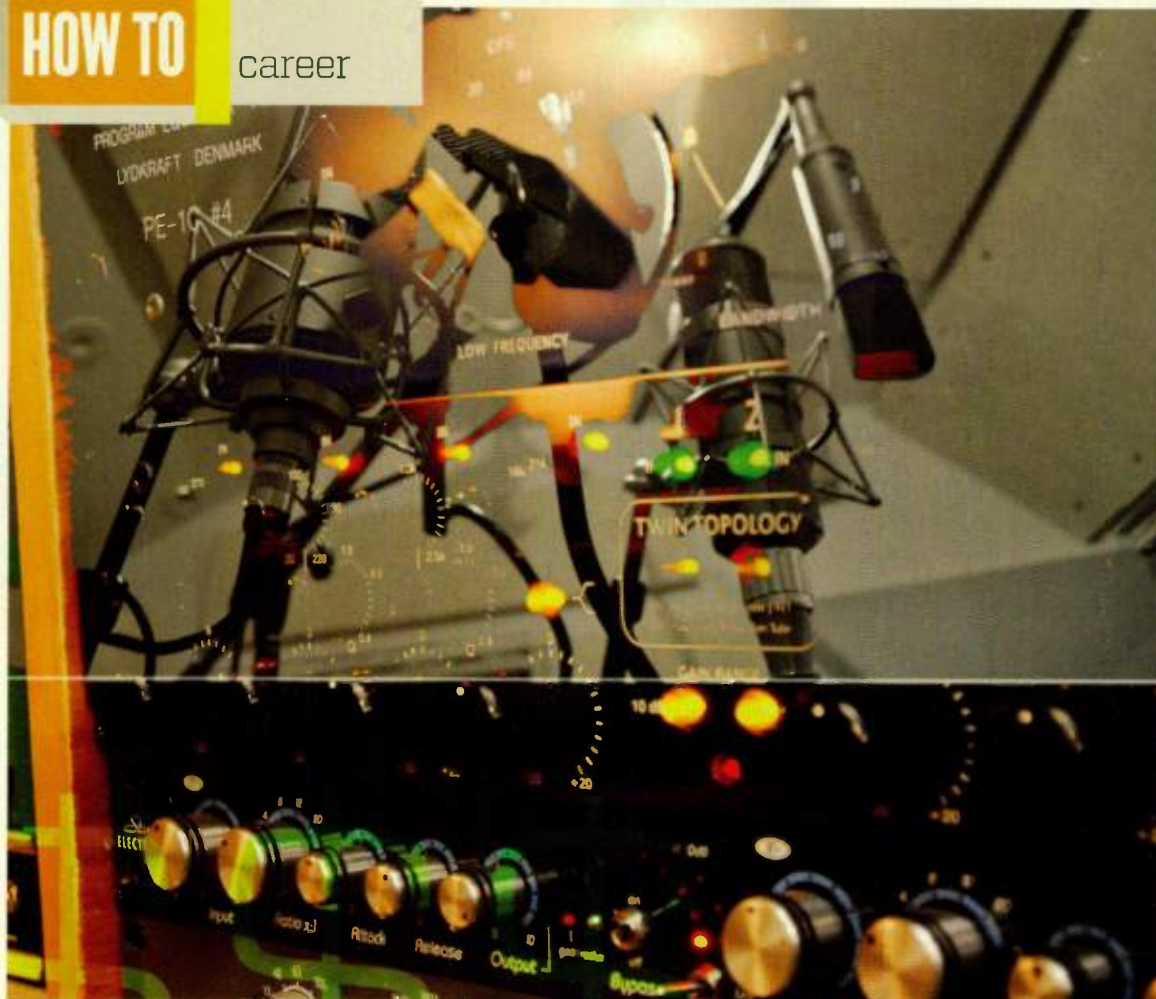


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Rent or Own?

Engineers help to decide what studio gear to buy, and what you'll be just as happy to borrow and give back

BY BARBARA SCHULTZ

LAST MONTH'S Roundup article, "Build a Studio for Any Scenario," offered three thoughtful, whole-studio approaches to outfitting a room. Experts on state-of-the-art technology, compatibility, and workflow researched every piece needed to assemble a functional rig.

But for most owner/operators, equipping a studio is a lifelong pursuit; engineers are never eyeing a vintage mic or compressor, or checking out a new plug-in emulation of that vintage compressor. Once a studio is up and running, the question quickly becomes what to upgrade next, and in some cases, is it better to rent or buy?

Electronic Musician asked a few hands-on musician/engineer/producers with their own facilities to share advice about how to

determine when to purchase a piece of gear, and when it's a good idea to rent.

Danny Molad, a multi-instrumentalist who contributes musically as well as technically to his projects, has recorded and mixed tracks for Elizabeth & the Catapult, Spring Standards, and more. He's currently the touring drummer/backing vocalist for Lucius, whose album *Wildewoman* (which Molad recorded) went to Number 5 on *Billboard's* Heatseekers chart.

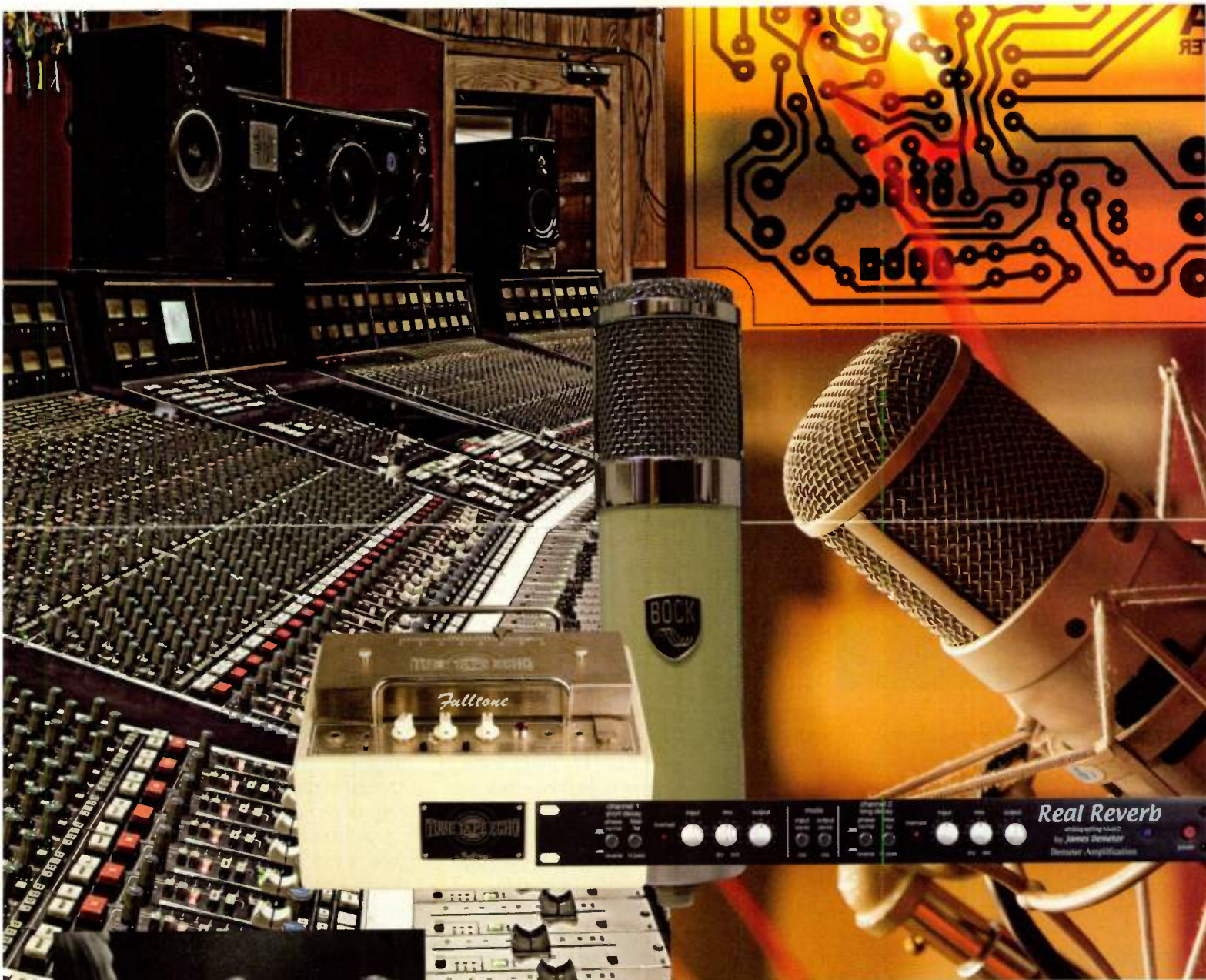
Frequent collaborators Adam Landry and Justin Collins go by the name Cosmic Thug when they work as a team, engineering, producing, and playing for clients including k.d. lang, Deer Tick, and others, mostly in their hometown of Nashville. Many of their projects are recorded or mixed in Landry's studio, Playground Sound.

What are some specific circumstances when you would rent a piece of gear rather than buy it?

Molad: I tend to rent the "holy grail"-type microphones: [Neumann] U47, [Telefunken] 251, maybe an old ribbon microphone, just because the price tag is just so high and they're so finicky. I would love to own many of those microphones, but, at least right now, I'm not even home enough to make that kind of purchase worth my while.

I recently did a video shoot with Lucius, and we wanted to do something that was kind of throw-backy to girl groups in the '60s. We wanted to emulate that vibe in the video and the performance, so we rented an old RCA 44—that big old ribbon microphone used by Elvis and Bing Crosby and the like.

Lucius has two lead singers [Jess Wolfe and



Jess Wolfe and Holly Laessig of Lucius

Holly Laessig], who sing everything together either in unison or in harmony. That ribbon is bidirectional, so a girl can be on each side. It looked really classy, too, with this big bulky art deco mic, but I can't afford to buy one at this point in my career.

Landry: One situation that comes to mind is a time when Justin and I wanted to try a couple different expensive mics that are way outside the realm of owning for us. I'm of the opinion that if a certain microphone's primary cost is not in its functionality but in its collectability

and vintage appeal—if a microphone is up there in the five figures—it's probably not wise to own one.

What other pieces have you rented recently, or in general?

Molad: If I'm doing a big project on location, I might rent some converters, some extra preamps. The great thing about renting is you can set your bar a little bit higher. When am I going to be able to afford 16 channels of vintage Neve pre's and EQs?

Landry: There are pieces of gear like a Gate Sta-Level, for instance, a mono compressor. There's really nothing else that does that. You could argue that a plug-in does the same thing, or that there are other cheaper mono compressors, but really nothing else does that exact same thing as that

three-thousand-dollar compressor. If you have three thousand to spend on a mono compressor to put in your bass chain, for example, that could be a good investment, but if you don't, you can rent it.

Another example would be, I was the engineer on a k.d. lang album [*Sing It Loud*], where the producer, Joe [Pisapia] wanted to try every type of converter to make a decision on what bit rate he wanted to cut at and what he wanted to go to mastering with; in that situation, we went over to Blackbird [Audio Rentals] and rented every single awesome converter that they had and tested them out to see which one was best.

If you have a little bit of extra money in the budget to rent stuff, then you can try out a couple of mics to see if they work with the artist, or try out mic pre's to see if they work

with certain instruments, and then if you like them you can go buy them.

Collins: Or with some gear, it takes a specialist to maintain it. A Fairchild—that's one piece of gear I wouldn't ever want to buy, even if I had the money.

Landry: It's the same with Telefunken 251s—the really expensive pre-Wall-falling eastern European Telefunkens. Those are amazing and really temperamental, and the tubes can cost upwards of two thousand dollars. I would never own one of those myself, but I have rented them



Adam Landry and Justin Collins

Cosmic Thug Rents from Blackbird Studio Rentals, Nashville

► *They've probably got the largest collection of Neumann mics in the world—every piece of gear you could ever think of, and the rental prices are really reasonable.*



Danny Molad

Danny Molad Rents from Dreamhire Studio Rentals, Long Island City, New York

► *They've been around for as long as I've lived in New York, and they've always given me gear that's in top-notch shape.*

in the past. I had a friend who acquired one but turned around and ended up selling it, because it's worth more than its value to keep.

What are the downsides to renting?

Molad: The thing you might miss from renting is, when something is yours, you tend to learn the ins and outs of it more. You play with it and get into it more. I have a couple of spring reverbs and tape echoes that I love to open up and futz with, and kind of abuse them.

A lot of the time when you stumble on unique sounds, it's because you did something "incorrectly" or even when something isn't working right; your individuality gets sparked from those moments. So for those reasons, I have a Fulltone tape echo that I wouldn't trade for anything. I have a Demeter Real Reverb that I have used on every single record I've made since I got the piece.

Collins: We use a stereo bus compressor—an SSL mod that a friend made—and I think that having it over time and getting to know it has been a good thing. We couldn't do that with a rental, obviously.

What advice would you give other engineers about when to rent vs. when to buy a piece of equipment?

Molad: I would point out that I got my start using cheaper pieces of gear and pushing the limits to get those pieces to do things they weren't necessarily made to do. You have to work with what you can afford and hope that sparks someone's interest enough to pay you, so the next time you can afford something a little better.

But if you can, it's always a good idea to invest in one piece or two, like one great microphone, that you really love, where the sound resonates with you. For me, it's my Bock 251 mic. It's the same for a guitar player with a certain effect, or pedal, or amplifier: It's always a good idea to buy one thing that's unique and adds to everything you do.

Landry: If you're legitimately trying to build a sustainable business as well as have a cool studio, I would say you should never spend more than 10 percent of an average record budget on a single piece of gear until you're in the next level of earning.

In other words, if the average budget of a record you're doing is ten thousand dollars, you shouldn't spend more than one thousand on a single piece of gear to start. This is assuming you already have your initial investment done. Building a studio is going to require, obviously, way more than that.

Renting is for when you want to try things,

UNSUNG RENTAL RESOURCES

Electronic Musician polled several more established engineer/producers around the country about their favorite rental houses and tips for finding high-quality, well-maintained rental gear. While some names like the Dreamhire, Blackbird, and Design FX or LAFX in the L.A. area were mentioned again and again by pros in the major markets, owner/operators in smaller cities may be able to tap less obvious resources.

A town like Austin, Texas, for example, is home to scores of live venues, so studio owners may consider sourcing outboard processing, converters, or mobile recording gear from local live sound providers like Nomad Sound or Soundcheck Austin.

Or, in major and minor markets alike, studios with deep inventories may be willing to rent out equipment. One example is Audio Vision Studios (Miami), the home base of brothers Ron and Howard Albert. These owner/engineers started their careers at Criteria in the '60s, recording Clapton, Aretha, and others.

"In Miami there isn't a Dreamhire type of specialty rental house where you can call and get anything you need. Instead, we all tend to help each other out," says Ron Albert. "We at Audio Vision Studios try to be extremely willing to rent our studio gear to the other studios in town, and it's a definite part of our revenue stream. Just last month The 'Beeb' wanted to rent our \$7,500 Sony C-800G microphone."

There's no "Rentals" link on the Audio Vision website; word of mouth might be the best path to the perfect mic for your project. So, ask around. Studios in your town might be willing to rent out equipment, even if it's not an "official" part of their business.

or when you're thinking, man, this artist would sound amazing singing through an RCA 44A. I may never own that microphone, so I'm going to rent it for a couple hundred bucks, record all my vocals in a day or two, and let someone else do the maintenance. ■

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Apple Logic Pro X Drummer

Construct and customize a drum track

BY MIKE LEVINE

OBJECTIVE

Create a realistic-sounding, song-length drum track using Logic Pro X's Drummer feature.

BACKGROUND

Apple Logic Pro X's Drummer feature is powerful and surprisingly easy to use. It automatically creates drum parts based on your choices of genre, groove, and drummer (you can pick from several different drummers, each with differing styles), and it gives you an array of tools for tweaking the parts. Here, I'll guide you through the basics of creating such a track, and offer a couple of power tips, as well.

TIPS

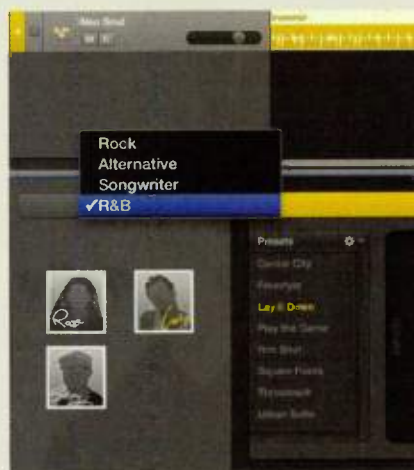
■ For more mixing control, click on the Library Tab at the top left of Logic's Main Window, open Drum Kit/Producer Kit in the menu, and select the kit you were using in its Producer Kit form. Clicking on the disclosure triangle in the track header opens up individual tracks for each drum in the Main and Mixer windows.

■ If you'd prefer to use a different drum instrument from the kits provided in Logic, you can convert the Drummer Track to MIDI. Select all regions, control-click and choose "Convert to MIDI Region."

■ The Follow feature in Drummer lets you lock your kick and snare to the rhythm of another track in your sequence.



Step 1 Go to Track/New Drummer Track to add a Drummer Track to your sequence. Two 8-bar regions will appear in the track. If the Drummer editor window doesn't appear at the bottom of the screen, double-click on a Drummer region to call it up.



Step 2 Choose the genre, kit, drummer, and groove. (The Drummer data in the regions will change accordingly.) Select both regions and choose a music style, a drummer (you can always change these later), a groove preset, and a kit.



Step 3 Refine the groove. Loop it and hit play, and use the "Puck" in the XY pad of the Drummer Editor to adjust complexity and loudness to taste. Click on hi-hat or cymbals in the graphic on the right to make the groove hat- or ride-centered, or choose toms to make it a tom-based beat. Select an eighth-note or sixteenth-note feel for the groove. Adjust the Fills control to add more fills (higher settings) or less (lower settings). Add Swing if you want. Click on the Details for additional parameters.



Step 4 Once your basic groove is set, copy and paste the 8-bar segments to create a full song. Select the Drummer regions for song sections where you want variations, and adjust the parameters accordingly.



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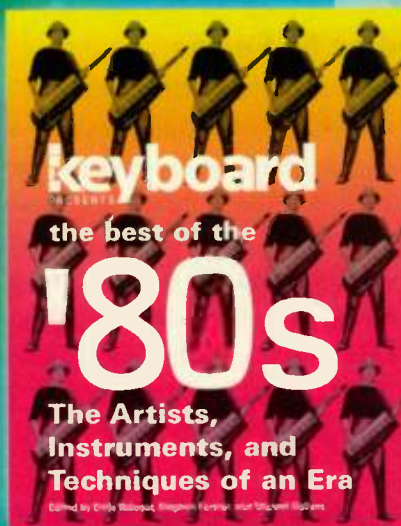
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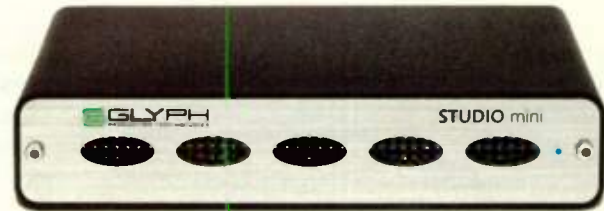


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Five Reasons Why Cats Make Wonderful Studio Peripherals

BY CRAIG ANDERTON



1

They understand computer maintenance better than you do. Cats know that dust kills computers, and it breaks their little feline hearts when you don't do sufficient dust control. Besides, if your computer-based gig goes down in flames, bye-bye tuna Meow Mix. So they shed, which means you'll get out the vacuum and clean up their fur—thus tricking you into reducing dust levels in the studio. *Clever kitty!*

2

They're masters of 12-tone composition. Buy one of those laser pointers, like executives use for PowerPoints when they want to look like they actually know something. Then, place your keyboard controller on the floor. Aim the laser pointer at the keyboard, move the pointer around erratically, and bingo! Arnold Shoenberg on methedrine.

3

Cats help you discover new and exciting keyboard shortcuts. Fluffy jumps up on your computer keyboard, and makes a vocal disappear—or quantizes everything to the didgeridoo part, which she then erases. *How did she do that?* Keyboard shortcuts, of course. Observe and learn.

4

They extend the life of devices that produce heat. Cats lie down on things that are warm. Are they cold? *No!* They're doing you a *big* favor by providing a secondary heat sink as they absorb component life-shortening heat into their bodies. But don't push it—I don't recommend applying thermal compound paste between your cat and, say, a power amp. It's hard to remove from the power amp.

5

Black plague? No worries! I don't mean the death metal band that keeps wanting to book time, but the Real Deal that decimated Europe in the Middle Ages. The people who killed cats for being presumed agents of Satan got overrun with rats, who functioned as a mobile Motel 6 for Oriental rat fleas carrying the plague. *Oopsies!* Unintended consequences. Meanwhile, the farmers who blew off Satan and kept their cats to control rodents didn't die. Let that be a lesson.

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