MOTU FireWire Audio

96kHz FireWire audio is the future. Build your customized state-of-the art MOTU system today.

TLA-50™ Tube leveler, Soft Knee Compressor

Add the warm sound of classic Summit Audio compression to your Digital Performer recordings with the TLA-50 Tube Leveling Amplifier, the newest offering from the first name in vacuum tube processing. This single channel tube leveling amp will warm your signals like nothing else. Add the warmth of that classic Summit Audio tube sound to your MOTU 896 at an unreal price.

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TD-100 Instrument pre-amp and Tube Direct Box

The new TD-100 instrument preamp and tube direct box features a hybrid signal path utilizing both a discrete solid state output device and a 12AX7A/ECC83 vacuum tube to give your musical instruments the clarity of class A sound with the richness and warmth of vacuum tubes all in a half rack space. Perfect for both live and studio use, connects easily to your MOTU 896 or other I/O and instantly gives your audio recordings that Summit Audio warmth and quality.

Peak™ 3.0

Advanced waveform editing and mastering

BIAS Peak 3.0 for Mac OS 9 and X, is the ultimate editing, processing, and mastering companion for Digital Performer! Peak gives you lightning fast, nondestructive waveform editing with support for audio files up to 32 bits and 10 MHz, including 24-bit/96kHz files. Unlimited Undo/Redo gives you the freedom to work creatively. Select an audio region in DP, choose the "Use External Waveform Editor" command, and instantly switch into Peak! Peak's sophisticated options for on-the-fly marker, region and loop creation are simply unparalleled.

bias sound creative

Advanced DSP and looping tools include Convolve, Repair clicks, Loop Tuner™, Loop Surfer™, Loop It™ and Guess Tempo™ and more. Process thousands of files, or just a few, using Peak's batch processor. Peak directly supports all MOTU audio interfaces and includes Roxio Toast™ Lite CD for burning your own redbook audio CDs directly from Peak's powerful playlists. Create web or multimedia content for export with multiple file formats, including Apple's QuickTime.

Built for Mac OS X

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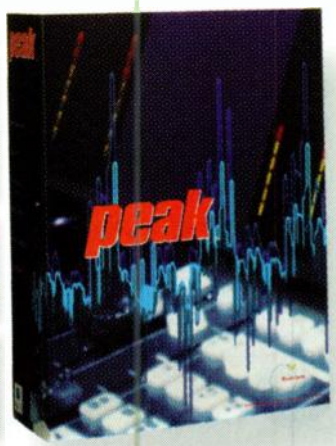
Electronic Musician 2000 EDITORS CHOICE

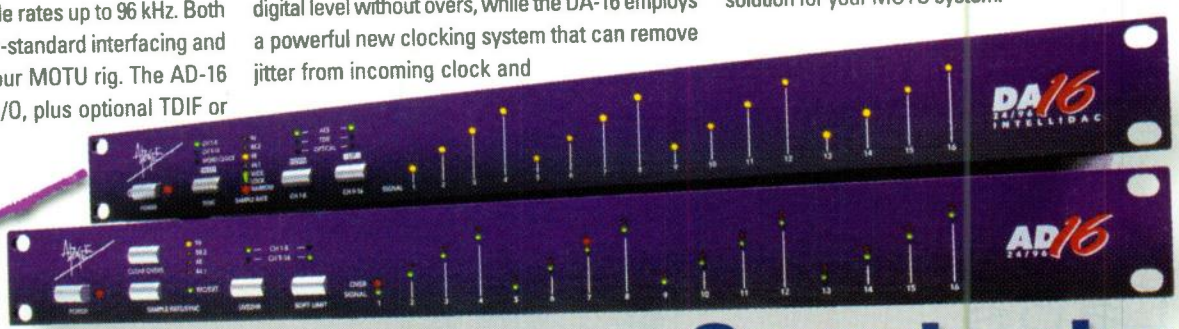
TEC NOMINEE



AD-16 and DA-16

16-channel analog-to-digital and digital-to-analog converters

Apogee's AD-16 A/D and DA-16 D/A each offer 16 channels of the highest quality digital audio conversion that only Apogee can provide - including 24-bit resolution at sample rates up to 96 kHz. Both converters offer industry-standard interfacing and simple connection to your MOTU rig. The AD-16 includes ADAT optical I/O, plus optional TDIF or AES/EBU cards. The DA-16 includes ADAT optical, TDIF and AES/EBU built-in. The AD-16 includes Apogee's unique Soft Limit process for maximum digital level without overs, while the DA-16 employs a powerful new clocking system that can remove jitter from incoming clock and data for a pure, pristine, analog out for mixing or monitoring. Call Sweetwater today and ask about Apogee's AD-16 and DA-16, the ultimate high-end solution for your MOTU system.



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Supports 128 Digital Performer tracks with 8-band EQ and dynamics on every track

MOTU DP3 audio workstation software
Now with full surround production up to 10.2, REX2 file import and unlimited undo/redo

MOTU 896 96kHz FireWire audio interface
Provides 18 simultaneous channels of I/O expandable to 72 channels (up to four 896's on one FireWire bus)

Apple Macintosh G4

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You are looking at the most powerful native audio workstation on the planet, bar none. The staggering performance of Apple's 1-gigahertz dual-processor G4 desktop turbo-charges your Digital Performer studio with processing bandwidth of super-computing proportions. Even more staggering is how affordable it is. If you've been thinking about upgrading your system, consider this: if you currently have a G3/500 Power Mac, the dual 1-gig G4 will quadruple the size and capability of your Digital performer virtual studio, thanks to Digital Performer's fully symmetrical dual-processor support. This system is so powerful, our bench tests show that it can run 120 tracks of audio, each with 8 bands of fully parametric EQ and dynamics processing on every track—all processed in immaculate 32-bit floating point glory. Imagine what it would feel like to have that kind of power at your fingertips...

SAC-2K controller

Precision touch-sensitive automated worksurface

With the most complete support for Digital Performer currently available, the Radikal Technologies SAC-2K sets a new standard for hands-on control of Digital Performer with a custom plug-in for DP and easy, one-touch access to every element of the recording process in Digital Performer with responsive, touch-sensitive automated controls. Within minutes, you'll achieve a whole new level of interaction and creativity that you never thought possible with fader groups, mix automation, plug-in automation (up to 12 parameters at once), window sets, transport control with jog/shuttle, input/output routing, voice assignments, solos, mutes, track-arming... it's all just one touch away. The SAC-2K will make you feel like you're sitting in front of a fully automated large-format mixing console, but without the bloated size and massive price tag. The SAC-2K is your all-access pass to the world of Digital Performer-based recording, editing, arranging, mixing, processing and mastering.

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FINAL MIX

By Larry the O

The Scoop

I'm finally going to do it. For years I've turned to Scott Wilkinson's "Tech Page" column to glimpse out-there technologies that are likely to one day rock our little musicians' world. No matter what cool stuff I get wind of, Scott always turns out to have a year-old column about it.

Until now.

I just got off the phone with Scott and managed (through a sly ruse he won't even be aware of until he reads this) to confirm that I have the scoop on him, and he doesn't even know it.

Here's the deal: at an industry schmooze event in San Francisco, I conversed with Finnish recording engineer Norman Haardiheering. Haardiheering's a crack-up because he looks and talks like a Malibu surfer who should have taken an office job before it was too late, but he actually is a world-renowned expert on *spatial recording*, his early name for what is now called surround miking. Haardiheering has consulted for most of the world's best orchestras, as well as for theme parks (he developed spatial recording out of his theory of multidimensional acoustics), broadcast networks (primarily for sports coverage), and even, later in his career, the Grateful Dead.

Haardiheering's take on multidimensional acoustics was that the acoustics of any space could be modeled from the position of the original sound source as the sum of the contributions of multiple sound sources that are the boundaries of the space. The way he explained it to me sounded like a kind of inverse ray tracing.

Anyway, Haardiheering, being a classical singer since an early age, became interested in trying to make recordings employing his theory, and thus began a 32-year odyssey of experimentation with multiple-microphone ambient recordings. After a few experiments, he started getting work from classical-music labels, at first for chamber ensembles and then for full orchestras. Oddly, his breakthrough work was designing the 428-channel sound system for the Armstrong Linoleum exhibit at the 1988 Memphis World's Fair. Armstrong wanted fairgoers to have a "virtual" (a new word then) surround-sound experience of the acoustics in a bathroom.

Shortly after the fair, Haardiheering was approached at an Audio Engineering Society chapter meeting by a strange little man with a helium voice. The man was microphone guru Alexis T. Flondopowicz. Flondopowicz was a full professor of French history at Oxford but had long had a passion for making microphones. Eventually, he had been around long enough to be generally acknowledged as an expert.

Flondopowicz, fascinated by Haardiheering's recordings and theories, proposed a collaboration. Haardiheering, intrigued, got Flondopowicz's phone number and visited him days later.

In the ensuing five years, the two of them put their heads together, and sparks flew. When I ran into Haardiheering, he had just returned from England, having put the "finishing touches," as he put it, on their invention.

I was waiting for Haardiheering to get to the point when he did. "We have created," he intoned with obvious pride, "the world's first omnidirectional shotgun microphone!"

I thoughtfully replied, *"Say what?"*

Here's the weird part: once he explained it to me, it actually made sense. The microphone is essentially an array of capsules feeding a high-powered DSP matrix processor. With a bit of intensive, high-order phase manipulation, you can effectively control the polar pattern of each capsule individually, from omni to a rather tight shotgun.

"The omnidirectional shotgun allows you to zero in on fine detail, excluding surrounding noise, in a 360-degree circle," Haardiheering enthused. "If there is a bullfrog amongst the crickets, you can get just the bullfrog and hardly hear the crickets. If a dog barks in the trees on the other side of you, you can snag Rover but leave the leafy thicket behind. It really works; you have to hear it!"

I got Haardiheering's e-mail address and almost immediately dashed off a message asking when I could check out the mic, but I couldn't wait for a reply if I was going to beat Scott Wilkinson to the punch. I'll let you know how it sounds.

We welcome your feedback. E-mail us at emeditorial@primediabusiness.com.

STEVE CURL

"What sets the Dakota apart is the quality of its design and its ability to play well with others."
Electronic Musician Magazine

"After much critical listening, Tango24 was revealed to be a great-sounding interface. Its sound is smooth and detailed."
Loren Alldrin, Pro Audio Review

"The Dakota system worked well straight out of the box. There's not a lot of hype, just rock-solid performance."
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Tango24:
Professional 24-bit A/D & D/A.
Optically-isolated converters.
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Switchable +4dBu/-10dBV levels.
ADAT optical in/thru/out.
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- 8 Neutrik™ (TRS/XLR) analog inputs with mic preamps, front-panel switchable phantom power, front-panel trim, and 3-way level switch: LINE (+4/-10 with trim), MIC (with trim) and +4 / FIXED.
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- Connect up to four 896s (72 channels at 48kHz) with no FireWire hub required. Add more units via 3rd-party FireWire bus expansion.
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