

JULY 2010 | VOLUME 16 | ISSUE 7

ProAudio Review

The Review Resource for Sound Professionals

GENELEC
8260A
World
Exclusive
Review

**Triamplified Active
DSP Studio Monitor**

INSIDE:

- **IN USE:** Electro-Voice ZXA1-90
- **TECHNICALLY SPEAKING:** Spanning Generations



A **PAR** FEATURE REVIEW

STEINBERG NUENDO 5

Not Your Daddy's DAW

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reviews**

ADK Pro Audio Workstation • Aphex Model 188 • Audio-Technica AT4080
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Studio

Covering Recording, Broadcast Production, and Post Production

New Studio Products **8**

Cover Story **20**

PAR Feature Review: Steinberg Nuendo 5 Digital Audio Workstation
by Russ Long

Review **28**

Audio-Technica AT4080, AT4081 Ribbon Microphones
by Rob Tavaglione

Review **32**

Genelec 8260A Triamplified Active DSP Loudspeaker System
by Frank Wells

Mini Review **34**

Holophone PortaMic 5.1 Camera-Mount Surround Microphone
by Rich Tozzoli

Review **36**

AVID Pro Tools Instrument Expansion Pack
by Rich Tozzoli

Review **41**

KRK Systems R6 Reference Monitor Speaker
by Strother Bullins

Review **42**

Aphex Model 188 8-Channel Microphone Preamp
by Strother Bullins

Sound Reinforcement

Covering Live Sound, Contracting, and Installed Sound

New Live Products **44**

Review **48**

Electro-Voice ZXA1-90 Two-Way Loudspeaker
by Strother Bullins

41



Departments

Technically Speaking **6**

Spanning Generations
by Frank Wells

12



48

Cover Photo: Konrad Snyder

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Spanning Generations



Setting up the gear chain for a review got me thinking about generation loss, the cumulative effects of multiple transition stages, long a part of audio production and replication in many forms. Consider vinyl. You no doubt know that the first stage in the process of creating mass-produced vinyl releases is dragging a heated rock (stylus) over the surface of an aluminum disc coated in lacquer (dried paint), bouncing the stylus up and down and wiggling it back and forth at an audio rate. You may have heard folks tell of the glorious fidelity of playing a freshly cut lacquer master. Indeed, there is no better stylus in groove experience, though each play rapidly degraded the soft material.

The process for vinyl record production is a plating of the lacquer master (yielding bumps instead of grooves), a plating of that metal master to get a metal mother (now with grooves again). The mother is successively plated to pull metal stampers (bumps again). The stampers are used to squish hot plastic into the final product. That's one generation of transition from source to lacquer and then four more generations from initial plating to pressed vinyl, a total of five generations. Yes, the generation loss is audible.

Generation loss isn't confined to physical media. We have some loss each time we convert energy from one form to another throughout an audio chain. Acoustic energy is transferred to mechanical energy (moving a microphone diaphragm). Mechanical energy is transferred through magnetism (dynamic mics) or by modifying a capacitive circuit (condenser mics) to an electrical state. That electrical signal may be transferred to yet another state either for storage (analog tape [magnetism again], or some digital form and media) or simply to digital to pass through a digital console, a distribution network, and so on. At some point along the way, be it a recorded experience or live, the energy conversions start again — electrical to magnetic (speaker voice coils) to mechanical (speaker cones and diaphragms) to acoustic, finally reaching the end-user's ear.

It's actually pretty amazing that quality can be maintained throughout such a chain. There is some inevitable loss at each transition point, and often, significant character change. A long litany of audible effects can be attributed to analog media like vinyl and tape. Their longevity and popularity are based on those effects being euphonic.

In the earliest days of digital audio, much attention was focused on the avoidance of successive stages of A-D and D-A conversion. To be sure, the initial implementations of dither and clocking and filtering were far short of what we now enjoy, and the cumulative effects of multiple conversions could be audible and detrimental. Digital done right is all but transparent to the source. Conversion has improved enough that most engineers avoid successive conversions as good engineering practice, but don't fret too much at an extra conversion or two.

In general, energy and electrical conversions are getting continually more accurate. A few generations of technological progress and refinement are building better bridges between the generations of transitions.

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NUENDO₅

LEADING IN NATIVE AUDIO POST



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Michael Johnson

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- John McClain | Owner, "Sound Guy"
The Dog and Pony Show, Las Vegas Nevada

"Nuendo has the perfect combination of post features, recording functionality and modern composing tools all in one place. No matter what the project calls for, Nuendo can handle it. It's easy to use, it sounds great and the tech support is amazing. I can't imagine using anything else."

- Michael Johnson | Staff Composer, "Music Guy"
The Dog and Pony Show, Las Vegas Nevada

new studio products

Audient ASP2802 Console

Audient has launched its ASP2802, an 8-channel console combining analog features with DAW integration and control. Heralding the arrival of Audient's Dual Layer technology, the ASP2802 integrates with the computer system, enabling the user to switch between the analog layer—the traditional mixer path traveling through the console—and the DAW layer within the computer session.

With 28 inputs at the mix stage — achieved using the Alternate switch for an extra input per channel, eight summing inputs, and two stereo FX returns — the ASP2802 is targeted for users who want to combine an analog console and fully featured controller all in one space, at the center of their studio.

Price: \$6,100 list

Contact: FDW Worldwide (distributor) | fdwcorp.com

MOTU Ethno Instrument v2

MOTU has upgraded its Ethno Instrument, the ethnic virtual instrument software for Mac OS X and Windows 7/Vista. The Version 2 upgrade reportedly more than doubles the size of Ethno's included sound library of instruments, loops, and phrases.

New features have also been added, including preset searching, microtonal scales, time stretching, and more. Featured sounds include taiko drums, large African drums, 30 new instruments from India, hundreds of urban India loops, Balkanish voices, Arabic voices, Persian voices, an extensive new collection of gongs and bells, extended cymballum and more.

Price: \$395 list

Contact: MOTU | motu.com

Shure KSM42, KSM44A Studio Mics

Shure Incorporated has introduced the latest additions to its line of KSM microphones, the KSM42 and KSM44A. With a tailored frequency response and internal and external pop filtering, the single-pattern, dual-diaphragm design of the KSM42 reportedly exhibits a wide dynamic range and smooth proximity control for studio applications.

The KSM44A (pictured) is a large-diaphragm, side-address condenser microphone that can be used in a variety of live and studio applications.

Prices: \$999 and \$1,249 list (KSM42 and KSM44A, respectively)

Contact: Shure | shure.com





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(Jon Chappell - Senior Editor - Harmony Central)

The AX Series



A3X



A5X



A7X



A8X

new studio products



IK Multimedia AmpliTube iRig

IK Multimedia has made available the iRig guitar and bass interface adapter for iPhone, iPod Touch and iPad. The new iRig interface allows guitar and bass players to plug their instruments directly into the headphone/microphone input jack on their mobile Apple device and access the new world of mobile guitar and bass tone — AmpliTube for iPhone.

iRig features include a 1/4-inch jack mono instruments input with Hi-Z impedance adapter (suitable for guitars, bass, synthesizers, mixing consoles); and an 1/8-inch mini-jack stereo output (can be connected to headphones, amplifiers, powered speakers). Compatible with iPhone 3G, 3GS, 4; iPod Touch 2nd and 3rd generation; and iPad, it is low latency (down to 128 samples) for real time playing with AmpliTube.

Combined with the AmpliTube for iPhone app range, the iRig interface adapter allows users to plug their instrument into their iOS mobile device and play anywhere with effects and amplifier tones.

Choices include 11 stompbox effects, five cabinets and two microphones. An additional tuner, metronome, and backing-track player with loop points allow for play and practice.

Price: \$39 list

Contact: IK Multimedia | ikmultimedia.com

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*Sources: Trends in Middle East Arabic TV Series Production. Booz, Allen, Hamilton. Arab Media Outlook 2010. Media on the Move 2009. A.T. Kearney.

new studio products



Tannoy Reveal 501a, 601a/601p

Tannoy has unveiled two models in its Reveal range of monitors — the 501a and 601a (the 601a is also available as a 601p passive monitor). The 501a is an active monitor with a 60W, integrated amplifier with a 5-inch LF/MF driver and 1-inch soft-dome tweeter.

The 601a features a 6.5-inch LF/MF driver for extended lower-frequency response and a 1-inch soft-dome tweeter, with a total power output of 90W. These compact speakers are targeted for home, project and pro studio setups alike.

Prices: \$229, \$299, \$149 each (501a, 601a, and 601p, respectively)

Contact: Tannoy | tannoy.com

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Sound Devices CL-9 Linear Fader Controller

Sound Devices has introduced the CL-9 linear fader controller, the latest accessory for its 788T digital recorder. With the addition of the CL-9, the 788T reportedly becomes a complete mixing/recording system, targeted for audio capture in sound-for-picture, broadcast, and music-oriented productions.

Price: \$2,250

Contact: Sound Devices | sounddevices.com

The CL-9 is a compact, linear fader controller that features enhanced monitoring. It is equipped with eight 100mm ultra-low-latency linear faders and rotary input trim controls with ring LED metering for gain changes. When a CL-9 is connected, the 788T gains a sweepable, single-band parametric EQ for each of its eight inputs with variable frequency, gain, and filter Q. Additionally, the CL-9 adds input pan to the 788T.



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Creating higher standards doesn't just happen. It takes dedication, hard work and patience to see ideas develop into practical, useful results. We all know, as the times change, so does technology. For more than 30 years Genelec has been and continues to be at the forefront, introducing new and exciting monitoring products for the professional audio market. Our latest product introduction, the **8260A** DSP Active Monitor with its Minimum Diffraction Co-axial midrange / tweeter, is clear evidence of Genelec's ongoing commitment to innovation.

With more than 21 models in production, including analog and DSP, bi-amps, tri-amps, subwoofers and large main monitors, all meeting the stringent requirements of any audio professional, Genelec has the most comprehensive product range of any professional audio monitor manufacturer in the business. So no matter where you listen, from your desktop to a scoring stage, with Genelec you can be sure your playback happens at the highest standard possible.

new studio products



Bock 151 LDC Microphone

For a limited time (July 1 - August 31, 2010), all purchases of Bock 151 large-diaphragm vocal condensers made from authorized U.S. dealers are eligible for a \$300 rebate from TransAudio Group, Bock Audio's worldwide distributor. Built in the sonic image of the Bock 251, the Bock 151 uses a handmade German capsule, a hand-wound, vintage-style transformer, a NOS tube, and a handmade power supply. It includes a bright/normal switch for added versatility.

To get started, visit the TransAudio Group website for a list of authorized dealers and to download the rebate form and instructions: transaudiogroup.com/bockaudio/151-2.shtml.

Price: \$3,650 list (-\$300 rebate from TransAudio Group)

Contact: TransAudio Group (U.S. distributor) | transaudiogroup.com

SSL X-Patch Remote-Control App

Solid State Logic has released its first iPhone App, Remote Control for X-Patch, downloadable for free from the iTunes App Store. The X-Patch Remote Control searches a network over Wi-Fi for SSL's X-Patch devices. If an X-Patch is connected to a Wi-Fi network locally, the Remote Control enables selection and recall of individually stored Logictivity presets. There are up to 128 presets per X-Patch found, and where more than one X-Patch is found, each device can be independently selected and controlled.

X-Patch is designed to deliver the flexibility of plug-in style routing to boutique analog signal processing. X-Patch allows analog signal processing units to be built into favorite processing chains and then easily placed into signal paths, for exam-

ple, favorite mic pre, EQ and dynamics processors recalled as the vocal chain at a single stroke.

Price: Free download from the iTunes App Store

Contact: Solid State Logic |

solid-state-logic.com

Calrec: Last Chance for Analog

Calrec Audio has announced it will discontinue production of analog audio consoles as of Nov. 30, 2010. Until then, the company is offering an opportunity to make final purchases of its S2, C2, and M3 analog consoles as well as modules and card assemblies. Calrec will

Price: POA

Contact: Calrec | calrec.com

continue to provide component spares and repair services for the S2, C2 and M3 consoles for a minimum of 10 years from shipment date. Should original components or parts become unavailable, Calrec will offer appropriate alternatives, including hardware/software solutions.

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new studio products

▼ Marantz PMD661 Professional Handheld Field Recorder

The Marantz PMD661 is a direct result of feedback from users in the field; the company developed the PMD661 to provide advanced functionality and convenience. A pro-grade handheld PCM/MP3 recorder, the PMD661 reportedly improves on the PMD660, offering a streamlined form, a top-graded feature set, and the use of SD flash media. Major new design implementations include a smaller footprint and an improved top fascia layout with fewer buttons and more highly developed use of multi-functional operation. Measuring 6.5 x 3.7 x 1.4 inches (165 x 93 x 36 mm), the PMD661's small footprint, combined with the improved control layout, just about ensures comprehensive single-handed operation.

The PMD661 features switchable balanced mic/line XLR inputs and a S/PDIF digital input, as well as unbalanced line-outs on RCA connectors and a secondary unbalanced line-in via a 3.5 mm mini jack connector. Also included for the first time at this price point within the Marantz range (around \$599 street) is a 24-bit/96 kHz recording option (PCM).

Compatibility with SDHC media means that cards currently up to 32 GB in size can be used. High-capacity media storage is matched by up to five-plus hours recording time from four AA Alkaline or NiMH batteries (not included). Drag-and-drop file transfer is supported via the USB 2.0 port. Further, Marantz Professional has bundled its Mark Editor software with the unit, free of charge. PMD Mark Editor allows the marker points made on the recorded file to be adjusted post recording, creating a new file, so that basic editing can be carried out on a PC or Mac if desired.

Price: \$799 list

Contact: D&M Professional | d-mpro.com



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Wunder CM7 FET

The U47 FET is legendary for obtaining larger-than-life kick and bass tracks as well as thick and full vocals. For the first time, Wunder has re-issued this classic design to compliment their CM7 and CM7 GT series.

wunder audio



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Steinberg Nuendo 5 Digital Audio Workstation

Ten years after Nuendo V.1, Steinberg releases **Nuendo 5**, the most comprehensive and powerful version of its audio production platform to date.

Included in this substantially improved version of Nuendo 5 is a host of new features and improvements that make the platform better than ever — especially to users regularly working with sound for picture.

Features

Nuendo 5 records at sample rates up to 192 kHz, utilizes 32-bit floating point processing and supports up to 256 inputs and group channels. The platform's VST Bridge enables 32-bit VST effects and instrument plug-ins to be used in the

native 64-bit version.

Nuendo is compatible with Mac and PC computers. Mac systems must have Intel Core processors running OS X 10.5.8 or 10.6 with CoreAudio-compatible hardware. PC systems must have at least a 2 GHz processor, Windows 7, Vista, or XP SP2 (32-bit) systems with DirectX or ASIO-compatible hardware. Both systems require 1,024 MB RAM, a display resolution of 1,280 x 800 pixels, and 4 GB of free hard-disk space. QuickTime 7.1 and a video card supporting OpenGL 1.2 are required for video playback. Native Nuendo 5 64-bit support under Microsoft Windows

Russ Long is a producer, engineer, and mixer. He owns the Carport studio in Nashville. russlong.ws

“This is not just a minor update but rather a completely new build of N5 that is easily worth the upgrade price several times over.”

7 increases the addressable RAM from 2 GB to 1 terabyte, translating into more tracks, plug-ins, and sound library samples; this makes Nuendo possibly the most powerful DAW platform in existence.

What's New?

There are simply too many updated and new features in N5 to cover in a single review, so I'll hit some pertinent highlights. Current Nuendo owners should be aware that this is not just a minor update but rather a completely new build of N5 that is easily worth the upgrade price several times over. The purchase price is somewhat high for new users, but the low upgrade price makes upgrading a must.

ADR (Automatic Dialogue Replacement) engineers can rejoice as Nuendo's new ADR toolset simplifies the ADR process by providing a workflow that includes EDL support (Nuendo 5 reads CMX 3600 and CSV formatted EDL lists) and improves handling of takes, markers, and spotting. Engineers can now comprehensively spot and organize recording takes by using a flexible marker track system that supports up to 32 marker tracks. The new network access and collaboration features allow Nuendo to record, play back, and copy files from workstations or library servers, making it easy for multiple engineers to work on the same project.

The new QuickTime-based video engine guarantees stable video playback in SD and HD. Not only does it provide better performance, but also the ability to play videos in real time via FireWire. Previously available only on Mac-based Nuendo systems, this is now available on Windows systems as well.

Product Points



- ▶ Fast
- ▶ Track count only limited by computer
- ▶ Intuitive; quality sound



- ▶ Expensive (unless upgrading)

Score Nuendo 5 is Steinberg's most advanced and feature-laden DAW to date. This platform will likely see Nuendo increasing its market-share in film and TV production.

The new Clip Packages feature was designed specifically for sound editors as a new way of organizing and handling audio as clusters of files across multiple tracks. Clip Packages can be inserted at any location in a project and can easily be ported into another workstation. The Clip Packages files can be previewed, retrieved, and archived via the networkable Media Bay built-in file-management tool. MediaBay includes a graphically reworked user interface that increases usability. Its Previewer allows the user to select a region of a sound event and then drag it into a project. The MediaBay is also helpful for file organization on external hard drives and for indexing and accessing tagged sound libraries. Sound editors can capture a catalog database via indexing the library, containing all tags and metadata and the index will reside on the external drive. When the drive is connected to another Nuendo workstation, the catalog (Volume Database) is instantly accessible. MediaBay is capable of finding all kinds of files for the user; all available audio and MIDI files and clip packages plus loops, VST presets, and more are easily

Fast Facts

Applications

Commercial Studio, Project Studio, Broadcast, Post Production, Location Recording

Key Features

New tool set for ADR work; support of EDL lists; supports native 64-bit computing under Windows Vista and Windows 7; VST Bridge allows 32-bit VST plug-ins to be used while operating the 64-bit version; new Surround Panner V5 and more new VST3 plug-ins; reworked MediaBay with networking capabilities; network collaboration for multi-seat projects via LAN or WAN; new trim tool

Price

\$2,340.99 list; Upgrade prices: \$250 and \$500 list (from N4 and N3/N2, respectively)
[Customers who purchased Nuendo 4 between 4/1/10 and 6/30/10 are eligible for a grace period update to Nuendo 5 at a special price. Contact Steinberg for more information. — Ed.]

Contact

Steinberg | steinberg.net



searchable via MediaBay.

The enhanced Automated Batch Export functionality allows multiple files to be exported in one go. Exchanging audio files with Pro Tools is now simple with the ability to convert dual-mono tracks into stereo-interleaved files or vice versa while retaining edits and fades within the audio material.

The updated mixer now includes fully automatable routing for up- and down-mixing (from stereo to surround, and vice versa) and waveform readouts can now be viewed in the mixer window. The new automatable bus-destination routing system allows users to create different mix versions in a single pass, and the new automation system is based on an enhanced pass system that is shown as an undo-tree and enables the user to recall and compare different passes in order to find the ideal automation matching to the material. Nuendo provides seamless support for

interfaces and third-party controllers such as Smart AV, Euphonix, and WK Audio.

Nuendo is perfectly suited for location recording and has been faithfully used to capture the audio for a wide range of broadcast work ranging from the *Grand Ole Opry* to the Academy Awards and *American Idol*. Nuendo 5 introduces several features to expand the workstation's strength in this area. The large Remaining Record Time display allows the user to instantly check the remaining recording capacity at a glance and, like other popular DAWs, Nuendo users can now simultaneously arm every track by using one of the new key commands introduced to speed up workflow. The Lock Record feature prevents the record button from being accidentally disabled while recording and the Project Backup Function conveniently stores and archives a hardcopy backup of a project.

In Use

I received Nuendo pre-installed on an ADK Pro Audio Intel Core i7 3.33 GHz PC with 6 GB RAM running Windows 7. I also installed it on my MacBook Pro and, in both instances it worked perfectly (although it was obviously much faster on the ADK PC). Most of my use on the ADK was in the 64-bit mode, and its performance was quite impressive. For example, before working on any music, I created 100 new audio tracks in a new 24-bit, 96 kHz project and put

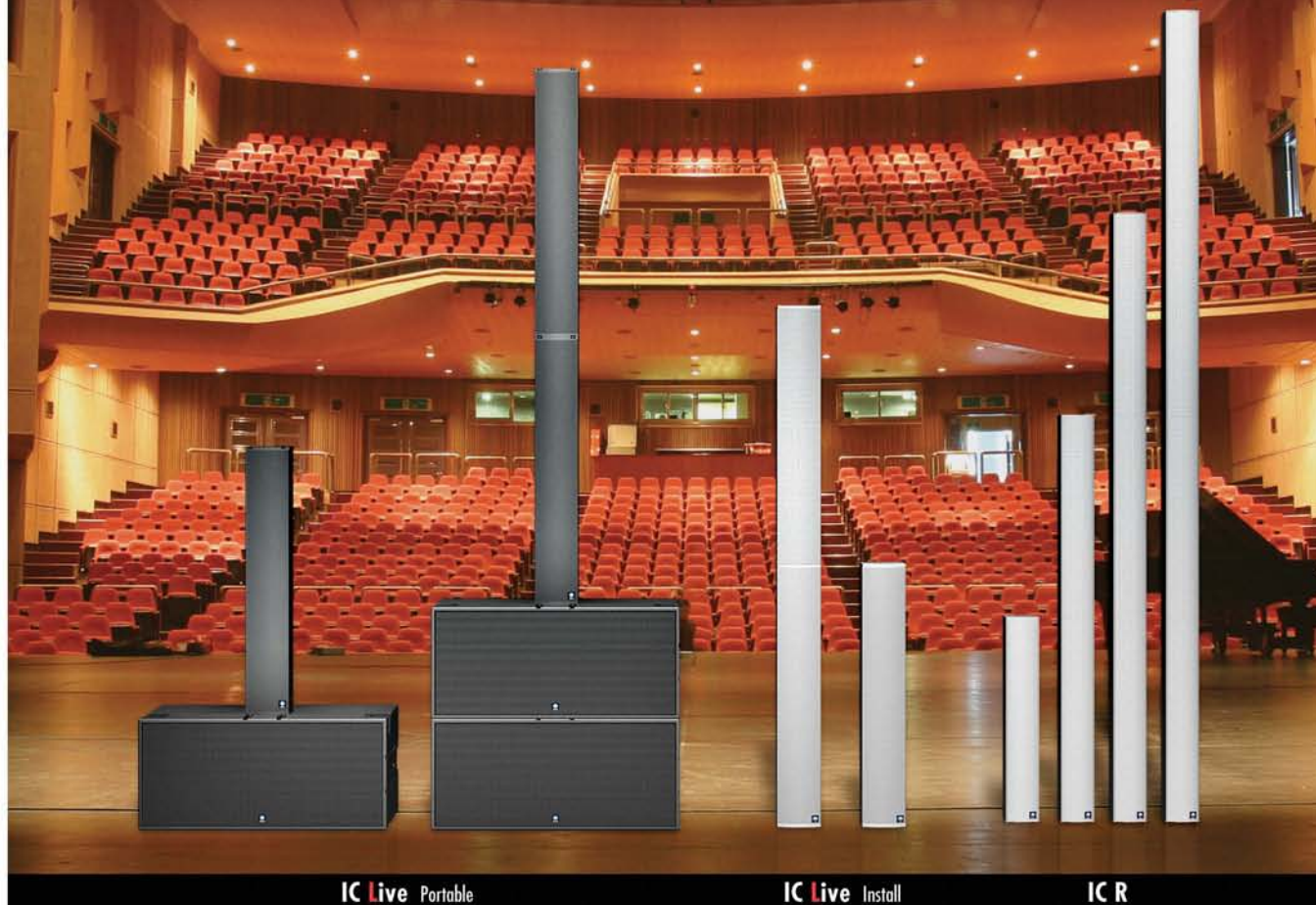
all 100 tracks into record (each recording a tone from the same source). I'm used to a couple of seconds of buffering time when recording only 20 or 30 tracks with Pro Tools at 44.1 kHz, but all 100 tracks went into record immediately and ran for over 10 minutes without a glitch. I suppose it would have run all day, but I couldn't wait any longer to start using Nuendo to mix some music.

I've found that there's something magical that seems to happen when I work with Nuendo. More than any other DAW, Nuendo does an amazing job recreating the feeling, both visual and mental, of working on an analog console. Although Nuendo has never been my primary DAW, I have used it regularly since its inception and I think it's fantastic. Part of the ease of use can be attributed to its delay compensation, which is calculated automatically and is sample accurate (and it automatically includes any delay

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“Engineer Steve Bishir spent a couple of hours walking me through his own Nuendo workflow, which is quite impressive. He concluded by telling me this: ‘I’ve worked with all of the [DAWs], and Nuendo is simply the most intuitive platform available.’”

incurred by converters and external processors). Nuendo also supports macros, which makes it easy to apply unique and complex command sets with a single keystroke.

The new Wave Meters allow audio waveforms to be displayed in the channel strips in the mixer window. Initially this didn’t sound like a desirable feature but after using it for some time, I found it makes the mixing process more natural than ever before; it eliminates the need, in most instances, to switch to

processor-demanding, but it works wonders on vocals, drums, and acoustic instruments and it includes 70 responses. The De-Esser does a fantastic job eliminating unwanted sibilance, and the PitchCorrect plug-in makes vocal tuning a breeze. The Studio EQ and Vintage Compressor are my go-to EQ and compressor. I have yet to find an application where these plugs don’t work.

While I haven’t had a chance to do a surround mix with Nuendo 5 yet, the new Surround Panner offers extraordinary

surround panning including parameters for on/off axis movements, 180-degree counter shots, and numerous alterations of the surround field, making it easy to create movement within the surround field according to camera pans. Nuendo’s equal power technology allows a signal to be moved between the speakers with no volume variations. It is easy to see why this platform has played a major role in so many recent blockbusters such as *Coraline*, *The Hangover*, *Sex and the City*, *X-Men: Wolverine* and *2012* as well as dozens of award-winning commercials



the arrangement window during the mix when I find myself focusing on fader levels and plug-in adjustments.

Although this isn’t new to Nuendo 5, I love that I can have multiple projects open simultaneously. In direct comparison to other DAWs, this makes jumping from one song to another amazingly quick. I also love the folders and how they simplify project organization of even the largest projects.

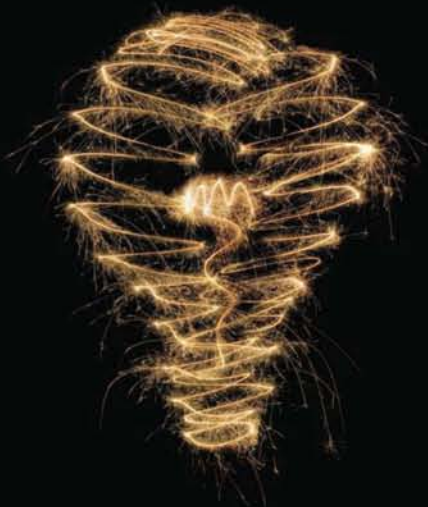
Nuendo 5 includes over 50 plug-ins, most of which are based on Steinberg’s unique VST3 technology. The already proven Mix 8to2, Mixer Delay, Test Generator, and SMPTE Generator plug-ins are now available in the VST3 format sporting the same feature sets but with an updated GUI. I love the sound and flexibility of the REVerence convolution reverb (the world’s first VST3 convolution reverb processor). The only downside is that it’s extremely

and video games.

Steve Bishir (engineer for Aaron Neville, Martina McBride, Steven Curtis Chapman, Vince Gill) spent a couple of hours walking me through his own Nuendo workflow, which is quite impressive. He concluded by telling me this: “I’ve worked with all of the [DAWs], and Nuendo is simply the most intuitive platform available.”

Summary

Nuendo 5 sounds great, is highly intuitive and perfectly suited towards work in music and film. If you are already using Nuendo, then upgrading to Nuendo 5 is a no-brainer. If you aren’t, it’s certainly worth your consideration. The N5 release is a milestone that, at \$2,340.99, is pricey but arguably worth every penny.



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WORKSTATIONS

[For this review, we chose to review Nuendo 5 installed on a brand-new, highly capable PC, as we didn't want our host machine to potentially limit what N5 could do during Russ' review process. The folks at ADK Pro Audio were kind enough to provide us with a great custom PC, pre-loaded with N5 software, for this purpose: to audition the attributes of a significant DAW upgrade. — Ed.]

I've been hearing great things about ADK Pro Audio for years (and it's no surprise, as it is the oldest audio computer systems designer in the country). Now that I've experienced its service first hand, I wouldn't consider purchasing a PC for my studio from anyone else.

ADK Pro Audio computers are ready for work out of the box: The company doesn't ship a new computer without first installing and thoroughly testing all of the software, including the DAW. I assumed that this would substantially increase the cost of the system, but ADK's Scott Chichelli



explained that pre-installing the software actually saves the company money because it cuts down on tech support time. Scott also referenced the company's commitment: to steering customers in the right direction by not selling them a computer too small or too large for their needs and by matching the customer's needs with the right system and software.

It's clear to me that building a computer at ADK Pro Audio is far more than assembling a bunch of pieces; the company goes the extra mile to ensure customers get the best computer possible. Details like braiding the power supply cables to improve airflow, replacing every system fan with quieter fans that are better suited for studio acoustics, tweaking every system's BIOS, and testing and burning in every system ultimately result in a stunning piece of hardware.

Never before have I used a PC in the studio that didn't require several hours of tweaking before being optimized for the task. Having the computer arrive at the door ready to go is as good as it gets. If you are in the market for a PC, ADK Pro Audio should get your consideration; the company certainly gets my top recommendation. — **Russ Long**

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Audio-Technica AT4080, AT4081 Ribbon Microphones

A-T's first ribbon offerings are two handmade, well-built, versatile, reliable, great-sounding, and well-priced products — more than deserving of their 2009 *PAR* Excellence Award.

Within the last few years, active electronics, new ribbon materials, and innovative build processes have notably broadened the variety of ribbon microphones in the pro audio marketplace, with the full, ear-friendly soundscapes they typically deliver.

These modern ribbon characteristics are in full evidence in Audio-Technica's entries into the ribbon mic market, the AT4080 and AT4081: two hand-built active models that promise improvement over traditional designs and offer lots of value for the money.

Features

The AT4080 (\$1,245 list) is shaped like a side-address, large-diaphragm condenser featuring an output transformer and complete with shock-mount. The AT4081 (\$895 list) is shaped and sized like a side-address, small-diaphragm condenser but with no transformer or shockmount (a sturdy mic clip is included).

However, in this — A-T's first ribbon offerings — the big deal is the ribbons themselves: a dual ribbon design with 18 patents pending and A-T's own MicroLinear ribbon imprint that reduces lateral flexing (and therefore distortion, according to A-T). This imprinting and improved rigidity should allow these A-T ribbons to be durable enough for stage use (150 dB max SPL handling) and should also prove durable in the long term whether in the studio or on stage.

High output, greater stability, and extended frequency response (to 18 kHz) are enabled through active electronics (with about 22 dB of self-noise). The 4080 reaches down to 20 Hz; the 4081 is spec'd to 30 Hz.



Rob Tavaglione has owned and operated Catalyst Recording in Charlotte NC since 1995.

“The big deal is the ribbons themselves: a dual ribbon design with 18 patents pending and A-T’s own MicroLinear ribbon imprint that reduces lateral flexing.”

In Use

Without trying to reinvent the wheel (at least at first), I ran both of the A-T ribbons through their paces in my studio’s work over a period of months. I started out experimenting with gruff male vocals for a bluesy rock song, and ended up using the AT4080’s tracks as keepers. The bottom was pleasantly thick and chesty, with the top slightly smoothed out and rolled off, as would be expected for a ribbon. I seemed to lose a little detail of my vocalist’s grainy growl, so a bit of high-end EQ boost got my presence and detail where I needed them. The AT4081 sounded pretty much the same, especially up top, but it didn’t have the round, plump qualities we preferred from the AT4080.

Our blues song had a brief trumpet outro, and we received similar results as we did with our vocal; both A-T ribbons handled the trumpet’s top end way more gracefully than a condenser and offered just a touch of tasteful compression on peaks. Eventually, I chose the AT4080 for my keeper tracks (over a Sennheiser MD421) for its more musical low end. About then I started thinking it was all about the 4080’s transformer and its warming/beefy qualities.

The rear lobe of the AT4080’s figure-8 pickup pattern provides some contrast to the front lobe, but not much at all; it isn’t quite as deep or extended, with only a small change in midrange character. And the AT4081 is nearly identical front to back, with no discernible difference at all on voices that are out of proximity effect range. The dual ribbon design must make the two polar patterns more uniform in response than typical, although null rejection doesn’t seem quite as deep as I expected at 90 and 270 degrees. Compared to the exaggerated contrast of many ribbons, this front/back uniformity may reduce sonic options, but provides better imaging and balance when used as the side of a mid-side mic configuration and should also be helpful in live applications with lots of spill.

I tried both A-T ribbons on electric guitar amps and got mixed results. These mics have hot (condenser-like) outputs, so a pad on your preamp may be required and close placement can be tricky, with woofiness and distortion as a result. Backed off the speaker a bit and angled towards cone-center, some very nice clean and jazzy

tones can be captured. For such apps, both the AT4080 and AT4081 seem equally useful; it’s a matter of taste concerning the size of the bottom end. Modern high-gain tones can be captured with some additional processing; using a (tunable) high-pass filter and both a high EQ (boost) and a low shelf (cut) will help. Solos and single note guitar lines with the AT4081 (with the processing described above) were perfect when paired with an SM57: defined, clear and musical with no harshness,

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“Most importantly, these ribbons aren’t sissies!”

no flab, and no honk.

Acoustic guitar was a similar venture. These A-T ribbons grab plenty of low stuff, but you will probably need more crispness up top unless you’re recording a bright instrument or percussive playing. I liked the way the bottom end was more musical on the AT4080, but still paired it up with two AKG C451s for a big, L-C-R, “finger-picked intro into strumming with whole band” guitar presentation.

The AT4080 with its beefy transformer was a natural for drum ambience. I like my drum room mics to be as much “kick-snare” as possible and as little “cymbals-hat” as I can; the AT4080 got me that “chunk” I wanted and a little added hangtime to my kick’s decay that was excellent. The only ribbon I like for this app more is the AEA A440, which is a very expensive, top-shelf mic [see both Rob’s and *PAR* senior contributor Russ Long’s thoughts on the AEA A440 in its full review here: proaudioreview.com/article/24428 — Ed]. Meanwhile, the AT4081 is pretty good in this app, too (better than using a condenser), but not quite beefy enough for my biased tastes.

Ever since 1993, when an engineer told me, “Wait ’til you hear this ribbon mic on snare,” I have been craving such a tasty sonic signature again for snare drum. That engineer’s beyerdynamic M 160 ribbon blew up halfway into the first cho-

rus, but sounded absolutely wonderful until then. So, with the blessing of A-T engineers, I sneaked the little AT4081 in really tight on a snare drum top; I placed my usual dynamic in close as well — in the spot between high rack tom and hi-hat — and placed the AT4081 nestled between high rack and middle rack. The snare was a thin piccolo, mind you, so I hoped for some extra low-end punch without sacrificing a perfectly good transducer.

The AT4081 easily took the SPL and did, in fact, find some useful deep fundamental tones. This placement got excellent hi-hat rejection, with hat right in the 4081’s 90-degree null point. Then I tried the AT4081 again with a big, deep snare and got even better results. There really is plenty of bottom there, enough to get some nice thumpy 80 Hz if you’re still living with the deep, dry, disco thwacks of the ’70s. More modern sounds will definitely need some top-end sweetening and gating/editing (the back of the figure-8 pattern is right between rack toms, after all), but the AT4081 takes top boost gracefully without the typical “hi-hat from hell” leakage issue going on either.

Summary

Compared to the new ribbons from Shure — which also spotlight increased durability and SPL handling — the A-T’s sound more normal and traditional. The Shure ribbons are far more unusual, having a “woody” signature and a unique take on transients. Compared to the sE Electronics RNR1 (the “Rupert Neve” ribbon), the A-Ts aren’t as open and condenser-like, nor are they as ideal for electric guitar, orchestral tracks, or piano. For drums, the A-T’s don’t quite achieve the girth and depth of the AEA A440 or the attitude of a Coles 4038.

Here’s what the AT4080 and AT4081 do very well: They capture a drum room very nicely, they do a great job on guitars, they grab horns just right, and they offer a full palette of desirable options for vocals. Their active electronics provide the consistency, high output, and impedance stability that modern recordists expect. And, most importantly, these ribbons aren’t sissies! Grab one and mic a 4 x 12 guitar cabinet cranked; mic a snare drum close in, like a dynamic mic; mic guitar cabs and horns live onstage; and so on: these ribbons will rock and take sonic abuse, opening up a new world of appropriate ribbon mic applications.

The prices of the AT4080 and AT4081 may seem to define them as mid-level ribbons, but their performances clearly have them nipping at the heels of all the top-shelf ribbons referenced above. Indeed, the price-to-performance ratio of ribbon mics is improving, thanks to products like the AT4080 and AT4081.

Fast Facts

Applications

Studio, private/project studio; live sound reinforcement, theaters, and HOWs.

Key Features

(AT4080 and AT4081) handmade; phantom-powered, active electronics; unique A-T ribbon design with 18 patents pending and proprietary MicroLinear ribbon imprint; dual ribbon construction; N50 neodymium magnets; bi-directional (figure-8) polar patterns; high SPL handling capability; METAlliance certified.

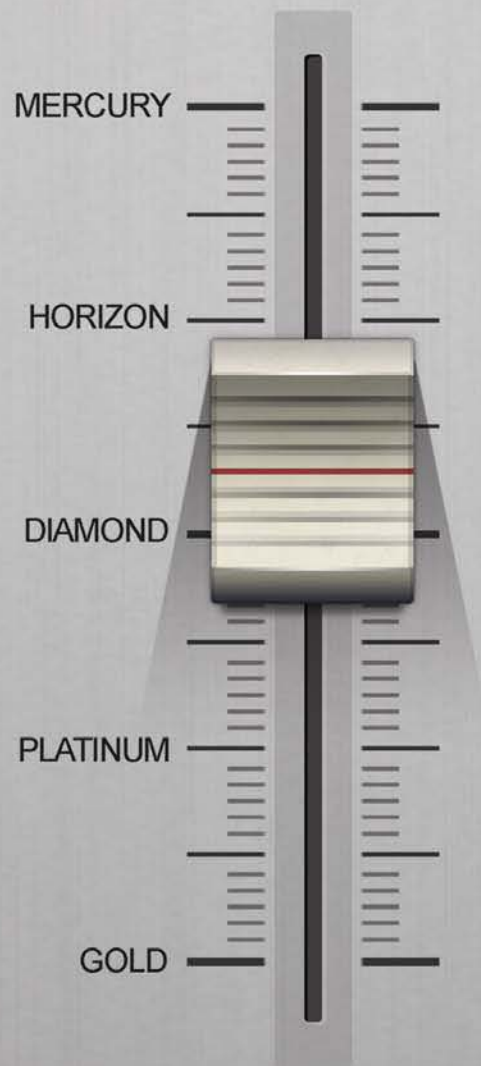
Price

\$1,245 and \$895 list (AT4080 and AT4081, respectively)

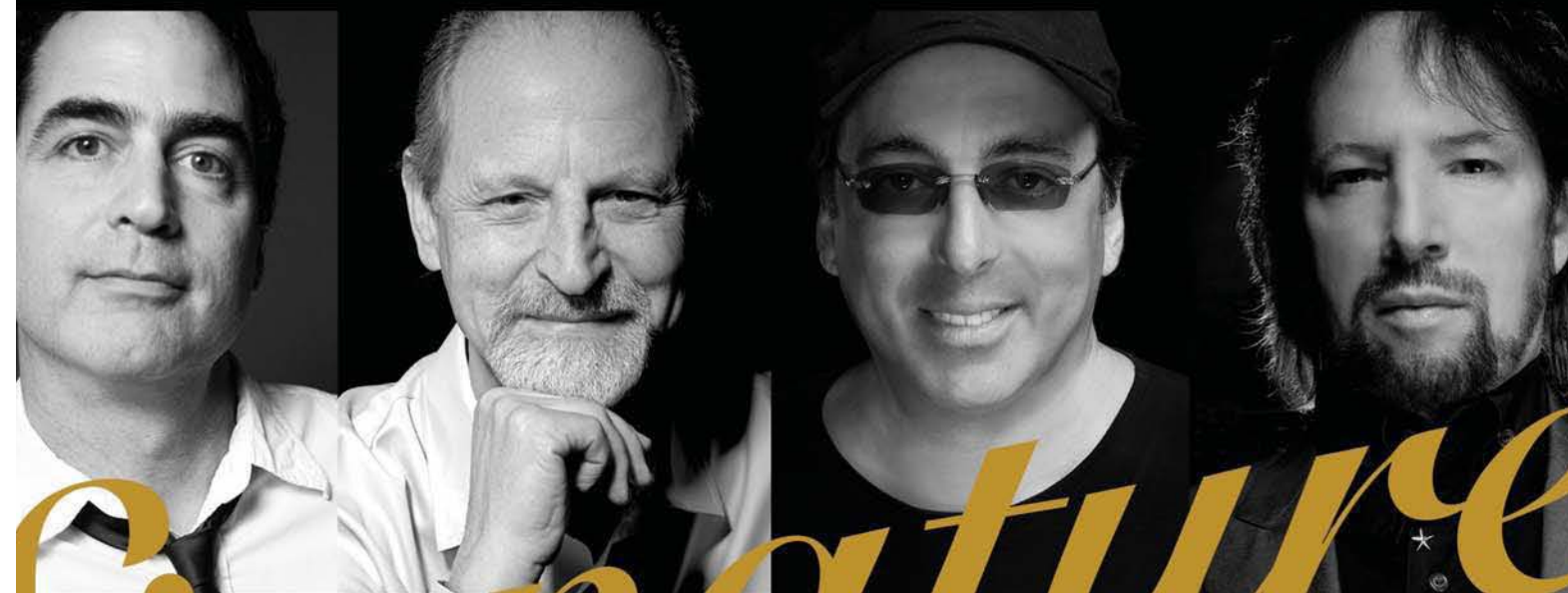
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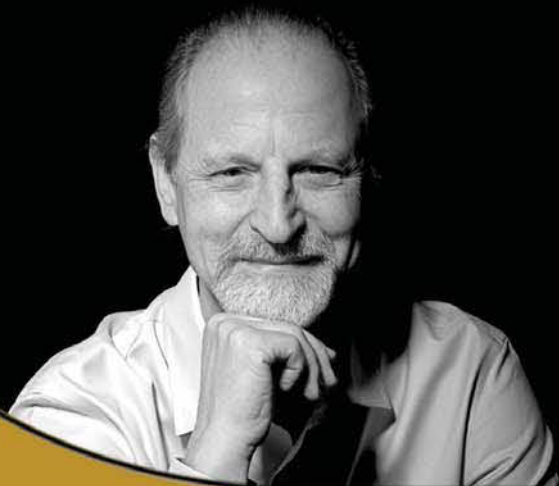


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Tony Maserati





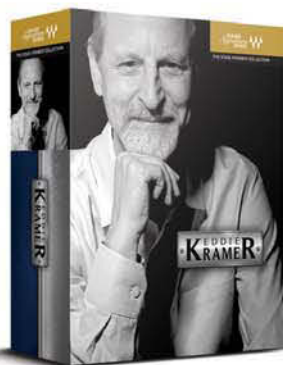
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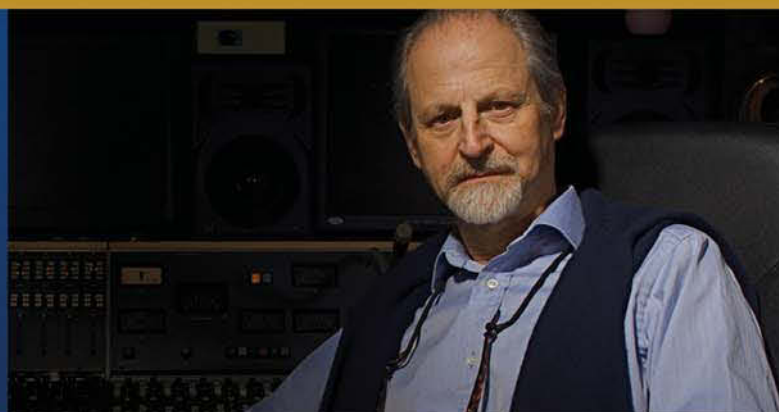
Eddie Kramer Drum Channel



Eddie Kramer Vocal Channel

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Six application-specific audio plug-ins, created in collaboration with Grammy®-winning mixing engineer Chris Lord-Alge

For over 20 years, Chris Lord-Alge has been the mixing engineer of choice for rock & roll royalty.

**Green Day | U2 | Nickelback | Creed | Pink
Nine Inch Nails | Foo Fighters | Santana
Alanis Morissette | Daughtry | Bon Jovi
Avril Lavigne | Snow Patrol | Hoobastank
Lifehouse | Sum 41 | Dave Matthews Band
All American Rejects | My Chemical Romance
Rise Against | Goo Goo Dolls | P.O.D. | AFI | Paramore
The Calling | Fastball** and countless others.

The Chris Lord-Alge Artist Signature Collection gives you an all-access pass to CLA's hard-hitting, radio-ready sound.



CLA Vocals



CLA Bass



CLA Unplugged



CLA Effects



CLA Drums



CLA Guitars



Available separately and in Waves Mercury.

"For me, mixing and music is a way of life. Bringing out the best in each song is all that matters. I focus on the spirit and energy of each song and use my musical instincts to make it happen. The mix has to move me emotionally before I can play it for the artist. Most importantly, I trust my ears."



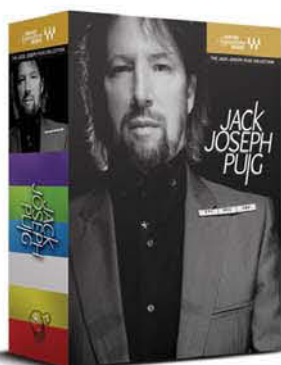


JACK JOSEPH PUIG

THE JACK JOSEPH PUIG ARTIST SIGNATURE COLLECTION

Six application-specific audio plug-ins, created in collaboration with iconic Grammy®-winning producer/engineer Jack Joseph Puig

From **U2** to **Pussycat Dolls**, from **Mary J. Blige** to **Black Eyed Peas**, from **Snow Patrol** and **Counting Crows** to **Sheryl Crow** and **Jellyfish**, from **Goo Goo Dolls** and **Panic! At The Disco** to **Beck** and **The Rolling Stones**, from **John Mayer** and **Keith Urban** to **Green Day** and **Lady Gaga**...



JJP Strings & Keys



JJP Guitars



JJP Drums



JJP Cymbals & Percussion



JJP Bass



JJP Vocals

Jack Joseph Puig and his personal palette of tones, shades, and hues have illuminated and empowered a kaleidoscope of projects that have spanned commercial record making. His vivid and vibrant productions have defined and redefined the sound of contemporary pop, rock, country, and urban music, time and time again.

Available separately and in Waves Mercury.

"I strive to make records that leave their indelible mark on people. My goal is to empower the song, and be faithful to the artist's vision."

Jack Joseph Puig



SPIRITS OF A GENERATION



Eddie Kramer

Developed in association with legendary producer/engineer Eddie Kramer (Jimi Hendrix, Led Zeppelin), the meticulously-modeled HLS Channel and PIE Compressor plug-ins are based on the vintage gear he used in historic sessions at London's acclaimed Olympic Studios.

HLS Channel recreates the original Helios console EQs with their sweet saturation, high-end presence, and fat low-frequency boost, as well as the unique behavior, coloration, and drive of the console's preamps.

PIE Compressor is modeled on the Pye, a mainstay in esteemed British studios throughout the classic rock era, and considered by many to be one of the best buss compressors of all time.

Buy both and save!

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CLA



CLA-2A



CLA-3A



CLA-76 Blacky



CLA-76 Bluey

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CHRIS LORD-ALGE CLASSIC COMPRESSORS

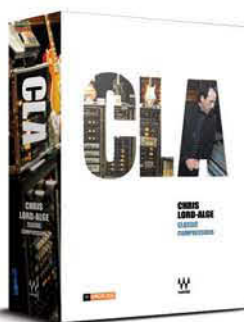
True classics stand the test of time.

Chris Lord-Alge is a true classic. Over the course of a career spanning almost three decades, he has worked alongside many artists who are classics in their own right.

Green Day. U2. Dave Matthews Band. Tim McGraw. Brian Setzer. Peter Dinklage. Tina Turner. Rod Stewart. Steve Winwood. James Brown. Grandmaster Flash & the Furious Five. And many others.

Now, Waves and Chris Lord-Alge join forces to bring you impeccable models of four compressors considered true classics by audio engineers the world over.

CLA Classic Compressors
True classics from a true classic.



Available separately
and in Waves Mercury.

MODELING

At the end of the day, it's the housewife with a two-year-old, sitting in the kitchen with the radio on, or the guy driving his car at the beach with his girlfriend. A cool song comes on the radio, that's all that matters."





JACK JOSEPH PUIG ANALOG LEGENDS

The Fairchild 670, the Pultec EQP-1A, and the Pultec MEQ-5 are among the most sought-after pieces of gear in audio history.

Jack Joseph Puig is among the most sought-after producers and mixing engineers in the music industry.

When JJP requires the perfect sound, he turns to these studio legends. Now, Waves has precision-modeled these rare pieces and captured every detail of their rich harmonic complexity.

Presenting JACK JOSEPH PUIG ANALOG LEGENDS.



PuigChild 670



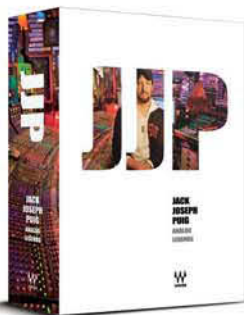
PuigChild 660



PuigTec EQP-1A



PuigTec MEQ-5



Available separately and in Waves Mercury.



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If you can combine your instinct and intellect, to go between the two effortlessly, you'll find that you make the best records."

Jack Joseph Puig



You'll never mix the same way again.



Vocal Rider

A TRUE INNOVATION IN LEVEL AUTOMATION

Vocal Rider is the first of Waves pioneering new series of Mix tools. Simply put, Vocal Rider rides the levels of vocal tracks, automatically.

Instead of manually riding the physical mixing console fader, or tediously drawing in each individual level change on a DAW track, Vocal Rider does it for you, making it a true timesaver.

All you need to do is set the target range of the vocal level in relation to the rest of the mix. Then, Vocal Rider compensates for all deviations from the target, intelligently raising or lowering the vocal volume, instantly. And unlike everyday compression, Vocal Rider adds absolutely no additional coloring to the track.

The new component includes an exclusive Spill control to differentiate the vocal from background instrumentation and noise, for better tracking and performance.

Features

- Keep steady vocal & dialog levels automatically.
- Save time by automating the vocal riding part of the mixing process.
- Write the automatic riding to an automation track for fine tuning.
- Real-Time means no latency and no pre-scan needed.
- Dedicated Vocal Rider Live component
- Up to 24bit 96kHz resolution
- Supports TDM, RTAS, Audio Suite, VST, AU
- PC and Mac compatible

Awards



Vocal Rider Live



The new **Vocal Rider Live** component includes an exclusive Spill control to differentiate the vocal from background instrumentation and noise, for better tracking and performance.

Vocal Rider is available separately and in **Waves Mercury**. Windows & Mac OS X Compatible / Native & TDM versions available.



"MultiRack brings vocals to the front of the mix in a whole new way."

John Cooper

(Bruce Springsteen, Lionel Richie)

"MultiRack turns any computer into an unlimited standalone rack of outboard gear."

Dave Aron

(Snoop Dogg, Prince)



"With **MultiRack** and Waves,
my mix became more complete."

Garry Brown

(Phish, Blondie)

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MultiRack is a software platform that gives FOH and Monitor engineers the power of the same acclaimed Waves reverbs, delays, compressors, and EQs used in recording studios and mixing rooms the world over.

Armed only with a laptop, an I/O, and **MultiRack**, you can now shape your Live sound at a fraction of the cost of hardware, and do away with racks of heavy effects units.

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- Full Recall, Full Control
- Simple Routing
- Save Scenes per Song or Song Sections
- Windows & Mac OS X Compatible



WAVESLIVE

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Introducing **WAVES WSG-Y16** I/O Card for Yamaha Mixing Consoles

The WSG-Y16 brings cutting-edge low latency, high precision **SoundGrid** technology to Yamaha mixing consoles.

Process 16 channels of audio using Waves award-winning reverbs, equalizers, compressors, limiters, delays, and more, directly from your Yamaha console!

Compatible with PM5D | DSP5D | M7CL | LS9
DM2000 | DM1000 | 02R96 | 01V96 | DME64N | DME24N

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New SoundGrid-compatible Bundles



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Over 50 Plugins



SoundGrid Essentials
28 Plugins



SoundGrid Prelude
12 Plugins

Why Plugins? Here are **6** reasons why plugins will make your LIVE easier.

- | | | |
|---|--|--|
| 1 Limitless Possibilities
Increase your creativity with a vast choice of studio-quality processors to meet your every need. | 2 Save Money
Plugins are far more affordable than hardware, and you can run as many as your system can handle. | 3 Save Space
Imagine hundreds of processors—on one USB key. Save rack space and cartage, with no downtime for repairs. |
| 4 Save Time
Setup EQs, dynamics, and effects offline at your convenience, then just power up at the gig. | 5 Simplify Your Setup
Minimize cabling, patch bays, and wiring. | 6 Total Freedom
With preset portability and total recall, now you can take your sound anywhere, from the studio. |





Mike Wilson



Katsuro Uno



Denis Normandeau



Kristopher Carter



Mario Previti



Jeff Lorber



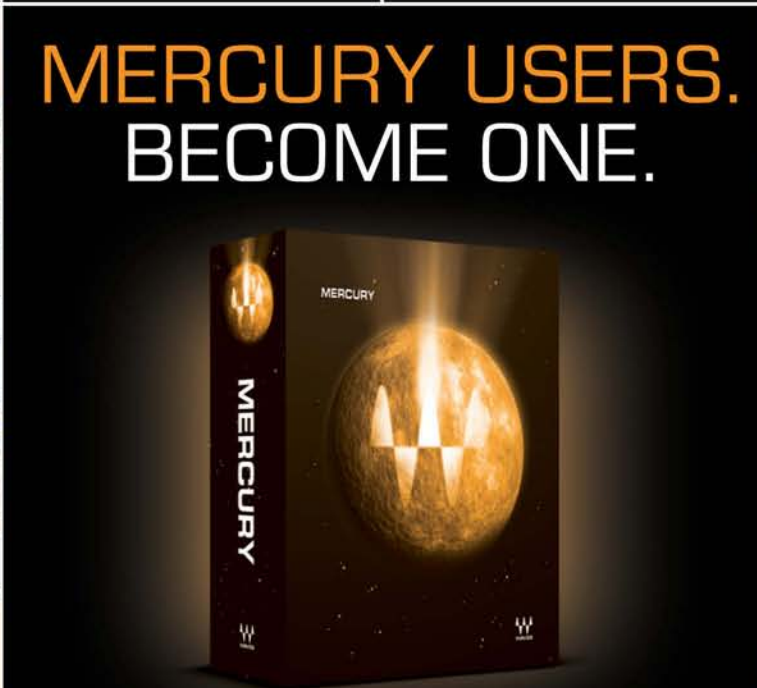
Karim Succar



Boe Larsen



Carlton Lynn



Derek Power



Geoffrey Han



Patrizio Lari



David Rosenblad



Masaaki Enatsu



Harigae Masahiko



Skye Lewin



Rodger Bliss



Simone Sciumbata



Martin Moalli



Adam Hawkins



Bryan Clark



Chris Egan

Genelec 8260A Triamplified Active DSP Loudspeaker

Transducer teamwork is refined in the new triple-amped 8260A mid-field/main monitor from Genelec.

Genelec has been gradually adding models and features to its 8000 series of professional powered studio monitor loudspeakers since the line was introduced in 2004. Until now, each of the models was a two-way device.

The desire for yet higher output volumes in an 8000 series device led to consideration of a three-way loudspeaker. Genelec has ample experience with three-way loudspeakers, but the challenge was to optimally deploy three loudspeakers within a portable housing.

Features

As with all of the 8000 models, the 8260A employs a cast-aluminum “Minimum Diffraction Enclosure” with rounded edges and corners. The 8000 line cabinet surfaces form a “Directivity Control Waveguide” (DCW) for MF/HF dispersion control. With no room in a smaller baffle for separate HF and MF waveguides, Genelec took the innovative step of coaxially mounting the 3/4-inch metal dome tweeter within a midrange driver—the curved, flexible surface of the 5-inch midrange diaphragm being precisely specified to become an integral part of the midrange/tweeter DCW, the curve of the chassis face beyond the MF driver, continuing the DCW seamlessly for the MF.

While past LF/HF coaxial designs have been spot-on in producing a time-coherent wavefront, the woofer cone as HF waveguide, with the potential for substantial cone movement depending upon source and volume, gives the HF waveguide a changing surface that can modulate the HF signal. Genelec’s development of its

“Minimum Diffraction Coaxial” (MDC) driver mitigates this effect and provides the coherency and imaging benefits of a coaxial point source at the critical frequencies [for more on the 8260A’s development, *PAR* has re-posted Genelec’s September ’09 treatise for *Pro Sound News* in the blog section of proaudioreview.com].

The 8260A is physically the largest model in the 8000 line. It weighs in at 60.5 lbs and just over 23 inches tall (with the integral Iso-Pod isolation foot mounted). It is a “hoss” to move around, though a removable rear handle helps a lot. The 8260A houses a 150 W LF amplifier (for the 10-inch woofer) and a pair of 120 W amps for the MF and HF. Genelec’s specs state: “Maximum peak acoustic output per pair with music material ≥ 123 dB SPL @ 1m.” In short, they get plenty loud for near- and mid-field applications.

All of the Genelec 8200 models incorporate digital and analog inputs, network control and integral DSP (there is no 8060A analog only version). Genelec has achieved remarkable frequency response performance with the 8000 series, and the 8260A is no exception. The free-field response is rated

at 29 Hz - 21 kHz (± 1 dB), and Genelec is known for publishing reliable specs.

Regardless of how great a speaker system is, when it’s put into a given listening environment, the two will interact. Genelec’s DSP speaker line employs the company’s GLM (Genelec Loudspeaker Manager) and AutoCal software for remote computer control and automated loudspeaker/room analysis. In the 8260A, AutoCal computes the adjustment coefficients for two HF and two LF shelv-





"The world needs more of this kind of vision..."



"...This mic *does* sound like an early RCA mic."

*Scott Dorsey,
Recording Magazine,
June 2010*



"It's simply about gain - the Cloudlifter is a clever and useful solution..."

*Rob Tavaglione, Pro Audio Review
February 2010*

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ing filters and six fully parametric notch filters. As noted in previous Genelec DSP system reviews, AutoCal is intelligently designed, finessing filter settings and calculating interactions of each section for the maximum benefit with the least aggressive processing. The crossover filters are also separately developed within the DSP at 3 kHz on the MF/HF divide and at 490 Hz at the LF/MF border.

In Use

I'll confess to beginning a review of Genelec monitors with an expectation that I'll be impressed. Past experiences, brief trade show exposure to the 8260As and having talked to the Genelec team along the path of the 8260A's development, fostered great anticipation. I let AutoCal work its magic and listened near continuously for days. The 8260s exceeded my expectations and then some.

I liken adding the MF driver to the 8260A's design to adding a third player to a two-person volleyball team. The players there already are still doing their jobs, but the extra set of hands lightens their load allowing them to perform at a higher level. This can only happen when the players are well suited to one another,

equally capable and well integrated, as is the case in with the individual components in the overall 8260A design.

(continued on page 50)

Fast Facts

Applications

Recording/Post/Broadcast studios, nearfield to midfield.

Key Features

Three-way, triamped design with DSP. Coaxial point-source MF and HF drivers, Genelec's trademark cabinet and waveguide technology, digital and analog input, network control

Price

\$5,850 each, list

Contact

Genelec | 508-652-0900 | genelec.com

mini review by Rich Tozzoli

Holophone PortaMic 5.1 Camera-Mount Surround Mic

When one thinks about capturing 5.1 surround sound with video, visions of large and expensive mics, with associated cables running wild, come to mind. Yet the Holophone PortaMic 5.1 (\$599 list) is a compact and simply employed camera-mounted solution, offering true surround recording when used with a stereo video camera/recorder.

This interesting-looking, half-pound, orb-shaped product couldn't be any easier to use. Mounted on top of a compact base, it features five small, 20 Hz to 20 kHz omni mic capsules mounted as you would listen to surround: LF (Left Front), C (Center), RF (Right Front), LS (Left Surround), and RS (Right Surround). The sixth capsule is the LFE, and it's derived from a mic inside the head, where the head itself acts as an acoustic lens to cut off the high frequencies (capturing a frequency range from 20 Hz to 100 Hz). Audio is



encoded with the onboard Dolby PLII (Pro Logic II) encoder and sent out the stereo output via 1/8-inch mini-plug to the camera or recording source.

Decoding is done in post production.

Simply attach PortaMic 5.1's metal mount to the hot shoe on your camera, connect the stereo mini plug, turn on the power switch, dial in the camera volume until you see the LED flicker, and start recording. Powered by a 9v battery or a 12v DC power source, it also features a 12 dB pad if needed for loud environments.

While it can take up to 130 dB of SPL, I highly recommend the PortaMic 5.1's optional, custom-foam windscreen, and Rycote windjammer. My first experience hooking it up to a camera and recording outside in a light breeze showed how necessary they are. But with them on, it was no problem to capture both ambient

nature sound and also dialog in front of the camera. When recording inside, you can obviously take off the windscreen and windjammer.

It's not until you decode the stereo-encoded PLII audio that you realize how good this little mic sounds. Audio can be decoded using any standard PLII decoder or, as I prefer, Minnetonka Audio's SurCode in my Avid Pro Tools rig. The audio is crisp and clear, and the ambience in the surrounds is quite useful. I tend to prefer loud surrounds, so I turned them up on their own channels in the mix. The PortaMic 5.1 is simply a good mic, with the added bonus that it does 5.1 surround.

Overall, the Holophone PortaMic 5.1 is an impressive product. With the reasonable price point, it's affordable to a potentially large user base. The plug-and-play sensibility of the unit makes it a smart purchase for anyone looking to capture 5.1 multichannel audio for video.

Contact: Holophone | 416-362-7790 | holophone.com

Rich Tozzoli is a composer, engineer/mixer, and the software editor for *Pro Audio Review*. richtozzoli.com

Like Wire With Gain



Wire

Distortion less than 1 part per million ($<0.0001\%$)



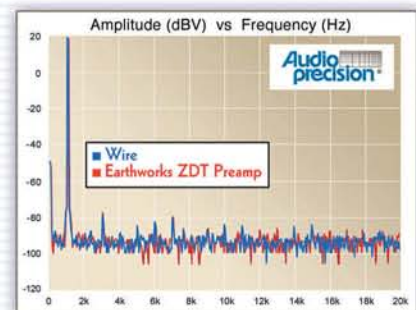
ZDT 1024

Distortion less than 1 part per million ($<0.0001\%$)

The Preamp You Don't Hear

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- No Electrolytic Capacitors in the signal path
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- True 48 volt phantom, polarity reverse & clip indicator
- Separate XLR & 1/4" Phone (t-r-s) outputs, each with its own gain/level controls
- 1/4" Phone connector output will drive balanced or unbalanced inputs

Zero Distortion Technology in amplifiers was invented by David Blackmer, the engineering genius of dbx® and founder of Earthworks. His goal was to create an amplifier that contributed no audible noise, distortion, or color of any kind – absolutely pure amplification with nothing added, "Like Wire with Gain." And he did it! We proudly present the Earthworks ZDT series preamplifiers for those who wish to hear nothing in their amplification.



Distortion measurements made with the Audio Precision Model One Audio Analyzer.

ZDT preamps are available in single, dual and four channel models.



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Avid Pro Tools Instrument Expansion Pack

This virtual instrument bundle is a powerhouse for creative PT-based composers.

If you're a Pro Tools user that can never have enough virtual instruments to compose with (as I am), the Avid Pro Tools Instrument Expansion Pack is worth a close examination.

Another RTAS release from Avid's AIR development team, it includes the latest updated versions of Velvet 1.3, Strike 1.5, Structure 1.1, Hybrid 1.6, and Transfuser 1.3.

Features

Delivered on 5 DVDs, it weighs in at a hefty 55 GB of data, which is actually compressed into 33 GB of space using their "proprietary lossless compression," which decompresses in real time as needed. You'll need to register the software on Avid's site and then download the authorizations to your iLok.

For those who have used some of these instruments before, there's over 16 GB of new content and a few new twists within each offering. For example, Strike now has an electronic drum pad in the GUI with a fresh set of sounds, and there are also two kits of acoustic drums recorded at Nashville's Blackbird Studios.

Backing up for a moment, the five instruments break out as follows. The above-mentioned Strike is a virtual drummer that uses real drum performances and offers adjustable control for such things as complexity, timing, dynamics, intensity, and groove. You also can now add your own WAV or AIFF samples to the kits, and the Style editor was enhanced for more realistic performances.

Velvet offers a collection of Rhodes and Wurlitzer vintage '60s, '70s, and '80s electric pianos. The updated version now includes 4 GB of sounds (nine new tine sounds — the "glassy" sound of the 1980s from synths such as the Yamaha DX7); a reverb effects module with Ambience, Spring and Room; and nine new FM tines.

Structure is a sampler workstation with a sound engine that can handle up to 128 parts with 32 separate audio outputs. It has 5 GB of new orchestral sound, a custom Grand Piano and those Nashville drum kits. It can now handle Kontakt 3, Giga Sampler, and ESX format support and features a new database



browser and the ability to drag and drop directly from your Pro Tools Edit window.

Transfuser is a unique groove creation tool that's actually
(continued on page 50)

Fast Facts

Applications

Composition for TV, film/audio for video, music production, and live performance

Key Features

Bundled RTAS release of Velvet 1.3, Strike 1.5, Structure 1.1, Hybrid 1.6, and Transfuser 1.3 virtual instruments; 55 GB of total data and over 16 GB of new data in these latest versions

Price

\$499 (Strike, Velvet, Transfuser, Hybrid, or Structure LE users can upgrade for \$299)

Contact

Avid | 650-731-6300 | avid.com

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Produced by the editors of *DV* and *Videography* magazines in partnership with world-renowned trainer Weynand Training International, Digital Video Expo offers a multi-tiered educational program for creative professionals.

Educational choices include three-day hands-on training for Apple Final Cut Pro, Avid Media Composer 5 and Adobe CS5, and one-day full immersion workshops for lighting, digital cinematography and DSLR filmmaking. Inside the two-day Digital Video Expo conference, you'll get instruction and insight on 3D production, Web and mobile video, and color management and video compression.

"I WOULD RECOMMEND ANY VIDEOGRAPHER OR DIGITAL CINEMATOGRAPHER TO MARK THEIR CALENDARS EVERY YEAR FOR THIS GATHERING OF GEAR HEADS, CREATIVE TYPES, PRODUCERS, CAMERA OPERATORS, EDITORS, DITS AND VENDORS UNDER ONE ROOF."

—GEORGE LEON: CINEMATOGRAPHER/PUBLISHER

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Even your free expo pass comes with hours of training you can't get anywhere else, including our famous Lighting Master Classes on the show floor, vendor presentations highlighting first looks at the new Panasonic and Canon cameras, and a sneak peek at Adobe Creative Suite 5!

At the show you'll also have ample opportunity to hook up with our distinguished association partners. They'll be on the show floor and hoping to meet you in the exhibit hall! *Check Wednesday evening for a huge list of association meetings, free to all attendees!*

- Bay Area Women in Film and Media
- Digital Cinema Society
- Digital Video Professionals Association
- Filmmakers Alliance
- Hollywood Post Alliance
- Independent Filmmakers of the Inland Empire
- International Cinematographers Guild
- International Digital Media Alliance (IDMA)
- Los Angeles Final Cut Pro User Group (LAFCPUG)
- Los Angeles Post Production Group (LAPPG)
- SCRI International, Inc.
- SF Cutters
- Women in Film (WIF)

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TUESDAY, SEPTEMBER 28 | NO HALL HOURS/CONFERENCE ONLY

	Conference Center - 212	Conference Center - 214	Conference Center - 211
9:00am - 5:00pm	Final Cut Pro 7: Level 1	Adobe CS5: Premiere Pro	Avid Media Composer 5

WEDNESDAY, SEPTEMBER 29 | HALL OPEN FROM 12:00PM - 7:00PM

9:00am - 5:00pm	Final Cut Pro 7: Level 1	Adobe CS5: Photoshop: Video	Apple Soundtrack Pro
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THURSDAY, SEPTEMBER 30 | HALL OPEN FROM 11:00AM - 5:00PM

9:00am - 5:00pm	Final Cut Pro 7: Level 1	Adobe CS5: After Effects	Apple Motion 4
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REGISTER TODAY!

Conference Sept. 28-30 | Exhibits Sept. 29-30 | Pasadena Convention Center: Pasadena, CA

TUESDAY, SEPTEMBER 28 | NO HALL HOURS/CONFERENCE ONLY

	DV CONFERENCE 1 - MTG A	DV CONFERENCE 2 - MTG B	DV CONFERENCE 3 - MTG C	DV CONFERENCE 4 - MTG D
10:30am - 6:15pm	Full-Day Lighting Workshop	Full-Day DSLR Filmmaking: Canon 5D Training	Full-Day Digital Cinematography Training	

WEDNESDAY, SEPTEMBER 29 | HALL OPEN FROM 12:00PM - 7:00PM

	DV CONFERENCE 1 - MTG A	DV CONFERENCE 2 - MTG B	DV CONFERENCE 3 - MTG C	DV CONFERENCE 4 - MTG D
11:00am - 12:00pm	Web & Mobile Video: iPhone and iPad Apps for Production - Part 1	DSLR Filmmaking: Cameras	Color Management: Apple Color - Part 1	3D Production: Basics of Stereography and Image Capture
12:30 - 1:30pm	Web & Mobile Video: iPhone and iPad Apps for Production - Part 2	DSLR Filmmaking: Lighting	Color Management: Apple Color - Part 2	3D Production: Cameras and Recording Options
1:00 - 1:45pm	Presentation Theater: Opening Keynote			
1:00 - 2:30pm	DVE Center Stage: LIGHTING MASTER CLASS			
2:00 - 2:30pm	Presentation Theater: Digital Video Expo Drawings			
2:30 - 3:30pm		DSLR Filmmaking: Accessories and Adapters - Part 1	Color Management: Da Vinci Resolve 7.0 - Part 1	3D Production: Rigs and Accessories
3:00 - 4:30pm	DVE Center Stage: LIGHTING MASTER CLASS			
3:00 - 3:45pm	Presentation Theater: First Look at the Panasonic AG-3DA1 3D Camcorder			
4:00 - 4:45pm	Presentation Theater: First Look at the Canon XF305 and XF300 Camcorders			
4:30 - 5:30pm	Web & Mobile Video: Live and Streaming Production	DSLR Filmmaking: Accessories and Adapters - Part 2	Color Management: Da Vinci Resolve 7.0 - Part 2	3D Production: On Set
5:00 - 5:45pm	Presentation Theater: The New Now – Surviving the Changing Business of Production			
6:30 - 7:00pm	Presentation Theater: Digital Video Expo Drawings			
6:00 - 7:30pm	LAPPG Meeting	IDMA Meeting		
7:30 - 9:00pm			Digital Cinema Society Meeting	LAFCPU Meeting

THURSDAY, SEPTEMBER 30 | HALL OPEN FROM 11:00AM - 5:00PM

	DV CONFERENCE 1 - MTG A	DV CONFERENCE 2 - MTG B	DV CONFERENCE 3 - MTG C	DV CONFERENCE 4 - MTG D
10:00 - 11:00am	Web & Mobile Video Compression Options	DSLR Filmmaking: Audio	Autodesk Smoke on a Mac - Part 1	3D Production: Editing - Part 1
11:30am - 1:00pm	DVE Center Stage: Web Video Producers Roundtable			
12:00 - 1:00pm	Presentation Theater: Filmmaker Keynote			
1:30 - 2:00pm	Presentation Theater: Digital Video Expo Drawings			
12:00 - 1:00pm	Web & Mobile Video: Web Video Production Workshop - Part 1	DSLR Filmmaking: Postproduction - Part 1	Autodesk Smoke on a Mac - Part 2	3D Production: Editing - Part 2
1:30 - 2:15pm	Presentation Theater: First Look at the Panasonic AG-3DA1 3D Camcorder			
2:00 - 3:00pm	Web & Mobile Video: Web Video Production Workshop - Part 2	DSLR Filmmaking: Postproduction - Part 2	Final Cut Pro Plug-Ins - Part 1	3D Production: Color Management
2:00 - 2:45pm	DVE Center Stage			
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KRK Systems R6 Reference Monitor Speaker

The solidly built, affordable R6 passive nearfield is a great speaker for work/live pro audio environments.

While almost driven to the brink of extinction by the overwhelming popularity of modern active (powered) nearfield studio monitors, passive (non-powered) models remain very useful mixing tools and the folks at KRK Systems, among other manufacturers, realize that.

Thus KRK's R6 reference monitor speaker offers impressive performance at what I find is an incredible value — \$150 each, street.

Features

The KRK R6 is a two-way speaker featuring a 1-inch neodymium soft dome tweeter and a 6-inch glass aramid composite cone woofer, the latter of which features the yellow driver our industry directly associates with this manufacturer. Below the woofer resides the front-firing port, approximately the same width as the woofer and one inch tall; likely because of noncircular shape, the port does not “huff and puff” as some front-ported nearfields do under bass-heavy, high SPL performance conditions. Rear-panel features are predictably Spartan: only input connectors, two high-quality, five-way gold-plated binding posts.

R6 technical specifications and features include a 49 Hz to 20 kHz (+/- 2 dB) frequency response; a 2.5 kHz 2nd order crossover; 100 W power handling (IEC); a recommended amplifier power range of 50 to 150 W at 8 Ohms. Cabinet dimensions are 12 11/16 inches high, 8 7/8 inches wide, and 10.5 inches deep. One R6 weighs 15.5 lbs.

While not as radically rounded as its upscale relatives — KRK's VXT and Expose powered monitors — it does offer

a curved front baffle design, which KRK credits with eliminating diffraction distortion. Also, the construction of the R6 is more of a traditional box-style speaker in comparison to the uni-body style of build in the VXT and Expose, with standard MDF comprising the sides and back of the cabinet. That said, the R6 is built to very high (above average) pro audio standards, especially considering the price point.

In Use

Over the span of several months, I incorporated the R6 into multiple environments: my standard studio monitoring setup next to my standard studio reference, a KRK VXT8 active nearfield pair; a location tracking setup, a makeshift control room alongside an ATC SCM16A active nearfield pair; and finally, into my home AV system as the main stereo pair, powered by a consumer receiver/amplifier (Onkyo TX-8410).

The R6 seemed to share some familial characteristics with the VXT8, most notably in the fullness and extension of its low-end response and its frequency response; KRKs generally offer deep bass. The R6, however, when compared to the VXT8, provided slightly smeared vocal



transients, less definition between midrange mix components, and simply a denser overall sound; the R6 was just a bit more pedestrian in its performance all the way around. When compared directly to the ATC monitors — as you would likely expect — these characteristics were further emphasized.

Overall, I found the R6s to be quite truthful in translating “the big picture” of mixes. They are very enjoyable recreational listening speakers and, I believe, incredibly useful in judging mixes. I made some key (and arguably crucial) mix decisions using the R6 in the home theater environment (doing some “real world” secondary listening) as well as A/B-ing R6 and VXT8 pairs in my studio setting. Mix elements that sounded

(continued on page 50)

Strother Bullins is the reviews and features editor for *Pro Audio Review*.

Aphex Model 188 8-Channel Microphone Preamp

The remote-controllable Model 188 is a flexible, multichannel mic preamp built to serve many masters.



Aphex is a company generally known for building products that reside in professional studio and live-sound racks for years and years, simply working as dependable tools without drawing too much attention to themselves.

The Model 188 8-channel, remote-controllable microphone preamplifier with built-in A/D conversion will perpetuate that reputation, and at a price that should attract the attentions of no-nonsense audio folks (\$1,349 street).

Features

Housed in a 1U rackmount chassis, the Model 188 offers eight mic preamps with a two-line LED display and simple turn/push data entry knob on the front panel, and all I/O on the back panel: left to right, IEC power jack, Ethernet jack for remote control, word clock sync via two BNC connectors, two ADAT/Lightpipe outputs, a DB-25 connector providing eight channels of balanced analog output, and eight XLR mic inputs.

The Model 188's mic preamps offer 65 dB of total gain with 26 dB fixed gain (39 dB variable gain). A 26 dB pad, polarity reverse, and low-cut filter at 80 Hz is provided per channel. The Model 188 supports 44.1, 48, 88.2, and 96 kHz sample rates; automatic ADAT SMUX output is available for 88.2 and 96 kHz, with selectable SMUX for 44.1 and 48 kHz.

The most notable feature of the Model 188 is its remote-control capability. Like

the Aphex 1788A — a well respected 8-channel mic amp that can be found in high-end mobile recording rigs around the world — the Model 188 can be remote-controlled via Ethernet or MIDI via the Aphex 1788-RC hardware remote, AVID Pro Tools, or — as I utilized it — the free-to-download 1788SW control software for PC and Mac.

In Use

I used the Model 188 over the span of six months in a variety of settings: numerous tracking dates on the gamut of acoustic instruments, drums and percussion, vocal, and miked cabinet applications with a wide variety of microphones as well as a “crucial input mic amp” for two live events via remote control with my Mac Book Pro running the 1788SW control software. First and foremost, the Model 188 mic amps are pristine, providing lots of clean gain, and they offer all the adjustable parameters you'll generally need. Sans software — with the Model 188 sitting at your monitoring station — it's easy to adjust eight microphones of input in a flash; the push/turn parameter adjustment scheme of the unit's singular knob is brilliantly simple. Once you get

the hang of it, it's easy to dial in appropriate settings for, say, a full drum kit in a jiffy. The back panel is well laid out, with all digital I/O to the left and all analog I/O to the right. I'm a big fan of the DB-25 outputs, as it's really easy to swap those connectors around, especially in time-restrictive settings, such as location recording and live work.

The 1788SW software is incredibly intuitive, closely resembling the 1788RC hardware remote, and there's virtually no learning curve to figuring it out. It's simple to download and install; any user of such a product as the Model 188 should be up and running with it in no time.

Summary

The Model 188 is not sexy from a visual or operational standpoint. For that reason, I find it important to say that it is an incredibly solid multichannel microphone preamp, maybe even the best example of what is a “pro audio workhorse.” It's neither low-end or too high-end/esoteric to not be a wise investment for anyone who takes audio seriously (and hopes to be taken seriously as a professional or an aspiring pro); it's the kind of product that could be your first pro-grade 8-channel mic preamp and reside in your rack throughout your entire career, as Aphex is well known for making products that simply last.

Price: \$1,495 list

Contact: Aphex | 818-767-2929 | aphex.com

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QSC CMX Series Amplifiers

QSC's new CMX Series amp line offers an economical and rugged power amplifier solution designed to meet the needs of system integrators. It is based upon the performance found in the RMX Series. The CMX Series is available in four models with power ranges from 185 watts to 2,500 watts per channel.

All models feature constant voltage output for distributed audio systems with the CMX300V and CMX500V offering it in mono-mode only, while the CMX800V and CMX2000V features constant voltage output in either mono or stereo mode. The output sections feature rugged class AB and class H architecture (depending on power level) and efficient class H output sections on the CMX800V and CMX2000V to reduce AC current.

CMX Amplifiers also feature actively balanced input choices including barrier strip, XLR, and 1/4-inch TRS connections as well as, rugged NL4 Speakon and detachable euro-style output connectors for maximum flexibility during an install.

Prices: TBA

Contact: QSC Audio | qscaudio.com



Powersoft M Series Power Amplifiers

Powersoft has introduced the M Series line of power amplifiers, five new models encompassing two 4-channel and three 2-channel versions. These Italian-made M Series amplifiers come in a one-rack-unit chassis, 358mm/14.1 inches in depth and weighing just over 16 lbs. All M Series models are quite efficient, thanks to Powersoft's switch-mode power supply and PWM output stages.

The M50Q and M28Q are 4-channel models, delivering up to 1,250 W/ch into 4 ohms. The M30D, M20D and M14D offer two channels each with a maximum output of 1,500 W/ch at 4 ohms. The entire range reaches down to 360 W/ch into 8 ohms, resulting in greater flexibility for a wide range of applications. The M Series features Powersoft's advanced plug-in DSP module. When installed and preset to meet the needs of a particular installation including settings for crossover frequency and curves, basic system EQ and protection functions, the parameters cannot be tampered with making the M Series a "plug and safe" power amp.

Price: from \$1,798 list

Contact: Powersoft | powersoft-audio.com



DPA 4099 Performance Mics

DPA Microphones has added to its 4099 series of performance mics. Now available are new mounts designed specifically for instruments in the bass family, included with the 4099-B microphone system; and a smaller version for the cello family, included with the 4099-C microphone system.

The microphones feature supercardioid polar patterns for gain-before-feedback, capable of handling high SPLs, up to 152 dB. The gooseneck provides "stable positioning to ensure the microphone will never stray from the instrument's sweet spot." The mics can be unclipped and repositioned or moved to another instrument with only one hand, while the mounting system is designed never to mar or scratch the finish of the instrument.

Price: \$599 each

Contact: DPA Microphones | dpamicrophones.com

Yamaha CD-S300-RK, CD-C600-RK

Featuring IMX644 rackmount mixer compatibility, the new Yamaha CD-S300-RK — a single-disc CD player; and CD-C600-RK — a 6-disc carousel model — both offer numerous playback functions. With its USB port on the front panel, when using a USB cable, the units enable audio playback from MP3 and WMA files stored on USB players, memory cards, or other devices such as iPods. A digital signal is generated by the player with no degradation or jitter, then converted to analog by the DAC, and transmitted to the amplifier via high-quality audio circuitry.

The Yamaha CD-S300-RK and CD-C600-RK CD players offer Pure Direct, a listening mode that provides high-quality analog audio output, a feature in Yamaha amplifiers and receivers. With the press of a button, Pure Direct will shut down the digital audio output on the front panel of the unit or on the remote control, turning off the display in order to achieve the lowest possible noise interference.

The Yamaha CD-C600-RK also features an RS-232C, IR In/Out, and a PlayXchange function that allows for CDs to be changed while current program material is playing without disruption.

Price: \$299 and \$379 list (CD-S300-RK and CD-C600-RK, respectively)

Contact: Yamaha Commercial Audio Systems | yamahaca.com



Danley Sound Labs GH-60 Horn

According to Danley Sound Labs, the GH-60 Genesis Horn "is a response to the limitations of the line array." It incorporates three of Danley Sound Labs' patent pending technologies — Synergy Horn, Paralane, and Shaded Amplitude Lens. The Genesis Horn is a true three-way, full-range horn (50-60 Hz depending on array configuration) that offers a horizontal dispersion of 60 degrees, expandable to 120 degrees with the addition of a second unit.

Each of the cabinet's 18 drivers is positioned less than one-quarter-wavelength from the adjacent driver, as well as the drivers covering the adjacent pass band, resulting in combining and proper horn loading in a single, large-format horn. Danley's Genesis Horn is available self-powered or externally powered and does not require a proprietary processor.

Price: POA

Contact: Danley Sound Labs | danleysoundlabs.com

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new live products

Roland M-300 Digital Mixing Console



Roland Systems Group has added to its V-Mixing System lineup by introducing the M-300 digital mixing console. The M-300 V-Mixer is a 32-channel console that possesses many of the features and benefits of the M-400 V-Mixer, but in a compact format.

The M-300 V-Mixer features rapid recall of setups, 17 - 100mm motorized faders, an 800 x 480 color screen, and knobs for EQ, Pan, and Gain. It includes digital patch-bays, built-in effects processors, eight Auxes, four Matrices, four DCAs, four Mute Groups, built-in stereo recording/playback and support for LCR configurations. This fully digital system is built on REAC (Roland Ethernet Audio Communication) and eliminates the bulk and noise susceptibility typically associated with analog snakes and replaces it with Cat-5e (Ethernet/LAN) cable. It is easy to use and sets up in minutes by plugging in one lightweight Cat-5e cable from a choice of Digital Snake stage units (up to 80 inputs) making it ideal for portable applications and corporate events.

The system generates top sound quality by converting analog inputs to 24-bit digital streams at the stage end via mic preamps located near the source. The V-Mixing System then secures the quality of audio signal throughout the complete system path en route to the M-300 V-Mixer, back to any outputs and on to limitless split positions. The 40-channel assignable output split can be used with the M-48 personal mixing system and the multichannel recording options from Cakewalk.

Price: TBA

Contact: Roland Systems Group | rolandssystemsgroup.com/m300



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Audio-Technica ES963 Boundary Mic

Audio-Technica has unveiled the ES963 three-element multidirectional boundary microphone. It is designed for surface-mount applications such as sound reinforcement, conferencing, professional recording, television, and other demanding sound pickup applications. Three cardioid condenser elements mounted in the microphone housing are factory-set with an angle of 120 degrees between them to provide complete 360-degree coverage (in the hemisphere above mounting surface). Two positioning levers on the microphone base allow two of the three elements to be reoriented (with no tools or disassembly required) to offer angles of 90/90/180 degrees between elements.

Since elements can be powered and used individually or in combination, further flexibility is easily achieved. For example, with two elements powered, the microphone can provide a figure-8 polar pattern; with a single element powered, the microphone functions as a standard cardioid boundary microphone. Four indented recessed pathways on the base of the ES963 enable the user to route the cable as required to accommodate any installation requirements.

Price: \$495 list

Contact: Audio-Technica | audio-technica.com



K-array Kobra, Redline, KH4 Speakers

K-array loudspeakers are a solution for a range of possible live audio and installed sound applications, including theaters, clubs, outdoor venues, corporate, institutional facilities, houses of worship, and many others.

Three main models are currently available via Sennheiser — Kobra, Redline, and the KH4 line array. The KK50vb is a professional 3D line-array speaker system that is 2.2 inches deep and weighs 5.5 pounds. It has a peak output of 120 dB. The Redline KR200s is a portable, powered two-way system designed for use in both mobile and install applications. Its ultra-slim satellite features a line array of 32 two-inch, high-efficiency drive units with neodymium magnet structures. Finally, the KH4 is a self-powered, two-way line-array speaker that is targeted for longer throw applications in larger venues, yet measures 6.3 inches flat and weighs 104 pounds, so it can be used in more compact venues.

Price: POA

Contact: K-Array | k-array.com



Mackie 2404-VLZ3, 3204-VLZ3 Analog Mixing Consoles

Mackie has introduced two mid-format analog consoles, each featuring dual internal FX processors, dedicated compression and 4-track recording via USB — the 24-channel 2404-VLZ3 and 32-channel 3204-VLZ3 (pictured). The Mackie 2404-VLZ3 and 3204-VLZ3 feature low-noise, high-headroom XDR2 mic channels (20 and 28, respectively) and two dedicated channels for stereo inputs. Inline compression is available on the four subgroups and four select channels.

Dual 32-bit RMFX effects processors offer 16 useable presets, including tap delay. The integrated 4x2 USB interface offers multiple routing options to a DAW, with a convenient stereo return that's assignable to the mains for background music or into a channel strip for mix integration.

Stay tuned for a full review of the 2404-VLZ3 in *Pro Audio Review*.

Prices: \$1,349 and \$1,699 (2404-VLZ3 and 3204-VLZ3, respectively)

Contact: Mackie | mackie.com



Electro-Voice ZXA1-90 Two-Way Loudspeaker

The ZXA1-90 may be small, cute, and light, but it's no lightweight in power, performance, and flexibility.

The E-V ZXA1-90 is a small (17.88 x 11.12 x 10.38 inches), amplified, two-way loudspeaker built for portable sound reinforcement applications, which utilizes the EV8L 8-inch woofer and the DH2005 1-inch exit compression driver, the latter of which is a titanium diaphragm tweeter coupled with a rotatable 90 x 50 degree waveguide.

The ZXA1-90 is powered by a 800W 2-channel amplifier; crossover frequency is at 1.8 kHz. A user-selectable 100 Hz high-pass filter allows for use with a subwoofer (or ideal when using at a monitor wedge broadcasting primarily midrange instruments, vocals, etc.).

The ZXA1-90 offers an XLR microphone input with independent gain control and line-level input via an XLR/TRS combo jack. A line-level XLR output (microphone and line level summed together) is also included, which is ideal when daisy-chaining more ZXA1-90s, other speakers, or a subwoofer together. A second rotary pot (in addition to the mic gain control) allows independent adjustment of master volume. Two LEDs indicate power on and transducer protection limiter on statuses, respectively.

The ZXA1-90's injection-molded cabinetry is made of high-impact polystyrene, which makes the package light in comparison to similar wood-enclosed products (each ZXA1-90 weighs 19 lbs.). A well-positioned handle resides at the top of the rear panel, making two ZXA1-90s easy to carry.

In Use

At first glance, primarily because of their small size and weight, it's easy

to underestimate the performance potential of the ZXA1-90; upon carrying a pair into a live club gig (approximately a 250-person-capacity venue with a dual 18-inch powered sub anchored house PA), where they would serve as stage monitors/wedges, the musicians smiled — and actually chuckled — at the sight of their diminutive stature.

But upon powering them up and checking vocal and guitar monitor levels through the ZXA1-90 pair provided for this review, the chuckling ceased. The smiles remained, though, as we all were surprised at their clean, loud, low-/no-noise performance and surprising mid-/low-end fullness, especially evident in chunky rhythm guitar. I found the ZXA1-90 pair to be great stage monitors for club dates. No question, the ZXA1-90's 800W amp really delivers.

Later at another gig — a coffee-shop-style date featuring electric piano and vocal via the ZXA1-90 pair — I didn't even use a mixer; we simply put the vocal mic into the first ZXA1-90's mic input, and line-in from the keyboard, then daisy-chained the second ZXA1-90 via XLR (we also used a third-party powered speaker for a stage monitor). This environment proved to



be another ideal setting for these speakers. With the same musicians, but at a small outside event, we used a stick-style PA as a main (Fishman SoloAmp), with the two ZXA1-90s serving again as wedges. Again, the E-Vs served very well as monitor speakers, allowing two different musician-tweaked levels per cabinet and comfort for all — audience and performers.

For a final gig, I used the ZXA1-90 pair as mains, paired with a powered subwoofer (Cerwin-Vega CVA-118). With their high-pass filter utilized, the E-Vs held their own, delivering two hours of high-volume rock (consistently over 100 dBa SPL at FOH position) without a hitch.

Two other qualities of this ZXA1-90
(continued on page 50)

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Avid

(continued from page 36)

hard to put into words. It provides the ability to manipulate and affect loops and sequences both for live and studio applications. You can import loops, directly use it on Pro Tools tracks, or even plug a mic into it live.

Hybrid is a three-oscillator, high-definition synthesizer with a huge selection of presets including 256 new ones, new waveforms with the noise oscillator and the ability to run two simultaneous parts with independent effects.

I've used some of these instruments before, especially Velvet and Hybrid. So I know they are good, as they are staples in my TV composing rig. However, I really got into Strike with this install. There are few other drum style plug-ins that offer this amount of expression and useful performance sounds. I fired off a few cues for a History Channel show with Strike drums, Hybrid bass synths, Velvet melodies, and my Tele in no time flat. It's also a great tool for practicing your guitar and/or bass guitar chops.

I appreciated being able to call up some of Structure's East West orchestral samples on my laptop LE rig. But Transfuser was the unknown to me. One of the best ways is to start with the presets, and also on the bottom left there's a text window that explains each GUI function as you roll over it. It's actually fun to make music with a plug-in that's not immediately intuitive — especially using the Slicer. After sitting with it for a while, I found it to be a highly creative tool for dance/house/groove work, once you learn how to use it within the Pro Tools environment. But wow, would this be cool to use through a club PA system!

Summary

For anyone composing music for TV, film, the studio, or even live applications, the Pro Tools Instrument Expansion pack packs a lot of punch into a tight little bundle. It's a nice value for what it offers. Without a doubt, Avid's AIR division offers quality products that sound great and are easy to use. You can't go wrong having all this power in your arsenal.

KRK

(continued from page 41)

unclear or less than defined to taste via R6 were re-addressed in final mix revisions, which, in turn, made them sound even better via VXT8, ATC, and everywhere else I heard the finals.

Summary

New applications of passive nearfield monitors in studio environments are rare, at least it seems that way from my observations. But old speakers eventually wear out, innovation in performance continually evolves, etc., and recordist/mixers with amplifiers they like and are comfortable with will likely need a new, good, and affordable reference speaker somewhere, at some point. The R6 fits this bill: a great passive reference speaker at an even better price. It does "real world" beautifully, and more: not bad for a \$150 passive speaker.

Price: \$149.99 each, street

Contact: KRK Systems | 954-949-9600 | krksys.com

Genelec

(continued from page 34)

The 10-inch woofer with Genelec's cabinet efficiencies makes for a tremendous, but not hyped, low end. The LF extension is substantial and few would demand a subwoofer. Midrange detail is rich, fully fleshing out the LF overtones. Even though the MF/HF crossover is at the same point as other 8000 series models with 3/4-inch tweeters, the clarity of the HF seemed enhanced by the midrange support below crossover (compared to the 8020As that normally sit on the corners of my desk).

Transient response is excellent with a natural percussiveness. Vocals are eminently satisfying, sitting right in the proper pocket; reverb tails are detailed and full. Vertically, horizontally and in depth, imaging is spot-on. The performance of the Genelec 8260As feels effortless and natural.

Summary

The price for all this performance is substantial, but top performers command top dollar, and leading-edge design has its cost. If you are ready for a monitor experience without compromise, you need to lend a pair of ears to the Genelec 8260As.

Electro-Voice

(continued from page 48)

pair specifically struck me. Having used numerous small powered PA speakers over the past decade, the first is how user-friendly they are, from the intuitive rear panel, to their easy-to-pack size and weight, to their performance-based flexibility to fit numerous gigs. And two, their polystyrene enclosures — which I normally dislike because of a tendency to easily scratch in even careful, normal use — seemed to be far harder to mar than most comparable speakers. Of course, they will scratch, but not nearly as easy as other enclosures I've used.

Summary

If you're in need for a truly portable, clean, and flexible PA speaker, I don't think you'll go wrong with a pair of these cute little powerhouses. At \$499 street, they're worth every dime and should serve any jack-of-all-trade gigging purposes quite well.

Price: \$599 list

Contact: Electro-Voice | 800-392-3497 | electrovoice.com



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