

NOW IN PSN ProAudio Review

# pro sound

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February 2015



LYNN EUSTON

**NASHVILLE'S NATIONAL TREASURE**—After RCA Studio A on Nashville's Music Row narrowly escaped demolition last fall, the National Trust for Historic Preservation named Music Row a National Treasure on January 12, 2015. Speaking at the announcement were (L-R): Executive Vice President and Chief Preservation Officer of the National Trust for Historic Preservation, David Brown, and musician/studio occupant Ben Folds (see page 5 for the full story).

## Live Sound Looks Ahead

**SPECIAL REPORT**

BY CLIVE YOUNG

NEW YORK, NY—While the Sound Reinforcement industry never comes to a halt, the winter months traditionally provide a brief respite sandwiched between the final rush of holiday-related work and the marathon of tours and events that kick off in the early spring and end once after the next holiday sea-

son. The comparative calm provides an opportunity to not only take stock of the 12 months that just ended, but also strategize for the coming year.

Summing up 2014 is pretty simple, however: It was a barnstormer. *Pollstar* estimated concert industry ticket sales at an all-time high of \$6.2 billion in North America—which in turn

(continued on page 52)

## Think Global, Master Local

22

The Internet now allows mastering engineers to work on projects from around the world. It's a boon for business, but there's challenges when it comes to communicating with clients they never meet face-to-face.



## Hit House Scores with Petrol Series

30

Sally House, co-founder of The Hit House, details a recent "dream project" with Petrol Advertising, creating five scores and sound designs for the same Western Digital short film to illustrate the power of sound to evoke emotional responses.



## Broadcast 5.1 Audio Remains Challenging

BY STEVE HARVEY

"We have unfinished business" where

5.1 is concerned, according to a presenter at the DTV Audio Group forum during the SVG Summit on the business of sports production, which

was held in New York City in mid-December, 2014. As the broadcast industry considers the adoption of object-based audio formats—Dolby Atmos is already available on streaming services—it seems that those schemes are more likely to be adopted for their interactive potential rather than their ability to deliver immersive sound, at least initially.

In the ballrooms of the New York Hilton, audio companies including Calrec Audio, Clear-Com, Dale Pro Audio, DiGiCo, Dolby,

DTS, Harman, Lawo, Linear Acoustic, Riedel Communications, RTS, Sennheiser and others plied their wares to throngs of broadcast professionals. Meanwhile, in a meeting room two hallways away, things got a little heated. [Note: In respect of certain television network policies and at the request of numerous participants, the names of all those quoted have been omitted.]

"I think the biggest mistake that we made was to roll

(continued on page 53)

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## ENGAGING ARTISTS EVERYWHERE

Jeremiah Slovarp – Owner of Jereco Studios in Bozeman, Montana and Emmy® award-winning Producer/Engineer knows a thing or two about the art of mixing. Working with television giants such as HBO, PBS, Disney and BBC, his impressive resume ranges from commercials to documentaries and so much more.

With a recent studio upgrade to Yamaha's NUAGE Advanced Production System, Jeremiah's workflow has taken a turn for the better. We caught up to him to hear his thoughts on the new hardware.

*"I feel like I can get back to mixing, pushing faders, turning knobs, and just working on a creative console. Previously, after an eight or ten hour day, my hands would be in pain from all the manual movements I had to make being dependent on mouse editing and clicking. With the advent of all the cool and amazing new digital DAW based mixing tools and equipment, I think the industry, in general, has regressed from the art of mixing and working with consoles and large format hardware. But with NUAGE, I appreciate the deliberate move Yamaha has made to enable engineers to get back to mixing and editing as an art form."*

— Jeremiah Slovarp

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# Nashville's Music Row Named A National Treasure

BY LYNN FUSTON

NASHVILLE, TN—Nashville's storied RCA Studio A on Music Row caught the public's eye in recent months as it narrowly escaped demolition, but the situation highlighted the need to preserve not just one facility but an entire district intrinsically tied to the city's cultural history. That dream took another step towards reality on January 12, 2015 at a press conference held inside Studio A, when the National Trust for Historic Preservation named Music Row a National Treasure.

"Save Music Row" has been the rallying cry of musician's voices seemingly in the wilderness, drowned out by the roar and diesel smoke from bulldozers and demolition equipment up and down the avenues that made Nashville famous worldwide. The country music heritage of Music Row and the buildings that recorded and broadcast it all over the globe seemed destined to be plowed under, serving as the foundations for condos and high-rise office buildings. Now that is starting to change.

Ben Folds, current occupant of RCA Studio A and owner of Grand Victor Sound studio in that space, acknowledged to the crowd of 200 music industry veterans, concerned citizens, realtors and historians that "So much has happened in the last few months [since the Save Studio A campaign began]. I'm just really very happy that the building is still here and that [studio manager and outspoken studio preservationist] Sharon Corbitt-House is not strapped to the front of it. It's great that everyone has come together to help keep the musical identity of Nashville, which is the reason we live here." That "coming together" was the focus of the meeting. Like a snowball rolling downhill, the momentum to not only save RCA Studio A, but the rest of Music Row and its history is certainly growing



Ben Folds (left) and Nashville Mayor Karl Dean (center) look on as National Trust's David Brown announces Music Row's status as a National Treasure.

to be here today to talk about Music Row as the heart and soul of country music."

Brown then officially announced that Music Row is to be recognized as one of the National Trust's National Treasures, one of only 50 such designations in the United States. The National Trust is "the nation's largest private organization dedicated to saving America's historic places." Brown alluded to a question that many Nashvillians, especially those in the music industry, have pondered for a long time. "Do we want to imagine Nashville without Music Row?" His answer was "Well, I don't and

clearly you don't either." He called attention to the fact that many cities would love to have what Nashville has and almost bulldozed. "This eclectic mix of buildings and businesses [on Music Row] has created a unique environment: the kind of cultural district that cities all across the world are spending millions of dollars to create as part of a creative economy. The amazing thing is that you have it here in Nashville, and you have it right now." He added, "It matters how we build our communities and it matters how we preserve them. When we lose the places that matter to us, we lose more than buildings. We lose the sense of community and the sense of civic pride."

(continued on page 57)

## briefs

### Riedel Supports IP Standards

WUPPERTAL, GERMANY—Riedel (riedel.net) has announced support for the AES67 standard and the RAVENNA technology framework. Capable of operating in existing network infrastructures, RAVENNA enables real-time IP distribution of audio and other media content. The AES67 standard was published by the AES to enable the high-performance streaming of audio-over-IP. Riedel already supports both standards with Tango, its platform for signal distribution and communications applications.

### Audinate Grows Fast in Asia

ULTIMO, AUSTRALIA—Audinate (audinate.com) has been recognized by Deloitte as one of the fastest growing technology companies in the 2014 Asia Pacific Technology Fast 500 for the second year in a row. Audinate was recognized by Deloitte for its 186 percent growth in the region and was also recognized in the Technology Fast 50 for Australia.

### P&E Wing Talks Hi-Res at CES

LAS VEGAS, NV—The Recording Academy Producers & Engineers Wing (producersandengineers.com) participated in two Hi-Res Audio panels at CES 2015 in Las Vegas. "Meet the High-Res Music Creators" featured top producers and engineers discussing the music creation process and best practices, while "Hi-Res Audio: CES Power Panel" brought together some of the biggest names in consumer electronics and music entertainment to explore key issues facing the industry today.

## AP Announces New Leadership

BY PSN STAFF

BEAVERTON, OR—A mainstay of test and measurement systems for the pro audio industry, Audio Precision closed out the year by announcing the privately held company changed ownership on December 16. Co-founder and majority shareholder has transferred ownership to AP's new leadership team, comprised of five members of company management who, combined, have worked at the company more than 54 years.

Hofer will continue forward as principal hardware engineer while maintaining his role as chairman of AP's Board. Dave Schmoltdt, AP president, will assume the responsibilities of chief executive officer. Marketing manager Eric

Hodges told *Pro Sound News Europe*, "[Hofer] remains a very active member of the AP team, serving both as our principal hardware engineer and as the chairman of AP's Board. This change does however reflect Bruce's desire to focus on product development and transition day-to-day management of the company to Dave Schmoltdt and the AP leadership team."

Other members of the board include Jill Nickerson (CFO); Tom Kite, Ph.D. (VP, Engineering); Vickie Sigafoos (VP, Operations); and Spyros Lazaris (VP, Sales and Marketing). The aim for the transition of leadership is to retain an existing, well-defined strategy, experienced staff and a clear focus on meeting the evolving needs of audio test engineers around the world.

"Since helping to establish AP 30 years ago, one of my primary goals has been for the company to be the performance leader in our industry," said Hofer. "I have the utmost confidence in AP's strategy and leadership team going forward, so this evolution of our organization will allow me to concentrate on pushing the boundaries of performance in audio measurement."

"The leadership team is grateful for this vote of confidence from Bruce and the Board," said Schmoltdt. "Our entire organization appreciates Bruce's continued contributions, and strives to emulate his long-standing commitment to our customers and to the advancement of audio test."

Audio Precision  
ap.com



[22]



[42]

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## SOUNDRECORDING

**MSR Studio Renovates for the Future 22**  
Reports of Right Track Recording's demise are greatly exaggerated. In fact, the rooms never stopped working and, now operating as MSR Studios, are as busy as ever.

**Berklee's Massive Mass. Ave Project . . . 24**  
WSDG worked with Berklee College of Music to design four floors of studio space for students as a key feature of the school's brand-new, 16-story, 155,000-square-foot student residence hall/multi-use building in the heart of Boston.

## SOUNDPOST/BROADCAST

**SeisMic Shake Up In Music City . . . 30**  
After Tom Davis moved from L.A. to Nashville in the mid-1990s, he made a name for himself and his facility, SeisMic Sound, handling post for CMA and CMT TV events and concert DVDs.

**Hit House Pumps Petrol For WD . . . 30**  
The Hit House recently tackled a "dream project" with Petrol Advertising, creating five scores and sound designs for the same Western Digital short film to illustrate the power of sound and music to evoke emotional responses.

## SOUNDTECHNOLOGY

**Sound Innovations: AEA NUVO N22 Nearfield Ribbon Microphone . . . . . 34**  
To celebrate AEA's 50th anniversary, the company decided to create something special; the result was the NUVO compact N22 near-field microphone.

**Pro Audio Review in PSN . . . . . 35, 36, 37, 38, 39**  
Recording Acoustic Guitar with DPA's d:dicate 2011C Twin Diaphragm Cardioid Compact Microphone; Millennia Media HV-35P & HV-32P Portable Series Preamplifiers; SPL MTC 2381 Monitor and Talkback Controller; Blue Microphones en-CORE 200 Handheld Dynamic Microphone; Fostex 6301N Series Active Monitor; SENAL Sound ASM-6 Two-Way Active Nearfield Monitor; Cerwin-Vega P1000X P-Series Portable Powered Loudspeakers; Yamaha DBR10 Powered Loudspeakers; Remic D5400 Upright Bass Condenser Studio Microphone

## SOUNDPRODUCTS

**Studio Products . . . . . 40**  
**SR Products . . . . . 41**

## SOUNDREINFORCEMENT

**Feeling Cavalier . . . . . 42**  
Drums and bugle corps competitions now allow the use of microphones, amplification and electronic instruments. Embracing the change is The Cavaliers Drum & Bugle Corps, based in Rosemont, IL.

**Live Sound Showcase: Slipknot . . . . . 43**  
Slipknot, the masked metal act out of a horror movie, is back and touring the world with Thunder Audio. How do you mic a band with a proclivity for unsettling masks and twin percussion rigs that ought to be a carnival ride?

## DEPARTMENTS

Sound Business	5
Classifieds	55
Sound People	54
Advertiser Index	57
Company Index	57

## CHARTS

Tracks	28
Centerstage	48
Soundcheck	50



## SPECIAL REPORT

**Special Report: Live Sound Looks Ahead . . . . . 1, 52**  
2014 was a barnstormer for the concert industry, which in turn kept sound companies at every level busy. Now as the 2015 touring year looms ahead, trends are already emerging as audio vendors plan their strategies to best meet the equipment needs of festivals, small to mid-sized tours and more.

## COLUMNS/REVIEWS

<b>softwaretech . . . . . 29</b>	Craig Anderton tunes into the controversy that will not die.
<b>viewfromthetop . . . . . 56</b>	Since diving into the industry more than 25 years ago, Powersoft's director of Sales, Kurt Meltzer, has always demonstrated a passion and curiosity for how audio works, both as a musician and part of the audience.
<b>music,etc. . . . . 58</b>	Jaques Sonyieux talks with country artist Ryan Bingham about writing his new album in an Airstream and how life as a professional rodeo bull rider prepared him for the music industry.



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## Music Sales: A Bleak Landscape

Music sales analysis from 2014 is starting to come in. It's no surprise, but Nielsen/Soundscan's numbers comparing 2013 and 2014 (<http://bit.ly/1FOvi4b>) show an overall trend that can be described in one word: down. Overall album sales were down 11 percent. Digital album sales were down 9 percent (the percentage of album sales that were digital downloads stayed unchanged at 41 percent). Downloads of digital singles were down 12 percent.

Overall, current album sales (albums released in the past 18 months) were down 14 percent while catalog album sales were down 9.1 percent. For physical albums, the numbers were -13.3 percent for current releases and -11.4 percent for catalog releases. Digital download album sales were down 15.1 percent for current releases, while digital downloads of catalog albums were off 3.1 percent.

Were there any bright spots? In album sales, CDs continued to decline, off 14.9 percent. Digital downloads of albums were off 9.4 percent. But vinyl was up 51.8 percent at 9.2 million units. You've no doubt seen the press ballyhooing "record vinyl album sales," and that claim is true, if you only look at Nielsen numbers. But Soundscan, now part of Nielsen, only began tracking sales in 1991. For comparison, the RIAA cites 344 million units in vinyl LP sales in 1977. Vinyl sales in 2014 an all-time re-

cord? Only by naïve measure (naiveté encouraged by Nielsen which states "Vinyl album sales were up 52 percent in 2014, shattering last year's record-setting total by more than 3 million LPs."). Engage your hyperbole filter!

For further comparison, Nielsen cites 140.8 million CD albums sold in 2014, and 106.5 million albums were downloaded digitally (vinyl accounted for more than 6 percent of

Music sales analysis from 2014 show an overall trend that can be described in one word: down.

total physical album sales). Vinyl continues its resurgence, for sure, but even at the growth numbers it is experiencing, there's a long way to go to get anywhere close to record sales. At some point, the growth of vinyl will be limited by available capacity; there aren't new presses being made, just like there are no multitrack analog tape machines in production. It's a finite market based on exhaustible resources.

The other bright spot in the report? Streaming: the distribution method that's disrupting digital

downloads and CD sales. Overall, on-demand audio and music video streams are up 54.5 percent (audio-only streaming is up 60.5 percent). The Nielsen report cited here doesn't break out the total in "Streaming Equivalent Albums" (SEA, where 1,500 streams is given album equivalency) and "Track Equivalent Albums" (TEA, where 10 downloads equal an album) except by genre. By that prism, SEA bests album sales and TEA in the Dance/Electronic and Latin categories. Streaming Equivalent Albums beat all albums and TEAs individually (but not combined) in R&B/Hip Hop (really, those are a single genre?) and bests all album sales and matches TEA in Pop. SEAs best TEAs, but not album sales, in the Children, Holiday/Seasonal and Rock categories.

This particular report does not address revenues, just units. My research indicates that there is (again, no surprise) less money in the kitty overall. Streaming is notoriously not as lucrative for artists in general. The artists then have less to spend on studios and engineering talent. Also, while streaming is ever more convenient, and affords a larger library than most humans can collect through legitimate ownership means, digital or physical, it's a pity the quality mostly sucks, services like Tidal excepting.

Move along, nothing to get excited about here.

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# Ardent's John Fry, Memphis Icon, Passes at 69

BY KELLEIGH WELCH, FRANK WELLS AND DAVID GOGGIN

MEMPHIS, TN—The Memphis music community and the recording industry at large was rocked when, just six days after the passing of Ardent co-owner John Hampton, Ardent Studios and label founder John Fry suffered a cardiac arrest and died at age 69 on December 18, 2014. Fry was inducted in November into the Memphis Music Hall of Fame, alongside the band Big Star, which he mentored and produced. While he was a pioneering engineer/producer and a successful businessman, the word “mentor” was the most oft descriptor of Fry. He readily shared his knowledge and experience, and generously aided countless engineers and artists in reaching their full potential.

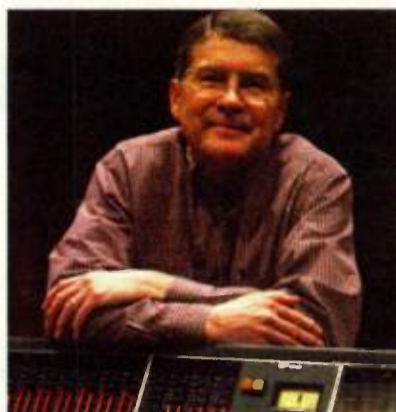
In its coverage of Fry's passing and legacy, Memphis daily, *The Commercial Appeal*, quoted Jody Stephens, Big Star's drummer and an Ardent employee for the past 28 years: “For such a long time, Ardent and John Fry have been beacons to a lot of creative people. He would open the doors to

people wanting to start that adventure. It was a place and John was a person who could help you make your dreams come true.”

Fry served as a SPARS (Society of Professional Audio Recording Services) member beginning in 1982, serving as SPARS president in 1995-96 and Board Chairman in 1996-97. Across his career, he also served as Chairman of the Tennessee Film, Entertainment, and Music Commission; Chairman of the Memphis Film and Music Commission; President and National Trustee of the NARAS Memphis Chapter; and Chairman of the University of Memphis Music Industry Advisory Board. Fry was a current member of the Audio Engineering Society, which he joined in 1965.

Industry chronologist David Goggin shares, “He was a down-to-earth, quiet man who was always a gentleman, always treating others with common decency and honesty. As a recording engineer and studio founder, John Fry's contribution to the music emanating from Memphis to the world is unparalleled and timeless.”

Fry founded the Memphis, TN-based Ardent Studios in 1966. Early



John Fry in 2006.

classics by Sam & Dave, Led Zepelin, Isaac Hayes, Leon Russell and The Staple Singers were all recorded at Ardent. Over his 48-year career, Fry poured his passion for music into producing more than 75 gold and platinum records through the studio with artists including ZZ Top and R.E.M.

The Ardent story began when the teenage Fry built a studio in his family's garage, where he recorded his

first Ardent Records 45s. Eventually, he found a new store building on Memphis' National Street, which he shared with a bookshop.

Ardent became home to young producers and engineers such as Jim Dickinson, Terry Manning, Joe Hardy, John Hampton, Paul Ebersold, and later, many other successful figures who are part of the Ardent family circle, which includes Skidd Mills, Jeff Powell, Jason Latshaw and Pete Matthews.

In 1971, Ardent Studios moved to its present location on Madison Avenue.

In 2011, Fry cited several reasons for his continued success in a business, which had few survivors from the early days. “We're flexible and we've always strived to adapt to the changes in the recording industry,” he said. He is survived foremost by his wife, Betty, and by a legion of friends and admirers.

Ardent Studios  
ardentstudios.com

THERE'S MORE ▶ From the *Pro Sound News* archives, read John Fry's own commentary on the role technology played in Ardent's history. Find it at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015), and get a taste of the tale on page 20.

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# Rap Producer Larry Smith Passes

BY CLIVE YOUNG

NEW YORK, NY—Larry Smith, producer of pioneering rap hits by Run-DMC, Kurtis Blow, Whodini and others, died December 19 at the age of 63. Smith had suffered health complications in recent years after a 2007 stroke left him partially paralyzed and unable to speak, but his early, influential work helped transform rap from a novelty offshoot of disco into one of the most prevalent music genres today.

Born in 1951 in St. Albans, Queens, Smith started out as a touring multi-instrumentalist backing other artists, usually as a bass player, before turning to production, co-producing a number of hits for Kurtis Blow including the classic “The Breaks.” Further efforts producing Jimmy Spicer and “Love Bug” Starski ultimately led to working with fledgling rap trio Run-DMC, which he co-produced with the act’s then-manager, Def Jam co-founder Russell Simmons.

Run-DMC’s debut single, “It’s Like That?”/“Sucker MCs,” ushered in a leaner, meaner sound for hip-hop, eschewing the use of musicians to focus almost exclusively on the lyrics and beat. Smith’s minimalist production gave the tracks an edgy, gritty feel that belied the fact they were made on an equally minimalist budget at the late Greene Street Recording in New York’s SoHo district.

The distinct, aggressive sound was of necessity as they couldn’t afford musicians, though when Smith did add them in, it was to influential effect. Run-DMC’s later work with producer Rick Rubin resulted in the 1986 smash “Walk This Way”—a reworking of Aerosmith’s classic that arguably saved the rock band’s flagging career—but the Rap/Rock template was invented by Smith on the group’s first two albums, *Run-DMC* and *King of Rock*. On them, he had session guitarist Eddie Martinez (Mick Jagger, David Lee Roth, Robert Palmer) wail away on “King of Rock” and “Rock Box.” The latter track was particularly of note as its video became the first rap clip to appear on then AOR-oriented MTV. Smith, who wrote the heavy riff, can be seen in the clip playing bass behind Run-DMC and driving his car, first immortalized in “Sucker MCs” with Run’s couplet, “Larry put me inside his Cadillac/The chauffeur drove off and we never came back.”

Smith moved on to work with Whodini, knocking out a string of hits for the trio, including “Five Minutes of Funk” and the group’s trademark



Larry Smith in the mid-1980s.

“Freaks Come Out At Night.” However, as the Eighties wore on, the musician-less hip-hop sound Smith had helped create went too far for the producer who had come up as a working bass player. As sampling was adopted universally across the genre, Smith found himself uncomfortable with the practice from a moral and creative standpoint, and by the mid-Nineties, had largely dropped out of music production.

Smith’s passing on December 19 came the same day that Run-DMC played its first show in New York City in more than a decade at WBLS’ “Christmas in Brooklyn” concert. From the stage of the Barclays Center arena, Joe “Run” Simmons announced to the crowd, “My man, Larry Smith, he produced these records. It’s sad but fitting he passes away on the day I return to a big stage like this... I love you Larry, I hope you’re watching from Heaven and I’m making you proud.” Darryl McDaniels (“DMC”) opted to pay his respects via social media, tweeting “Rest In Beats, Larry Smith. Music In Your Heart. Hip Hop Was Your Gift to The World! No one does it better!”



## AES/EBU Plugfest A Success

MUNICH, GERMANY—A recent plugfest involving equipment from 10 manufacturers demonstrated interoperability between a number of different implementations of the AES67-2013 networking standard.

The plugfest, held at the Institut für Rundfunktechnik (IRT) in Munich, Germany, was hosted by the AES in cooperation with the European Broadcast Union (EBU). Participating manufacturers included ALC NetworX GmbH, Archwave AG, Axia Audio, Digigram SA, DirectOut GmbH, Georg Neumann GmbH, Lawo AG, Merging Technologies S.A., SOUND4 and Telos Systems Inc.

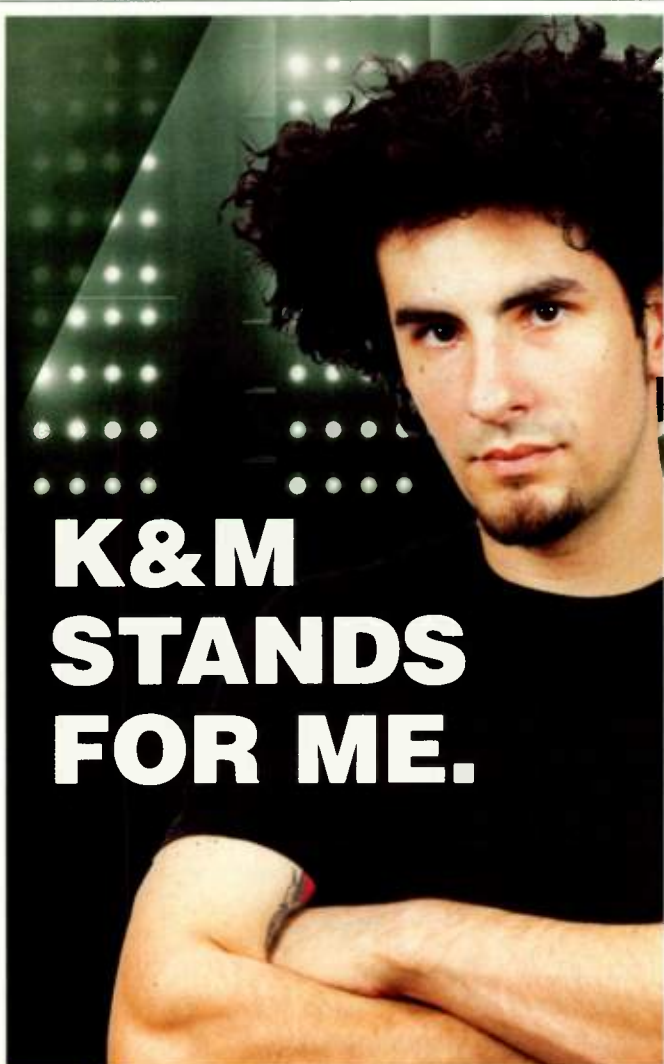
All products tested are currently available networked-audio products with AES67-specific extensions. Implementations varied from software implementations on a PC to hardware-based FPGA solutions. Tests were chosen to demonstrate audio streaming interoperability between each device as a transmitter, and all other units as receivers. All devices were used to test synchronization and primary interoperability.

AES67 is a standard to enable high-perfor-

mance audio-over-IP streaming interoperability between the various IP based audio networking products currently available, such as Dante, Livewire, Q-LAN and RAVENNA. It is not a new technology but a bridging compliance mode common to all IP-Networks. AES67 operates over standard layer 3 Ethernet networks and, as such, is routable and fully scalable, like any common modern IT network. The Media Network Alliance (MNA) has been recently formed to promote adoption and support adopters of the newly ratified standard, through a program of education, marketing, and ongoing technical support for the standard.

According to Stefan Ledergerber, director, R&D, Lawo Group and member of the MNA steering committee, “The Plugfest proved that AES67 is not vaporware; it works. It is the ideal form of making the various existing technologies talk to each other and giving the users the possibility to interconnect a huge variety of equipment, based on open standards.”

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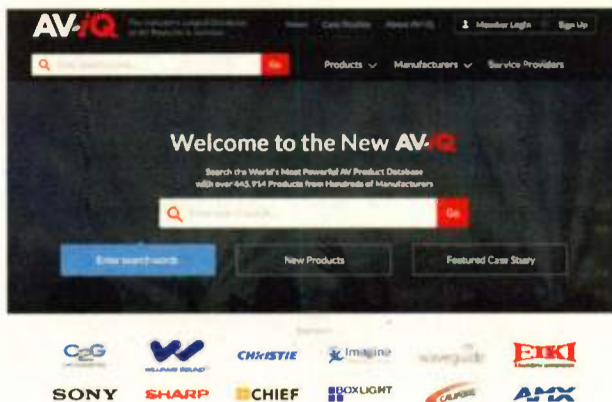
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## AV-iQ Relunched

NEW YORK, NY—NewBay Media has announced the highly anticipated re-launch of AV-iQ, the AV industry's largest and most comprehensive database of AV products and services, now online at [www.av-iq.com](http://www.av-iq.com). The new AV-iQ.com now boasts a significantly improved user interface with more intuitive and visually driven navigation, easier filtering tools, and a responsive design to better accommodate visitors using tablet devices. The company has also launched a series of weekly newsletter designed to



The new AV-iQ website offers an improved user interface with more intuitive and visually driven navigation.

help the AV industry better utilize the newly improved AV-iQ website.

AV-iQ is a comprehensive online resource for the pro-AV industry that includes a database of over 432,000 products from hundreds of manufacturers, all with richly detailed product information, manufacturer and installer case studies that provide detailed examples of real world installations, local service directories, product comparison tools, and much more. It features My-iQ, a personalized, cloud-based industry information resource that allows users to select sources, choose the brands they want to select from, manage project lists, decide when to receive alerts, and search current and historical data by brand, product type, or date.

Users will see the changes immediately upon logging on to [www.av-iq.com](http://www.av-iq.com), where they will be greeted by a completely redesigned user interface and navigation menu that makes it easier than ever to access the more than 430,000 products. The product detail pages have also been redesigned, and the entire site has been crafted to be tablet friendly for the member on the go.

AV-iQ has also introduced a new weekly version of its AV-iQ Announcer newsletter that has been redesigned with a new responsive look that is easy to read on any computer or mobile device. There are four versions of the new AV-iQ Announcer — one for each week of the month that focuses on a different subject important to the AV industry. The scheduled topics are: Week 1—New Product Update; • Week 2—Service Provider Spotlight; Week 3—AV-iQ Updates, learning how to get the most out of AV-iQ; and Week 4—PR Wire Stories with the latest industry news. AV-iQ members will begin receiving the new AV-iQ Announcer later this month. Non-members can sign up for just the newsletters or full AV-iQ membership at [www.av-iq.com](http://www.av-iq.com).

“AV-iQ is a tremendous service for AV integrators, equipment providers, distributors, consulting firms, and end users,” states Adam Goldstein, EVP/Group Publishing Director, NewBay Media. “The goal of the new design and mobile functionality was to make it even easier for users to maximize the vast benefits that AV-iQ provides, and our online and AV-iQ teams have done a stellar job in achieving that goal.”

Free membership to AV-iQ is available, as are several paid plans that provide more benefits to the user. New sponsorship programs are also available.

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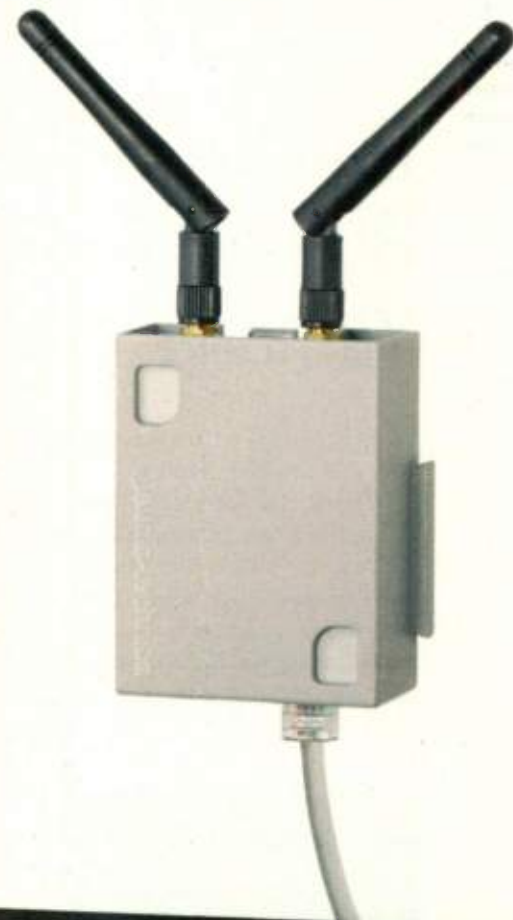
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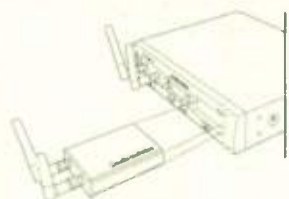


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## Bands Run with Yamaha

REGINA, CANADA—This past fall found Canadian county acts The Road Hammers, Doc Walker, and U.S. act Blackjack Billy sharing the bill on the “Bands On The Run” Tour across Canada. Along for the ride was GV Audio of Regina, Canada, which supplied audio production, including two Yamaha CL5 desks, for the journey.



On the run with a Yamaha CL5 at the FOH position were (l-r): Ian Leary, Tour PM/FOH for Blackjack Billy and Doc Walker; Neil Fenske, monitor engineer; and Scott “Scooter” Findlay, FOH for The Road Hammers and tour system tech.

Ian Leary of GV Audio was production manager/front of house engineer for Blackjack Billy and Doc Walker; Scott “Scooter” Findlay, FOH for The Road Hammers and tour system tech.

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## DPA Captures Rare Kate Bush Shows

LONDON, UK—Known for her lush, emotional pop music, UK songstress Kate Bush returned to the concert stage for the first time in 35 years this past fall, performing a string of 22 sold-out shows in London’s Hammersmith Apollo. Sound reinforcement was supplied by UK audio provider Delta Sound, with Greg Walsh handling sound design and FOH engineering; the late Ian Newton mixing monitors (for more on Newton, see page 42); and engineer Stephen Tayler responsible for processing the singer’s vocals, which were captured via DPA microphones.

Walsh used the shows to try DPA’s handheld d:facto vocal microphone for the first time, using five for the Chorus and two for Bush herself. DPA also created a custom headset mic with a d:facto 4018V capsule for Bush as well.

“Finding a vocal microphone with a dynamic range capable of capturing the broad range of vocal performance and styles was obviously paramount,” Walsh explains, “We tested most of



DPA mics were used for different aspects of Kate Bush’s recent concerts, including filmed segments shot in a water tank at Pinewood Studios.

the available handheld microphones before deciding that the d:facto was the right choice. We opted for the wireless version, which we used with a Shure UHF-R system, and it proved to be very reliable and stable.”

“We also used two DPA d:screet 4060 Microphones for the filmed segments of the show which were shot in a water tank at Pinewood.” Walsh says. “They were small enough to be concealed in a life jacket and were also very resilient to water ingress.”

For the Hammersmith Apollo shows, Walsh specified DPA’s d:vote 4099 instrument microphones for a number of instruments, including percussionist Mino Cinelu’s rig, which included the bougarabou, djembe and floor tom. “Their small profile allowed us greater positioning flexibility and the supercardioid pattern gave us tight focus on the sound source and excellent rejection,” said Walsh.

Walsh also chose a DPA d:dicate 4011 recording microphone as a central focus mic for shakers and other handheld percussion, wireless DPA d:screet 4060 miniature omnidirectional microphones for the accordion and tambourine, and a wireless d:vote 4099 instrument microphone for the djembe in the ‘minstrel’ sections of the show.

**Delta Sound**  
deltasound.uk  
**DPA Microphones**  
dpamicrophones.com

## L-Acoustics Goes to Hell & Heaven

MEXICO CITY, MEXICO—The Corona Hell & Heaven Metal Fest, held in late October at the Autódromo Her-

manos Rodriguez race-track grounds, fielded name metal acts like KISS, Korn, Limp Bizkit, Rob Zombie, Annihilator, Overkill and others on two stages—“Hell” and “Heaven”—all outfitted with L-Acoustics K1 and K2 loudspeakers.

The festival marked the country’s first combined deployment of L-Acoustics’ K1 and K2 systems, requiring the joint effort of two sound-reinforcement providers, Procolor and Serpro.

Procolor Producciones, of Guadalajara, was the first K1 rental network provider in Mexico and has taken its system on tour with numerous artists, including Maná, Ricardo Arjona, Selena Gomez and Marc Antony, while Serpro Producciones, based in Monterrey, was one of the first to deploy K2 south of the border. Together, they designed and assembled the main-stage systems.

“This has been a historical encounter,” exclaimed Alex Soto, owner of Guadalajara-based Soundsoul Productions, who was hired as sound director, sound designer and sys-



Kiss closed out the festival on the Hell stage

tem engineer for the Corona Hell & Heaven Metal Fest. Soto explains that 2 Hands Production Services, based in Mexico City, brought Procolor and Serpro together in order to have as consistent a sound as possible between the two stages. Since part of Procolor’s K1 rig was on tour, Serpro was called in. “Fortunately for us, Serpro’s K2 system—which is the first one in Mexico—recently arrived from France,” he says. “Since K1 and K2 are perfectly compatible, we decided to combine them, which worked fantastically.”

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| Adele               | Chuck Rainey          | Genesis         | Joey DeFrancesco  | Mariah Carey      | Randy Brecker     | Steve Lukather      |
| Adrian Belew        | Cyndi Lauper          | Gino Vannelli   | John Hiatt        | Marillion         | Randy Travis      | Steve Miller        |
| Aerosmith           | Cirque Du Soleil      | Glen Ballard    | John Jorgenson    | Mark Egan         | Rascal Flatts     | Steve Morse         |
| Alice Cooper        | Clint Black           | Godsmack        | John Mayer        | Mark Knopfler     | R H Chili Peppers | Steve Stevens       |
| Alicia Keys         | Coldplay              | Gomez           | John Patitucci    | Mark Tremonti     | Rick Wakeman      | Steve Vai           |
| Alison Krauss       | Colin James           | Goo Goo Dolls   | John Petrucci     | Maroon 5          | Rickie Lee Jones  | Steve Winwood       |
| Alter Bridge        | The Corrs             | Good Charlotte  | John Rzeznik      | Marty Stuart      | Ricky Skaggs      | The Stills          |
| America             | Creed                 | Gov't Mule      | Josh Groban       | Matchbox 20       | Rihanna           | Sting               |
| American Idol       | Crosby, Stills & Nash | Grand Ole Opry  | Journey           | Meatloaf          | Ringo Starr       | Stone Temple Pilots |
| Ani DiFranco        | Crowded House         | Green Day       | Juanes            | Megadeth          | Robert Plant      | Styx                |
| Animal Collective   | Damien Rice           | Gregg Allman    | Justin Timberlake | Melissa Etheridge | Robert Randolph   | Sum 41              |
| Annihilator         | Dandy Warhols         | Guns N' Roses   | Kaiser Chiefs     | Metallica         | Rod Stewart       | System of a Down    |
| Audioslave          | Daniel Lanois         | Gwen Stefani    | Kanye West        | Michael Bubl      | Roger Waters      | Taylor Swift        |
| Avenged Sevenfold   | Dave Matthews         | Hall & Oates    | Kasabian          | M tley Cr e       | Rolling Stones    | The Black Keys      |
| Barbra Streisand    | Deadmau5              | Herbie Hancock  | Katy Perry        | Mot rhead         | Rush              | the National        |
| Barenaked Ladies    | The Decemberists      | Hoobastank      | k.d.Lang          | Mumford & Sons    | Ryan Adams        | Three Doors Down    |
| The Beach Boys      | Def Leppard           | House of Blues  | Keb' Mo'          | Muse              | Sam Roberts       | Timbaland           |
| Beastie Boys        | Derek Trucks          | Hunter Hayes    | Keith Urban       | Nathan East       | Sammy Hagar       | Tom Waits           |
| Beck                | Destiny's Child       | INXS            | Kellie Pickler    | the National      | Santana           | Tommy Emmanuel      |
| B la Fleck          | Devin Townsend        | Imagine Dragons | Kenny Chesney     | Neil Young        | Sarah McLachlan   | Tommy Lee           |
| Bette Midler        | Diana Krall           | Iron Maiden     | Kenny Loggins     | Nelly Furtado     | Seal              | Tony Bennett        |
| Billy Idol          | Dimmu Borgir          | James Taylor    | The Killers       | Nickelback        | Sevendust         | Tony Levin          |
| Billy Joel          | Disney                | Jamie Cullum    | Kings of Leon     | Nine Inch Nails   | Shakira           | Tony Maserati       |
| Billy Ray Cyrus     | Dixie Chicks          | Jamiroquai      | Kitaro            | Oak Ridge Boys    | Shania Twain      | Toots & The Maytals |
| Billy Sheehan       | Dolly Parton          | Janet Jackson   | Korn              | One Direction     | Sheryl Crow       | Tragically Hip      |
| Bj rk               | Doobie Brothers       | Jars of Clay    | KT Tunstall       | OneRepublic       | Shinedown         | U2                  |
| The Black Crowes    | Doves                 | Jason Mraz      | Lady Antebellum   | Pat Metheny       | Sigur R s         | Usher               |
| The Black Eyed Peas | Dream Theater         | Jeff Beck       | Lady Gaga         | Paul McCartney    | Skunk Anansie     | Van Halen           |
| The Black Keys      | Duran Duran           | Jennifer Lopez  | Lamb of God       | Paul Simon        | Slash             | Victor Wooten       |
| Blake Shelton       | Dwight Yoakam         | Jerry Douglas   | LeAnn Rimes       | Peter Dinklage    | Slayer            | Vince Gill          |
| Bob Dylan           | The Eagles            | Jethro Tull     | Lenny Kravitz     | Pink Floyd        | Sleigh Bells      | Weezer              |
| Bon Jovi            | Econoline Crush       | Jewel           | Leo Kottke        | Placebo           | Slipknot          | The White Stripes   |
| Bonnie Raitt        | Elton John            | Jimmy Buffett   | Leonard Cohen     | The Police        | Snow Patrol       | The Who             |
| Bootsy Collins      | Eminem                | Joe Bonamassa   | Linkin Park       | Porcupine Tree    | Sonic Youth       | Will I Am           |
| Boston Pops         | Emmylou Harris        | Joe Chiccarelli | Lucinda Williams  | Prince            | Soundgarden       | Wyclef Jean         |
| Brad Paisley        | Enrique Iglesias      | Joe Jackson     | Lyle Lovett       | The Prodigy       | Spice Girls       | Xavier Rudd         |
| Bruce Hornsby       | Eric Clapton          | Joe Nichols     | Macy Gray         | Queensr che       | Steely Dan        | Yellowjackets       |
| Bruce Springsteen   | Eric Johnson          | Joe Satriani    | Manowar           | Radiohead         | Stereophonics     | Zac Brown           |
| Bruno Mars          | Erykah Badu           |                 |                   |                   |                   |                     |
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| Buddy Guy           | Extreme               |                 |                   |                   |                   |                     |
| Butch Walker        | Faith Hill            |                 |                   |                   |                   |                     |
| Cannibal Corpse     | The Flecktones        |                 |                   |                   |                   |                     |
| Casting Crowns      | Fleetwood Mac         |                 |                   |                   |                   |                     |
| CeCe Winans         | Flogging Molly        |                 |                   |                   |                   |                     |
| Celine Dion         | Florida Georgia Line  |                 |                   |                   |                   |                     |
| Cheap Trick         | Foo Fighters          |                 |                   |                   |                   |                     |
| Chicago             | Foreigner             |                 |                   |                   |                   |                     |
| Chick Corea         | Frank Filipetti       |                 |                   |                   |                   |                     |
| Chayanne            | Franz Ferdinand       |                 |                   |                   |                   |                     |
| Chris Cornell       | Garbage               |                 |                   |                   |                   |                     |

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## From The Pro Sound News Blog:

### 40 YEARS OF GEAR

Ardent Studios and label founder John Fry passed away in December (see page 12). Back in February, 2007, Fry wrote a thoughtful article for Pro Sound News on the role technology played in his innovative studio's history. In memoriam, we share his insights here again:

It's been a wild ride from mono recorders to an almost limitless number of virtual tracks, from vacuum tubes to integrated circuits of amazing complexity, from no computers at all to affordable high-performance computers that offer better value for money with each passing year. I never dreamed in the 1950s and 60s that I would see most of these things in my lifetime, but I do remember that when I saw my first VCA in our 1960s Moog synthesizer, and I figured out what it did, I thought "You know, if you had some way to control that thing, you could make an automated console." It also never occurred to me that we would have tube outboard devices, a Mellotron, and many microphones from the 60s operating alongside modern equipment in 2006.

As helpful as today's technology may be, it is interesting to note that the recording format for the last two projects we mixed for Jack White (The White Stripes, *Get Behind Me Satan*, 2005 Grammy Winner, and The Raconteurs, *Broken Boy Soldiers*, two Grammy nominations for 2006) was 8-track, one-inch analog tape.

For the full post, visit [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).



## sweet tweet links

Pro Sound News brings you pro audio news every weekday on [prosoundnetwork.com](http://prosoundnetwork.com), Twitter (@[prosoundnews](https://twitter.com/prosoundnews)) and Facebook ([facebook.com/ProSoundNews](https://facebook.com/ProSoundNews))—but we also use social media to share links to interesting mainstream audio news. Here's a few stories we recently shared on Twitter; get their links at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).

- ▶ Trevor Horn is expanding SARM Studios with a hotel, live space and offices, among other business model supports.
- ▶ After two years, a MN town has approved a studio to be built on a local island—with a laundry list of conditions.
- ▶ Milwaukee's Howl Street Recordings finds new home after landlord sells previous building without notice.
- ▶ Producer/engineer Mickey Jack Cones talks Aldean, Crüe and the value of being able to sing to your vocalist.
- ▶ Artist Trevor Jackson's next album will be 12 tracks in 12 formats, from 7" to DAT to minidisc to USB to VHS.



## BLOGGINGS

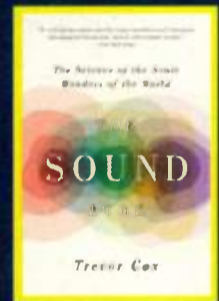
### IS THE VINYL REVIVAL NO LONGER A FAD?

Left for dead in the early Nineties as consumers switched to CDs, the lowly vinyl LP has bounced back in recent times, adopted by many Millennials and hipsters as the only format worth listening to. Consumers bought 9.2 million vinyl records in 2014—a 52 percent increase over 2013's 6.1 million. In the wake of such growth, is the Vinyl Revival finally no longer a fad?



### BOOK REVIEW: THE SOUND BOOK

Trevor Cox's new tome follows the author around the globe as he travels in search of the world's strangest sounds. It's a pretty unusual journey, too; the prologue finds Cox, an insatiably curious professor of acoustic engineering, splashing about in a nauseating London sewer where a hand-clap echos back after nine seconds, having traveled 1.9 miles in the process. Before long, he's deep inside a Scottish oil storage complex built to hold 38 million gallons, which, he discovers after careful measurement, is the most reverberant place in the world, possessing a monstrous reverberation time of 112 seconds at 125 Hz.



Find these blog posts at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).



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### NoMoon Spherical Speaker Generator

It's only 10 months until *Star Wars, Episode VII: The Force Awakens* comes out. Maybe The Force gets woken up by these Death Star speakers Rich Olson created on a Makerbot 3D printer, generating them in NoMoon, a parametric spherical speaker



generator he wrote for OpenSCAD. NoMoon formulates

spherical speaker enclosures of any volume, letting users configure wall thickness, bass port dimensions, number of screw holes and more. They probably won't replace your NS-10s, but they sure look fun to make. Catch the clip and get more info at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).

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WRH

## MSR Studio Renovates for the Future

BY STEVE HARVEY

NEW YORK, NY—To paraphrase Mark Twain's oft-misquoted comment, reports of Right Track's demise are greatly exaggerated. In fact, while the name may no longer be on the door buzzer at the facility's Times Square-adjacent entrance, the rooms never stopped working and, now operating as MSR Studios, are as busy as ever.

To be fair, Right Track did go through some changes during its 30-plus-year lifetime. Established by the late Simon Andrews in 1976, it moved to its present West 48th Street location about five years later. The facility had grown to three rooms by 1990, with design assistance from in-house engineer and producer Frank Filipetti, hired in 1980, and attracted the likes of the Rolling Stones, Whit-



Keeping MSR on the Right Track these days are (l-r): David Amlen, owner; Scott Kubrin, studio manager; and Bradshaw Leigh, chief engineer.

ney Houston, James Taylor, Foreigner and others. In 2001, it expanded to include Studio A509 near the Javits Center, then got into financial trouble and merged with Sound on Sound, owned by David Amlen, in 2005, changing its name to Legacy

Recording Studios the following year. A509 closed in 2008—like Sony Studios and The Hit Factory, a victim of Manhattan's real estate boom—and Amlen became the sole owner in 2009, renaming it MSR Studios.

More recently, Amlen has appoint-

ed a new studio manager, Scott Kubrin, who has been running studios since 1993: Donald Fagen and Gary Katz's River Sound; a stint in Atlanta with Brendan O'Brien; New York's Battery Studios; and seven years

(continued on page 26)

## Engineers Think Global, Master Local

BY STEVE HARVEY

LOS ANGELES, CA—The digital revolution in music production has created a truly global market, where audio files can be sent around the world in a matter of minutes, if not seconds. Mastering engineers have certainly benefitted from this transition, attracting clients from all corners of the globe, but that creates certain challenges, particularly regarding communication.

Maor Appelbaum, a native of Israel, has a mastering facility in Los Angeles and deals with clients worldwide on a daily basis, he says. "If we look at the demographics, a lot of my clients are in Europe, in Germany, Spain, Italy, Switzerland and Britain. I was just now on Skype with a client from France. A lot of clients are from Scandinavia—Sweden, Denmark, Finland, Norway. South America is also a big client—Brazil, Argentina, Colombia, Ecuador—and North America—Canada and the U.S."

English may not be the first language for many of Appelbaum's clients. Plus, he says, "There is a language barrier even if they know



The internet has opened up an international marketplace for mastering services, according to Maor Appelbaum of Maor Appelbaum Mastering.

the language. There are things that might get lost in translation."

Further, he says, "Each country, each place in the world, has its own mentality and way of communicating. Some people like to communicate by email only; some like to communicate by phone or by Skype."

Communication challenges aren't limited to the mastering process. These days, even albums are produced through collaborative file-exchange. "I've worked on projects where the band has never been in the same place together, but everyone was sending files from one place

to another," he reports. "Some of them were basically done with a hub, one place that gathered all the files and mixed them."

It doesn't help that the English language is not particularly useful for describing sound, typically bor-

(continued on page 27)

# Sound Investment.



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## Berklee's Massive Mass. Ave Project Houses Studios and Students in the Heart of Boston

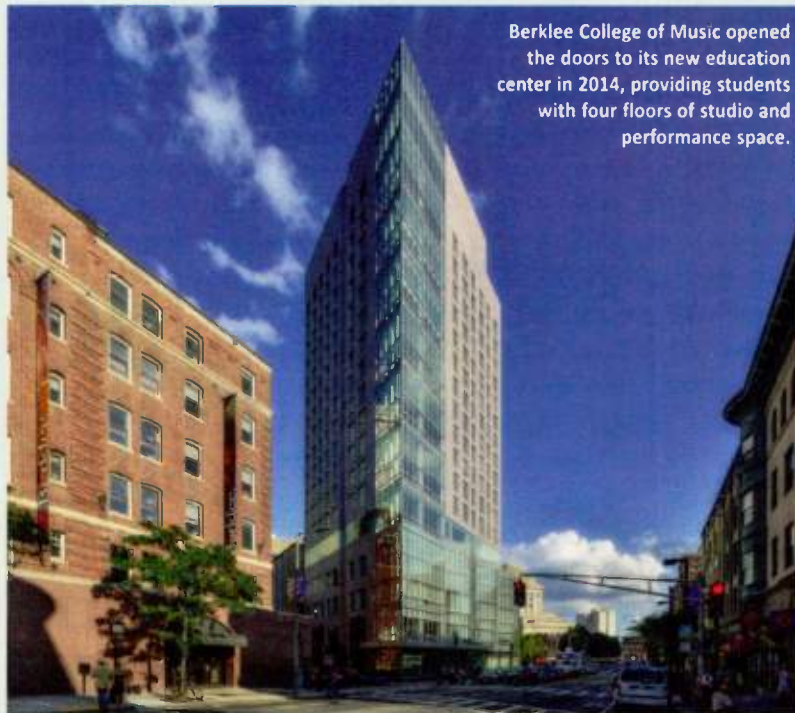
BY KELLEIGH WELCH

BOSTON, MA—When it comes to designing a new building in the heart of Boston, fitting everything you need into a small footprint can be a challenge. That was the case for Berklee College of Music and Walters-Storyk Design Group when they developed the new educational compound at 160 Massachusetts Avenue, which opened its doors in the summer of 2014. “Our biggest challenge with this project was definitely the layout,” explained John Storyk, principal, WSDG. “It was like figuring out how to fit 120 pounds into a 100-pound sack.”

Berklee's new complex is easily the biggest construction project the school has done, resulting in a 16-story, 155,000-square-foot building designed by William Rawn Associates. The complex houses four floors of studio space, along with student residence halls.

Originally, the site was conceived as a student-dining hall, but seeing the potential for a live performance venue, Berklee administrators hired WSDG to help with the studio design, acoustic treatment and overall connectivity to the multiple control rooms inside. “Berklee had been in need of more studios for a long time,” Storyk said. “The school's programs have grown exponentially over the years, and couldn't accommodate the growing number of students, both in terms of residential and studio space.” The school also lacked a large live room for orchestra recording and rehearsal, despite its reputable orchestra programs. “Now, there are nine studios that students never had access to before.”

The complex is separated into four sections: the Café, which can host small, live student performances; Level A, located one story below the Café, with two recording studio spaces with their own control room and iso booths, plus one of two Central Machine Rooms (CMRs); and Level B, directly below Level A, with the second of the two CMRs, and a studio space with control room and iso booth, a Mastering/Critical Listening Lab space, Dolby Atmos Dubbing Stage and a Production Control Suite. On the fourth floor are practice rooms for



Berklee College of Music opened the doors to its new education center in 2014, providing students with four floors of studio and performance space.

ensembles and individual projects.

“Even though it's had plenty of orchestral music teaching, Berklee never had a studio that could record more than 30 musicians at a time. Now it can host a full orchestra in Studio 1,” said Storyk.

Designing the complex had its minor hiccups along the way, of course, Storyk added. “In the original planning of the studio spaces, the geology review concluded that

es—teachers, administrators and others—contributing to that list. “These studios are used by the electronic music department, the recording and engineering wing, film scoring and others. They all need access to those studios, so there were a lot of voices weighing in on how the rooms should feel. The challenge was to listen to everybody,” Storyk said.

Level A houses two large recording spaces—Studio 1 includes a 1,300-square-foot live room that can accommodate up to 50 musicians, its own 600-square-foot control room that can hold up to 16 students, and two oversized iso rooms. Studio B was designed for smaller ensemble recordings and sports both a 360-square-foot control room and one iso booth.

Level B includes five independent suites created for small ensemble recordings, plus the 1,100-square-foot Studio 3, which is made up of a 600-square-foot live room, a 320-square-foot control room and a 140-square-foot iso booth.

Also on Level B is a Mastering/Critical Listening Lab, which provides classes of up to 12 students

with a tuned room to provide a listening experience that would be difficult to match in the real world.

Another signature room in the complex is Level B's 700-square-foot Dolby Atmos Dubbing Stage, which features two 150-square-foot iso booths and a 120-square-foot overdub booth. Another 1,400-square-foot Production Control Suite houses four smaller control rooms for a more isolated work site.

Finally, the fourth floor provides three ensemble practice rooms and an additional 20 individual practice rooms to accommodate a variety of rehearsal configurations.

Beyond designing the studio spaces in the new education complex, a key element of WSDG's role was to create a comprehensive connectivity center, capable of networking all the studio spaces and the Café. Because of the sheer size of the complex, WSDG built two Central Machine Rooms with distribution split between the two fully integrated rooms. Systems Design & Integration Specialist Judy Elliott-Brown was tasked with designing and implementing the system, which entailed routing 100,000-plus feet of analog audio, video, Cat 6 and speaker wire with over 30,000 connections throughout the entire complex.

Since its opening this past summer, Storyk said the new complex has seen considerable activity, with students regularly using the new studio spaces in a range of recording projects.

“Berklee had an ambitious and far ranging vision for the future needs of its students,” Storyk said. “We were extremely pleased to have had the opportunity to help them realize their goal. We worked on the project for over three years and it was one of the most gratifying projects in WSDG's history.”

Berklee College of Music  
www.berklee.edu

Walters-Storyk Design Group  
www.wsdg.com



Berklee's Control Room 3 offers students a chance to record and mix in a fully-equipped studio setting.

we could only go down 45 feet before we'd have water and cable issues. We had to decide whether to have three floors or two floors with higher ceilings—we went with the second option.”

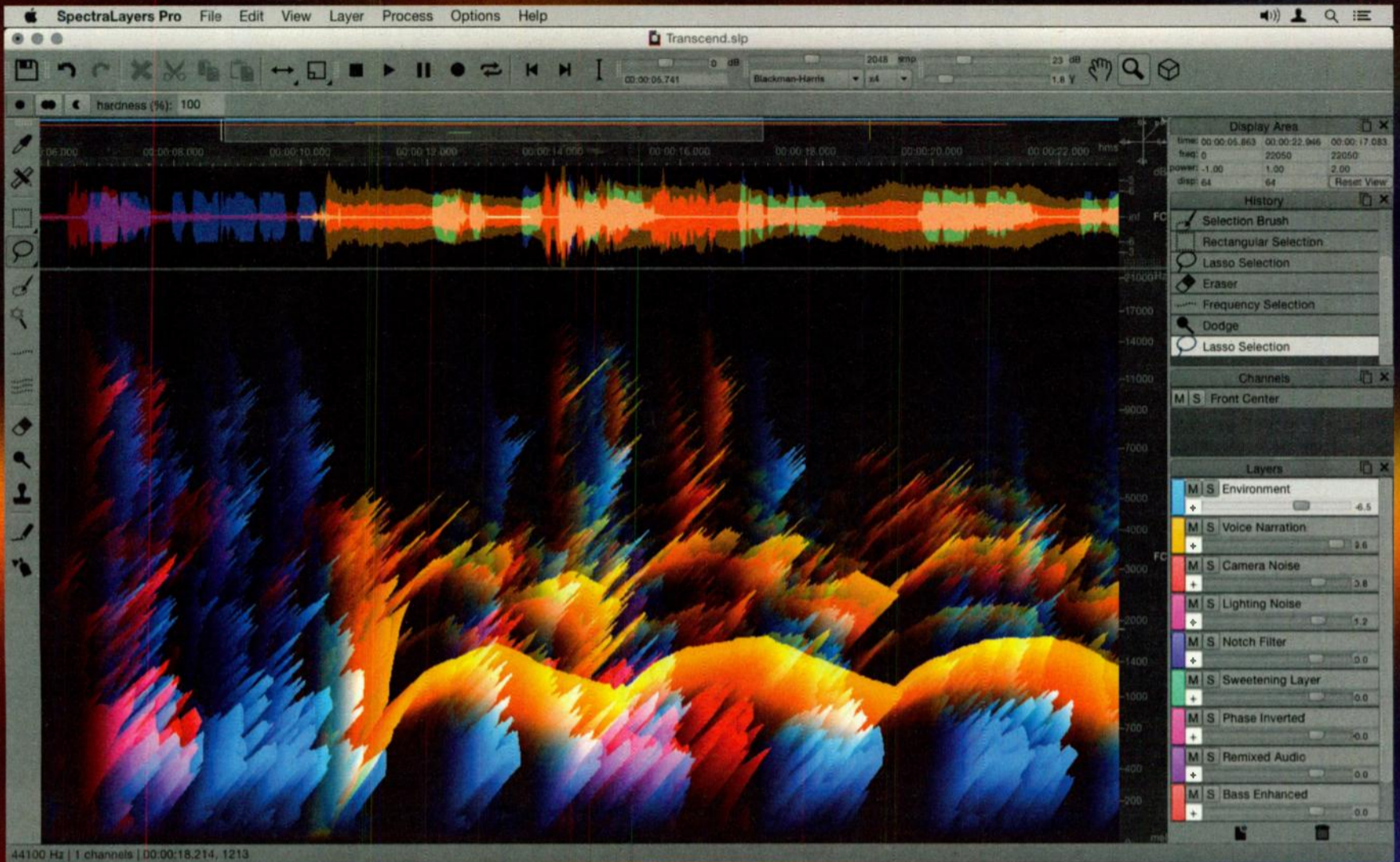
Access to new technology was also key in the planning process, Storyk said. “Berklee really needed to get some new technology and build studios with a fresh look and acoustic design,” he explained. But when it came to choosing specific gear for each room, there were a lot of voic-

STUDIO: 160 MASS. AVE. OWNER: BERKLEE COLLEGE OF MUSIC LOCATION: BOSTON, MA

There's more ▶ Get a student-produced video tour of the new 160 Mass Ave. Building at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).







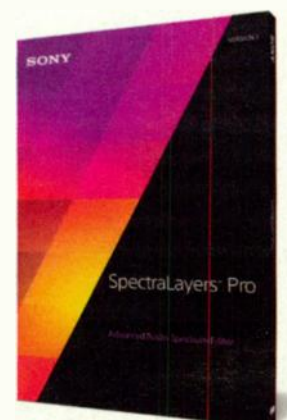
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## MSR Studios

(continued from page 22)

at South Beach Studios with Tom Lord-Alge, then seven years at Lenny Kravitz's Setai Recording, both in Miami.

"Scott came in with a fresh perspective, which you sometimes need. He said, 'This place could use a

touch up.' A lot of clients hear with their eyes," laughs Amlen. A lick of paint and some new carpet and MSR is once again ready to welcome clients.

Kubrin, who would see Pharrell Williams come in one week, Lady Gaga the next, followed by Justin Bieber then Jay-Z, while in Miami, is helping Amlen to tap into that same clientele. Meanwhile, Broadway cast recordings frequently book time in

two rooms at a time. A509, with its 4,600-square-foot live room and five large iso booths, was previously the go-to facility for Broadway shows and movies. "So we had to get creative here," says Amlen.

The solution was to use MSR's A and B rooms. Studio A, outfitted with a 72-input SSL 9000 J and racks of outboard gear, offers a spacious, brick-walled tracking space and four iso booths. Down the hallway, Studio

B houses a Euphonix System 5 and yet more outboard.

"But how do you do it when you have a room that's a little less than half the size [of A509], and another room adjacent to it that's maybe half the size of the first room? You've got all these iso booths, big control rooms; how do you make it work?" Amlen continues.

"We put in a huge amount of tielines, audio and video control, intercoms. We have full audio control, split-screen video of both rooms. It's quite an intricate thing. We've adapted and our Broadway clientele have embraced it."

"My first Broadway session was no different than any other session, just about a hundred times more moving parts," says Kubrin. "I never once handled a session where we took two rooms and locked them together, with 100 people in here. But it went great."

Studio C, with its 21-foot ceiling, offers an identical SSL console to A. While within the same complex, it is actually on Seventh Avenue. "I said to Dave, why don't we turn this place into three one-room facilities?" says Kubrin. "So you can be totally isolated here; it has a private entrance and elevator."

"As far as the gear goes, one of the great advantages we have is these three different rooms," comments Bradshaw Leigh, the facility's longtime chief engineer. "The reason we can survive is that they appeal to three completely different clientele. In the Euphonix room, you get the high-end jazz guys like Joe Frollo doing purist things, and Todd Whitelock scoring. They can mix a 250-channel film score to 48 stems. In C, you've got banging mains, and that keeps high profile R&B, hip-hop and pop stars happy. And in A, you've got the big room. So there's a certain diversity just in the layout of the rooms and the gear."

Amlen agrees: "We've had incredible success." For example, D'Angelo recently wrapped a six-year session at the facility. "He actually started it in 2000. It just got a great review in the *New York Times*. And every year, we look at the Grammy and Tony award nominations and say—did it, did it, did it."

Clients may be unfamiliar with the name, but once inside, they certainly recognize the studio. "Randy Jackson was in for the *American Idol* final last year. Aretha Franklin was live in Studio A, hooked up via satellite. Randy said, 'I didn't know you guys were still around. I did a lot of records here back in the day.' We're still here!"

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## Global Mastering

(continued from page 22)

rowing from the other senses: bright/dark, warm/cold, dry/wet. Plus, sound is subjective: "It's not uncommon for someone to say to me, 'I want a dynamic; could you make it really loud and slamming?' Or, 'Could you make it really warm and vintage-sounding?' But there are always going to be misconceptions about what that means, unless you put everybody in the same room, play them sounds and say, this is warm, this is bright, this is open, this is lush. Unless you get a consensus, it's always going to be hard to decipher what they mean."

Whatever his clients want, Appelbaum can deliver. "I've been adding a lot of gear," he reports. "I've installed a Maselec MTC-1X console, upgraded my Weiss EQ to add dynamics and linear phase, added options to the TC System 6000, added JCF Audio, Dave Hill-designed Titan and Benchmark converters, and a Mutec clock. I have a new pair of Neumann KH310 three-way speakers; those are my near fields now," he reports. Appelbaum's main monitors are PMC IB1s driven by a Bryston 4B SST2.

It helps that Appelbaum has built up a good working knowledge of the global music markets over the years. "If it's a band from a certain territory that is known for certain styles, you've got to know about those styles. If you know the styles and what they're part of, the communication is much more fluent. I think it creates a better connection, and if there's a need for changes, it's easier for them to convey their ideas to you."

Appelbaum's client list just from the past year is extensive and eclectic, including a lot of English-language artists. Most recently, he mastered CD and DVD versions of *Like It Is: Yes Live at the Bristol Hippodrome*, featuring the prog rockers performing *Going for the One* and *The Yes Album*. He mastered the comeback single from Faith No More, a limited-edition vinyl release.

"Some albums were very successful," he says. "One is by a band called Starset, mixed by Ben Grosse; that's very high on the rock and heavy rock charts." Other jobs have included Ill Nino's *Til Death*, *La Familia* album; Limp Bizkit's single, "Endless Slaughter," projects by Butcher Babies, (Hed) Pe, Eric Gales and Norwegian band Mayhem; a single by Pepper featuring New Beat Fund, mixed by Matt Wallace; Archer, produced by Mike Clink; and an all-star Randy Rhoads tribute album.

There are numerous file-transfer services available, web-based and ftp,

says Appelbaum, and he's tried many of them. Even though many services send an email notification that the files have been downloaded, don't assume anything, he says, and check with the recipient.

"I like WeTransfer—it's two gigs if you just use the free version, and the cool thing is that you don't have to register. After I send files, I usually copy and paste the link in an email to the client in case the link got sent to the spam filter."

As for communication methods, "I'll use all platforms, but I always prefer it if I can talk with a client. I like Skype because I can send attachments while I'm on there, and also call a phone. I know a lot of people say the best way to reach them is email, but it's not really the best. People assume that if they've sent you a message you're going to see it, but you shouldn't assume that."

Maor Appelbaum Mastering  
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THERE'S MORE ▲ Catch an extract from the new live Yes DVD, mastered by Maor Appelbaum, at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).

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**ARTIST:** DISCIPLES OF BABYLON

**ALBUM:** WELCOME TO BABYLON

**LABEL:** SYMBIOTIC

**PERSONNEL:**

**Produced by:** Andres Torres

**Engineered by:** Adrian Trujillo, Andres Torres

**Studios:** Sound Factory (Hollywood, CA)

**Mastered by:** Joe LaPorta at Sterling Sound (New York, NY)

**EQUIPMENT NOTES:** API console; Avid Pro Tools HD|3 Accel; Yamaha NS-10 studio monitors



**ARTIST:** WYATT

**ALBUM:** HERE COMES EVERYBODY

**LABEL:** ASCAP/ HURRICANE SQUIRREL

**PERSONNEL:**

**Produced by:** Matthew Maroulakos, Grant Zubritsky

**Engineered by:** Dave Robertson

**Studios:** The Den (Woodland Park, NJ); Dangly Studios (Brooklyn, NY)

**Mastered by:** Hans DeKline at Sound Bites Dog (Los Angeles, CA)

**EQUIPMENT NOTES:** API 3124 console; Apogee Ensemble; Avid Pro Tools 10; Focal Solo6 Be, JBL 4410, Yamaha HS5 studio monitors



**ARTIST:** MARCUS GOLDHABER

**ALBUM:** A LOVELY WAY TO SPEND AN EVENING

**LABEL:** FALLEN APPLE

**PERSONNEL:**

**Produced by:** Marcello Pellittieri, Marcus

Goldhaber, Billy Jay Stein  
**Engineered by:** Robert Smith, Michael Brorby, Billy Jay Stein

**Studios:** Avatar, Strange Cranium (New York, NY); Acoustic Recording (Brooklyn, NY)

**Mastered by:** Randy Merrill at Sterling Sound (New York, NY)

**EQUIPMENT NOTES:**

Neve 8088 console; Avid Pro Tools; Altec 'Big Red,' Yamaha NS-10M, NS-10MS, Genelec 1031AP studio monitors



**ARTIST:** PAT O'KEEFE

**ALBUM:** CONTENTS MAY DIFFER

**LABEL:** INNOVA

**PERSONNEL:**

**Produced by:** Scott Miller

**Engineered by:** Matthew Zimmerman, Steve Kaul

**Studios:** Wild Sound (Minneapolis, MN)

**Mastered by:** Greg Reiersen at Rare Form Mastering (Minneapolis, MN)

**EQUIPMENT NOTES:** SSL AWS 900+ console; Digidesign 192 IO; Westlake BBS M10, Yamaha NS-10M, Auratone studio monitors



**ARTIST:** HAPPY FANGS

**ALBUM:** CAPRICORN

**LABEL:** SELF-RELEASED

**PERSONNEL:**

**Produced by:** Lance Jackman, Happy Fangs

**Engineered by:** Lance Jackman

**Studios:** The Dock, The Treehouse (Sacramento, CA)

**Mastered By:** Carl Saff at Saff Mastering (Chicago, IL)

**EQUIPMENT NOTES:**

Daking Class A and Trident A Range; Avid Pro Tools; SpectraSonics Sidecar; Adam studio monitors



**ARTIST:** THE HARPOONIST & THE AXE MURDERER

**ALBUM:** A REAL FINE MESS

**LABEL:** TONIC

**PERSONNEL:**

**Produced by:** Matthew Rogers, Shawn Hall, John Raham

**Engineered by:** Matthew Rogers, John Raham, Erik Neilsen

**Studios:** Afterlife, Neighbourhood (Vancouver, Canada)

**Mastered by:** Harris Newman at Grey Market Mastering (Montreal, Canada)

**EQUIPMENT NOTES:** Ampex 24-track recorder; Scully 4-Track recorder; Neve True Tape recorder; Avid Pro Tools; Focal CMS 65 studio monitors



**ARTIST:** ALANNA ROYALE

**ALBUM:** ACHILLES

**LABEL:** SELF-RELEASED

**PERSONNEL:**

**Produced/Engineered by:** Andrija Tokic

**Studios:** The Bomshelter (Nashville, TN)

**Mastered by:** Paul Gold at Salt Mastering (Brooklyn, NY); John Baldwin at John Baldwin Mastering (Nashville, TN)

**EQUIPMENT NOTES:** MCI JH636 console; MCI JH16, JH110b recorders; Altec 9842-8D, Yamaha NS-10 studio monitors



**ARTIST:** WE ARE THE WILLOWS

**ALBUM:** PICTURE (PORTRAIT)

**LABEL:** THE HOMESTEAD

**PERSONNEL:**

**Produced by:** Jeremiah

Satterthwaite, Peter Miller

**Engineered by:** Jeremiah Satterthwaite

**Assistant Engineer:** Peter Miller

**Studios:** First Lutheran Church of Columbia Heights (Columbia Heights, MN), The Homestead (Minneapolis, MN)

**Mastered by:** Zach Hanson at April Base (Fall Creek, WI)

**EQUIPMENT NOTES:** PreSonus Firestudio Project; Apple Logic Pro 9; Tascam DR-40 handheld recorder; Samson R5a, M-Audio AV40 studio monitors



**ARTIST:** BEND SINISTER

**ALBUM:** ANIMALS

**LABEL:** FILE UNDER: MUSIC

**PERSONNEL:**

**Produced by:** Joe Marlett

**Engineered by:** Chris Lewis

**Assistant Engineer:** Raw Power

**Studios:** Signature Sound (San Diego, CA)

**Mastered by:** CPS Mastering (Vancouver, Canada)

**EQUIPMENT NOTES:** API 1608 console; Avid Pro Tools 10; KRK 9000B studio monitors



**ARTIST:** THE BOSTON BOYS

**ALBUM:** IDEA OF LOVE

**LABEL:** INDEPENDENT

**PERSONNEL:**

**Produced by:** The Boston Boys

**Engineered by:** Damien Lewis

**Studios:** Zoo Labs (Oakland, CA)

**Mastered by:** Brian Lucey at Magic Garden Mastering (Los Angeles, CA)

**EQUIPMENT NOTES:** SSL Duality console; Yamaha NS-10 studio monitor

## Bush Plugs Into DiGiGrid

TEL AVIV, ISRAEL—Engineer and producer Billy Bush, known for his production and engineering work with Garbage, Jake Bugg, The Naked and Famous, Neon Trees and others, has added the DiGiGrid DLS (waves.com) audio interface to his Mac Pro and Pro Tools|HDX2 system for its networking and processing capabilities.

## Gould Has Faith In SSL

OAKLAND, CA—Faith No More's bassist and songwriter Billy Gould used his personal SSL (solidstatelogic.com) Matrix to streamline the recording process of the band's new album, which he produced, particularly during the tracking phase. Slated for a 2015 release on Koclarrow Records, the album is the band's first for 17 years.

## Switalski Gets Hapi In Mexico

MEXICO CITY, MEXICO—Juan Switalski's Merging Technologies (merging.com) Hapi networked audio interface, the first delivered to Mexico, arrived in time for three recording sessions featuring music from Mexican composers. Hapi's Delay function enabled Switalski to time-align the 24 orchestra mics with levels controlled remotely from Pyramix via RAVENNA.

## Garay Augments With ATC

TOPANGA CANYON, CA—Grammy Award-winning producer/engineer Val Garay has installed a pair of ATC (atc.gb.net) SCM20PSL Pro monitors, paired with a Phase Linear 700B amp, in The Barn Studio, his current recording facility, where they augment a pair of Bryston 4BST-powered vintage Tannoy SGM10Bs mains and customized Yamaha NS-10 near fields.

# Auto-Tune: The Controversy That Will Not Die

BY CRAIG ANDERTON

Auto-Tune hit the world in 1997, and Antares has continued to update its software since then. With version 8 now adding a portfolio of real-time features, the controversy about pitch correction—which has not abated over the years—is sure to get another boost. Nor is Antares alone; Celemony's Melodyne has a devoted following, and you can find pitch correction in programs from companies like Waves and iZotope, as well as embedded in mainstream DAWs.

It's gotten to the point where it's chic to say you don't use pitch correction, but the reality is it's pervasive—and there's much more to the story than whether it's "good" or "bad."

Why are people who add compression, EQ, reverb, delay and other processing—and also use punching and comping on vocals—so adamantly opposed to pitch correction? The process seems different because it changes the vocal itself, rather than adding an effect or edit to an existing vocal. However, level and phrasing are just as important to vocals, with the former covered by compression and the latter by cutting and moving words or phrases, either manually or with quantization. You can argue that all of these substitute for technical ability.

Overall, there are four main reasons why pitch correction has become a target:

- It's been overused as an effect. It was cool when Cher did it

more than 15 years ago; the "hard correct" effect wasn't so cool after the 10,455th time it graced the airwaves. Any novelty sound that overstays the 15 minutes of fame to which it's entitled will receive push-back.

- Pitch correction is a victim of its own success. It's possible to add pitch correction so transparently now one can tell it's being used—but then it doesn't get credit for being



Antares' Auto-Tune 8

transparent.

- It's easy to get lazy and apply pitch correction so that it's obvious. If a singer is so out of tune that fixing the pitch creates obvious artifacts, then the singer needs to punch in or redo the vocal. A related complaint is that pitch correction takes the human qualities out of vocals, but pitch correction should be done manually and judiciously—who would want B. B. King's note bends to be quantized to perfect pitch? The problem is those who think vocals need to have perfect pitch.

- Pitch correction is considered a crutch that allows people with no talent to give the perception they can sing. But the same objection was

leveled against multitrack recording, EQ, and even reverb when those processes became mainstream.

What we often don't see are the valid reasons to use pitch correction. I appreciate pitch correction, and here's why:

- I don't pitch correct anything unless it sounds "wrong," which isn't the same as "off-pitch." If you make a vocal perfect, people lose interest. Consider that note Madonna reaches for and misses on "Ray of Light" that makes it sound like she's really letting loose. I would never have remembered that note if had been corrected. The pitch may not have been "right," but it did not sound "wrong."

- Pitch correction frees vocalists to be more spontaneous. Before pitch correction, part of my concentration while singing was distracted by being careful about pitch. After pitch correction, I concentrated solely on the performance because I knew I could always punch or pitch-correct any errant notes—but the irony is that my pitch became better when I wasn't worrying about it.

- You can use pitch correction to "uncorrect." Sometimes despite recording three or four background voices, they sound like one big voice. Using pitch correction to make some notes slightly sharp or flat gives a bigger sound—and quickly—without conventional ADT effects.

The bottom line is that any anti-pitch correction sentiment may have more to do with a backlash against those who apply it indiscriminately and therefore give the process a bad name, but sometimes there may also be an element of elitism—"I don't need pitch correction."

Well, no one needs pitch correction; civilizations were certainly capable of making music without it. But as audio professionals, our goal is not to further any personal agenda but to deliver a wonderful experience to the people who listen to music. Those who take the time to really learn how pitch correction works, know how to make it sound natural, and know when to apply it and when to leave it bypassed can create a better musical experience for the listener. If that's not what we're all about, then why are we here?



Author/musician Craig Anderton has lectured on technology and the arts in 38 states, 10 countries and three languages. Check out his latest music videos at youtube.com/thecraiganderton.



It was cool when Cher used Auto-Tune more than 15 years ago; the "hard correct" effect wasn't so cool after the 10,455th time it graced the airwaves.

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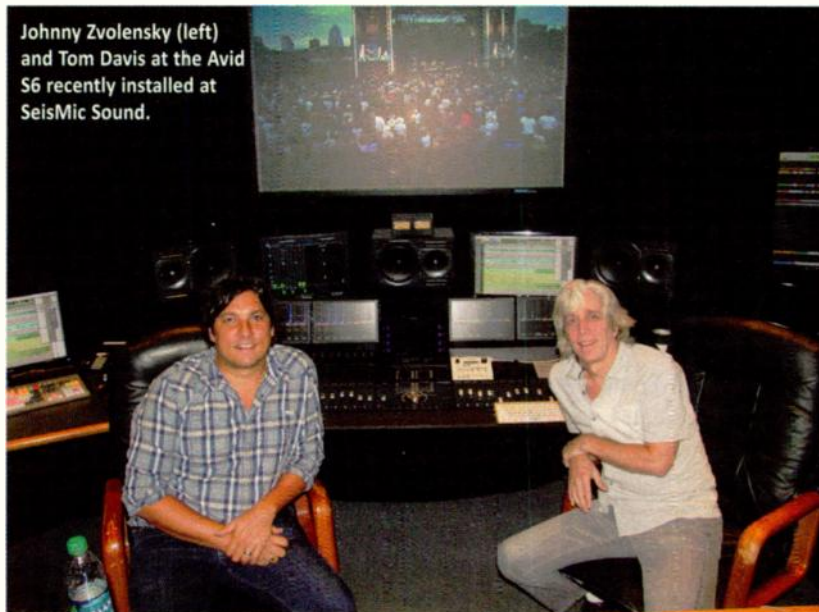
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## SeisMic Shake Up In Music City

BY FRANK WELLS

NASHVILLE, TN—The mid-Nineties saw a significant number of music production professionals migrate from Los Angeles to Nashville, hastened by a literal shake up—the 1994 Northridge earthquake. Tom Davis, a post production audio specialist with award-winning stints at Post Logic Studios and 525 Post Production, joined that migration, bringing his talents to a town where post production audio was a minor part of the overall production scene.

Armed with his technical prowess, an affable nature and calm confidence, Davis has become a big fish in the small pool of Nashville post pros, shaking up the market with his facility, SeisMic Sound. As a post production facility in a market known for music production, it's hardly a surprise that much of the facility's work is music-related, often tackling television events (CMA Awards, CMT Awards, CMT's *Crossroads* and broadcast music specials) and concert DVDs. That live productions



Johnny Zvolensky (left) and Tom Davis at the Avid S6 recently installed at SeisMic Sound.

are a major part of Davis' expertise was most recently evidenced by his spending most of November in New York working on NBC's *Peter Pan Live* broadcast.

SeisMic Sound, located in the NorthStar Studios complex, was originally built around a Euphonix CS2000 digitally controlled analog console, with a 24-track Fairlight hard disk system. Late last year, the CS2000 was retired, an Avid S6 taking its place.

"When I came here, my vision was to be a post guy. I'd done a little bit of everything in Hollywood, but the last probably 8-10 years of my life was primarily video-oriented post-

production. I started to find that, despite how many studios and engineers there were here making records, there were very few, if any, that understood the post side—mixing to picture, locking to picture, dealing with off-sets and more clocks. With some of my clients, I said, 'I know how to do this. Why don't you let me start doing the music side, too?'"

Armed with observations from performances and rehearsals, Davis says, "We can do the music mix—and repairs, because we're both musicians, so we understand that side of it. And fix-up vocals and make the call if somebody needs to re-play or

(continued on page 31)

## Hit House Pumps Petrol For WD

BY STEVE HARVEY

LOS ANGELES, CA—A brief from Petrol Advertising on behalf of a client, WD Ventito, gave music and sound design company The Hit House an opportunity to not only show off its abilities but also provide a demonstration of the emotional power of sound for picture. The Hit House applied music

and sound design to a clip of a young woman sketching and observing a couple in a park to invoke five different emotional responses—romance, comedy, horror, melancholy and inspiration—so successfully that the client decided to expand the project and film them at work.

"It really was a dream project, because when it comes to sound, people

underestimate how important it is when it comes to form of any kind," says Sally House, executive producer and co-founder of the company, along with husband Scott Miller, creative director and a prolific composer. "People have absolutely no idea what an impact it makes."

The Hit House came to the attention of WD Ventito, a branded online magazine launched recently by hard drive manufacturer Western Digital, through Petrol Advertising. "We scored a video game trailer for *Firefall*—we did the whole campaign—for Petrol, who are the agency of record for Western Digital, and they really liked us," she recalls. "Originally, the idea was to just feature us as a creative company and what we do, to inspire young composers, sound editors and sound designers."

But then, she says, "The creative director [at Petrol], Joe Granados, came up with an idea. He said, 'How do we show what you do?' He came up with the idea of different emo-

(continued on page 32)



Hit House composers William Hunt (left) and Scott Miller at work, while executive producer Sally House watches through glass.

### briefs

#### Workaholics Prefer Lectrosonics

LOS ANGELES, CA—The production audio crew for Comedy Central's *Workaholics*—sound director/mixer Carlos Torres, sound mixer Bryan Aponte, boom operator Sam Vlahovic and utility technician Mykl Rogers—use Lectrosonics (lectrosonics.com) UM400, SMQV and WM transmitters plus UCR210 and UCR411 receivers on the show, with SMQV transmitters and IFBR1a belt packs for IFB.

#### DPA Spends Night at Museum

NEW YORK, NY—Veteran production sound mixer Danny Michael used his DPA Microphones (dpamicrophones.com) d:dicat 4017B shotguns to battle the noise of Central Park West during production of *Night at the Museum: Secret of the Tomb* with actors Ben Stiller and Ricky Gervais, and in rough weather while filming the pilot for NBC's fall drama, *Allegiance*.

#### Weir Streams with T-funk

SAN RAFAEL, CA—Telefunken Elektroakustik (t-funk.com) and Bob Weir recently partnered for a private performance and audio workshop at TRI Studios, making the high-resolution mix available on Rdio, all part of an initiative dubbed Musicians for Audio Quality, intended to raise awareness on the importance of audio quality, the future of music and industry standards.

#### Auro Goes Mobile

MOL, BELGIUM—Auro Technologies and VuStar, which provides telecommunication and data services, including cloud storage, are enabling Auro-3D (auro-3d.com) decoding of film and music content on smartphones, tablets and other mobile devices, including automatic upmixing of mono, stereo or surround sources into an immersive 3D experience.

## SiesMic

(continued from page 30)

re-sing something. We can do it all; that was kind of new for this town.”

The “we” in SeisMic Sound for most of the past 17 years has been the team of Davis and Johnny Zvolensky, the latter an MTSU grad who interned with Davis, then returned as a full team member. “Johnny came along and he’s become a huge asset to what we do and he takes care of stuff that I don’t even want to think about,” says Davis, adding that “He has become a damn good remix engineer as well.” While Davis was in NYC working on *Peter Pan Live*, Zvolensky did the remix for the CMA Country Christmas and a Crossroads episode featuring Bob Seger and Jason Aldean.

Most typically, Davis works as the audio producer for SeisMic’s broadcast production work. “I will get involved up front and start making some of the initial plans on how it’s going to go.” For remix work of live performances, the original mix is not where SeisMic’s sound begins. “We’re just going to start over,” Davis says. “We always start with the audience. That’s one of our little secret sauces. Put the audience mics up, pan them out and tweak them, make that sound nice. Not only is that important because it’s part of the vibe you’re creating, but it also starts to get your sensibilities into ‘What’s the size of this?’”

SeisMic uses two multichannel monitor systems. There are JBL 6300s in the front wall with companion JBLs as rears; the second system uses five Behringer Truth nearfields.

There’s not a lot of outboard in use at SeisMic. “We’re doing all plugs,” says Davis. “Recall is a huge thing in this business,” something facilitated by reliance on plug-ins and automation. Seismic runs Waves, Altiverb, iZotope, Slate, Avid and Fab Filter plug-ins on Avid’s Pro Tools 11 on a tricked out HDX system, controlled by the S6.

The HDX system solves another issue that SeisMic was facing with its analog desk: “We were running out of room on the Euphonix; didn’t have the bussing that we needed,” says Davis. He adds that delivery stem counts have gotten large—networks want additional mixes that include a two-channel music mix, two-channel effects only, separate dialog, separate voiceover mixes and “promos, a lot of promos. It’s a 12- to 15-track delivery.”

The S6 footprint is about the same as that of the CS2000 it replaced. Zvolensky says that the physical size of SeisMic’s scalable, modu-

lar S6 implementation was chosen in part to yield ample metering and 32 faders, with some room for future expansion, but also in part based on perception, the S6 offering a substantial presence when clients visit. “This desk is the best of both worlds,” says Davis.

Davis confesses that he likes “the immediacy and the energy of live. In a live project, you’re capturing a performance, you’re interpreting it. It’s all about energy. I can’t tell you how

many record guys would be horrified when they soloed a vocal mic and they hear all the drums in it.”

Zvolensky adds that the bleed “becomes part of the drum sound.” Davis offers an example, where one might say, “that snare drum’s really dull; it needs work.” A push on the vocal mic and, “Oh, there it is! I know that’s going to happen there before before I get there.” The SeisMic approach is to “put some life in it and don’t make the performance too per-

fect.” Making a live production sound live is the goal, concludes Zvolensky: “We have a lot of pride in tuning or editing and not going overboard.”

SiesMic Sound  
seismicssound.net

THERE’S MORE ▶ Hear some of Tom Davis’ work with this clip from *Peter Pan Live* at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).



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## Hit House

(continued from page 30)

tions, because it kept coming up—how music is all about how you make people feel.”

Petrol found a 10-minute video on Vimeo, *Lila*, got permission to use it and created a 60-second clip. “Even though we knew what we were going

to be doing, we did it blind,” says House. “When we got it, we had to come up with the different emotions on the fly.”

The resulting content, entitled “Once Upon a ? Time: One Film, Five Scores,” was serialized in a succession of short films on the front page of the WD Ventito web site beginning in December, 2014. In addition to showing the scored and mixed clips, numerous short films

also follow Hit House staff through the creative process, from Danny Exum, director, music supervision and business development, taking inspiration from old blues records, through Scott Miller discussing chord and instrument selection, to sound designer Chad Hughes and composer William Hunt recording everything they could find in the garage.

As Miller comments, “Every single chord rings a different way; every

chord depicts a different color. The combinations just make you feel differently. Through this sound for picture, a composer can navigate people through how they should feel about things; a composer can manipulate people quite easily.”

“Western Digital is a giant company; they have hundreds of thousands of people following them on social media, but they’re a hard drive company,” observes House. “The people who use their giant hard drives are creators; they create video games and entire worlds—they’re photographers, video editors, musicians and composers. [Petrol] wanted to talk about the creatives that use their products. The idea was to create an inspiration for creativity.”

House and Miller, who began their careers in South Africa, established their company 10 years ago. “Everyone thought we were crazy to start a music production company in Los Angeles,” laughs House, who started out working for various ad agencies before relocating to work for Ogilvy Los Angeles then switching to the client side in marketing positions with consumer electronics companies Kenwood then Clarion. “So I have some insight into the production process, and [Scott] has insight into creativity; we are a really good team.”

She continues, “We stayed really small; we feel that if you spread it too thin in terms of the composers and sound designers you use, everybody just gets too teeny a piece of the pie.” Including Miller and one composer in the U.K. there are five composers in total, plus a sound designer, a music supervisor and House. House and Miller maintain a home production facility, as do each of the composers, sending projects to a mixer in Colorado and finishing everything at Universal Mastering.

“There’s a lot of iChat, iMessage and Facetime” she reports. “But even though we work from home and we have a great studio, we still try to keep up the production values on every single thing we do. We always out-source for finishing; I feel like that’s just mandatory, and that’s where a lot of people fall short, quite frankly.”

The Hit House  
thehithouse.com

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# AEA's 50th Anniversary Project:

## THE NUVO N22 NEAR-FIELD RIBBON MICROPHONE

BY WES DOOLEY WITH ANDY GEORGES AND PAUL PEGAS

To celebrate our 50th year, we at AEA created something special for our musical friends. The NUVO N22 Near-Field brings AEA's Big Ribbon technology to the NUVO series. It is a compact and reliable high-performance microphone that is equally comfortable recording music at home or doing network television shows. Its origin dates to 2006 when I was working on a small, TV-friendly microphone with the same ribbon and tuning as the R44. After several iterations, other projects intervened.

Six years later, I was talking with one of Soundcraft's founders about how to make AEA's 50th anniversary in 2014 special. He challenged me to design an affordable and groundbreaking Big Ribbon mic for the musician as end-user. This mic needed to be sturdy and easy to use in both the studio and live venues. I revisited and revised the compact 2006 prototype and asked AEA associate, Andy Georges, to try it.

Andy is an excellent composer/songwriter/musician and a project studio engineer. He installs, tunes and tests all the AEA KU4 supercardioid ribbons and provides customer support. At home, he records music for film with a variety of instruments, with acoustic guitar as his main focus.

The prototype was DIY minimalist: The ribbon transducer (motor) was protected by a cylindrical perforated metal screen with some fabric on the outside. The ribbon was soldered via a short cable to a transformer, then wired to a male XLR. The whole thing was a zip-tie-and-hot-glue project, using an Atlas LO-2 for the stand adapter.

Andy reported that this prototype had a unique combination of virtues. He has a good collection of ribbons, condensers and dynamics he uses daily, but this microphone combined many individual qualities he liked in his other mics. It had the fat, rich bass response of a ribbon, with some of the top end of a condenser. It was smooth, bright and articulate without being harsh.

This compact, passive design, however, was not suitable for softer

instruments, so we built a number of alternate motors using higher output magnets. Andy tried them on vocals, as well as a variety of acoustic instruments: bouzouki, mandolin and mandola. I built an experimenter's kit with various metal screen and fabric options, so Andy could tune the bass response to his liking and tweak the overall sound. The final version retained the original's sonic character. As with all directional microphones that have a bass rise with closer proximity, there is a sweet spot where the bass and treble balance well. For the N22, this is at 6 to 8 inches.

With our focus on the musician as end-user, this new mic needed to work well with as many microphone preamps and interfaces as possible. We sped up development of our custom high-ratio transformer and phantom-powered buffer amplifier project. Andy's tuning and the new phantom-powered interface worked well together. The N22 handles high SPL sources such as electric guitar, as well as close-up vocals and acoustic instruments. The buffer amp also protects the ribbon from damage by phantom power.

We then tested these N22 prototypes on a variety of Firewire and USB audio interfaces. The new transformer and buffer amp provided excellent performance with a wide variety of preamps. Its low source impedance and high output level improved the signal-to-noise and frequency response when long cables and/or low-input impedance preamps were used.

An aside: We did uncover one industry problem along the way; not all battery- and USB-powered two-channel interfaces provide full IEC



AEA's NUVO N22 Near-Field Ribbon Microphone

specification phantom power, which is 10 mA per input. The N22 uses 7 mA. Some two-channel interfaces only provide 8 mA for both channels.

Beta testing was critical to developing the N22's sound, feel and look. In parallel to user trials, the N22's design was reviewed by our production and design team. We wanted a sturdy, high-performance and cost-effective microphone. Achieving that goal became a company-wide effort. Our production team had to set and work within a number of manufacturing and fiscal boundaries.

We wanted a street price under \$1,000 without going to offshore production. We choose to exclusively use machined parts so as to make assembly easier, faster and more consistent. Parts were designed to be shared with future NUVO microphones. This has the potential to speed up product development and achieve future econo-

mies of scale.

The entire project was rendered with 3D drafting to verify form and fit, reducing development time and prototype costs. We used a third-party shock-mount, which defined part of our microphone's geometry. For quicker set-up and tear-down, we eliminated the captive cable found on most other AEA mics. We developed a PCB ribbon mount early in the prototype stages; like many such details, it worked in 3D, but had to be tweaked several times for production.

With most details sorted out, we built production prototypes. Over a period of months, musicians, engineers and producers evaluated them, provided us with audio samples and discussed the microphone's performance, versatility, reliability and features with us.

After a review of our beta testers' experiences, and more in-house testing, we did a final production prototype run. We shared these mics with our beta testers and asked if the mic met their expectations for technical performance, build quality and ease of use.

To mark our 50th anniversary, we released AEA's first NUVO Big Ribbon: the N22 Near-Field. Development of more NUVO microphones and accessories continues. There is now a more traditional N8 far-field model, and an excellent Windtech-designed pop-screen for the N22 and N8.

Enjoy the Music!

Wes Dooley is president of AEA, Paul Pegas serves as production manager and Andy Georges is a customer support specialist.

AEA  
ribbonmics.com



# Recording Acoustic Guitar with DPA's d:dicare 2011C Twin Diaphragm Cardioid Compact Mic

Since I tend to do a lot of acoustic guitar recording, the mic I choose will often vary with each instrument. For example, if the application is a solo guitar with no vocals or other players, I'll turn to an omni mic for the widest, most natural sound. If there are vocals or other instruments nearby, I'll turn to a tight-patterned cardioid. One of the mics I use quite a bit for this type of recording is my cardioid DPA d:dicare 2011C Twin Diaphragm Cardioid Compact microphone (\$799.95 street). And, with the recent addition of a 4006 omni capsule, I've learned just how versatile this single modular mic can be.

The first piece I had in my arsenal from DPA was the d:dicare 2011C with MMP-C compact preamplifier. This small, powerful package had the clean but well-balanced sound I look for when doing basic recording. The 2011C package has two opposite-facing miniature capsules in a single capsule enclosure mounted to a compact preamp, and serves up a 20 Hz to 20 kHz frequency response in a nice tight cardioid pattern (50 Hz to 17 kHz +/- 2 dB, at 30 cm).

I then discovered the MMP-A preamp, which, compared to the MMP-C compact preamp, raises sensitivity of the capsule by approximately 2 dB without raising the noise floor. With the MMC2011 cardioid capsule, it made a great, high-quality combi-

nation. While the MMP-A is not as compact, I actually found the longer body was better for me when placing it on acoustic guitars. In addition, the MMP-A preamplifier features a switchable 20 dB pad, nestled inside the center of the XLR connection.

Shan Seibert, general manager at DPA, explained that in order to turn

DPA's d:dicare 2011C Twin Diaphragm Cardioid Compact Mic



this d:dicare body into an omni mic, I could simply screw on an MMC2006 omni capsule. Better yet, I could attach an omni capsule from DPA's great 4000 Series mics. This is the path I chose, and it was an instant hit with me; I love recording with omni microphones.

As soon as the MMC4006 capsule arrived, I simply unscrewed the MMC2011 capsule from the MMP-A preamp, replacing it with the omni. Wham! I instantly had a superb high-quality omni mic with 10 Hz to 20 kHz frequency response.

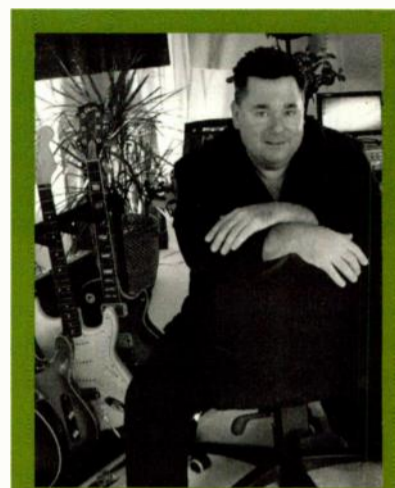
Taking it a step further, the MMC4006 comes with three different grids, which simply screw onto the tip of the mic capsule. The pre-mounted free-field silver nearfield

grid, the DD0251, features DPA's flattest overall frequency response when used nearfield. The silver trapezoidal close-miking grid (DD0254) has a subtle roll-off just above 10kHz when close-miking. The black diffuse-field grid (DD0297) features a subtle boost starting around 5 kHz—more pronounced on axis versus far field. DPA notes that this compensates for the natural high frequency loss caused by air absorption.

These three grids offer quick, easy ways to subtly change frequency characteristics of the mic. They screw on in seconds and I actually do use them. For example, the Martin 00-15 acoustic I have is an all-mahogany guitar; the sound of the instrument itself is softer and rounder than my other acoustics. Therefore, I like to put on the black DD0297 grid for an extra touch of high end, especially for television cues. This also works well if I'm recording mandolin, banjo or percussion.

If I'm using something like my Martin D-18 or Guild F-512, they are plenty bright already, especially when picked. In that case, I will go back to the standard DD0251 grid and back the mic off a bit.

Note that the MMC4006 omni capsule (10 Hz to 20 kHz) is slightly quieter with broader frequency response than the MMC2006 series omni capsule (20 Hz to 20 kHz) and also more expensive. If you try to match stereo pairs, the 2006s are matched on



**BY RICH TOZZOLI**

Rich Tozzoli is a producer, mixer, engineer and musician/composer for programming such as A&E's *Duck Dynasty*, History Channel's *Pawn Stars*, Harpo Studios' *21-Day Meditation Challenge* and more.

sensitivity, not frequency response.

With the MMP-A preamp body, MMC2011 cardioid capsule and a MMC4006 omni capsule, I have a single mic with a lot of flexibility. Add three different grids for the MMC4006 capsule, and I can assemble a great system to fit any need in minutes. This combination can accurately record just about any source; I use them on drum overheads, flutes, violins, cellos, voice, hand percussion and, of course, acoustic guitars.

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**F**ellow gearheads and those golden ears, it's great to write for you here in the pages of PSN. I'll be bringing you streamlined reviews and you can check out my new PAR-Tube video channel using the latest and greatest devices available in the pro-audio marketplace: <http://lx.col6CE5C>

### MILLENNIA MEDIA HV-35P & HV-32P PORTABLE SERIES PREAMPLIFIERS

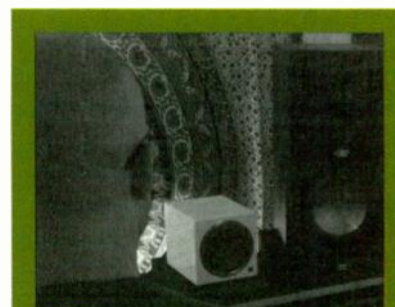
Seriously, who doesn't like Millennia Media mic preamps? For clean, reference-style preamplification, there arguably may be equals, but there are none better. These fine mic amps are found in racked configurations, the 500 Series format, remote-controlled multi-channel rack units, and even

the semi-portable TD-1.

Now we have the HV-32P and HV-35P, both based on the iconic HV-3, which are full featured, eminently portable and AC or DC-powered, with classic Millennia Media sound. Both are affordable, too, at \$1,079 and \$719 street, respectively.

You'll find the feature set to be nearly identical between the two-channel HV-32P and mono HV-35P. Click here for complete respective spec info: <http://x.co/6CEQx> and <http://x.co/6CERY>.

Please note the broader per-channel  
(continued on page 36)



**BY ROB TAVAGLIONE**

Rob Tavaglione owns and operates Charlotte's Catalyst Recording and has been a long-time Studio Contributor to *Pro Audio Review*. <https://twitter.com/robtavaglione>

## Tavaglione

(continued from page 35)

nel feature set of the single-channel HV-35P; its high-pass filter, polarity flip and a quarter-inch DI are all very useful features for music recording. The dual channel 32P is ideally suited for ENG and mobile recording work.

I started by tracking what may be the world's quietest folk-duo with this HV-35P/HV-32P combo and got fine results. Yes, I needed the Ribbon feature and its extra 10 dB of gain, but noise wasn't bad at all. Compared to my standard-bearer Millennia Media STT-1 channel strip, the HV-35P/HV-32P combo sounded thinner through the low-mids and more forward in their high frequencies, but exhibited the same clarity,

depth of soundstage and easy articulation.

Next, I set about making my own ENG rig with both preamps, a Sony lavalier, a handheld condenser and my portable two-track. I recorded outdoors, exterior scenes, indoors and in various-sized rooms powered only by a prototype 10 x AA power supply with great results. After a brief, noisy "warm-up" period when applying phantom power, the 32P settled in for trouble-free operation with excellent detail and trademark clarity. The recessed controls and ergonomic I/O labeling proved to be lifesaving features. The HV-35P behaved equally well on a cold, blustery winter's day. Hear a silly little "interview" I grabbed on-the-run with the HV-32P, showing



Millennia Media HV-35P &amp; HV-32P Portable Series Preamplifiers

some nice low-level detail as traffic and background music animate the scene at <https://soundcloud.com/pro-audio-review-magazine>

The gain pots are a little loose for my taste, but the switches are ideal: firm, illuminated, color-coded and

relay-switched (the slightly delayed pause is well worth the satisfying click). The chassis is perfect; three units will neatly attach to a Middle Atlantic Products rack shelf and the power supplies are ample. My only criticisms are features that I miss; I wish the DC power connector was locking and that the HV-32P had polarity flip.

Millennia reports that there are 35,000 channels of HV-3 in the field, in numerous configurations already.

So now ENG gunners, on-location lap-toppers and FOH engineers who need a lightweight "money channel" or two can easily hop on the Millennia bandwagon.

Millennia Media

[mil-media.com/products.html](http://mil-media.com/products.html)

## SPL MTC 2381 MONITOR AND TALKBACK CONTROLLER

Many monitor controllers on the market do not possess the requisite audio neutrality for pro users, or have the specific feature set to compliment our specific workflows. I was first attracted to the MTC 2381 for its features and I've grown to appreciate it for ergonomic and sonic reasons.

A large, stepped control room volume pot attenuates six two-track inputs (four balanced, one unbalanced at -10, level compensated) via three speaker outputs on XLRs with talkback mic (foot-switchable with dedicated output), dim, mono sum, as well as "Musician" and control-room outputs, both with "dual signal path" blending/routing abilities, which is very advantageous.

See here for a complete specifications list: <http://x.co/6CEsa>

Sonically, the MTC 2381 has a robust sound; not hyped, rather flat with no roll-off at frequency range extremes. The soundstage has the expected width, punch and detail, plus a nice sense of depth and openness.

Three speaker outputs are a bonus, and the -10 level two-track input is super convenient for quick monitoring of client iOS/mobile device playback at similar levels to other +4 sources. Its mono summing is a must-have that many competing controller manufacturers (foolishly) overlook. The additional Slave output is useful for either connecting meters or additional headphone amp sends.

The best feature—its dual, blendable signal paths—are available for both control room and performer signals (via Musician output and a headphone amp). I run a music mix (mix minus without the live performer) into the two-track Mix input while simultaneously running a no-latency signal of the performer (either via a split or "direct input" from the DAW) into the Musician



SPL MTC 2381 Monitor and Talkback Controller

input. The performer's Musician output has three pots (designated Mix input, Musician input and Master); I can blend those easily for my performer (satisfying "more me" requests very quickly) while deriving a separate Mix and Musician blend for my control room/producer's mix.

I give the MTC 2381 an enthusiastic thumbs up. It sells for \$999 street—not cheap, but the purchase allows me to hear everything in my studio quite well, not to mention it helps my workflow.

SPL

[spl.info/index.php?id=176&L=1](http://spl.info/index.php?id=176&L=1)

## BLUE MICROPHONES EN-CORE 200 HANDHELD DYNAMIC MICROPHONE

I hit the local Guitar Center in an emergency and pick six promising—and supposedly higher-fidelity—handhelds for a quick "one-two test" in the PA room. The immediate standout was this cute little bronze number from Blue Microphones—the en-CORE 200—featuring a proprietary Active Dynamic Circuit requiring 48V phantom; the circuit drives the mic output, assuring signal consistency no matter the cable length, according to Blue.

The en-CORE 200's top end offers a pleasant smoothness and greater articulation, providing more clarity without harshness than the other five I auditioned. At least on vocals, the en-CORE 200's mids had a desirable, rich forwardness that was still closer to flat than colorful. The bottom end was clean, bordering on thin, but rolled-off in such a way that, when the mic is "eaten," the resulting EQ balance seemed right on point; it's pre-EQ'ed, if you will.

The en-CORE 200 did a great job on-location, offering pleasant compatibilities with baritones, tenors and altos (yet not my first choice on the sopranos); amply rejecting both feedback and handling noise.

Back in the studio, I put the en-CORE 200 up for scratch vocals on a band tracking session. This particular vocalist has an ultra-deep Johnny Cash-like mumbly baritone that I've captured before, but not



Blue Microphones' en-CORE 200 Handheld Dynamic Microphone

without considerable time invested in mic selection and EQ. While monitoring over speakers, right after the first take, the singer says to me "Where can I buy one of these mics? This is the way I want my vocals to sound in the monitors live." Later, I used the en-CORE 200 on scratch vocal again, this time with a very talented tenor; I received tones and performances on par with my "real studio mics" and the vocalist might just keep that scratch!

The en-CORE 200 isn't a brand-new product, and this is not a truly comprehensive review, but I stumbled on this little gem and thought some of you may potentially like it as much as I do. And the en-CORE 200's best feature? It's only \$150 street.

For more live application insight on the en-CORE 200, check out live sound engineer Will James' full review from the *Pro Audio Review* archives: <http://x.co/6CFac>

Blue Microphones

[bluemic.com/encore200/](http://bluemic.com/encore200/)

# Four Active Speakers, Four Applications

■ FOSTEX ■ SENAL SOUND ■ CERWIN-VEGA ■ YAMAHA

## FOSTEX 6301N SERIES ACTIVE MONITOR

There are few speaker products in pro audio as universally useful as the Fostex 6301N Series Active Monitor at \$250 street. The 6301N Series comprises small, sealed, powered speakers built for various monitoring applications—studio/audio production, broadcast, mobile and installation (especially houses of worship and theaters)—thanks to four different I/O configurations. Recently updated and repackaged by Fostex, I reviewed the 6301N's NE version, offering analog (electrically balanced) XLR and (unbalanced) quarter-inch inputs.

Weighing in at 5 lbs. and measuring a compact 4.7 inches x 7.4 inches x 4.7 inches, the 6301N Series speaker features a 20 W Class D digital amplifier; 4-inch full-range speaker with die-cast aluminum frame; 98 dB SPL max. output and a 70 Hz to 15 kHz frequency range. Its flat-surface front-panel power and volume controls are handily recessed into its aluminum enclosure, and the 6301N's flexibility is enhanced by the optional wall-fitting angle mount, the EB-6301 (\$40 street, each).

I auditioned this 6301NE pair in a variety of environments: studio/audio production apps as a laptop DAW-

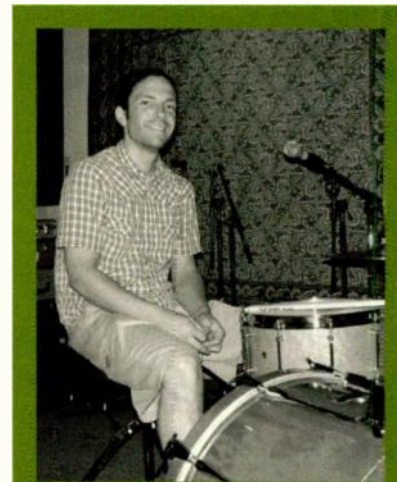


Fostex 6301N Series Active Monitor

style desktop-powered monitor rig; on-the-go in hotel/gig bag-style reference listening; and house of worship/theater uses—a church cry room/nursery, small balcony sound reinforcement, and FOH/control room monitoring. For the latter, the 6301N was paired with an Alto Professional Stealth wireless audio system (<http://www.prosoundnetwork.com/altostealth>) for a no-brainer HOW audio

distribution solution.

After all that, I decided that, if allowed only one choice, the 6301N could easily be my “everywhere” powered monitor. Though its limited frequency range doesn't quite allow “high fidelity” performance, it is most certainly a dependable, reasonably accurate workhorse, powered speaker. Highly efficient, the 6301N excels in cleanly cranking out midrange/voice-



BY STROTHER BULLINS,  
REVIEWS EDITOR, NEWBAY  
MEDIA AV/PRO AUDIO GROUP

Strother Bullins is NewBay Media's Reviews Editor, AV/Pro Audio Group, active musician, recordist and club-level sound reinforcement wrangler. [sbullins@nbnmedia.com](mailto:sbullins@nbnmedia.com)

centric material: broadcast TV/radio- and PA/theatrically oriented audio, etcetera. While the 6301N won't likely take the place of a modern audio pro's favorite nearfield speaker, I believe it could easily become the most used, flexible and dependable monitoring tool in his/her bag of tricks.

Fostex International  
[fostexinternational.com](http://fostexinternational.com)

## SENAL SOUND ASM-6 TWO-WAY ACTIVE NEARFIELD MONITOR

The ASM-6 by SENAL Sound—a new name to the pro audio marketplace—is a no-nonsense, over-achieving, well-designed and truly professional active monitor. At 110 W RMS/channel and weighing in at 22.4 lbs., the ASM-6 features a rigid aluminum alloy enclosure with oval rear

The ASM-6's sound is full, punchy, deep and exciting, yet seemingly very accurate.

port; 6.5-inch “midwoofer” and 0.8-inch metal dome tweeter; 9.5-inch x 9.8-inch x 13.8-inch dimensions; and a 38 Hz to 20 kHz (+/-2.5 dB) frequency range and 3 kHz crossover frequency. Well-chosen frequency adjustments reside on its back panel: LF, +2, 0, -2 dB (200 Hz); mid-LF, 0, -2, -4 dB (500 Hz); +1, 0, -1 dB (10 kHz); HPF at 38, 48, or 58 Hz.

As implied above, the ASM-6 is a very impres-

sive monitor for under \$500 each. I find it confidence-building and striking in build quality, too; it sounds and appears to be far pricier than it is. The ASM-6's sound is full, punchy, deep and exciting, yet seemingly very accurate. Imaging is notably pin-point detailed.

Most notably, SENAL Sound's ovoidal cabinet shape allows for incredibly detailed positioning; the included rubber “shoe,” for lack of a better word, clearly does a good job of isolating the mounting surface from the ASM-6's sympathetic vibrations. On my desk at meter bridge-height, the ASM-6 is probably more easily positioned to each ear than any near-field I've had the opportunity to use. Standing vertically, I easily reached the speaker's volume control on the top right-facing side and the power switch directly below.

The ASM Series—also available in 3-inch, 4-inch and 5-inch models—provide qualities found in far-pricier studio monitor options. For the uninitiated, SENAL Sound's nearfield monitors are worth a serious listen.

SENAL Sound  
[senalsound.com](http://senalsound.com)



SENAL Sound ASM-6 Two-Way Active Nearfield Monitor

## CERWIN-VEGA P1000X P-SERIES PORTABLE POWERED LOUDSPEAKERS

The P-Series is one of two powered live loudspeaker lines by Cerwin-Vega, the other being C-V's flagship CVA Series—quite possibly the best all-around PPA (portable PA) gear I've ever used. The P-Series incorporates some notable CVA-influenced features as well as a variety of unique and useful touches too. For this review, I received a P1000X pair (at \$699 street, each), a two-way, bi-amped, full-range bass-reflex speaker featuring a 10-inch LF driver and 1-3/4-inch HF driver; polypropylene cabinet with steel accents and handles incorporating a flush waveguide and 18-gauge, perforated steel grille; and a Class D amp providing 1,000 W of peak power.

The P1000X is compact for what it offers, with dimensions of 25.5 inches x 15 inches x 15 inches and a weight of 37 lbs. Frequency response is relatively flat and balanced for PPA gear, at a reported 61.0 Hz to 20.6 kHz, ( $\pm 3$  dB), with a 128 dB maximum SPL (1W @ 1m).

I/O for the three-channel mixer includes Neutrik XLR/TRS inputs on channels 1 and 2, switchable mic-DI or line plus an XLR throughput each; dual quarter-inch TS line inputs on channel 3; and a mix output on XLR. EQ-based parameters include Enhanced EQ (contour adjustment with feedback-reducing midrange attenuation); Vega Bass Boost (LF

gain); and a High Pass Filter (attenuation below 80 Hz), each with on/off switches.

After several months of use in a half-dozen gig applications—club/theater, outdoor venue and rehearsal use—I found the P1000X to be a great stage monitor and main speaker (when used as a pair coupled with a powered subwoofer). It's plenty powerful in most PPA applications and seems to be physically overbuilt in typical Cerwin-Vega fashion, with an overall better and thicker grade of polypropylene than I find in the vast majority of PPA products.

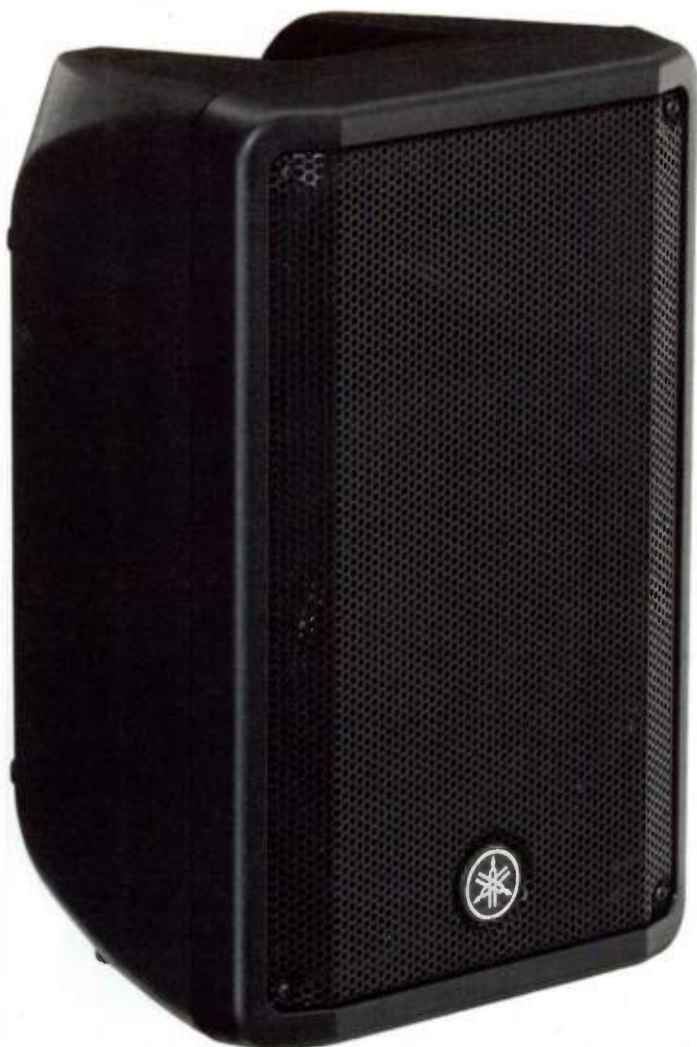
However, if shopping for active PPA gear today, I'd honestly choose an older Cerwin-Vega full-range model—the more compact, tour grade-built Active Series CVA-28 dual 8-inch speaker (at \$599 street, each, with 800W peak power) over the P1000X; there are several products very comparable to the P1000X in the market yet nothing out there quite like the CVA Series. That said, for those looking for a more traditional PPA powered-enclosure with Cerwin-Vega's well-earned reputation for quality sound and rugged construction, the P1000X is a very worthy choice and notably user-friendly to boot.

Cerwin-Vega  
cerwinvega.com



Cerwin-Vega P1000X P-Series Portable Powered Loudspeaker

After several months of use in a half-dozen gig applications—club/theater, outdoor venue and rehearsal use—I found the P1000X to be a great stage monitor and main speaker (when used as a pair coupled with a powered subwoofer).



## YAMAHA DBR10 POWERED LOUDSPEAKERS

The DBR Series—offering DSP, amp and speaker technologies pioneered in Yamaha's DSR and DXR Series—comes in lightweight, affordable packages for lower-impact PPA applications. For this review, I received a pair of DBR10 full-range powered loudspeakers (at \$399 street, each). Features include a 10-inch LF cone driver and 1-inch throat compression driver with ferrite magnets with 700 W peak power/325 W continuous (LF: 260 W, HF: 65 W). Dimensions are 12 inches x 19.4 inches x 11.4 inches and weight is an easily-totable 23.2 lbs. Frequency response is 55 Hz to 20 kHz with a maximum SPL of 129 dB (1W @ 1m) with a 2.1 kHz crossover frequency.

The DBR10 offers an XLR/TRS combo input on channel 1 (mic/line switchable); XLR/TRS combo plus dual RCA (unbalanced) inputs on channel 2; and switchable output, either a channel 1 thru or a channel 1 and 2 mix. Processing-wise, the D-Contour switch

offers frequency curves for FOH/MAIN, MONITOR or off/bypass settings, plus two HPFs at 120 Hz and 100 Hz, respectively.

The DBR Series isn't necessarily built to compete with the current "1k W club" of PPA powered enclosures, yet it's powerful enough to offer what users need in many small-scale sound reinforcement applications. This DBR10 pair shines as rehearsal wedges/monitors, auxiliary instrument speakers, sole singer/songwriter amplification, and more. For under \$400 each, I'd readily recommend the DBR10 as a solid PPA component to cover coffee shop-type gigs or musician-toting personal stage monitors; they're ideal for applications where light weight is a necessity yet both power and clarity are desired. Additionally, its RCA inputs allow the DBR10 to serve quite well as DJ/KJ PPA, too.

Yamaha  
[http://usa.yamaha.com/products/live\\_sound/speakers/active\\_speakers/dbr/dbr10/](http://usa.yamaha.com/products/live_sound/speakers/active_speakers/dbr/dbr10/)

Yamaha DBR10 Powered Loudspeaker

# Remic D5400 Upright Bass Condenser Studio Microphone

BY STROTHER BULLINS WITH DAVID GEORGE

I regularly gig with NC-based bassist David George, a multi-instrumentalist (of various stringed acoustic instruments) who focuses primarily on bass guitar. Often performing on upright/double bass (or “bass fiddle,” in bluegrass circles), he was intrigued when I showed him this truly unique, Danish, handcrafted condenser microphone for double bass: the D5400 (\$900 direct), by relatively unknown manufacturer Remic Microphones. Designated as Remic’s “Studio” model, the D5400 also has a “Live” sibling, the D5400LB, with few differences except for “high suppression of feedback” listed as a primary design feature.

The D5400 is delivered in a handy plastic storage box and inside, a gig bag-ready padded pouch holding the 48V phantom-powered microphone with its largely foam, uniquely shaped body featuring Remic’s trademarked SAM (Soundboard Area Microphone) technology, allowing placement underneath the very bottom of an upright’s fingerboard. It features an omnidirectional, pre-polarized condenser element, a broad frequency range of 6 Hz-23 kHz, 164 dB maximum SPL before clipping, notable feedback suppression characteristics, high isolation of other sound sources, a built-in fabric-wrapped 6.5-foot cable with XLR connector, and more.

George took the D5400 and his Engelhardt M3 Maestro 3/4 upright out for several bluegrass/gospel gigs and discovered a lot to like about Remic’s mic design philosophy. “The D5400 performed as expected—the sound was clean and

natural,” he said. “There was no noticeable ‘boom.’ It responded quickly and consistently, even during an arco passage. My bandmates commented on how good my bass sounded. The sound coming through the monitor

mix was just like I’d placed my ear to the back of my bass.”

The D5400’s feedback suppression is more than a noted feature; it’s a fact, offered George. “The complete lack of feedback surprised me,” he said.

George’s only noted negative was the D5400’s high price, and its “overly long” cable with XLR connector. That said, overall he was “blown away with the performance” of the D5400. “If you want your bass to sound like your bass and avoid all the problems caused by other types of microphones, you cannot go wrong with the D5400. This one is staying in my gig bag until they make me send it back!”

Remic  
remic.dk



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An individual in tcgroup



Remic D5400  
Upright Bass  
Condenser  
Studio  
Microphone

## INTEGRATION Superpower



Lab Gruppen introduces Rational Power Management (RPM). The D SERIES provides consultants and integrators with unprecedented flexibility for specifying amplifier output channels to meet the varying load conditions within a single complex project. For the first time, Rational Power Management (RPM) provides true flexibility in allocating available power across the four output channels. Each channel may be tailored to meet the requirements of the connected load, and any power not used for that channel may be allocated for use on other channels.



D Series - Amp channels power adjusted to match the loudspeaker requirements



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## FOCUSRITE ITRACK SOLO, STUDIO UPDATES

Focusrite has relaunched its iTrack Solo interface and iTrack Studio bundle for recording on iOS devices, updating them to include Lightning-compatible sockets for recording on iPads, Macs, and PCs.



iTrack Solo is a 2-in, 2-out iPad, Mac, and PC audio interface; the unit sports a Focusrite mic preamp, a dynamic range spec'd at more than 105 dB and unique "gain halos" that alert users when a recording signal is at the right level. The iTrack Studio expands upon that, as a package that includes the iTrack Solo, a condenser microphone, professional headphones, and software.



## EIOSIS AIREQ PLUG-IN

Eiosis has released AirEQ, an new EQ plug-in intended for mastering, mixing, and post-production. The AirEQ is based around a concept of "Character Control" as a way to shape equalization sound, using a variety of parameters such as Character and Strength and specialized EQ curves Air and Earth.

The Character parameter changes the shape of the equalization curve, ranging from the Water curve, with clear highs, compact bass and balanced mids, to the more focused Fire curve, which provides snappy mids, sharp highs and strong lows. Meanwhile, the Air and Earth controls allow users to specifically adjust high and low frequencies, with Earth boosting the very low end of any track, reportedly without becoming boomy due to the design of its phase response. Similarly, Air allows high frequency adjustment.

## TRACKTION MASTER MIX MASTERING PLUG-IN

Tracktion DSP has released Master Mix, a stereo mastering plug-in that offers multi-band dynamics processing and equalization. Master Mix has three individual dynamics processors, each with its own set of controls and selectable crossover points. It also has



## firstlook

### BLUE MICROPHONES HUMMINGBIRD

The Blue Microphones Hummingbird is a small-diaphragm microphone sporting an adjustable pivoting head that can rotate 180 degrees, allowing the mic to be broadly repositioned when stand-mounted without moving the stand.

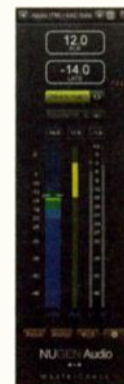


Hummingbird's pressure gradient cardioid capsule is based on Blue's B1 capsule, reportedly "ultra-responsive" and capable of delivering extended frequency response. Blue targets Hummingbird for studio and stage use on drum overheads, acoustic guitar, strings, harp and other instruments with fast transients. It also features a proprietary Class A, fully discrete internal preamplifier circuit.

two separate six-band parametric EQs, one located before the dynamics section, and the other after. Each dynamics band is typically used as a compressor, but expansion is also possible. A dynamics contour edit screen provides setup of compressor parameters and allows users to create their preferred soft knee curve. Master Mix also offers a noise gate and a soft-clip limiter.

## NUGEN MASTERCHECK PLUG-IN

Nugen calls MasterCheck "the first music-industry-specific audio plug-in designed to facilitate mix and mastering for the modern world of loudness normalized playout." MasterCheck applies internationally recognized loudness, dynamics, and true-peak standards to reveal how the consumer will hear audio through the loudness normalization utilized by iTunes, Spotify, DAB Radio and other music platforms. MasterCheck can also be used for producing podcasts at optimal loudness levels for dialog clarity within the listener environment, according to its developer. Audio engineers can employ MasterCheck to apply loudness matching and dynamic content analysis, using techniques such as peak-to-loudness ratio (PLR) to compare multiple sources. The advanced side-chain loudness matching can also be used to audition signal paths.



## BAER AMPLIFICATION VTI TUBE DIRECT BOX

The VTI Tube Direct Box from Baer Amplification employs a Class A preamp based on a 12AU7 tube for "clean tube tone with tons of headroom. The preamp is followed by a variable tube gain, push-pull output section feeding a custom CineMag output transformer specifically designed to mimic the output characteristics of the large output transformers found in vintage tube power amps.



The VTI's Character section combines a low end enhancement circuit with a variable high pass/low pass filter section. Other features include a switchable 750 kΩ or 5 MΩ input impedance for use with passive, active, or piezo pickup equipped instruments; quarter-inch THRU and POST outputs for feeding either tube/character processed, or unprocessed signal to amplifier inputs; separate solid state and tube power supply transformers on the universal power supply; soft limit processing; polarity reversal and ground lift switches.

## ACOUSTICA MIXCRAFT/ MIXCRAFT PRO STUDIO 7

Acoustica has released two new Mixcraft DAW upgrades, Mixcraft 7 and Mixcraft Pro Studio 7, which include new features such as 32-bit and 64-bit versions, a new interface, live loop and sample triggering, audio warping and quantizing, enhanced control surface support, plug-in management, hundreds of new loops and samples and new virtual instruments and effects.



**HIGH DEFINITION CUSTOM INSTALLATION**

Photo Credit: Kanji Takemura

"The 4210 is a dedicated four-way line array box and the intelligibility and midrange is better than anything else I've heard, it's absolutely smooth. People today really expect great audio quality and the reaction to our system has been overwhelmingly positive. I can also run the entire system for our 5,200 seat arena on two 20-amp circuits. It's very eco-friendly."

- Frank Rankin, Production Manager, Towson University

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## ▶ firstlook

### D.A.S. VANTEC SYSTEMS

The Vantec series of portable systems from D.A.S. incorporates four models available in both powered and passive configurations: 12-inch, 15-inch powered two-way systems, a double 15-inch powered three-way system employing a "dual-band" configuration (where each loudspeaker operates in a specific frequency range) and a single 18-inch powered subwoofer system.

The Vantec series is equipped with the new "F" series loudspeakers; the new M-28 compression driver features a FEM (Finite Element Modeling) optimized motor, phase-plug and diaphragm. Attached to the D.A.S. designed CD-horn, the assembly provides dispersion with 90-degree by 50-degree coverage angles. The onboard power amps provide from 1500 W to 2250 W, depending on the configuration. The Vantec series also offers Bluetooth technology, which allows users to wirelessly stream music from any Bluetooth enabled device.



### KALTMAN CREATIONS CPARRAY ANTENNA

Kaltman Creations has introduced its new CPArray antenna for wireless microphones. Measuring 6.7 x 6.2 x 1.6 inches and weighing 1.2 lbs., the company states that the antenna's micro technology offers better reception than larger paddle- and beam-style antennas; the CPArray antenna is intended for intimate venues, auditoriums, theaters, boardrooms and worship centers.

Sold in a twin-pair configuration, the antennas are mounted onto an included mic-stand Tee-bar and used with a low-loss antenna combiner, which reportedly allows users to selectively cover in opposing, off-set, and multi-elevation directions. The IWxCPArray is passive with a 60-degree beam width; the pattern is circular polarized in the 470 MHz to 960 MHz range. The antennas are painted theater black with a 50 Ohm low-loss BNC connection.



### AUDIX DP4 MIC PACK

Audix has introduced its DP4 Instrument Microphone Pack, mainly aimed at percussion instruments, though said usable on a variety of instruments. The set includes an Audix D6 microphone and three i5 microphones in a heavy-duty carrying case. The case includes three DFLEX mic mounts and three additional cutouts for vocal microphones.

Audix calls the DP4 a "perfect complement" of dynamic microphones for close miking of a variety of sources, on-stage or in the studio.



### DB TECHNOLOGIES SUB H SERIES SUBWOOFERS

dB Technologies has recently upgraded its active subwoofer offerings with the new SUB H Series of 15-inch and 18-inch hybrid horn-loaded cabinets. The new designs were developed to provide an extended low-frequency range and high performance output while reducing the cabinet weight and increasing power efficiency. With a hybrid horn-loading designed cabinet, dB Tech-



nologies says it was able to achieve a one octave lower frequency response than in its previous offerings.

The new subwoofers use a smaller amplifier than dB Technologies' SUB D series, providing better efficiency and power consumption while still achieving 133 to 134 dB SPL maximum output.

### ADAMSON BLUEPRINT AV SOFTWARE

Adamson Systems Engineering has released Blueprint AV, a predictive software suite for use designing systems with the company's various loudspeaker ranges. Expanding on Adamson's Shooter software, the suite operates both in the 2D and 3D realms, and is intended to help system designers and technicians build a simple or complex listening area, hang multiple arrays, simulate response with a variety of acoustic predictive tools, and develop an accurate rigging plot that can be exported to DXF files for transfer to the rigging team.

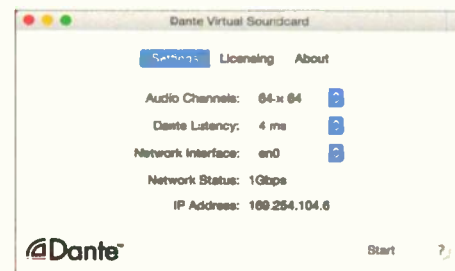
Multiple simulation options exist, including SPL measurements, which can be measured using standard and proprietary weighting curves, as well as standard 1/3 octave frequencies or a full range average. Delay, directivity and virtual microphone responses can also be calculated. The software comes pre-loaded with acoustic data from Adamson's complete line array product range, with plans to add all point source products in the near future.



### AUDINATE DANTE VIRTUAL SOUND CARD, CONTROLLER UPDATES

Audinate presents new releases of its Dante Virtual Soundcard (Release 3.7) as well as Dante Controller.

Dante Virtual Soundcard can turn any Windows PC, Windows Server or Mac OS X computer into a Dante-enabled device, enabling connection to any Dante network. Dante Controller is a free software application for PC and Mac that enables the routing of audio and configuration of devices on a Dante network. In addition, Dante Controller provides device status information and real-time network monitoring, including device-level latency and clock stability stats, multicast bandwidth usage, and customized event logging.



There's more information on all the products featured at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015).



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## Feeling Cavalier

BY JACK ROBERTS

ROSEMONT, IL—Drums and bugle corps competitions date back many decades, yet are in a constant state of evolution. Drum Corps International (DCI), the non-profit governing body, legislated the introduction of microphones and amplification in 2004, followed by electronic instruments in 2009. As a result, now embracing new technologies in drum corps competition is The Cavaliers Drum & Bugle Corps, based in Rosemont, IL.

“As an organization, we have been deliberately progressive in exploring creative ideas when it comes to wireless mics and sound reinforcement,” says Chris Lugo, director of Development and Communications for The Cavaliers. “Microphones help create a balanced sound in our front ensemble, or pit orchestra, and wireless mics allow us to bring new instruments onto the field and to highlight our soloists.”

Tom McGillen is a consulting



The Cavaliers Drum & Bugle Corps, based in Rosemont, IL, use ambitious wireless miking schemes to support marimbas, euphoniums and other unusual instruments.

audio specialist for The Cavaliers, helping design systems for their DCI competitions. “From the time we begin pushing onto the field to the start of performance, we have only about two-and-a-half minutes to set up. There is no soundcheck. A winning program will feature full, rich, and balanced sound across all instruments, so microphone selection and positioning is critically important.”

On the wireless side of things, The Cavaliers opted to use 10 systems in their 2014 program, employ-

ing most of them on rolling concert marimbas, with two Shure ULX-P bodypack systems with WM98H/C miniature microphones used to cover the 4.5-octave keyboards. Another WM98H/C system was used on the upward-facing bell of the concert euphonium, bringing that instrument’s unique tone into the mix and allowing it to contribute as a soloist. Reception was enhanced by the use of three Shure UA844SWB antenna systems and two UA874 active direc-

(continued on page 46)



## Showco Founder Jack Calmes Dies at 71

BY CLIVE YOUNG

DALLAS, TX—Jack Calmes, who co-founded pioneering tour sound company Showco, died of cancer on January 5 at the age of 71.

Calmes first became involved with music in 1961, playing in high school bands with future rock legends Steve Miller and Boz Scaggs, but eventually founded a Dallas-based concert promotion company with partner Angus Wynne in 1965, with Wynne coining the fledgling company’s name: Showco. Building on the success of their first concert—a Chuck Berry show arranged purely because Calmes happened to have Berry’s home phone number—the pair brought name acts to the city as the Sixties progressed, including the Beach Boys, Bob Dylan, The Doors, Stevie Wonder and others. Calmes recalled the era in a 1980 *D Magazine* profile: “The musicians were getting tired of bad sound. Their



Jack Calmes, seen here in a promo photo for his band, the Forever Fabulous Chickenhawks Showband & All-Star Revue.

(continued on page 47)

## Monitor Engineer Ian Newton Passes

BY CLIVE YOUNG

NORTH FERRIBY, UK—Journeyman monitor engineer Ian Newton died on December 19, 2014 of a heart attack at the age of 52. A two-time winner of *Pro Sound News*’ Centerstage Award, Newton worked with many of the biggest names in music over the years, including Tina Turner, Roger Waters, Janet Jackson, Barbra Streisand, Sting, The Police, Madonna, Oasis, Pink and Kate Bush, among many others.

Speaking with *Pro Sound News* in 2005, Newton recalled he had been interested in pro audio from an early age: “It was something that I was always interested in, from school, really. I was always into music. Most of my friends were musicians and I really wasn’t, so I ended up doing this side of it instead of playing.”

The result, however, was that he gained a reputation as a dependable and upbeat presence at stageside. He won *PSN*’s Centerstage Award multiple times, taking



Ian Newton in monitorworld on the Police’s 2007-8 world tour.

(continued on page 47)

### briefs

#### NJ Theater Jumps On L-Acoustics

NEW BRUNSWICK, NJ—The State Theatre recently had an L-Acoustics ([l-acoustics.com](http://l-acoustics.com)) Kudo line array supplied and installed by Boulevard Pro ([blvdpro.com](http://blvdpro.com)). A full 24 Kudo enclosures hung 12 per side were installed, along with a half-dozen groundstacked SB28 subwoofers and four 8XT front fills, among a variety of other fills around the venue.

#### dB Rocks Beaver Dam

BEAVER DAM, KY—The newly built Beaver Dam Amphitheater features 16 dB Technologies ([rcf-usa.com](http://rcf-usa.com)) DVA-T4 line array modules coupled with six DVA-S30N double 18” subwoofers; an additional six DVX DM15 are used for stage monitors. The system was designed and installed by Bowling Green, KY-based Musician’s Pro ([musicianspro.com](http://musicianspro.com)).

#### KROQ Goes MLA

LOS ANGELES, CA—KROQ’s 25th Annual Almost Acoustic Christmas show was held at the LA Forum for the first time in December. Providing audio for the 25th year was Delicate Productions, which fielded a Martin Audio ([martin-audio.com](http://martin-audio.com)) MLA loudspeaker system with 14 Martin Audio MLA with two MLD (downfill) cabinets a side as the main hangs; 16 MLA Compact per side for side hangs; nine MLX ground-stacked subs per side, and a half-dozen W8LM cabinets for front fill.

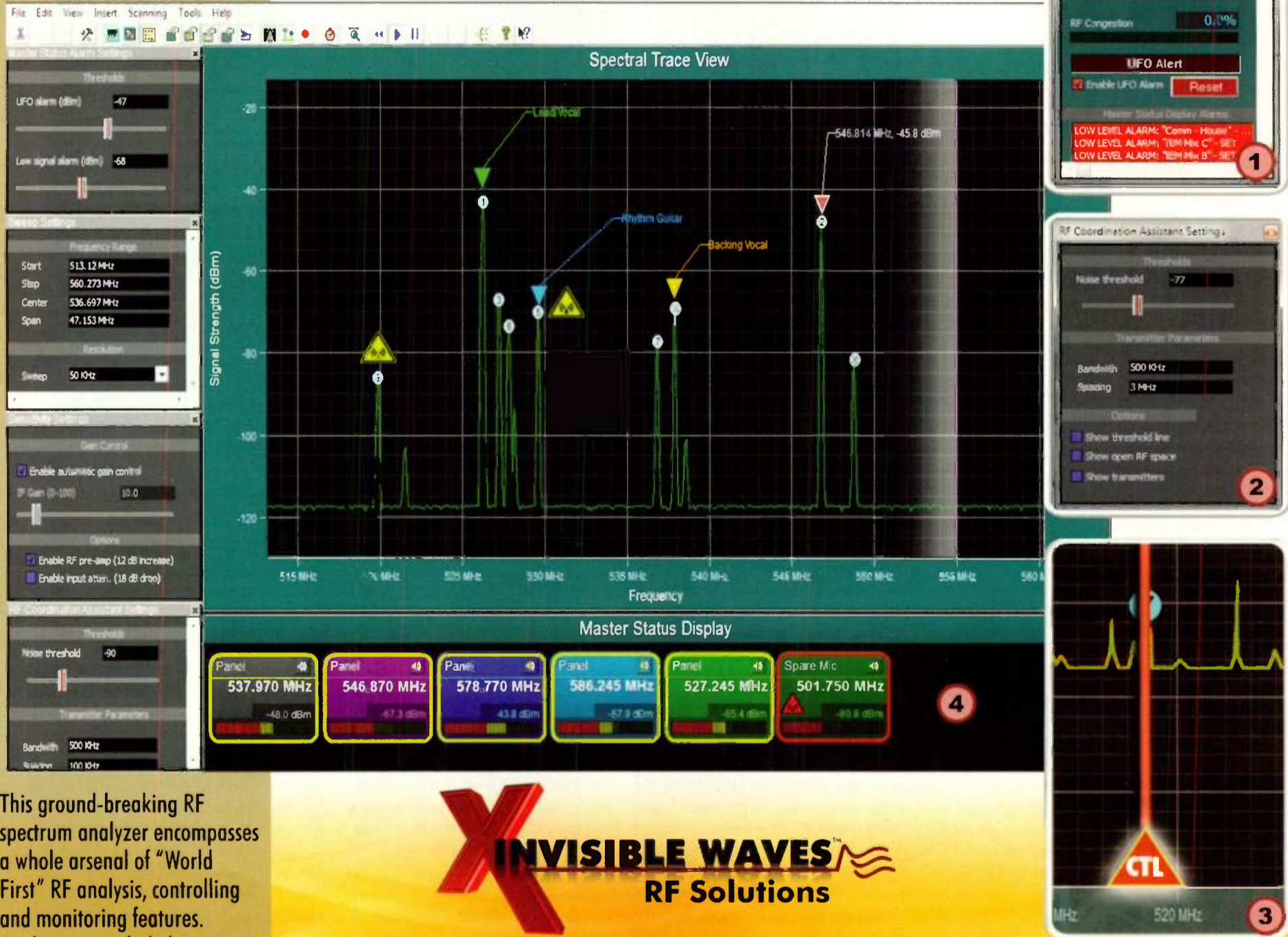
#### ‘Lamb’ Tour Roars with A&H

NASHVILLE, TN—The 15th annual ‘Behold the Lamb of God’ Christian music tour carried a considerable amount of gear for its 16-stop tour in December, including 11 Allen & Heath ([AmericanMusicAndSound.com](http://AmericanMusicAndSound.com)) ME-1 personal mixers, used by the drummer, percussionist and various singers to hone their personal mixes during each performance.

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## Thunder Audio Retains Tight Ties To Slipknot

BY CLIVE YOUNG

Slipknot returned to the road this past fall, supporting its latest album, *.5: The Gray Chapter*, a collection that reaffirms the band's place in the metal world after a lengthy, turbulent hiatus spurred by the death of founding member Paul Gray in 2010.

The current Prepare for Hell tour is taking the famously masked musicians around the world—they're in Europe and hitting a string of Australian festivals this month—but the live campaign kicked off in October with KnotFest, a two-day festival held at the San Manuel Amphitheatre and campgrounds in San Bernardino, CA. Providing all audio for that, the ensuing U.S. tour which followed and now the European leg is Livonia, MI/Nashville, TN-based Thunder Audio.

Speaking two days before the end of the U.S. trek, monitor engineer Rob Lightner found that the tour was in good shape. "It's been going really smooth; everything's fallen into place," he reported. "We've added some things that we didn't start with on the technical side, but it's just some more channels to a couple things and some changes for different effect pedals that we're using on bass. We're always trying to improve the things we can."

There's plenty to keep track of, as Lightner mixes monitors for the seven band members, plus two touring musicians on bass and drums, using a Midas Pro9 desk. "It's got everything I need on board," he said. "I only use a delay for Clown [percussionist/backing vocalist Shawn Crahan], who likes one on his vocal. I've got an internal plate reverb that I use for the snare drum, and otherwise, I just use the on-board gates and comps. The comps already have five different types of compressors that you can choose from, so just depending on what input it is, I'll switch the mode of the compressor to better accent what it is I'm compressing."

Lightner looks after tons of RF, including 12 channels of wireless just for percussionists Clown and Chris Fehn. Situated stage left and right, each one stands atop a riser with four drums and two empty beer kegs (which are played using baseball bats). Audix D4 mics connected to



LUKE MYZKA/CHARLES MILLER

Thunder Audio's new L-Acoustics K1 line array system is touring the world with Slipknot, seen here at the Bridgestone Arena in Nashville, TN.

Shure UR1 wireless packs are used on all the percussion, including two marching snares that Clown and Fehn wear at times to move around the stage. The need for wireless on the percussion risers, however, is due to a major gag where both platforms rise 12 feet on three scissor lifts; once they're up there, they can rotate infinitely 360 degrees in either direction.

"We used to have a similar percussion rig, but it was cabled and the cable would twist to the end," Lightner recalled. "There was no returning from that; it would just get ruined. Going wireless was planning for the future, basically, because they're going to keep doing this for a long time; I'd

continually have to buy small sub-snakes for both of them, so we just decided to cut the cables out of it."

Other miking complications arise from the percussionists, since they sing backup vocals; they and lead singer Corey Taylor all use Audio-Technica 5000 series wireless mics with AE6100 capsules. Said Lightner, "I have two for each person and they're all run through a switch that I can flip from A to B if one gets broken or the capsule's dying throughout the night or they throw it underneath the set and it can't be found easily."

The catch is, all those vocals are captured through the bandmembers'

trademark masks. "The center vocalist, his mask is two pieces—one part attaches to his jaw, so it moves," said Lightner. "The first night of the tour, at KnotFest, the mask wasn't allowing him to get the mic up into his mouth, so both FOH and I struggled a little bit, but he had the mask adjusted for the second night and he was right up on the mic again. At stage left, Clown's got a very wide, open hole around his mouth cut out, but the stage right percussion, Fehn, has a zipper on his mask for a mouth, so that can be tough. If he's not really pushing the mic right into it, it can create a chamber that causes a lot of low mid to gather in there; that'll come through the mic and change his voice a little bit, depending on what type of vocal he's doing at the time."

Two-thirds of the band opt for in-ear monitors in concert, all wearing Shure PSM 1000 systems with JH Audio JH16 ear buds. "I've used JH Audio for seven years and they take great care of us," said Lightner. Meanwhile, the stage left and right guitarists, Mick Thompson and Jim Root, rely on d&b audiotechnik M2 wedges and sidefills in the form of two L-Acoustics SB28s and two Arcs IIs on each side of the stage. M2s also provide supplemental feel for the bassist and drummer, and turntablist Sid Wilson, up stage left on a riser, gets his own pair as well. "I'd say that he is probably pumping a good 103 easily out of his wedges; our DJ



LUKE MYZKA/CHARLES MILLER

Keeping the audio in check are (l-r): Dan Bowers, system engineer; Dave "Shirt" Nicholls, FOH engineer; Rob Lightner, monitor engineer; Bill Gleespen, systems tech; and Adam Schuler, monitor assistant.

tech asked me to put it on tech mode when we're checking because it's so loud."

Of course, powerful monitors are only part of the overall system Thunder Audio's provided to Slipknot. Dave "Shirt" Nicholls' nightly mix on a Midas XL8 console at FOH delivers the band's brand of bombast with added detail via a new L-Acoustics K1 line array system comprised of 48 K1s and another two-dozen K2 enclosures, plus 16 K1-SB and 28 SB28 subs, providing more than enough firepower to fill an arena.

"The performance out of the K1 is probably the most impressive I've heard a system so far with that kind of music—pretty stunning actually," said Paul Owen, vice president at Thunder. "The separation in the mix is just phenomenal, and I think this system does it better than anyone. Unbelievable amount of fidelity and

"Slipknot's touring line array system is identical to the one we deployed for KnotFest. The system playing arenas is the same one we used to cover 30,000 people at the festival!"

*Paul Owen, Thunder Audio*

how you take care of a legacy client. "It's been a 15-year relationship with Slipknot," mused Owen, adding with a chuckle, "Slipknot's touring system is identical to the one we deployed for KnotFest. The system playing arenas is the same one we used to cover 30,000 people at the festival!"

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energy and horsepower out of it. It delivers it so well that you actually have to stop and go, 'That's 105 dB

right there and it's not really taking a breath.' It's quite impressive."

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## VITALstats

### Slipknot

Thunder Audio  
*(Livonia, MI/Nashville, TN)*

#### FOH Engineer:

Dave "Shirt" Nicholls

#### Monitor Engineer:

Rob Lightner

#### Systems Engineer:

Dan Bowers

#### Systems Tech:

Bill Gleespen

#### Monitor Assistant:

Adam Schuler

#### FOH Console:

Midas XL8

#### Monitor Console:

Midas Pro9

#### House Speakers:

L-Acoustics K1, K2, K1-SB, SB28

#### Monitor Speakers:

d&b audiotechnik M2

#### Personal Monitors:

Shure PSM 1000; JH Audio JH16

#### House Amplifiers:

L-Acoustics

#### Monitor Amplifiers:

d&b audiotechnik

#### FOH Equipment:

Klark-Teknik DN9696

#### Monitor Equipment:

Midas DL451

#### Microphones:

Audio-Technica 5000 series wireless mics with AE6100 capsules; Audix D4; Shure UR1/UR4D wireless

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## Cavaliers

(continued from page 42)

tional antennas to cover the football field. The wireless receivers and antenna systems were housed in same sound cart as the mixing console, amplification and outboard electronics.

With so much on the line, most drums corps use just one or two wire-

less systems. By using 10 systems, The Cavaliers placed themselves at risk, but one they felt was justified by the unique performance capabilities it enabled.

“One of the goals in our design this year was to put some of the best musicians from the front ensemble in the spotlight on the field—a non-traditional location for keyboard instruments,” said McGillen. “This meant we needed wireless systems and mi-

crophones that would handle the rigors of a DCI tour and give us great sounding results every performance. We knew that the line of products that Shure has to offer would be a perfect fit.”

At the DCI World Championships, held August 6-9 at Lucas Oil Stadium in Indianapolis, the event organizers helped coordinate wireless frequencies for all participating drum corps, helping ensure open frequen-

cies for performers, crews and media. This was not the norm during The Cavaliers’ summer-long performance tour, where the band’s touring sound engineer, Cristian Good, found workable frequencies using the scanning function on the various ULX-P systems in tow.

Miking the front ensemble orchestra required a similar level of preparation. Most instruments utilized the Shure Beta 98H/C miniature microphone, which is the hardwired version of the mic used wirelessly on the marching marimbas and euphonium; both versions can attach to a drum, the bell of a horn or a mallet instrument. In the front ensemble, the Beta 98AMP was found in several places on the drum kit, including all three toms and both the top and bottom of the snare drum. The kick drum was miked with a Beta 52A dynamic mic, with a Shure PG81 condenser picking up the cymbals. The five timpani drums were miked with two strategically placed SM137 condensers.

The Cavaliers also used some ethnic percussion within the pit orchestra. The sound of the djembe was captured by a Beta 98H/C, while a cajon required two mics: one Beta 98H/C, with a Beta 91A boundary microphone mounted inside.

Overall, The Cavaliers’ 2014 program required 38 channels to cover all the microphones, electronic percussion and synthesizers being used. Nonetheless, the vast majority of the group—the marching drums and brass, along with louder stationary instruments like the glockenspiel—received no sound reinforcement at all.

“That’s the tricky bit,” mused McGillen. “The entire sound design is still keyed to ensure that there is a balance between the winds and percussion. Our goal with all of the electronics and sound reinforcement is that they be seamlessly integrated together into one ensemble sound.”

The Cavaliers’ Lugo sees miking the band as a key element in the creative sound designs that The Cavaliers are known for. “We have gone out on a limb to explore creative ideas when it comes to wireless mics and sound design,” he says. “We like being known as innovators. Being successful with that approach requires the best equipment, and Shure microphones and wireless systems help us succeed under the most challenging performance conditions.” The Cavaliers purchase their Shure gear from McCormick’s Enterprises, a supplier to the drum corps and marching band market for over 40 years.

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The Cavaliers  
cavaliers.org

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## Jack Calmes

(continued from page 42)

own systems would be just shutting off every performance; they didn't like to give the crowd a bad show. As a musician myself, I understood their frustration."

Showco's biggest single event was the Texas International Pop Festival, held on Labor Day Weekend, 1969. While the show brought in big acts and reportedly went off without incident, it lost \$100,000. In the months that followed, Wynne left concert promotion, burnt out from six years of booking shows and Calmes mulled reconfiguring Showco into a touring sound reinforcement company.

In the *D* profile, Calmes explained, "I knew it could be done better. And if it could be done better, we'd have all the business we could possibly want."

Having moved on to real estate, Wynne sold his rights to the Showco name to Calmes and his new partners—college friend Rusty Brutsche and a local recording engineer, Jack Maxson. While the team built the company and its gear through trial and error, Showco soon had Three Dog Night, Led Zeppelin and Steppenwolf as its first three touring ac-

counts. Things only grew from there; Calmes resigned as president of the company in 1980, but by then, Showco had become one of the biggest sound providers in the world—a position it would hold until 2000, when it was purchased by and merged with its chief competitor, Lititz, PA-based Clair Brothers, to form ClairShowco (now Clair Global).

After leaving Showco, Calmes founded lighting company Syncrolite

in 1984 and remained its president until his passing, though he had retired from day-to-day involvement in recent years.

Some of Calmes's other endeavors over the years included producing concert films such as *The Rolling Stones: Some Girls Live In Texas* (1978, though unreleased until 2011) and *The Who Rocks America* (1982); managing Rock & Roll Hall of Fame inductee Freddie King and the band Bloodrock;

inventing mechanisms for production light fixtures which were awarded two patents in 2009; a brief marriage to future actress/pinup Morgan Fairchild; and playing guitar for decades in regional act the Forever Fabulous Chickenhawks Showband & All-Star Revue, which he founded in 1980.

Calmes is survived by his wife of 25 years, Susie, stepdaughter Audrey Bagwell Dellgren and grandchildren Johan and Ally Dellgren.

## Ian Newton

(continued from page 42)

home a trophy for his work on Madonna's 2004 Re-Invention tour, and again in 2008 for the Police's two-year reunion tour.

In an extensive remembrance on her website, Kate Bush recalled Newton's support in the run up to her 2014 *Before The Dawn* concerts—the singer's first performances in 35 years. While crediting him for introducing her to in-ear monitors and his dedication to the shows' sound, she noted, "He was a lovely, warm, generous-spirited man with a lovely sense of humour. Thank you Ian for being such an invaluable part of the team, for being so dependable and for being there for me and helping me have the confidence to get up there and perform live."

ClairGlobal's website also praised Newton in a post, noting "one of the nicest and most sincere guys to grace our industry and the lives of those that knew and worked with him. Never a bad word said, always there with a warm smile and a steady confidence, and so many tours and gigs done to peak perfection."

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ACT / STATISTICS	CREW	EQUIPMENT
<b>1 ONE DIRECTION   WIGWAM / EIGHTH DAY SOUND</b>	Mark Littlewood (be); Ant Carr (me); Nick Mooney (cc); Edgardo "Verta" Vertanessian (se); Ali Viles (rf tech), Ralph Smart (patch); Vince Buller, Peter Mesaros, Chris DeLucien (techs)	HC: DiGiCo SD7; MC: DiGiCo SD7; HS: d&b audiotechnik J Series, V Series; MS: d&b audiotechnik M2; IEM: Sennheiser 2000 Series; HA: d&b audiotechnik D80; MA: d&b audiotechnik D12; INTERCONNECTS: Radial JPC, Twin Isolators, Phazer; WIRELESS MICS: Shure UR Series
<b>2 JAY-Z &amp; BEYONCE   EIGHTH DAY SOUND</b>	Stephen Curtin (he); James Berry (artist me); Jim Corbin (bme); Arno Voortman (cc/se); Krysten Dean; Clinton Reynolds (ae), Ryan Koolman, Greg Horning, Cory Osadciw (tech)	HC: DiGiCo SD7; MC: (2) DiGiCo SD7; HS: d&b audiotechnik J Series, B2-Sub; MS: d&b audiotechnik M2, J Series, B2-Sub; IEM: Sennheiser; Shure; HA: d&b Audiotechnik D80; MA: d&b Audiotechnik; HARDWIRED MICS: Shure; Sennheiser; AKG; WIRELESS MICS: Sennheiser Digital 9000; FOH EQUIPMENT: Smart Research C2; Sonic Farm Creamliner; TC Electronic System 6000; MONITOR EQUIPMENT: TC Electronic System 6000
<b>3 KATY PERRY   CLAIR</b>	Pete Keppler (be); Manny Barajas (me); Ben Rothstein (cc/se); Hope Stuemke (stech); Krysten Dean; Matt Moser (mtech); Pete Erskine (RF/com); Kory Lutes, Taylor Holden (techs)	HC: DiGiCo SD5; MC: DiGiCo SD5; HS: Clair i-5D, i-3, i-dl, BT-218, Cohesion CP-218, Cohesion CP-118, P-2; MS: Clair 12AM, SRM; IEM: Sennheiser SR 2050, AC 3200, A5000; JH Audio JH7, JH13, JHFR; HA: Clair StakRak (Lab.gruppen); MA: Clair StakRak (Lab.gruppen); MICS: AKG; DPA; Shure; Sennheiser EM 3732, SKM 5200-II, MD5235; Radial JDI; EQUIPMENT: Waves Soundgrid Extreme Server; Genelec 1031A monitor speakers; Radial SW8, Workhorse
<b>4 JUSTIN TIMBERLAKE   SOLOTECH</b>	Andy Meyer (he); Dan Horton (me); Colin St-Jacques (cc); Etienne Lapré (se); Francois Hallé (ae); Alexandre Bibeau, Eric Marchand, Matt Holden (tech)	HC: DiGiCo SD7; MC: DiGiCo SD7; HS: L-Acoustic K1, Kara, SB28, V-Dosc, SB18, K1-SB, 108XT; IEM: Shure PSM 1000; HA: L-Acoustics LA8; HARDWIRED MICS: Shure SM57; Audio-Technica AE5400, ATM25; Rode; WIRELESS MICS: Shure Axient; Audio-Technica 5000 series with AEW-T6100 transmitter; FOH EQUIPMENT: Waves; Bricasti M7; MONITOR EQUIPMENT: Bricasti M7; Eventide Eclipse; Radial SW8
<b>5 FLEETWOOD MAC   CLAIR</b>	David Kob (be); Ed Dracoules, David Coyle (me); Donovan Friedman (cc/se); Steve Hupkowitz, Meg Tempio, Ricky Avilia, Dave Wiseman (techs)	HC: (2) Avid Venue Profile; Yamaha PM5000; MC: Avid Venue D-Show with sidecar; DiGiCo SD10; HS: Clair i-5D, i-5, CO-8, CP-118 subs, FF2; MS: Clair 12am, R-4III, ML-18; Avid PQ System; IEM: Shure PSM 1000, PSM 600; HA: Crown; MA: Crown; HARDWIRED MICS: AKG C414 B, C 451EB; Audio-Technica AT4054, AE6100; Shure SM 57, Beta 98, Beta 56, Beta 91a, KSM313/NE, Beta 181, KSM137; Beyer M 201 TG; Milab DC-96B, BDM-01; Sennheiser MD 421-II, MKH-416, ME 2, e 935; Audix D4; Countryman DI; WIRELESS MICS: Shure UR Series; FOH EQUIPMENT: Summit TLA100; Yamaha SPX2000; Lexicon 480L; Eventide Eclipse; Bricasti M7; Aphex 612; TC Electronic D-Two; Lake LM 44, LM 26; Empirical Labs EL-8; Avalon AD2044; MONITOR EQUIPMENT: Crane Song Phoenix; TC Electronic VSS3; Rational Acoustics Smaart
<b>6 BILLY JOEL   CLAIR</b>	Brian Ruggles (he); Josh Weibel (me); Rich Schoenadel (cc/se); Lan Turner (m tech); Tom Ford, Jon Yochem (tech)	HC: DiGiCo SD5; MC: Avid Venue Profile; HS: Clair i-5, i-5b, i-3, P-2, BT-218, R-4 Series III; MS: Clair CM-22, SRM, ML-18, Cohesion CO8; IEM: Sennheiser 2050; HA: Lab.gruppen; MA: Lab.gruppen; HARDWIRED MICS: Shure Beta52, SM91, Beta91, SM57, SM98, KSM32, SM58, KSM137; AKG C414; Sennheiser MD-421; Audio-Technica AT4050, AT4054; WIRELESS MICS: Shure UR Series; FOH EQUIPMENT: Lake LM44; Summit DCL-200; TC Electronic D-Two; Eventide Eclipse; Lexicon PCM-70; Tascam SS-CDR200; SSL bundle; MONITOR EQUIPMENT: Avid Venue Pro Pack
<b>7 LUKE BRYAN   CLAIR</b>	Pete Healey (be/pm); Ed Janiszewski, Chris Holland (me); Kevin "Kap" Kapler (se); Tyson Clark (ase); JP Howell (tech)	HC: Midas XL-4; Avid Venue Profile; MC: DiGiCo SD7; HS: Clair i-5D, i-5, BT-218, CO-8; IEM: Shure PSM 1000 IEM; Sensaphonics; Westone, Ultimate Ears ear buds; HA: Clair StakRak; Lab.gruppen PLM 20000; HARDWIRED MICS: Shure 91, 98, 57, SM27, Beta98, Beta52; Radial DI; WIRELESS MICS: Shure; FOH EQUIPMENT: Focusrite ISA 430; Aphex 622; UREI LA-4; dbx 160x; Summit DCL-200; TC Electronic 2290, M5000, M3000; Eventide H3000; Yamaha SPX 90; MONITOR EQUIPMENT: Yamaha SPX-1000; Eventide Eclipse; TC Electronic M3000
<b>8 GEORGE STRAIT   ONSTAGE SYSTEMS</b>	George Olson (he/cc/se); Josh Kaylor (me); Paul Rogers (pm); Ernie Gonzales, Jason Chamlee (st)	HC: Avid Venue Profile; MC: Avid Venue Profile; HS: L-Acoustics V-Dosc, dV-Dosc, SB 28, Kudo; MS: Clair 12AM; IEM: Sennheiser G2, Shure PSM 1000; HA: L-Acoustics LA8; HARDWIRED MICS: Shure KSM9; Audix; Sennheiser; Beyerdynamic; Radial J48, JDI; Royer Labs; AKG; WIRELESS MICS: Shure UHF-R; FOH EQUIPMENT: Lake LM-44; Controller 6.1 with Rational Acoustics SMAART 7 bridge; L-Acoustics network manager; Black Lion Audio Micro Clock; Plug-Ins: Plugin Alliance Maag EQ; Transient Designer/SPL; Waves Mercury; McDSP; Rane/Serrato; Crane Song Phoenix; MONITOR EQUIPMENT: Black Lion Audio Micro Clock
<b>9 BRUNO MARS   CLAIR</b>	Derek Brener (be); Lawrence "Filet" Mignogna (bme); Erik Rodstol (me/mtech); Randan Weinholtz (cc/se)	HC: DiGiCo SD7 with SD Racks; MC: DiGiCo SD7 with SD and Mini Racks; HS: Clair i-5, BT 218, i-micro; MS: Clair BT 218, BT 118; IEM: Sennheiser SK 2000, AC 3200 combiner; Clair antenna combiner, Helicals; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Earthworks KP1, SR30, SR 40, DP30/C; Beyer M88, Opus 88; Shure SM 57, Beta 57a, Beta 91; Sennheiser e 945, e 602, MKH 416; Heil PR 30; Radial JDI; Audio-Technica ATM25; WIRELESS MICS: Audio-Technica 5000 series with AEW-T6100 transmitter; Sennheiser SK 2000; FOH EQUIPMENT: Waves Mercury; MONITOR EQUIPMENT: Waves Mercury
<b>10 PAUL MCCARTNEY   CLAIR</b>	Paul "Pab" Boothroyd (be); John "Grubby" Callis (me); Chris Nichols (se); Paul "Swanny" Swan (mse); Sean Baca, Nicole Wakefield, Brandon Allison (techs)	HC: Avid Venue Profile; Midas Pro9; MC: (2) Midas Heritage 3000; HS: Clair i-5D, i-5, i-5b, BT-218 subs, i-3, i-dl; MS: Clair SRM, ML-18, R-4 III; IEM: Shure PSM 600; HA: Lab.gruppen; MA: Crown; MICS: Shure UR series with Beta58a capsule; Radial J48; FOH EQUIPMENT: dbx 160SL; TC Electronic 6000; MONITOR EQUIPMENT: XTA GQ600b; Drawmer DS201; Yamaha SPX900

**LEGEND:** (he) house engineer. (ahe) ass't house engineer. (be) band's house engineer. (me) monitor engineer. (ame) ass't monitoring engineer. (bme) band's monitor engineer. (se) systems engineer. (ae) ass't engineer. (tech) technician. (cc) crew chief. HC: house console. MC: monitor console. HS: house speakers. PMS: personal monitor systems. MS: monitor speakers. HA: house amplifiers. MA: monitor amplifiers.

Top 10 highest-grossing North American tours of 2014, as ranked by *Pollstar*. Some tours did not report grosses for all shows; rankings may be affected as a result. Equipment and crew information are provided by the respective sound reinforcement companies.

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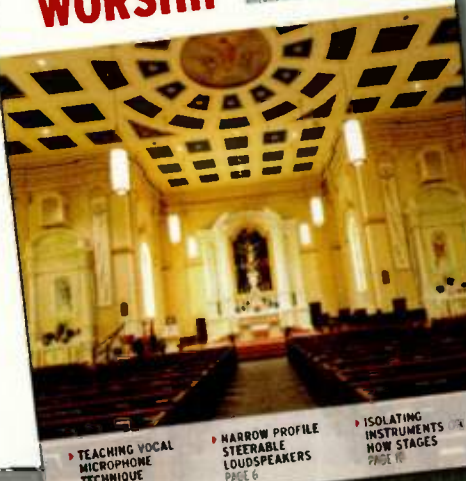
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ACT	SOUND CO	VENUE	CREW	EQUIPMENT
Chris Botti	<b>RMB AUDIO</b> Raleigh, NC	<b>DPAC</b> Durham, NC	Alan Beck (be), Rick Null (me), Eric Ramquist (se), Cooper Canady (tech)	HC: Midas Pro6; MC: Yamaha M7CL; HS: Meyer Sound Mica, M2D, 700-HP, 110-LFC, UPA; MS: Martin Audio LE1200; HA: Meyer Sound; MA: Lab.gruppen
Don Felder	<b>BOULEVARD PRO</b> Ridgefield, NJ	<b>GLASTAVINOS</b> New York, NY	Ralph Grasso (he), Randy Taber (me), Richard Landers (bme), Daryl Moore (se), Vernon Perrone (se)	HC: Yamaha CL5; MC: Yamaha PM5D-RH; HS: L-Acoustics Kara, SB18, 8XT; MS: L-Acoustics 112P, SB15P, Sennheiser G3; HA: L-Acoustics LA-Rak; MA: L-Acoustics self-powered
El Monstero	<b>LOGIC SYSTEMS</b> St. Louis, MO	<b>ART HILL</b> St. Louis, MO	Joe Shambro (he), Chip Self (be), Tim Kresko (be), Ziggy Stull (bme), Paul Brough (me), Pat Murphy (se), Mike "Chef" Stewart (tech)	HC: Midas XL-4, Heritage 3000; MC: Avid Venue Profile, Yamaha PM5D; HS: Nexo GeoT; MS: Logic LS152, Shure PSM 900; HA: Camco Vortex 6; MA: QSC PL236a
Finnders and Youngberg	<b>DYNASAUR SOUND AND LIGHT</b> Hastings, NB	<b>THE LARK</b> Hastings, NB	Doc Ivo (he), Don Robertson (se), Neil Brunkhorst (tech)	HC: Soundcraft LX-7; MC: Dynamics 1608; HS: Wannanosaurus Bins, Trachyodon Top, Saltopus side fills; MS: IVO LR 12 H; HA: Crown MacroTech; MA: IVO Quadralux
Granger Smith featuring Earl Dibbles Jr.	<b>ENTERTAINMENT SUPPORT SERVICES</b> Omaha, NE	<b>YORK COUNTY FAIRGROUNDS ARENA</b> York, NE	Blake Stewart (he, be, me), Nick Svoboda (se), Klare Ellis (tech)	HC: Soundcraft Digital; MC: Soundcraft Digital; HS: Grund Audio 4041; HA: QSC MX3000a, MX1500, Ashly FET 1501
Greg Brown	<b>SEMIPRO AUDIO</b> Bozeman, MT	<b>EMERSON CULTURAL CENTER</b> Bozeman, MT	Rich Robiscoe (he)	HC: Mackie DL1608; HS: Meyer Sound CQ-2, UPA-1P
Heber City Cowboy Poetry and Western Music festival 20th Anniversary	<b>ATKINSON SOUND</b> Kamas, UT	<b>WASATCH COUNTY HIGH SCHOOL</b> Heber City, UT	Gary James (he), Eric Stoddard (me), Hoyt Atkinson (se)	HC: Yamaha PM5D-RH, Avid Venue Profile, SC48; MC: Yamaha PM5D-RH; HS: JBL VTX S25, VTX G28; MS: JBL F12; HA: Crown VRack 12000HD, 4X3500HD; MA: Crown VRack 4X3500HD
Jamie Lynn Spears	<b>PEAR BROTHERS SOUND &amp; LIGHTING</b> Carleton, MI	<b>DELTAPLEX ARENA</b> Grand Rapids, MI	Carl Vloch (he), Bill Vloch (me), George Favazza (tech)	HC: Soundcraft; MC: Soundcraft; HS: Bag End Gem Series; MS: Bag End, Yamaha, Sennheiser G3; HA: QSC; MA: QSC
Lady Antebellum	<b>SATIN SOUND SYSTEM</b> Hermitage, PA	<b>FIRST NIAGARA PAVILLION</b> Burggettstown, PA	Brett "Scoop" Bladen (he), Peter Bowman (me), Bill Lowery (se), John Durisko (tech)	HS: Martin Audio W8L Longbow, W8LC, WSXA subs; HA: Lab.gruppen FP 7000, PLM 10000Q, Powersoft K10
Michael Paulo	<b>SYSTEMS INTEGRATION ENGINEERING</b> Temecula, CA	<b>TURTLE BAY RESORT</b> Kahuku, HI	Prime Time Pipl (be), John R. Borja (se), Edie Pascua (ae)	HC: Yamaha; HS: Carvin Audio TRC400A; MS: Yamaha DBR12
Phil Vassar, Kenny Rogers, Cinderella, Sarah Evans	<b>CONCERT SOUND &amp; LIGHTING</b> Acton, MA	<b>WOODSTOCK FAIR</b> Woodstock, CT	Dave James (he), Derek Vogt (me), Dan Grabus (tech), Kenny Thurman (be), John Dauphinee (be), David Mitchell (be)	HC: Avid Venue Profile; MC: Avid Venue SC48; HS: Electro-Voice Xlc DVX, Meyer 700-HP; MS: Clair 12AM; HA: Electro-Voice P3000; MA: StudioR X8, QSC PLX1802
South Coast Plaza Tree Lighting	<b>TRINITY SOUND COMPANY</b> Corona, CA	<b>SOUTH COAST PLAZA</b> Santa Ana, CA	Devin DeVore (he), Jake Dellling (tech)	HC: Yamaha QL5; HS: Nexo GeoS12, PS8; MS: JBL SRX712; HA: Nexo; MA: QSC PLD 4.5
Take It All Tour	<b>IRONMAN SOUND INDUSTRIES</b> St. Louis, MO	<b>CALVARY CHURCH</b> O'Fallon, MO	Bob Horner (he), PJ Culbreth (be), Dillon Callahan (se)	HC: Midas Pro2; HS: Martin W8LC, WSX, X12; HA: Lab.gruppen PLM
WDAS Holiday Jam Featuring Jill Scott	<b>BAUDER AUDIO SYSTEMS</b> Horsham, PA	<b>LIACOURAS CENTER</b> Philadelphia, PA	Tom Hogle (he), Jon Smeltz (be), Craig Kaufmann (me), Jim Roach (bme), Keith Harewood (se), Jon O'Neill (se), Brian Naab (tech)	HC: Avid Venue Profile, Yamaha CL1; MC: DIGiCo SD10; HS: L-Acoustics K2, Kara, SB28; MS: Sennheiser G3, L-Acoustics SB18; HA: L-Acoustics LA8; MA: L-Acoustics LA8
WRNS Guitar Pull Featuring Josh Thompson, Easton Corbin	<b>BENSON PRO AUDIO</b> Havelock, NC	<b>STATION THEATER</b> Cherry Point, NC	Pete Benson (he), Clancy Schmucker (me)	HC: Yamaha CL5; MC: Yamaha M7CL; HS: QSC WL2102, Wideline 10; MS: JBL VR915m; HA: QSC PL380, PL230; MA: QSC PLX3602, PLX1602

**LEGEND:** (he) house engineer. (be) band's house engineer. (me) monitor engineer. (bme) band's monitor engineer. (se) systems engineer. (ae) asst. engineer. (tech) technician. HC: house console. MC: monitor console. HS: house speakers. MS: monitor speakers. HA: house amplifiers. MA: monitor amplifiers.

To be included in Soundcheck, fax, mail or email a current, typed list of acts, venues, personnel and equipment each following the above format. E-mail is strongly preferred. E-mail to kwelch@nbmedia.com, fax: (212) 378-0470, or send to: Soundcheck, Pro Sound News, 28 E 28th Street, 12th Floor, New York, NY 10016.

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## SR in 2015

*(continued from page 1)*

kept sound companies at every level busy, whether they were sending full productions around the country, providing local stacks and racks to tours, or tackling audio for local events.

Jack Boessneck, executive vice president of Eighth Day Sound (Highland Heights, OH), sees the momentum of last year continuing: "I think this year is going to be the biggest ever—that's the trend. Everybody's going out to work. I'm always an optimistic guy, but this year, I'm unusually optimistic."

That will translate into the expected arena and shed tours carrying full production, but Boessneck

If you look at the size of the venues that are getting played...there are more places to play on a smaller level, I think."

On the other hand, some think that the current precipitous drop in gas prices will spur more 2015 tours to invest in the consistency that comes from carrying complete audio systems. "I think [the drop] makes it more economical to carry productions," said Paul Owen, vice president, Thunder Audio (Livonia,

"I think [the fall in gas prices] makes it more presentable for people to carry production without worrying that they have to go to another truck now."

*Paul Owen, Thunder Audio*

potentially spend on concerts. If ticket-buyers are looking to get the most bang for those unexpected bucks, they may well get some ducats for some of the endless number of festivals that are increasingly dominating the concert industry landscape.

"There's still a lot out there, and five or six have expanded to double-weekends, like Coachella and ACL [Austin City Limits]," said Boessneck, whose company provides au-

around, their current ubiquity has changed not only the touring industry, but also how sound companies approach providing audio for them. Just 10 years ago, audio vendors saw the then-comparative handful of multi-day events as a double-edged sword: Festivals were money-makers, but taking them on meant keeping systems off the road that would otherwise be touring. Now, with the pervasiveness of fests, the situation has changed.

"You can do a festival 'tour,'" said Boessneck. "If you're smart enough—and some of us are, I'm sure—you can put together a system to do festivals, with tweaks in between them, because this one needs delays, next one maybe you leave them in the truck, and another one one needs more control [systems]. You've got to have good sales people and it's a little bit of a balancing act, but you can do it."

If there's going to be more work this year, sound companies are understandably concerned that they have inventories to match the gear needs showing up on Requests for Quotation. "You have to have everything in your arsenal," said Owen, "but you're always going to stock up on what's more prominent, and we know what we're sub-renting or what we're using in the touring market, and we can't really see a big change from Avid Venue Profile being the most dominant desk right now. It's the go-to console, the majority of festivals use it and it seems to be the most-asked for, rider-wise. However, I do think there's room in the market for a new console to come in here, whether it be SSL or whoever, but at the end of the day, it has to be road-tested and have reliability."

Boessneck felt some alternatives might be around the corner: "Yamaha's got a new top-of-the-line console [the Rivage PM10] coming out. Otherwise, it's quiet, but not a complete lull. Everybody's threatening to put out something new. There's a lot of staples of this industry that are getting a little long in the tooth, and I'm sure every manufacturer knows their product's life cycle. But what's the timing? The timing is 'Don't kill what you're selling if it's selling!'"

Thunder Audio  
thunderaudioinc.com

Eighth Day Sound  
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The on-going success of long-running events like Bonnaroo has inspired a now-packed festival marketplace, which in turn is helping keep sound reinforcement companies busy.

also predicts a surge of small- and mid-sized tours as well that will be running tighter ships when it comes to bringing along audio equipment. With up-to-date line array systems readily available from regional providers around the country, many artists may make the rounds carrying less production, in part because there seems to be an expanding variety of venues to play, ranging from local theaters to outdoor events to wineries, making a case of "one system fits all" very unlikely.

"The trend's gonna be that smaller is better," explained Boessneck. "There's going to be more acts who are going to carry control gear in a bus bay or behind in a trailer.

MI/Nashville, TN). "When you have the trailer on the back of a bus with some in-ears, digital consoles and a backline, you've got the fuel of the bus and that's your transport cost. With fuel prices being as low as they are—and we own our own trucks and run them, so obviously we see the impact of that straight away—I think it makes it more presentable for people to carry production without worrying that they have to go to another truck now."

If nothing else, the slide of gas prices—the national average being \$2.06 as of mid-January, a full 40 percent less than the 2014 peak of \$3.70 last April—will leave more money in consumers' pockets to

audio for ACL and Bonnaroo. "There hasn't been a huge attrition of festivals; they just keep going and find more footholds, so their brands get stronger."

Owen, whose company provides systems for Lollapalooza, Bonnaroo, Orion and the Detroit Electronic Music Festival, among others, sees the festivals' success as a no-brainer to consumers: "They're buying tickets for an event now, not an artist per se. People are getting Bonnaroo tickets before the lineups are even announced because they know they're going to see a wide variety of the top artists in the business in three days."

While festivals have always been

# Tour Engineer Jeff Kaplan Killed

BY CLIVE YOUNG



The late Jeff Kaplan with his daughter, Vivien.

ANNAPOLIS, MD—Tour engineer/production manager Jeff Kaplan was killed on January 7, when he was hit by an SUV following his own car accident on Route 50 in Annapolis, MD.

Kaplan, 43, lost control of his 2013 Subaru around 2 a.m., crashing into the highway median. When Kaplan got out of his car, he was standing in a lane and was hit by Aaron Nedd, 30, who was driving home from work. Kaplan was pronounced dead at the scene. The stretch of highway where the accidents occurred does not have roadway lighting.

Kaplan worked with acts ranging from pop (Michelle Branch, Thomas Dolby, Plain White Ts, Fiction Plane) to hip-hop (Snoop Dogg) to alternative (Brand New, Jimmies Chicken Shack, G. Love and Special Sauce) to metal (Buckcherry, POD, Unwritten Law, A Day To Remember), among others.

Kaplan leaves behind his 7-year-old daughter, Vivien. “He loved her so much,” Vivien’s mother, Melanie Loughry, told the *Capital Gazette*. “He was always so supportive of her theater and her singing and her education. He really believed in her and was a really good, supportive father.”

Online, tributes poured in for the fallen engineer. “RIP Jeff Kaplan, he was one of the nice ones,” tweeted Vans Warped tour producer Kevin Lyman, while on Instagram, Kevin Skaff and Alexander Shelnutt of A Day To Remember, the band Kaplan had been working with most recently, wrote lengthy remembrances as well.

An online memorial fund was set up for Kaplan’s daughter, Vivien, with a goal of raising \$75,000.

Jeff Kaplan Memorial Fund  
www.giveforward.com/fundraiser/gx77/jeff-kaplan-memorial-fund

## Broadcast 5.1

(continued from page 1)

out 5.1 in the sports world without a lot of clear definitions,” said one veteran broadcast audio pro. Two decades on from the adoption of 5.1—a format previously marketed as “immersive,” lest we forget—in broadcast, the industry’s ability to deliver a standardized surround sound experience leaves something to be desired. In Germany, for example, “all the networks have standards within their own networks, but then there are standards across networks,” he noted.

Forum participants concurred: “We don’t even agree that the program is going to be stereo or 5.1, and we don’t have rules for what the 5.1 program should be,” said one.

“We create all this turbulence—it’s stereo, it’s 5.1, we’re upmixing, we’re downmixing. If we just said that the program format is 5.1, we would remove all this uncertainty,” said another. From a program featuring talking heads with dialogue only in the center channel, to a sports event with fully enveloping crowd sound, native 5.1 production can minimize any adverse consequences.

But would a global 5.1 standard work? Soccer fans—outside of the U.S., anyway—express more interest in being surrounded by the sound of fellow supporters, it appears. As one speaker reported, “If I want to hear the field of play, as I was told by my German friends, the kick of the ball

is not as important as the chanting of the crowd.”

The switch to an object-based delivery format (various alternate encoding schemes are being considered for the next-generation TV broadcast standard in the U.S.) could allow a viewer to choose between being immersed in the home team or the away team crowd. It could allow him or her to alter the volume level of the commentary, or even mute it.

As one presenter pointed out, there would need to be relatively few changes to current audio signal workflows to implement such interactivity. Simply put, the signals to be made available for viewer adjustment, such as commentary, alternate languages or sound effects, could be fed from the production console direct outs alongside the mix of the remaining channels, or sent back to the network operations center via an alternate path if there are bandwidth limitations.

The big question, of course, is whether or not producers and content creators will relinquish even minimal control—say, adjustment by plus or minus a couple of dB—of any part of the audio mix. “I think monkeying around with the mix is part of the future entertainment experience,” said a participant.

But the personalized experience concept does offer financial incentives, which might help drive adoption of object-based formats. For example, a broadcaster could charge viewers an additional fee for access to certain extra, adjustable elements, such as pit crew-to-driver radio communications.

How those elements might be presented to viewers is still being evaluated. One developer has experimented with graphic interfaces that enable volume level or balance adjustments via on-screen sliders. Another believes that, based on its audience surveys, viewers want simple controls, perhaps nothing more than a commentary level boost button. “Ultimately, it’s about dialogue clarity. We gave choices of multiple things to mix together and it got very confusing very quickly for the vast majority of consumers,” reported a company representative.

“I want it to work as well on my mobile as in my home theater. That means being able to hear the dialogue,” he added. The demand for dialogue intelligibility is what will drive the adoption of object-based audio delivery, many believe, especially on mobile devices, which are often used in noisy environments.

For all the potential of object-based formats to also deliver an immersive sound experience, “The vast majority of consumers are still going to be listening in stereo in five years’ time, largely through stereo TV speakers,” predicted one presenter.

“It used to be only the high-end audiophiles wanted 5.1,” stated a panelist. But as music services evolve and hi-def picture becomes more important, especially for the generation currently growing up to become homeowners, “I think we’re going to see a huge explosion in the next 15 years of people who are looking for a 5.1 experience, be it virtualized headphones, soundbars, surround system, or whatever the next thing is.”

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Mike Volkerding

Aurisonics, Inc. has named **Mike Volkerding** national sales manager for the US MI market. In his new role, Volkerding will develop partnerships with music retailers and their clients: the performing musician.



Robert Pennington

Riedel Communications has named **Robert Pennington** as its U.S. sales manager, broadcast, for the east coast, where he will assist customers in selecting and implementing Riedel's product portfolio of networked communications and signal transport solutions.

Pennington began his professional career as a broadcast television news producer at WCIV-TV in Charleston, SC, and at WTOV-TV in Steubenville, OH. Pennington later served as program director for MDTV at West Virginia University.

Sound Devices has appointed **Ed Capp** to vice president of Sales. In his new role, Capp will oversee and manage the Sound Devices global sales team, further promoting the company's products while continuing to strengthen the Sound Devices reseller and distributor network.



Ed Capp

During his tenure with Sound Devices, Capp has reportedly been instrumental in expanding the company's reach around the world. Prior to Sound Devices, Capp served as the U.S. regional sales manager for Shure. Capp holds a communications degree from Emerson College in Boston, MA.



Vlad Konopelko

Middle Atlantic Products has named **Vlad Konopelko** product manager, Power, where he will work with the product development team to bring to market power solutions that help integrators install reliable systems.

**Joseph Bacchiario III** has joined the national independent technology consulting firm, The Sextant Group, as principal consultant. Bacchiario holds a Ph.D. in Educational Technology and brings 25 years of industry experience. A native of New York, he resides with his family in northern Virginia and will be working from The Sextant Group's Washington DC office.

Moyers Group has hired **Brad Ward** as a system design consultant in the

## 60SECONDS



## Karam Kaul

AKG

**Q:** What is your new position, and what does it entail?

**A:** My new role is director of Marketing at AKG, which means I determine product and communications strategy and execution for the brand. That can be simply translated to understanding our customers' needs, building the right products to address those

needs and communicating effectively with customers around the world in an engaging and authentic way. If I can do that, then AKG will be better connected with our community of end users, we'll understand and anticipate their needs better and we'll be more a successful business.

**Q:** How has your background prepared you for your new role?

**A:** I have spent a lot of time in the retail channel, so I think I understand the dynamic quite well and know that you don't simply build product—you need supporting programs as well! My background also includes digital strategy, and whereas digital is continually evolving, I have a good handle on what works and what does not work.

**Q:** What new marketing initiatives are we likely to see from the company?

**A:** It's early yet. I want to listen to the customers, listen to our channel partners and listen to our R&D and factory teams so that I can craft programs that are meaningful to all three constituent groups. We will act—and act ambitiously—but we'll do so in an educated versus intuitive way.

**Q:** What are your short- and long-term goals?

**A:** There is phenomenal potential within this organization. My long-term goal is to elevate the AKG brand and the AKG business to where we all agree it should be. On the short term, I think we can make gains on the business with our existing and incredible product portfolio.

**Q:** What is the greatest challenge that you face?

**A:** Every business faces challenges and AKG is no different, but I do think our current team is very strong, our goals are ambitious and we are ready to execute. Prioritizing all our initiatives for the near-, mid- and long-term will be the challenge as we're all eager to get all of our projects off the ground.



Brad Ward

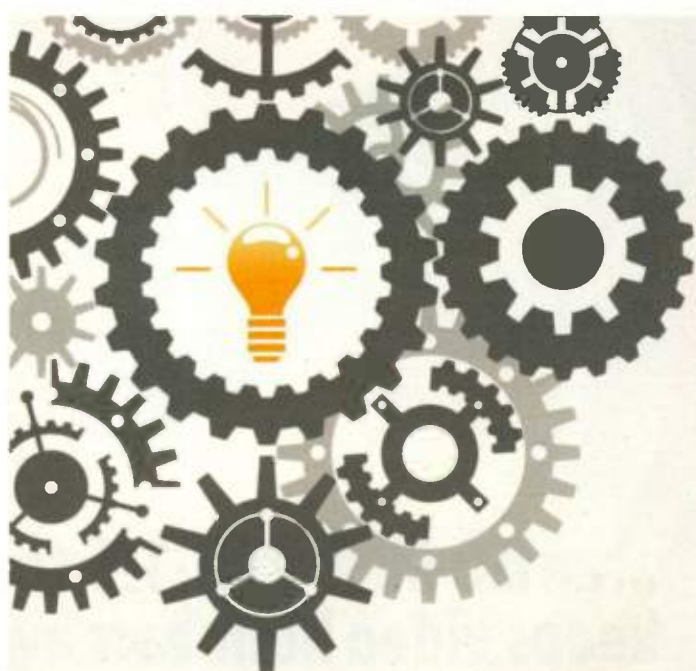
Atlanta office, where he will focus on system design and client relations in the areas of theater/performance, education, and houses of worship. Prior to joining Moyers, Ward was assistant professor of Audio Engineering

Technology at Belmont University in Nashville, sound project manager for Blitz Communications in London, designer for Acoustic Dimensions in New York City, and lead audio tech for Cirque du Soleil's *The Beatles LOVE* in Las Vegas. Ward holds an MFA in Sound Design from the Yale School of Drama and recently received his CTS certification.

Harman Professional has named **Eric Boyer** as AKG's vice president of Worldwide Sales. Boyer will be based out of Harman Professional Division's Northridge, CA headquarters and will work closely with the AKG team in Vienna, Austria.

He was previously director of Marketing and Global Business Development at Beijing Pacific Budee Technology Development Co. in Beijing, China, and prior to that, director of Business Development at Burl Audio in Santa Cruz, CA. Boyer was also vice president of Operations at Audio Agent, led marketing for PreSonus Audio Electronics and was director of Marketing and later vice president of Manufacturing at Blue Microphones. He is a Pro Tools-certified producer/engineer and a voting member of the Recording Academy, as well as a member-at-large of the Audio Engineering Society.

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## soundREPS

■ Soundtube Entertainment has appointed Northport, NY-based Cardone, Solomon and Associates to represent the company in upstate New York, while Midvale, UT-based Signal Marketing, Inc. will represent the company in the Rocky Mountain territory.

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# Breaking Away

KURT MELTZER, DIRECTOR OF SALES, POWERSOFT ADVANCED TECHNOLOGIES CORP.

BY KELLEIGH WELCH.

Since diving into the industry more than 25 years ago, Powersoft's Kurt Meltzer has always demonstrated a passion and curiosity for how audio works, both as a musician and part of the audience.

"I was always curious how art—be it a concert, ballet, or whatever—was somehow enhanced by using innovative audio gear," Meltzer said. "It was this curiosity that drove me to succeed, as well as my failure to reach the desired result I was looking for while playing in bands. In any event, I was able to launch my career based on the knowledge about audio I had accumulated over many years."

Metzler has seen many sides of the pro-audio industry during the course of his lengthy career. Initially graduating from the University of California, Santa Barbara with a BS in Music Composition, his experience in the pro-audio field began after graduation when in 1987, he opened what was the first pro audio store in Santa Barbara, CA, Sound Advice/Holiday House Westminster, Inc. That endeavor stood him well, as it found him growing the business from nothing to \$2.6 million in gross annual sales and 12 employees.

The next stop was to briefly work with Guitar Center's Hollywood store to develop its outside sales program, but it wasn't long before Metzler arrived at Southern California pro audio sales rep firm Star Enterprises, where he spent five years. The next step in his career was joining Sennheiser Electronic Corporation in 2001, where he oversaw western regional market development for two years before moving to Loud Technologies in 2003. There, he was National Sales Manager, Installed Sound, until 2006, when he became U.S. Installation Market Manager for Meyer Sound for three years, eventually returning to Loud in July, 2009 as EAW Sales Manager – North America, before moving to Powersoft in January of last year.

By the time he joined Powersoft in 2014, Meltzer had worked with industry greats such as Kenton Forsythe and John Meyer, who he credits with giving him the opportunity to gain the experiences he needed to lead Powersoft's U.S. sales team as director of sales. "I think I was at-

tracted to Powersoft because it was still relatively unknown in the U.S. market, despite being an incredibly innovative audio manufacturer. When I first visited the company at its headquarters in Italy, I was astonished by its state-of-the-art, 'green' solar-powered manufacturing facilities," Meltzer explained.

Acknowledging that Powersoft is growing in its installed sound business, Meltzer saw this as an opportunity to raise more awareness of the company in the U.S. markets. For example, Meltzer said, Powersoft's K Series amplifiers have become successful in the rental market, but he still sees an opportunity to extend that success by broadening the customer base and working closer with system integrators and installation consultants.

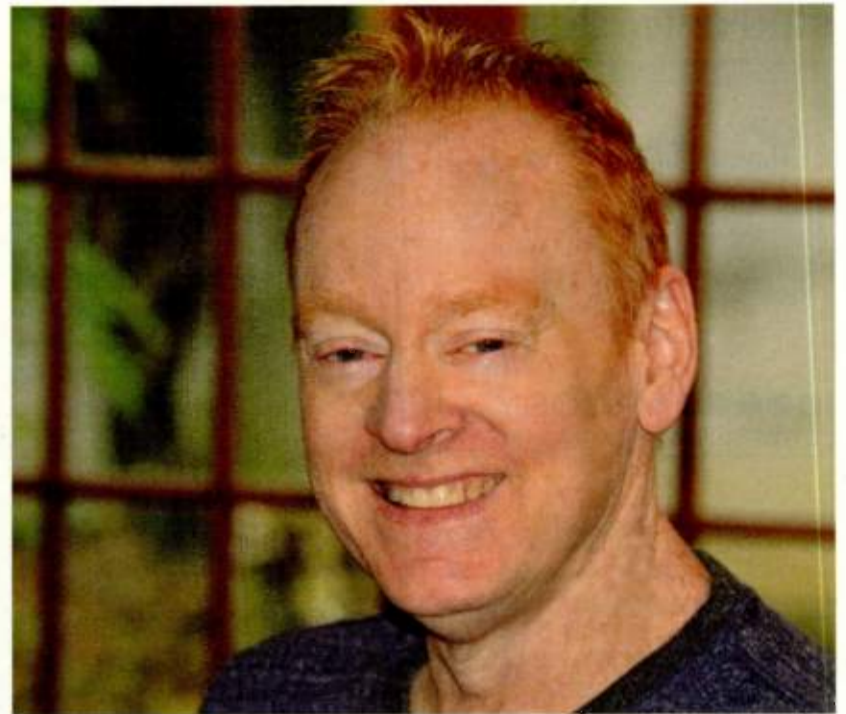
"My biggest challenge is getting the U.S. market intimately acquainted with the Powersoft brand," Meltzer said. "One of my favorite ways of accomplishing this is through face-to-

"Powersoft is a fantastic company to work for because every person you meet is extremely passionate about what they do. I truly believe the company is out to change the world for the better."

*Keith Meltzer, Powersoft director of Sales*

face meetings, and I feel lucky to be in an industry that is so 'people-based.' Our reputation is on the line every time someone uses a piece of gear with our name on it; we all want to provide our customers with the best possible solution, no matter what their budgetary, timing or project limitations may be. And that's what we've been doing, time and time again."

Based in Florence, Italy, Powersoft focuses mainly on designing and manufacturing rack-mount amplifiers for live performance applications, including stadiums, arenas, churches, theme parks, airports, convention centers and more. Powersoft also



Kurt Meltzer, director of Sales at Powersoft

manufactures OEM amp modules for loudspeaker manufacturers, along with other products aimed at end users in a variety of vertical markets.

"For example, Deva is a new energy-efficient product that enables music playback, surveillance, live audio streaming and other features, enabling end-users in government, hospitality, education and other industries to take advantage of a turn-key solution without altering their existing infrastructures," explained Meltzer.

Powersoft's U.S. headquarters is based in Ventura, CA, and stocks both rack amplifiers and amp modules, along with a full service center with phone- and field-based tech support.

"Powersoft is a fantastic company to work for because every person you

will be able to reach an entirely new set of customers with an innovative product that delivers both security and communications features," Meltzer explained.

In terms of competition, Meltzer said there are a number of good products that compete with Powersoft's rack amps, but fewer that go up against its amp modules.

"Since we are relatively newer to the U.S. market, my biggest competitor is ignorance. There are still many people out there who do not know Powersoft, and my biggest challenge is losing sales to our competition. The easy part is comparing the product specs, features, performance; the hard part is being able to get the face-time with new customers," he said.

However, even with the challenge of introducing a newer company to the U.S. market, Meltzer is optimistic that he is able to achieve his goals because of Powersoft's range of products.

"Powersoft is not just an amplifier company, but a true technology innovator that is constantly uncovering new solutions for our customers. The company has a different philosophy from mainstream thinking: Product development is based on the pursuit of breakaway technologies that can not only solve customer problems, but also lead us to new markets," Meltzer said.

Powersoft Advanced Technologies Corp.  
Powersoft-audio.com



THERE'S MORE ▶ Take a video tour of Powersoft's Deva at [prosoundnetwork.com/feb2015](http://prosoundnetwork.com/feb2015)



# Yamaha

(continued from page 18)

er" Findlay served as tour system tech at FOH for the Road Hammers, and Neil Fenske as monitor tech.

Gear consisted of a pair of Yamaha CL5 digital audio consoles, two Yamaha Rio3216-D input/output boxes, a dozen Sennheiser EW300 IEM Systems, four Sennheiser EW500 Handheld Systems and four Shure U4D Handheld Systems.

"We decided on the Yamaha CL5 platform for a few reasons," said Leary. "The physical size of the CL5 was a definite bonus along with the reliability of Yamaha products being a huge factor in console choice for the tour. We also could not afford to be opening consoles and resetting ribbon cables every second day."

Leary also said the need to have a large number of inputs at their fingertips at all times was important. "We used a total of 70 inputs on the tour; and we used a total of 30 outputs to feed IEM's, wired drum mixes, drum subs, and a couple of wedge mixes."

GV Audio  
gvaudio.ca

Yamaha Commercial Audio Systems, Inc.  
yamahaca.com

# Music Row

(continued from page 5)

To acknowledge the momentum that saving Music Row is gaining, Brown went on to thank corporate sponsors American Express and the Danner Foundation for their assistance in funding research of the history of Music Row, noting, "The story of Music Row hasn't fully been told." One of the goals of the National Trust and the Music Industry Coalition (MIC) is researching and telling that story. Other groups/individuals that were on hand and have become involved are Historic Nashville, Metro Nashville Historical Commission, Metro Historical Commission Foundation, and individuals such as Mayor Karl Dean, Trey Bruce, Aubrey Preston, Mike Curb, Chuck Elcan, Congressman Jim Cooper and more.

Mayor Karl Dean spoke about the attention the plight of Nashville's Music Row has received in recent months in the *New York Times*, *Forbes* and *Time*, and said that Nashville "has always held true to its roots and its roots in music."

Mike Kopp, chair of MIC, revealed that there



National Trust's David Brown announces Music Row's status as a National Treasure at a press conference held inside RCA Studio A.

will be a 50th anniversary celebration of RCA Studio A on the weekend of March 29th, 2015. He then wrapped the meeting in a manner befitting the music business. "The good news is that the studio is safe. The bad news? This is a working studio and Ben needs to get back to work, so enjoy chatting but leave quickly so the recording can continue. Socializing for a cause is great, but we have to get back to making music."

Music Industry Coalition  
mic.nationbuilder.com

National Trust for Historic Preservation National Treasures  
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## advertiserINDEX

ADVERTISER	PAGE	ADVERTISER	PAGE
Acoustics First	8	Kaltman Creations	43
API	23	Konig & Meyer/Connolly Music	14
Applied Electronics	1,51	Lectrosonics	12
Argosy Consoles	6	Mackie	13
Audio-Technica	17	Meyer Sound	60
Audix	32	Neutrik USA	26
B & H	59	ProAudio.com	54
D&B Audiotechnik	47	QSC	45
Dale Pro Audio	15,31	Radial Engineering	19
DPA Microphones	16	Shure	7
Eventide	9,27	Sony Creative Software	25
Full Compass	20	Soundcraft	41
Galaxy Audio	46	Sweetwater	10-11
Genelec	4	TC Group	39
Gibson	21	Telefunken	29
ISP Technologies	40	Yamaha Commercial Audio	2,3
Jensen Transformers	53	Yorkville	49
K-Array	18		

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## companyINDEX

The following companies are mentioned in this edition of PRO SOUND NEWS. Use this index to reference your copy.

Acoustica...40; Adamson...41; AEA...34; AKG...54; ALC NetworX...14; Allen & Heath...42; Altiverb...31; Alto Professional...37; Apple...28, 30, 32, 40, 41; Archwave AG...14; ATC...28; Atlas...34; Audio-Technica...44, 45; Audix...41, 44, 45; Auro Technologies...30; Axia Audio...14; Audinate...5, 14, 41; Audio Precision...5; Aurisonics...54; Avid...28, 30, 31, 52, 54; Baer...40; Benchmark...27; Blue Microphones...35, 36, 40, 54; Bryston...27, 28; Burl Audio...54; Calrec Audio...1; Cerwin-Vega...37, 38; Clear-Com...1; Dale Pro Audio...1; dB&b audiotechnik...44, 45; dB Technologies...41, 42; D.A.S...41; DiGiCo...1; Digigram SA...14; DirectOut...14; Dolby...1, 24; DPA...18, 30, 35; DTS...1; EAW...56; Eiosis...40; Engelhardt...39; Euphonix...26, 30, 31; Fab Filter...31; Fairlight...30; Focusrite...40; Foxtex...37; Guild...35; Guitar Center...36, 56; Harman...1, 54; iZotope...29, 31; L-Acoustics...18, 42, 44, 45; Lectrosonics...30; JCF Audio...27; JH Audio...44, 45; Kaltman...41; Klark-Technik...45; Lawo...1, 14; Linear Acoustic...1; Loud Technologies...56; Martin Audio...42; Maselec...27; Merging Technologies...14, 28; Meyer Sound...56; Midas...44, 45; Middle Atlantic Products...36, 54; Millennia Media...35, 36; Moog...20; Moyers Group...54; Mutec...27; Neumann...14, 27; Neutrik...38; Nugen...40; Phase...28; PMC...27; Powersoft...56; PreSonus...54; Pyramix...28; RCA...38; Remic...39; Riedel...1, 5, 14, 28, 54; RTS...1; SENAL Sound...37; Sennheiser...1, 56, 57; The Sextant Group...54; Shure...18, 42, 44, 45, 54, 57; Skype...22, 27; Slate...31; SOUND4...14; Soundcraft...34; Sound Devices...54; Soundtube Entertainment...54; SPL...36; SSL...26, 28, 52; Tannoy...28; TC System...27; Telefunken...30; Telos Systems Inc...14; Titan...27; Tracttion...40; Waves...28, 29, 31; Weiss...27; Windows...41; WSDG...24; Yamaha...18, 28, 37, 38, 52, 57

# The Real Stuff

BY JAQUES SONYIEUX

Last month, country artist Ryan Bingham released *Fear and Saturday Night*, written and conceived in an Airstream in the mountains of SoCal. The album, produced by Jim Scott [Wilco, Tom Petty, Crowded House], draws on Bingham's vast experiences and life's ups and downs—which in his case include losing both of his parents while simultaneously earning industry accolades such as an Academy Award, a Grammy and a Golden Globe Award for his work on the film *Crazy Heart*. *Pro Sound News* recently met with Bingham to talk about rodeos, Airstreams and recording his new album.

**ON RIDING BULLS:**

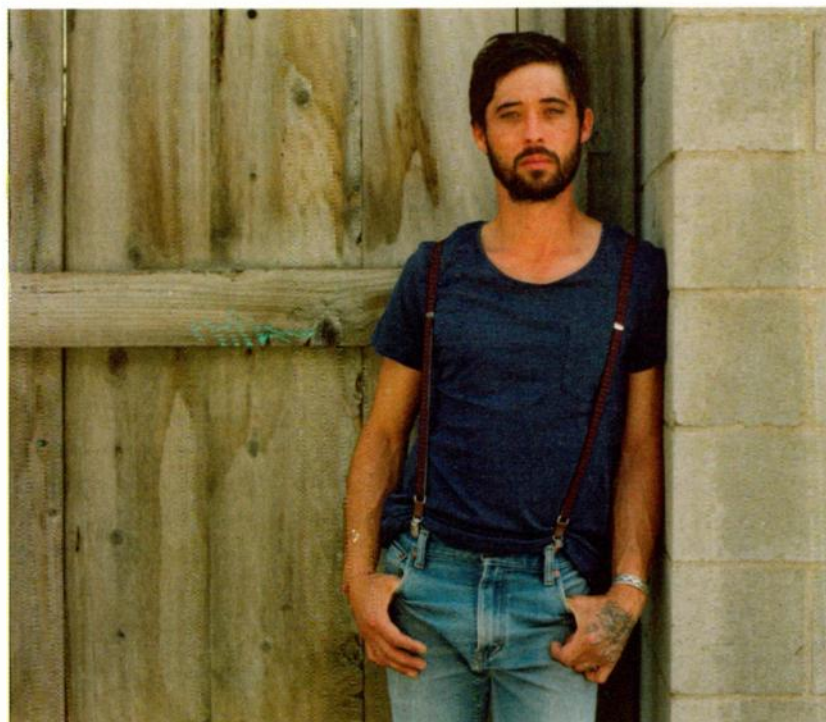
I was working for a guy that ran a rodeo company in Texas and I was riding bulls. I'd started playing guitar a little bit, and before long, they started giving me a gig to play after the rodeo. They'd have a hospitality tent or something afterwards, and I would get in there and play my four or five songs. Then eventually people started ask me to come back and play at other rodeos, parties and bars. That's how I really started playing live in front of people. I guess the rodeo circus really prepared me for the road and the travel life from an early age.

**ON WRITING IN THE AIRSTREAM:**

I wrote these songs on an acoustic guitar. I really wanted the material to be able to stand on its own and get to the root of the singer/songwriter inside me. I was looking for someplace

to go write for a while, like a cabin or something, and my wife found this guy who had all these old Airstreams up in the mountains, up off of Mullolland towards Ventura California. It was a really cool place tucked back in the canyon, and I spent a couple weeks up there at a time just writing and hashing out the songs. I got a handful of them written, brought them back home and started producing demos to get an idea of what sound I wanted.

I can never be around a whole lot of distractions while I am writing. I've got to be alone in my thoughts so I can reflect on where I've been and what I want to write about. Just being up there in the mountains in that Airstream was great. You really start to think about things when you start getting lonely and when you have so much time on your hands. These are



ANNA AXSTER

Ryan Bingham wrote his latest album, *Fear and Saturday Night*, inside an Airstream in the mountains of Southern California.

the best times that I find things to write about—the real stuff, anyway.

**ON BOOTLEGGING AND DEMO-ING:**

I recorded the Bootleg and the demo CDs to get a solid interpretation of the songs before I went into the studio. These days, we don't have the same kinds of budgets we used to have with the record labels, so the more preparation and preproduction you do can save you a lot of time and money in the studio. I like to take the songs and record them just with an acoustic guitar and a vocal live. Then I'll get a piano or an electric guitar and come up with melodies or riffs over the top it before I give it to the guys in the band, so they have an idea of where I am coming from. By the time we get together and rehearse, we are already on the same page in terms of the direction we are going to go in with the songs.

**ON VINYL REFERENCES:**

Jim [Scott] and I talked about some of the influences I had and some of the sounds I wanted to hear. He has a thousand vinyl records that we went through, and we listened to different things that we liked. A lot of it was little stuff—some weird instrument on a Beatles track, or the hand claps on Neil Young's "Cinnamon Girl," or the vocal reverb on an old Waylon Jennings track, for instance. When we were in the studio, the songs were there, the music was there and the players were there. So it wasn't so much trying to craft the songs; it was more about how we were going to capture the songs in the way that we wanted to.

**ON RECORDING WITH JIM SCOTT:**

Jim's studio is the least claustrophobic studio I have ever been in my

life. I'd say it is a studio, but it is really a huge warehouse that he has in Santa Clarita, close to Magic Mountain. He's got everything he's been collecting for the past 30 years there: motorcycles, amplifiers, drum kits, lights and Dolly Parton pinball machines. It was a really cool place to hang out and you feel like you are on another planet. We used his drum kit and amps—it was the same drum kit that was used on the Tom Petty *Wallflowers* record, Rage Against the Machine and another Chili Peppers album he did. With his set up, you don't spend two or three days trying to get sounds; he's already got it all there, and in multiple options. You just go in, pick your poison and go at it.

**ON THE FINISHED RESULT:**

I am really excited about *Fear and Saturday Night*—it is one of my favorite records that I've done. I feel like it is the only record I've done where I had a specific sound in my head and afterwards, it came out exactly as I had expected. It's cool when you record these demos and you have that feeling you are trying to get to, and at the end, the whole thing comes together and sounds just like you wanted it to sound.

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THERE'S MORE ▶ Hear the track "Radio" from Ryan Bingham's *Fear and Saturday Night* album at [prosourdnetwork.com/feb2015](http://prosourdnetwork.com/feb2015)

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