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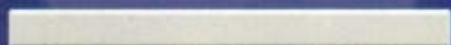
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PMC Monitors Become Part of Wu-Tang Plan

BY STEVE HARVEY

NEW YORK, NY—On March 26, 2014, the Wu-Tang Clan made the surprise announcement that, in addition to releasing *A Better Tomorrow*, a new album celebrating its 20th anniversary, the group would be making a second, secretly produced album available as a single-copy collector's item to the highest bidder. According to Tarik "Cilvaringz" Azzougarh, a longtime Wu-Tang affiliate and producer, "The whole concept of the album was to inspire debate about the value of music in today's digital age."

Six years in the making and featuring all eight surviving members of the Wu-Tang Clan, the album, *Once Upon a Time in Shaolin*, comprises 31 tracks and skits, is 128 minutes long and features various guests, including Cher. It was recorded in part at the

Wu-Tang's base in Staten Island, N.Y.

The sole copy was put up for bid in March 2015, by auction house Paddle8 on the understanding that there are no other physical or digital duplicates in existence. The terms of sale stipulate that the buyer may not release any of the content for a period of 88 years.

In an effort to bring value back to music, or at least spark debate on the matter, "We wanted to do something that was radical and the complete opposite of everything the music industry stands for," says Azzougarh, speaking via Skype from his home in Morocco. "Which is, instead of selling the most amount of records, we're going to sell the least amount, one, price it in the millions and, to show people that this is not some marketing stunt, slap an 88-year non-commercialization clause on top."

He emphasizes, "I'm not just talking about the monetary value; I'm talking about the experiential and artistic values as well." In the past, record releases were more of an event. "They were soundtracks to moments in your life," he says. But now, "It feels like it's something you play in the background while checking your Twitter feed and updating your Facebook status."

The album package includes an engraved silver-and-nickel box and a 174-page manuscript containing lyrics, credits and anecdotes, printed on gilded parchment and encased in leather by a master bookbinder.

It is also accompanied by a pair of customized PMC MB2-XBD studio monitors.

"Every artist curates how he wants his art to be perceived," says Azzougarh. "We would like to curate the listening experience of this record, so let's use the speakers that we used during mixing and mastering."

Azzougarh co-produced the one-off release with Wu-Tang Clan found-

loud and they simply won't distort. It'll keep the sound and the mix intact."

Azzougarh, who initially came up with the album-as-artifact concept, was inspired by the patronage of art in ancient Europe. "It's patronage in reverse. We made an album then found a patron, instead of the other way around."

The auction attracted controversy in early December when *Bloomberg Businessweek* revealed that Martin Shkreli, CEO of Turing Pharmaceuticals, had placed the winning bid of \$2 million. (*Guinness World Records* has since certified it as the most valuable album in existence.) Shkreli was widely vilified in September for increasing the price of his company's toxoplasmosis drug by over 5,000 percent. As part of the bid process, Paddle8 had arranged for potential buyers to listen to excerpts from the album—Shkreli sent an assistant, and at press time claimed to have still not listened to it.

RZA, in an e-mail to *Bloomberg Businessweek*, stated, "The sale of *Once Upon a Time in Shaolin* was agreed upon in

May, well before Martin Shkreli's [sic] business practices came to light. We decided to give a significant portion of the proceeds to charity."

"The Wu-Tang have been longstanding clients and being part of their innovative and world record-breaking art project has been extremely exciting," comments Keith Tonge, U.K.-

(continued on page 57)



Wu-Tang Clan mastermind Robert "The RZA" Diggs with the PMC MB2-XBD monitors that will accompany the group's one-off album, *Once Upon a Time in Shaolin*.

er RZA, and both are longtime fans of PMC monitors. "He's been mastering on them for a very long time. I first experienced PMCs in 2007, when I mastered at a studio in Belgium," Azzougarh reports.

"They just make everything sound incredible. I like hearing my music super-duper loud, and what I love about those monitors is that you can go so

briefs

Eighteen Sound Buys CIARE

REGGIO EMILIA, ITALY—In a move that broadens the range of offerings by Italian pro loudspeaker company Eighteen Sound (eighteensound.com), the company has purchased the CIARE hi-fi/automotive audio brand, of Senigallia, Italy. Pierpaolo Marziali, Eighteen Sound CEO, noted that the acquisition would provide Eighteen to with a pathway into the hi-fi and car audio markets.

DPA Refreshes Website

ALLEROED, DENMARK—DPA Microphones (dpamicrophones.com) has launched a new website that aims to provide more information, additional functionality and easier search facilities, according to the company. DPA has also introduced a Mic Finder search facility that divides the entire catalogue into three categories: type, series and application.

Primacoustic Adds Service

VANCOUVER, CANADA—Primacoustic (primacoustic.com) now offers a room acoustics analysis service that can be accessed through the company's website. This free service invites the user to fill out a series of questions that an acoustic specialist will use to provide a room analysis along with suggested materials and estimated budget for the installation.



Rock Lititz Expansion Breaks Ground

BY CLIVE YOUNG

LITITZ, PA—Rock Lititz, the 96-acre live event production campus created as a partnership between Clair Global and Tait Towers, opened in the fall of 2014 with its first edifice—Rock Lititz Studio, a custom-designed, \$7 million, 52,000-square-foot facility for designing, assembling and testing large-scale event set ups. Now the joint venture has broken ground on its next phase: Pod #2, a 250,000-square-foot building on 10.08 acres that will house multiple live event vendors and resources.

Construction of Pod #2 is expected to be completed by December, 2016; nine companies are lined up

to be tenants, including Clair Global, and the new building as a whole is at 75 percent occupancy. Clair, which already has considerable facilities elsewhere in Lititz, will use its Pod #2 location to support "expansion into new product lines," according to a statement.

Also moving into Pod #2 will be Atomic, a provider of set construction, rental solutions, lighting, design and production services; CM Motors, which provides lifting and positioning equipment for riggers; Project Opus Films, a video and film production company; logistics company Rock-It Cargo; touring industry product vendor Tour Supply; Upstage Video, which deals in large-scale LED video solutions; TFB Catering; and a satel-

lite location of the Lititz Rec Center.

"This 'industry cluster' model promotes interactions and personal relationships between people in different companies that build trust and facilitate the flow of unique market, technical, and competitive information," said Andrea Shirk, general manager of Rock Lititz. An announcement concerning the addition of a lodging facility is planned for later this year.

Rock Lititz
rocklititz.com

THERE'S MORE ▶ For a computer-rendered video of Pod #2, visit prosoundnetwork.com/jan2016.



SOUNDRECORDING

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Conclave Studios Nurtures Metal Musicians 22
New York City's Conclave Studios boasts a unique focus and business model to nurture, produce and develop heavy metal, hard rock and progressive music artists.

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SMPTE Dives Into Immersive Sound 30
The recent annual SMPTE Technical Conference and Exhibition offered a program that focused predominantly on topics related to Ultra HD video, Virtual Reality and Augmented Reality, and also turned the spotlight on immersive sound and personalized audio.

Audio for VR Becomes a Reality 30
It's beginning to look like 2016 will be the year that VR—virtual reality—goes mainstream, but there are still significant challenges facing producers and post producers, who are struggling to find efficient tools and workflows.

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Sound Innovations: Sound Devices CI-12 Alaia Linear Fader Controller 33
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Line 6 Helix Floorboard Multi-Effects Pedal; Earthworks QTC50 Omnidirectional SDC and SR20 Cardioid Handheld Condenser Microphones; Radial Engineering Headload Guitar Amp Load Box; Mackie Reach All-In-One Portable PA System; Audio-Technica BP40 Large Diaphragm Dynamic Broadcast Microphone; Bose Professional F1 Flexible Array Loudspeaker System

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Mark Knopfler Makes Tracks 42
With his Dire Straits days behind him, Mark Knopfler has carved out an enviable solo career, bringing his mix of Americana, folk, blues and pop to packed houses around the world, with audio support from Berlin-based Black Box Music.

Live Sound Showcase: Brian Setzer Orchestra 44
Guitar slinger Brian Setzer revitalized swing in the 1990s with his 19-piece Brian Setzer Orchestra; today, he and the BSO tour the country every holiday season with his annual Christmas Rocks tour, backed by gear and engineers from Sound Image.

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| Originally a musician and active audio engineer, John Krupa entered the pro audio industry via MI retail in the late 1980s. Today, he's president and majority owner of Italian Speaker Imports, the US distributor of FBT. | |
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Revitalizing VR and Vinyl

The turn of the year always makes us look back on the last 12 months, whether due to planning for the year ahead or just singing “Auld Lang Syne” on New Year’s Eve. This year, however, it seems like we’re looking a bit further back than usual in the audio world, as inspiration for the future is definitely being drawn from the past. There’s always been some of that going on, particularly on the recording side with so many manufacturers and software developers rethinking classic pieces of gear, but we’re now also seeing it with two technologies that the general public left for dead in the Nineties—virtual reality and vinyl records.

While the concept of virtual reality has been around for decades, it first truly gained the public’s attention in the late 1980s and early 1990s, thanks to VR pioneer Jaron Lanier and his company VPL Research. Headlines trumpeted the coming virtual future, but only a few products came out back then—mostly toys and video games compromised by the processing power of the times. Compounding the problem was Hollywood, which started pumping out wretched sci-fi movies about VR that raised the public’s expectations far too high in an era where the height of personal computing was Windows 3.0.

So virtual reality faded from view, but of course, it never really went away, and in 2014, VR catapulted

back into the public eye when Facebook dropped \$2 billion to buy startup Oculus VR. Since then, Sony has announced its PlayStation VR headset, and both it and Oculus VR’s first product, The Oculus Rift, are due out this year. Meanwhile, Google has gotten into the act, too, with its Cardboard platform which turns a smartphone into a VR headset with the help of a D.I.Y. ViewMaster-like headset made of, you guessed it, cardboard.

This time around, pro audio will be a key factor in making the virtual experience work, according to Michael Abrash, chief scientist at Oculus VR, who said as much during his keynote address at the recent AES Convention in New York. Since then, the buzz about VR in pro audio circles has only grown, as reflected in this issue’s coverage of the annual SMPTE Technical Conference and Exhibition, and the AES Los Angeles Section’s recent Virtual Reality for Consumer Media event, both of which explored how to approach audio creation for VR media.

If VR turns out to be the comeback technology of 2016, the revitalized tech of 2015 was certainly the vinyl record. Vinyl has made a spectacular return in recent years, but last year sent it over the top, as 9 million records were sold in the U.S. during the first half of 2015—an increase of 52 percent over the first six months of 2014 that also generated far more

revenue than ad-supported streaming during that same time (\$221.8 million vs. \$162.7 million). The caveat, however, is that all those records were produced by a handful of pressing plants, all running finicky, decades-old machinery. New record presses haven’t been built since the 1980s and the cost of creating new ones has been seen as prohibitively expensive in the face of what may be a short-lived popularity, so vinyl’s upswing has left plants with months-long backlogs on order fulfillment, even as they work 24/7.

Answering the call is German startup Newbilt Machinery GmbH. and its U.S. partner, Record Products of America in Hamden, CT, which began shipping new presses in December at roughly \$100,000 apiece. According to Newbilt, the presses sport “historically proven designs that work,” but also include advancements in electronic, hydraulic and control systems expected in modern manufacturing environments. Certainly Newbilt has gotten one high-profile endorsement: Former White Stripes frontman Jack White purchased eight presses which he expects to have running by Spring in a 10,000-square-foot plant behind his newly opened Third Man Records store in Detroit, MI.

Whether VR and vinyl can overcome their pasts and cement themselves as part of modern media consumption remains to be seen, but their resurgences—and what they might mean for pro audio in the future—are fascinating.

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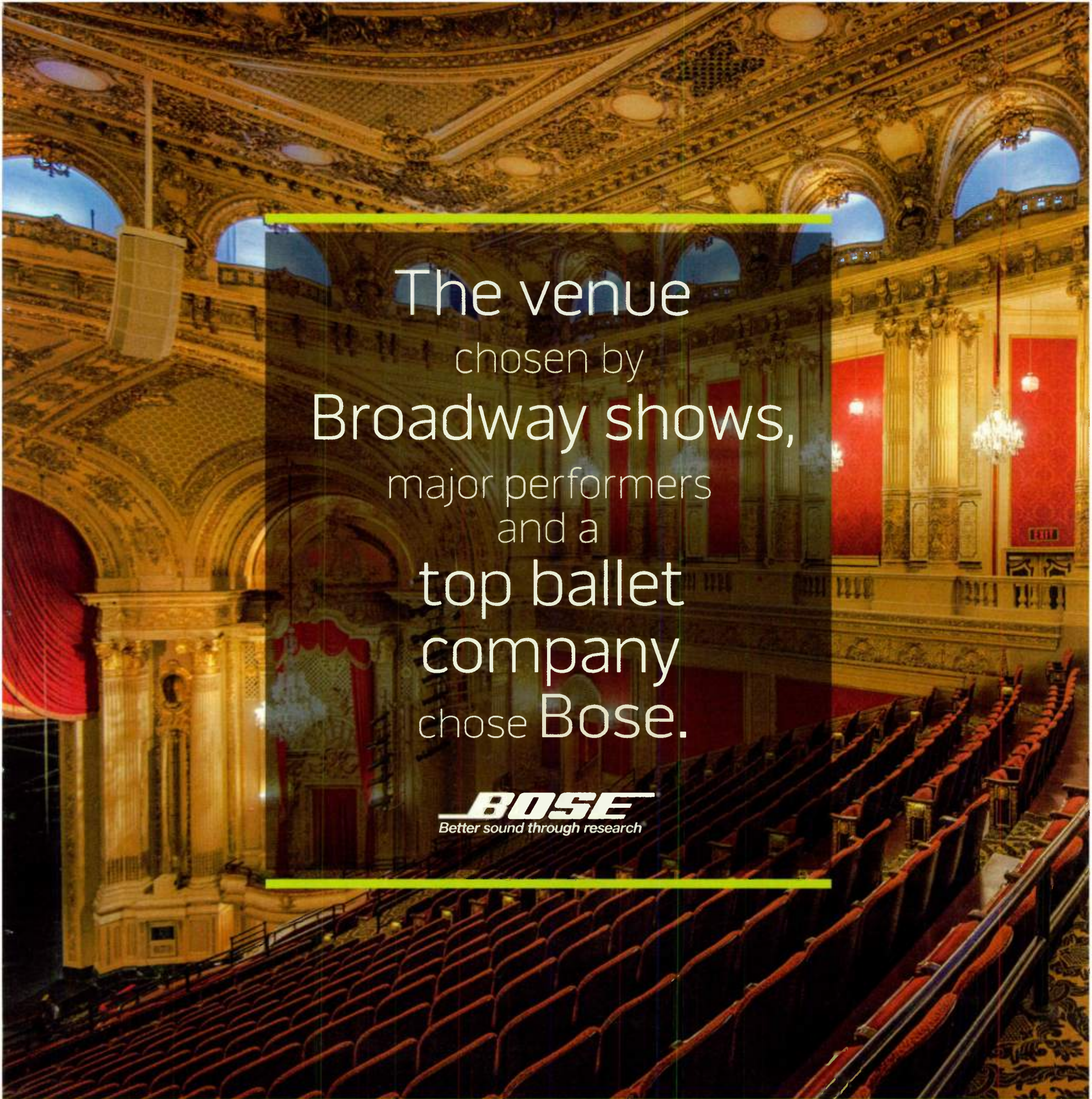
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The Beatles' Studio Goes on the Road

The Beatles were nothing if not ambitious, and it seems that every time someone looks to shed new light on the Fab Four's history, the result is equally ambitious. Now legendary producer/engineer Geoff Emerick—who was on hand for the recording of many of the band's hits—is part of the creative team behind a new arena production, *The Sessions*.

Subtitled "A Live Re-Staging of The Beatles at Abbey Road Studios," the in-the-round production will tour arenas of the UK and Europe throughout April and May, 2016, as 39 musicians and eight singers perform inside a set of Studio Two in Abbey Road. Note-perfect Beatle emulations are nothing new and high-end theatrical presentations of the Beatles' music go all the way back to the 1970s Broadway show, *Beatlemania*. Still, fair or not, if you say 'Beatles Tribute Band' to people these days, it usually brings to mind guys in their Fifties donning mop-top wigs and ill-fitting collarless suits in a futile effort to look 18 again.

Stepping into that pop culture arena, *The Sessions* will have to work hard to not come across as another Beatle tribute using the studio angle as a new gimmick to present the same old thing. But having Emerick involved as a consultant on the production already gives the show an added patina of authenticity.

For the full blog post, visit prosoundnetwork.com/jan2016.



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- ▶ Yikes! UK acoustics engineer hanged himself over tinnitus.
- ▶ Museum exhibition on legendary BBC/*Doctor Who* sound engineer Delia Derbyshire opens.
- ▶ Recording animals—particularly otters—for *Star Wars: The Empire Strikes Back*.
- ▶ Police say a church's outdoor services are too loud—and now lawsuits are flying.
- ▶ Legendary Capricorn Studios in Macon, GA to be reopened, renovated.



BLOGGINGS

UNAFRAID TO MOVE

Dave Cobb has built a name for himself in Nashville, and now he's landed a Grammy nomination for Producer of the Year, as well as nominations for Album of the Year and Best Country Album (both for Chris Stapleton's Traveller) and Best Americana Album (Jason Isbell's Something More Than Free). It's a success earned the hard way—by building a strong body of work—but before all that happened, about 15 years ago, Cobb was something else entirely: lead guitarist on one of those great, lost albums that fall through the cracks—Distressor by The Tender Idols.



FIVE HARD TRUTHS

Founded in 2005, The Hit House has built an enviable track record providing custom music for movie trailers, TV commercials, video-game marketing efforts and other projects in the competitive Los Angeles market. In this guest post, the company's executive producer/co-founder, Sally House, shares her thoughts on what it takes to work at that level.



Find these blog posts at prosoundnetwork.com/jan2016.

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After the Unthinkable



Terrorists attacked an Eagles of Death Metal concert at the Le Bataclan club in Paris on November 13 last year, killing 89 people at the sold-out show. Stuck in the center of the audience, FOH engineer Shawn London first hid behind his console as the gunmen opened fire but then managed to escape, carrying an injured woman with him to safety. Now London recounts the day and how he vowed to live life to the fullest afterwards.

Catch the clip via prosoundnetwork.com/jan2016.

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AES Pioneers Pass

NEW YORK, NY—The Audio Engineering Society lost two pioneering members: Norman C. Pickering, a pioneer of innovations in phonograph cartridge design and the first secretary of the AES; and Irving L. Joel, for decades an integral member of the New York recording community and a member of the AES.

Pickering was instrumental in the formation of the AES. At a meeting held in the RCA Victor recording studios in New York on February 17, 1948, Pickering discussed the need for a professional organization to foster the growth of audio engineering. He cited the lack of exchange of knowledge caused by absence of



The Audio Engineering Society recently lost two members crucial to the organization's early years—Norman Pickering (left) and Irving Joel.

a common meeting ground and of a medium for interchange of ideas in the audio field. The group immediately agreed that such an organization should be formed. A motion was carried to form the Audio Engineering Society.

Also known for his research on violin strings, bows and violin acoustics, Pickering, who was frustrated by the audio quality of recordings, in the mid-1940s developed a better-quality phono pickup and styli for records: the Pickering pickup. Later manufactured as the Pickering cartridge, this design was initially developed by Norman Pickering for his own use, before he began manufacturing cartridges for broadcast and recording studios.

“Norman Pickering changed the audio landscape with his invention of the Pickering cartridge,” stated Bob Moses, executive director of AES, “then again with his key role in founding the AES. Pickering was awarded a Fellowship by the AES in 1952 for his contributions to the field of audio engineering and an AES Award in 1955 in acknowledgment of his role in the formation and advancement of the Society.

Irving Joel's contributions to recording included 15 years at Capitol Records and early experiments with stereophonic recording. His Capitol discography ranged from stereo recordings of the Pittsburgh Symphony and the Broadway cast recording of *The Music Man*, to location recording of Tennessee Ernie Ford. He became chief engineer at A&R Recording (co-owned by Phil Ramone), where he recorded such artists as Judy Garland and Liza Minnelli.

His efforts for the AES included work on Standards Committees and the Historical Committee. The Oral History Project, composed of audio/video recordings of interviews with more than 30 significant contributors to the art and science of recording, was an effort which Joel created and supported; his interviews have helped create a significant first-person account of the era's recording community.

Joel was honored with a number of AES awards for his contributions to audio and the AES: an AES award in 1962, a citation in 1972, a Fellowship in 1973, a Board of Governors award in 1994, a Bronze Medal in 1999, and, for his decades of dedication to the Society, a Distinguished Service Medal in 2009. The AES NY section honored Joel with a special evening of reminiscing in 2011, titled “An Evening with Irv Joel: The Man Behind the Scene.”

Audio Engineering Society
Aes.org

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WRH

M&M Takes on Trump

KNOXVILLE, TN—Everyone has a different opinion about Republican presidential candidate Donald Trump, but one thing we all can (probably) agree on is that the man knows how to make himself heard. In the case of a recent rally in Knoxville, TN, that meant using local audio vendor M&M Productions USA to reach 10,000 people packed inside the 120,000-square-foot Exhibit Hall of the Knoxville Convention Center.

Mike Brown, president and CEO of M&M, reported, "Setting up sound in a ballroom of that size, for a stage in the round, presents some challenging issues," said Brown. "We shot over to the sides with six Muse 210LAs on each side, and filled behind and to the front of the stage with a few smaller point-and-shoot boxes just to warm those areas. The FBTs did all of the heavy lifting though."

The candidate, it turned out, is

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sound was clean and totally natural, all while throwing out about 215 feet in each direction."

According to Brown, Trump approached him after the rally, saying, "The sound was amazing today. Just great. Incredible job."

M&M Productions USA
mmproductionsusa.com

FBT USA
fbtusa.com

Working Up The Wiz

NEW YORK, NY—Firehouse Productions in New York provided audio production for NBC's recent live broadcast of *The Wiz*, the third annual December event in a row for the network, following last year's *The Sound of Music* and *Peter Pan* in 2013.

The production again included three CL5 digital audio consoles, each utilizing two Rio3224-D input/output racks. Firehouse also provided all audio gear required for the production of *The Wiz*, including the monitor system and IEMs, 44 RF mics, a 160-speaker actors call system, and a Riedel intercom system.

Dan Gerhard engineered the dialog mix, Charles Vorce handled the RF pre-listen and Erik VonRanson mixed monitors. Each CL was identical, all using 56 inputs; the monitor CL console used 24 outputs and the two CLs used for dialog used 12 outputs. All of the Rio racks were connected via Dante, but for added redundancy, they used three separate networks.

Yamaha Commercial Audio
yamahaproaudio.com



The *Wiz* monitor mixer Erik VonRanson

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[16] sound INTERNATIONAL IIII

Tracking RF Transgressions in London

LONDON, UK—The Queen Elizabeth II Conference Centre in London is a very busy place, hosting more than 400 national and international events a year, ranging from conventions to exhibitions to corporate events with capacity of up to 2,500 people. Given that the QEII Centre is in the heart of London, steps away from Big Ben and Westminster Abbey, there's already a lot of RF traffic in the space, which means the audio team there has a lot on its plate when it comes to ensuring its 38 wireless mics on site work as expected.

"All of our channels here at the conference centre are licensed, covering us from any interference with other equipment, but not all the time," said sound engineer Joshua Wigley-Iles. "For example, we have had exhibitions where visiting wireless equipment would be used without any thought of frequency assignment or frequency coordination."

As a result, the facility purchased a Kaltman Creations Invisible Waves RF-Vue about two years ago to help tackle RF issues. "It scans your desired frequency range and provides a simple view of what's going on around you," said Wigley-Iles. "It's al-



Engineer Joshua Wigley-Iles (seated) and sound tech Jack Randall with the QEII Centre's Kaltman Creations Invisible Waves RF-Vue unit.

so a tablet based kit, which is fantastic, as it's easily transportable and the control surface is very user friendly. We can scan our frequency spectrum, see the offending frequencies, and then find and fix issues promptly."

The unit, he said, aids in the detective work required to track down offending transmissions. "Touch-to-Listen...allows you to touch the frequency on the screen that you're

working on and listen in to what is being transmitted. Occasionally, we may get a rogue microphone on our channels and this feature allows us to track down the source and advise on the available licensed frequencies."

Queen Elizabeth II Conference Centre
qeicentre.london

Kaltman Creations
kaltmancreationsllc.com



Melbourne's annual Christmas Festival

JoeCo Synchs For the Season

MELBOURNE, AUSTRALIA—Melbourne's annual Christmas Festival featured a light show with 24-channel surround sound landscapes synchronized to 7,500 channels of lighting. Systems integrator Sound Environment set it up so that a JoeCo BlackBox played pre-programmed shows for the course of the Festival.

Sound Environment's director, Bryce Grunden, noted, "For the Christmas show, one unit runs as a Master with 7,500 channels of synchronized lighting and also slaves to time code. Another unit is permanently looping material and also plays other tracks when instructed over RS232 from the AMX."

Sound Environment
soundenvironment.com.au

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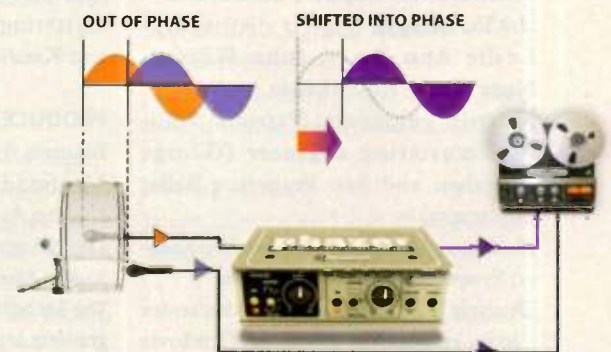
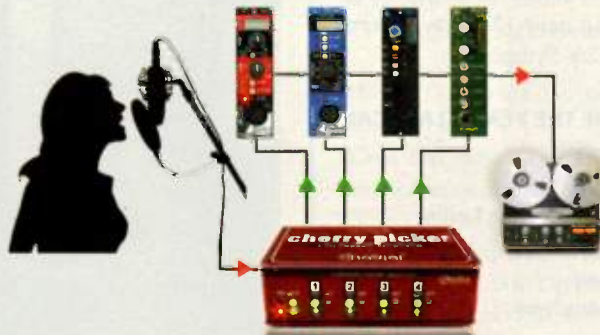


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mmproductionsusa.com

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Audio Grammy Nominations Announced

LOS ANGELES, CA—The Recording Academy has announced nominations for the 58th Annual Grammy Awards, including production, engineering and mastering acknowledgments.

This year, Kendrick Lamar leads the nominations with 11, followed by Taylor Swift and The Weeknd, who each earn seven. Additionally, music producer/songwriter Max Martin receives six nominations and mastering engineer Tom Coyne, rapper Drake and engineers/mixers Serban Ghenea and John Hanes each earn five nominations.

The awards will be presented Monday, February 15, 2016, live from Staples Center in Los Angeles and broadcast on the CBS Television Network from 8–11:30 p.m. (ET/PT).

RECORD OF THE YEAR

“Really Love”

D’Angelo and the Vanguard
D’Angelo, producer; Russell Elevado & Ben Kane, engineers/mixers; Dave Collins, mastering engineer
Track from: *Black Messiah*

“Uptown Funk”
Mark Ronson Featuring Bruno Mars
Jeff Bhasker, Bruno Mars & Mark Ronson, producers; Josh Blair, Serban Ghenea, Wayne Gordon, John Hanes, Inaam Haq, Boo Mitchell, Charles Moniz & Mark Ronson, engineers/mixers; Tom Coyne, mastering engineer
Track from: *Uptown Special*

“Thinking Out Loud”
Ed Sheeran
Jake Gosling, producer; Jake Gosling, Mark ‘Spike’ Stent & Geoff Swan, engineers/mixers; Stuart Hawkes, mastering engineer
Track from: *X*

“Blank Space”
Taylor Swift
Max Martin & Shellback, producers; Serban Ghenea, John Hanes, Sam Holland & Michael Ilbert, engineers/mixers; Tom Coyne, mastering engineer
Track from: *1989*

“Can’t Feel My Face”
The Weeknd
Max Martin & Ali Payami, producers; Serban Ghenea, John Hanes & Sam Holland, engineers/mixers; Tom Coyne, mastering engineer
Track from: *Beauty Behind the Madness*

ALBUM OF THE YEAR

Sound & Color
Alabama Shakes
Alabama Shakes & Blake Mills, producers; Shawn Everett, engineer/mixer; Bob Ludwig, mastering engineer

To Pimp a Butterfly
Kendrick Lamar
Bilal, George Clinton, James Fauntleroy, Ronald Isley, Rapsody, Snoop Dogg, Thundercat & Anna Wise, featured artists; Taz Arnold, Boi-1Da, Ronald Colson, Larrance Dopson, Flying Lotus, Fredrik “Tommy Black” Halldin, Knxwledge, Koz, Lovedragon, Terrace Martin, Rahki, Sounwave, Tae Beast, Thundercat, Whoarei & Pharrell Williams, producers; Derek “Mixedbyali” Ali, Thomas Burns, James “The White Black Man” Hunt, 9th Wonder & Matt Schaeffer, engineers/mixers; Mike Bozzi, mastering engineer

Traveller
Chris Stapleton
Dave Cobb & Chris Stapleton, producers; Vance Powell, engineer/mixer; Pete Lyman, mastering engineer

1989
Taylor Swift
Jack Antonoff, Nathan Chapman, Imogen Heap, Max Martin, Mattman & Robin, Ali Payami, Shellback, Taylor Swift, Ryan Tedder & Noel Zancanella, producers; Jack Antonoff, Mattias Bylund, Smith Carlson, Nathan Chapman, Serban Ghenea, John Hanes, Imogen Heap, Sam Holland, Michael Ilbert, Brendan Morawski, Laura Sisk & Ryan Tedder, engineers/mixers; Tom Coyne, mastering engineer

Beauty Behind the Madness
The Weeknd
Lana Del Rey, Labrinth & Ed Sheeran, featured artists; Dannyboystyles, Ben Diehl, Labrinth, Mano, Max Martin, Stephan Moccio, Carlo Montagnese, Ali Payami, The Pope, Jason Quenneville, Peter Svensson,

Abel Tesfaye & Kanye West, producers; Jay Paul Bicknell, Mattias Bylund, Serban Ghenea, Noah Goldstein, John Hanes, Sam Holland, Jean Marie Horvat, Carlo Montagnese, Jason Quenneville & Dave Reitzas, engineers/mixers; Tom Coyne & Dave Kutch, mastering engineers

ENGINEERED ALBUM, NON-CLASSICAL

Before This World
Dave O’Donnell, engineer; Ted Jensen, mastering engineer (James Taylor)

Currency of Man
Maxime Le Guil, engineer; Bernie Grundman, mastering engineer (Melody Gardot)

Recreational Love
Greg Kurstin and Alex Pasco, engineers; Emily Lazar, mastering engineer (the Bird and the Bee)

Sound & Color
Shawn Everett, engineer; Bob Ludwig, mastering engineer (Alabama Shakes)

Wallflower
Steve Price, Jochem van der Saag & Jorge Vivo, engineers; Paul Blakemore, mastering engineer (Diana Krall)

PRODUCER OF THE YEAR, NON-CLASSICAL

Jeff Bhasker
Dave Cobb
Diplo
Larry Klein
Blake Mills

REMIXED RECORDING, NON-CLASSICAL

“Berlin by Overnight (CFCF Remix)”
CFCF (Daniel Hope)

“Hold On (Fatum Remix)”
Bill Hamel and Chad Newbold (JES, Shant and Clint Maximus)

“Runaway (U & I) (Kaskade Remix)”
Ryan Raddon (Galantis)

“Say My Name (RAC Remix)”
André Allen Anjos (Odesza featuring Zyra)

“Uptown Funk (Dave Audé Remix)”
Dave Audé (Mark Ronson featuring Bruno Mars)

SURROUND SOUND ALBUM

Amdahl: Astrognesia & Aesop
Morten Lindberg (Ingar Heine Bergby and Norwegian Radio Orchestra)

Amused to Death
James Guthrie and Joel Plante (Roger Waters)

(continued on page 15)

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2016 TECnology Hall of Fame Inductees Named

ANAHEIM, CA—The NAMM Museum of Making Music has announced the 2016 Inductees for the TECnology Hall of Fame in advance of the annual ceremony which will take place at the NAMM Show in Anaheim, CA on January 23, 4 PM, in Room 202A.

The TECnology Hall of Fame honors and recognizes audio products and innovations that have made a significant contribution to the advancement of audio technology. This year's session will induct 10 products—developed between 1928 and 2002—into the Hall of Fame. Inductees are selected by a panel of more than 50 recognized audio experts, including authors, educators, engineers and other professionals. Products or innovations must be at least 10 years old to be considered for induction.

- 1928: The Decibel Unit, Bell Laboratories
 - 1954: Wurlitzer Electronic Piano
 - 1958: Auratone Sound Cubes
 - 1966: Neumann KM 84
 - 1966: Shure SM58
 - 1973: Roland RE-201 Space Echo
 - 1980: Lexicon PCM 41 Digital Delay
 - 1988: Eventide H3000 UltraHarmonizer
 - 1998: Manley VoxBox
 - 2002: Avid Digidesign Pro Tools | HD TECnology Hall of Fame
- namm.org/nammu/tecnology-hall-fame

CISAC Global CCI Study Released

NEUILLY-SUR-SEINE, FRANCE—A global study of the cultural and creative industries (CCI) found that revenues exceed those of telecom services and that they employ more people than the car industry in Europe, Japan and the U.S.A. combined.

This major contribution of CCI to the global economy is explained in a new study, jointly presented recently by the International Confederation of Societies of Authors and Composers (CISAC) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) at UNESCO's headquarters in Paris, France, and published by EY (formerly Ernst & Young).

The study concludes that, to unlock the full potential of CCI, creators must be fairly remunerated for the use of their creative works, so that they can continue contributing to culture and the economy. In particular, in the digital market, policymakers need to address the transfer of value currently taking place in favor of Internet intermediaries, and ensure that creators and the creative industries are paid fairly for the exploitation of their works.

In 2013, creative content contributed \$200 billion to global digital sales, powering sales of digital devices

and increasing demand for high-bandwidth telecom services. Sales of digital cultural goods generated \$65 billion and \$21.7 billion of advertising revenues for online media and free streaming websites.

The comprehensive study by EY, "Cultural Times – the First Global Map of Cultural and Creative Industries," analyzes 11 CCI sectors—advertising, architecture, books, gaming, music, movie, newspapers and magazines, performing arts, radio, TV, visual arts—worldwide.

Each geographic region has its strengths:

Asia-Pacific: 34 percent of global CCI revenues, 40 percent of jobs with the largest consumer base and a fast rising middleclass; leader in gaming; growing fast in movies and books.

Europe: 32 percent of global CCI revenues, 25 percent of jobs

in cultural economy is rooted in history, underpinned by strong public support, a highly educated population and a strong concentration of creators.

North America: 28 percent of global CCI revenues, 15 percent of jobs; strong international influence and leader movies, TV and performing arts.

Latin America: 6 percent of global CCI revenues, 16 percent of jobs; TV is king; Latin American TV shows travel worldwide, as well as music and dance.

Africa and Middle East: 3 percent of global CCI revenues, 8 percent of jobs; opportunities in film production, TV and music; informal economy—for example, unofficial music performances—is a significant part of the cultural scene, and a reservoir of jobs.

Cultural Times
worldcreative.org

Grammy

(continued from page 14)

Magnificat

Morten Lindberg (Øyvind Gimse, Anita Brevik, Nidarosdomens Jentekor and Trondheimsolistene)

Shostakovich: Symphony No. 7

Erdo Groot, Philip Traugott (Paavo Järvi and Russian National Orchestra)

Spes

Morten Lindberg (Tove Ramlo-Ystad and Cantus)

ENGINEERED ALBUM, CLASSICAL

Ask Your Mama

Leslie Ann Jones, John Kilgore, Nora Kroll-Rosenbaum and Justin Merrill, engineers; Patricia Sullivan, mastering engineer (George Manahan and San Francisco Ballet Orchestra)

Dutilleux: *Métaboles*; *L'Arbre Des Songes*; *Symphony No. 2*, "Le Double"

Dmitriy Lipay, engineer; Alexander Lipay, mastering engineer (Ludovic

Morlot, Augustin Hadelich and Seattle Symphony)

Monteverdi: *Il Ritorno D'Ulisse In Patria*

Robert Friedrich, engineer; Michael Bishop, mastering engineer (Martin Pearlman, Jennifer Rivera, Fernando Guimarães and Boston Baroque)

Rachmaninoff: *All-Night Vigil*

Beyong Joon Hwang and John Newton, engineers; Mark Donahue, mastering engineer (Charles Bruffy, Phoenix Chorale and Kansas City Chorale)

Saint-Saëns: *Symphony No. 3, "Organ"*

Keith O. Johnson and Sean Royce Martin, engineers; Keith O. Johnson, mastering engineer (Michael Stern and Kansas City Symphony)

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Manfred Eicher

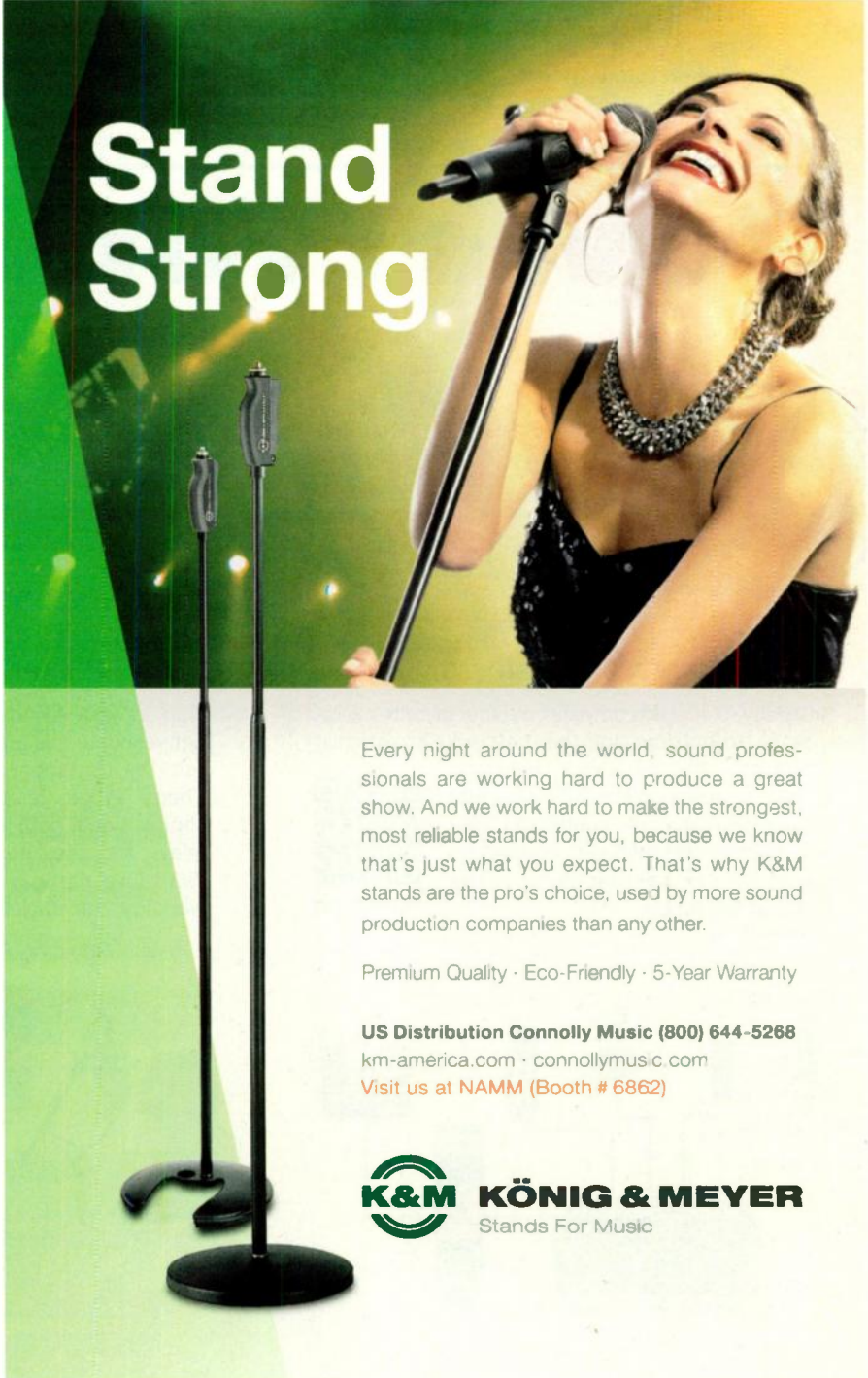
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Tracking RF Transgressions in London

LONDON, UK—The Queen Elizabeth II Conference Centre in London is a very busy place, hosting more than 400 national and international events a year, ranging from conventions to exhibitions to corporate events with capacity of up to 2,500 people. Given that the QEII Centre is in the heart of London, steps away from Big Ben and Westminster Abbey, there's already a lot of RF traffic in the space, which means the audio team there has a lot on its plate when it comes to ensuring its 38 wireless mics on site work as expected.

"All of our channels here at the conference centre are licensed, covering us from any interference with other equipment, but not all the time," said sound engineer Joshua Wigley-Iles. "For example, we have had exhibitions where visiting wireless equipment would be used without any thought of frequency assignment or frequency coordination."

As a result, the facility purchased a Kaltman Creations Invisible Waves RF-Vue about two years ago to help tackle RF issues. "It scans your desired frequency range and provides a simple view of what's going on around you," said Wigley-Iles. "It's al-



Engineer Joshua Wigley-Iles (seated) and sound tech Jack Randall with the QEII Centre's Kaltman Creations Invisible Waves RF-Vue unit.

so a tablet based kit, which is fantastic, as it's easily transportable and the control surface is very user friendly. We can scan our frequency spectrum, see the offending frequencies, and then find and fix issues promptly."

The unit, he said, aids in the detective work required to track down offending transmissions. "Touch-to-Listen...allows you to touch the frequency on the screen that you're

working on and listen in to what is being transmitted. Occasionally, we may get a rogue microphone on our channels and this feature allows us to track down the source and advise on the available licensed frequencies."

Queen Elizabeth II Conference Centre
qeicentre.london

Kaltman Creations
kaltmancreationsllc.com



Melbourne's annual Christmas Festival

JoeCo Synchs For the Season

MELBOURNE, AUSTRALIA—Melbourne's annual Christmas Festival featured a light show with 24-channel surround sound landscapes synchronized to 7,500 channels of lighting. Systems integrator Sound Environment set it up so that a JoeCo BlackBox played pre-programmed shows for the course of the Festival.

Sound Environment's director, Bryce Grunden, noted, "For the Christmas show, one unit runs as a Master with 7,500 channels of synchronized lighting and also slaves to time code. Another unit is permanently looping material and also plays other tracks when instructed over RS232 from the AMX."

Sound Environment
soundenvironment.com.au

JoeCo
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QR VIDEO LINK



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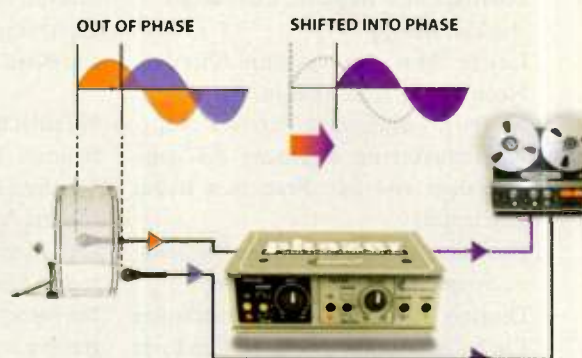


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Add realism and depth to every instrument! The Phazer is an analog tool that let's you adjust the phase relationship between two sources, such as two mics in a room, so that the fundamentals arrive at the same time. Think inside and outside the kick drum, top and bottom of a snare, or the near and far of an acoustic guitar.



QR VIDEO LINK



Riedel Rolls For Red Bull

MONTREAL, CANADA—Soapbox racers are traditionally homemade go-karts made out of whatever's lying around, but for Red Bull's recent soapbox derby race in Montreal—La Course Red Bull Boîte à Savon 2015—the production aspects were decidedly more high tech. Take, for instance, the Rec4Box OB Factory van equipped with Riedel Communications gear that provided master control capabilities for live production and streaming of the event.

As racers made their way down the slopes of Square Victoria, Riedel's fiber-based RockNet real-time audio network and Artist digital matrix intercom system provided the event producers, Ocean Watch Productions and Red Bull Media House, with audio transport and communications.

"The Rec4Box unit we used on the Montreal soapbox derby was a 26-foot truck that did the work of a 53-footer, and that's valuable for live production in tight urban environments," said Sumesh Thakur, president of OceanWatch Productions during the event and now part of Red



The soapbox derby course for La Course Red Bull Boîte à Savon 2015 had to be covered by a multi-camera crew that communicated via the Rec4Box OB Factory van's Riedel system.

Bull Media House. "The Riedel gear within the truck provided great audio quality, as well as the ease of use and versatility we required to bring off a successful event."

Within the Rec4Box OB unit, the fiber-based network backbone provided by Riedel's Artist system serves as a decentralized infrastructure for live audio and intercom for a four- or five-

camera production. The Riedel system let crews mix all on-site communications and audio signals on one system. During production of the soapbox derby, users were able to respond to communications with the press of a button.

"For our customers, Riedel's Artist and RockNet systems enable quick handling of various production needs while ensuring outstanding audio

quality," said Joel Fortin, senior vice president of operations at Rec4Box OB Factory. "These powerful systems also provide the reliability that is essential in the fast-paced mobile production environment—even for mad-cap races such as La Course Red Bull Boîte à Savon 2015."

Riedel
riedel.net

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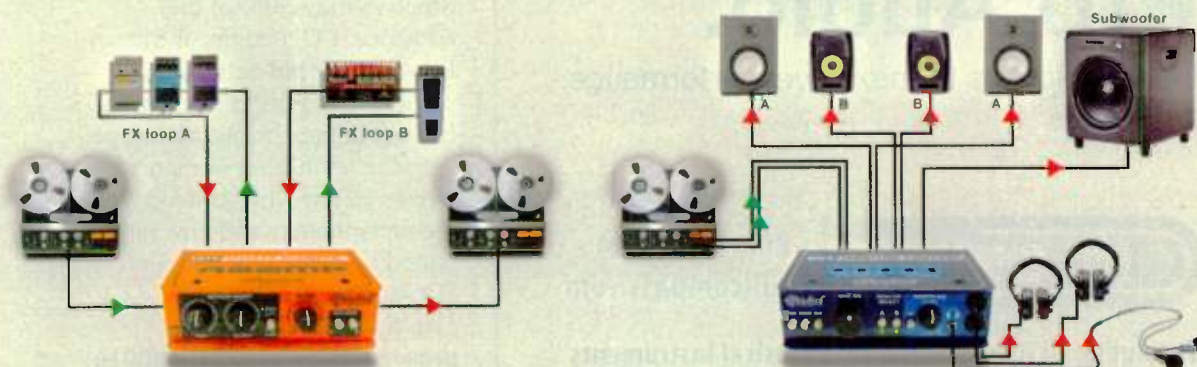


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The Beatles' Studio Goes on the Road

The Beatles were nothing if not ambitious, and it seems that every time someone looks to shed new light on the Fab Four's history, the result is equally ambitious. Now legendary producer/engineer Geoff Emerick—who was on hand for the recording of many of the band's hits—is part of the creative team behind a new arena production, *The Sessions*.

Subtitled "A Live Re-Staging of The Beatles at Abbey Road Studios," the in-the-round production will tour arenas of the UK and Europe throughout April and May, 2016, as 39 musicians and eight singers perform inside a set of Studio Two in Abbey Road. Note-perfect Beatle emulations are nothing new and high-end theatrical presentations of the Beatles' music go all the way back to the 1970s Broadway show, *Beatlemania*. Still, fair or not, if you say 'Beatles Tribute Band' to people these days, it usually brings to mind guys in their Fifties donning mop-top wigs and ill-fitting collarless suits in a futile effort to look 18 again.

Stepping into that pop culture arena, *The Sessions* will have to work hard to not come across as another Beatle tribute using the studio angle as a new gimmick to present the same old thing. But having Emerick involved as a consultant on the production already gives the show an added patina of authenticity.

For the full blog post, visit prosoundnetwork.com/jan2016.



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Pro Sound News brings you audio news every weekday on prosoundnetwork.com, Twitter (@[@prosoundnews](https://twitter.com/prosoundnews)) and Facebook (facebook.com/ProSoundNews)—but we also use social media to share links to interesting mainstream audio stories. Here's a few we recently shared; get their links at prosoundnetwork.com/jan2016.

- ▶ Yikes! UK acoustics engineer hanged himself over tinnitus.
- ▶ Museum exhibition on legendary BBC/*Doctor Who* sound engineer Delia Derbyshire opens.
- ▶ Recording animals—particularly otters—for *Star Wars: The Empire Strikes Back*.
- ▶ Police say a church's outdoor services are too loud—and now lawsuits are flying.
- ▶ Legendary Capricorn Studios in Macon, GA to be reopened, renovated.



BLOGGINGS

UNAFRAID TO MOVE

Dave Cobb has built a name for himself in Nashville, and now he's landed a Grammy nomination for Producer of the Year, as well as nominations for Album of the Year and Best Country Album (both for Chris Stapleton's *Traveller*) and Best Americana Album (Jason Isbell's *Something More Than Free*). It's a success earned the hard way—by building a strong body of work—but before all that happened, about 15 years ago, Cobb was something else entirely: lead guitarist on one of those great, lost albums that fall through the cracks—*Distressor* by *The Tender Idols*.



FIVE HARD TRUTHS

Founded in 2005, *The Hit House* has built an enviable track record providing custom music for movie trailers, TV commercials, video-game marketing efforts and other projects in the competitive Los Angeles market. In this guest post, the company's executive producer/co-founder, Sally House, shares her thoughts on what it takes to work at that level.



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After the Unthinkable



Terrorists attacked an Eagles of Death Metal concert at the Le Bataclan club in Paris on November 13 last year, killing 89 people at the sold-out show. Struck in the center of the audience, FOH engineer Shawn London first hid behind his console as the gunmen opened fire but then managed to escape, carrying an injured woman with him to safety. Now London recounts the day and how he vowed to live life to the fullest afterwards.

Catch the clip via prosoundnetwork.com/jan2016.

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The Studio Where Time Stood Still

BY STEVE HARVEY

NORTH HOLLYWOOD, CA—Walking into the lobby of Valentine Recording Studios, located on Laurel Canyon Blvd. in L.A.'s San Fernando Valley, visitors take a step back in time. Unused since the early 1980s, the facility has recently been reopened by the family of the original owner. Perfectly preserved, the facility offers no visual cues to suggest that more than three decades have passed since it last hosted a recording session.

The studio was originally owned by Jimmy Valentine, a Chicagoan who later moved to Washington, DC, then relocated to Los Angeles to pursue a career as an audio engineer, initially working at Capitol and NBC. He subsequently acquired a former doctor's office in North Hollywood and went into business for himself, but eventually got sidetracked into the car parts business and closed the facility. Now, Valentine's grandson,



AUTUMN FRANZEN

A true-life time capsule of Sixties and Seventies recording studio gear, furnishings and vibes, Valentine Studios in North Hollywood was brought back to life by (l-r) Nicolas Jodoin, Brittany Barsony and Justin Barsony, seen here in Studio A with a 1975 custom MCI JH-416 console.

Justin Barsony, and his wife Brittany, have reopened the studio with help from French Canadian Nic Jodoin a 15-year veteran producer and engineer whose credits includes BRMC, Nightbeats and Nick Waterhouse.

According to Justin Barsony, Valentine "moved out here in late 1949

and built a home studio. He recorded there for about 13 years, then bought this building in 1963."

In 1972, Valentine and his wife's Ford Thunderbird was stolen. They replaced it with a Metropolitan and, after discovering how hard it was to find spare parts, Valentine started a

new business, the Metropolitan Pit Stop, restoring and repairing the ultra-compact cars, running it in tandem with the studio. The shop still occupies the building next door.

Valentine, who was used to recording three-hour sessions with art-

(continued on page 24)

Inside Video Game Sound

BY STEVE HARVEY

LOS ANGELES, CA—"Film sound is relatively straight-forward and game sound is not," remarked Brian Schmidt, the executive director and creator of GameSoundCon, in his introduction to the recent two-day conference. Now in its eleventh year, GameSoundCon was held November 3 and 4 at the Millennium Biltmore Hotel in Los Angeles and offered sessions, panel discussions and hands-on workshops led by more than 20 of the game industry's leading composers, sound designers and audio directors.

In a comprehensive global study of the economic value of the cultural and creative industries commissioned by CISAC and published in December 2015, gaming is credited with generating revenues of \$99 billion versus \$77B from movies in 2013. The gaming figure includes software and hardware; the movie figure includes production, post production and distribution.

Although the video game sector employs a fraction of those working in movies—605,000 versus 2.48 million—it's an attractive career, as

evidenced by the turnout for GameSoundCon. For those prepared to navigate the unique challenges of the industry, Schmidt, whose 28 years in the business include 10 years in charge of the audio technology group for Xbox, had put together a schedule that dug deep into the technical aspects. In addition to separate Game Audio Essentials and Pro tracks, the conference included hands-on workshops extending over both days that led attendees through the intricacies of working with the FMOD or Wwise game engines.

Schmidt began with a brief history of game audio. In the beginning, there was no wavetable synthesis or audio files, he said. Instead, composers had to program their score, typically into less than 500 bytes of memory. PlayStation 1 heralded the switch from cartridges to compact disc, but even 600MB was not big enough to hold the game and a lot of score.

"The big turning point was the PS2 and the original Xbox, when they switched from CD to DVD," he said. With 70GB available, "That finally became enough room to re-



The 11th annual GameSoundCon, held in Los Angeles in November, included several presentations by composer Paul Lipson, audio director at Microsoft Game Studios, including sessions on the creation and implementation of interactive music score for a major console game.

cord 70 minutes of original score, full fidelity, and still have enough room for the game."

Now, "We have more audio processing power in the Xbox One than in a lot of people's Pro Tools rigs." At the same time, he added, things are regressing: "I've just finished working on a tablet game where the entire game audio package had to fit into 16MB."

The mobile market is growing. The CISAC report predicts an 86 percent growth in the consumer video games market for online and mobile video

games in 2018, while global smartphone connections are forecast to nearly double to 3.85 billion by 2019. Activision Blizzard recently recognized that growth potential when it acquired King Digital Entertainment, developer of *Candy Crush Saga*, which generates about 80 percent of its \$2.2B revenue from mobile games, in a \$5.9B deal said to be the third-largest ever in the video game industry.

Addressing those audio engineers and composers working in games, Schmidt said, "You are an emotional

(continued on page 27)

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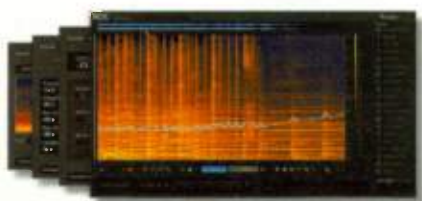
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Conclave Studios Nurtures Metal Musicians

BY STROTHER BULLINS

New York City's Conclave Studios boasts a unique focus and business model to nurture, produce and develop heavy metal, hard rock and progressive music artists. Founder Mitch Cox and engineer Jon Kita are truly passionate about working with new artists, providing them with the kind of knowledge normally gleaned via years in and out of the recording industry's school of hard knocks.



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Conclave Studios' control room features a Neve Genesys analog console/DAW controller with Genelec 1037C main monitoring and overlooks a large and flexible tracking space, especially conducive to tracking metal-style drum kits.

"We try to enable artists to progress to where they would normally be in five years by working with us for one year or less," explains Cox. "We do that by taking a very long-term, intensive interest in our bands, helping them to develop as musicians, artists and as professionals, and directing them in operating their band as a business."

Comparing the studio environment to a "manufacturing facility," Cox strives to be honest with the artists Conclave Studios and its development side, The Conclave, takes under its wings. "We generally find the musicians we work with to be very pragmatic," he offers. "None have illusions of making millions of dollars in metal. But with the right amount of guidance, discipline and planning, it's our view that talented bands can and will make money to support a modest lifestyle. We work with these bands, and in effect, underwrite them. In The Conclave, the other branch of Conclave Studios,

we form ongoing partnerships with our bands, guiding them through their careers. In fact, we're launching three or four bands early this year, giving them all the tools, information, guidance and financing they need so they can move forward."

This all works through creating discrete legal companies for each band; The Conclave owns half, and the band owns half. Because each company owns 100 percent of its intellectual properties, the musicians in the bands themselves own a portion of their copyrights, publishing, etc., in perpetuity. And most importantly, confirms Cox, "100 percent of the expenses associated with developing the company are paid for by The Conclave. To the extent that those expenses are greater than the company's revenues, The Conclave picks up the tab. Over time, as the band starts to make money, we're able to recoup our expenses. Once the band is profitable, we split profits with the band 50/50." This al-

lows bands to tour without worrying about per diem, gear, gas and merchandise needs while on the road, for just one example of benefits.

Cox's laser-like focus on the needs of his protégés extends to the way Conclave Studios operates and is outfitted, too. After finding a former television commercial and jingle studio in the Starett-Lehigh Building—a historic, former freight terminal in West Chelsea now bustling with vibrant creative businesses, visitors and tenants—Cox and Kita sculpted the space into a premier hard rock production facility defined by carefully selected acoustic treatments and an analog-centric recording rig. "[The studio] had a sensible, professional configuration of rooms, which gave us a head start," recalls Cox. "They were properly floated and the facility was very nice. We worked with Horacio Malvicino of Malvicino Design Group, an internationally-recognized acoustic

(continued on page 23)

STUDIO: CONCLAVE STUDIOS OWNER: MITCH COX LOCATION: NEW YORK CITY

There's more ▶ Find Conclave Studios on Facebook at facebook.com/Conclavestudiosmetal

Studio Showcase

(continued from page 22)

design firm and developed sound treatments for our genres.”

While many indie, metal-centric studios or labels have their artists “hit the ground running,” so to speak—often relying, for example, on ubiquitous samples for kick, snare and tom sounds—Conclave Studios actively slows down the process and purposely emphasizes pre-production. From a socioeconomic perspective, most indie artists, and metal musicians in particular, don’t enter a recording studio in a financially advantageous position, which in turn limits luxuries such as hours just to get sounds, ultimately stifling stylistic needs and creative goals. “So we don’t just have bands come into the studio to record an album,” tells Cox. “[Pre-production is] our chance to learn and help progress their music, allowing them to become better musicians for their next pre-proor formal recording session. It’s a constant building process.”

Drum tracking is especially crucial in high-quality hard rock/metal production, thus Cox weighed the live room’s acoustic design and treatment carefully with Malvicino. “In our primary tracking room, we focused on having maximum diffusion,” he continues. “The most difficult instrument in our

repertoire to capture is the heavy metal drum kit: double kicks, 8 to 12 cymbals, five or so toms and massive amounts of SPL that cover the entirety of the audible frequency spectrum. We created custom acoustic treatments—from resonator panels to diffusion panels, bass traps, to sound clouds in the ceiling—to allow us to capture the essence of that very complex instrument while avoiding some of the problems usually encountered in doing so in any enclosed space. We were also going to use the room for

“The 1073 was absolutely the way to go.”

—Mitch Cox

recording and re-amping guitars. To create complete sonic flexibility, our diffusion panels were placed on hinges, with the other side having resonator panels. With a few flips, we can record drums with maximum diffusion, then flip a couple of panels around and have, for example, a bluesy singer in there, making it sound more like an amphitheater.”

Equipment-wise, Conclave Studios is outfitted with “flavor” in

mind, featuring a range of some of the best-known metal guitar amp head/speaker cabinet combos 6-, 7-, and 8-string studio guitars, two complete drum kits and range of cymbals. The studio is anchored by a 24/48-channel AMS Neve Genesys analog console featuring 1073 preamps and 1084 EQs with Encore2 automation and DAW control tied to a 48-channel Avid Pro Tools|HD rig with Genelec 1037C main monitors. Focusrite ISA Series, Midas and Vintech outboard preamps; dbx, Empirical Labs and Vintech compressors; and a healthy variety of Radial Engineering DIs further highlight Conclave Studios’ gear list.

“Even some of the most artistic technical metal can sound sterile because you’re playing many notes with staccato precision very quickly, potentially giving it a cold feel,” explains Cox in the choice of a largely 1073 front end. “[This preamp] brings out the harmonic character of those notes, adding to it. From that perspective, the 1073 was absolutely the way to go.”

The Genesys ideally fits the way Conclave Studios operates, too. “We wanted to be able to simultaneously monitor multiple channels in the studio very efficiently while tracking and during pre-productions,” reasons Cox. “When the artist is in the other room, jumping back and forth between [control

and tracking], you want to be able to monitor on as many channels as possible—quickly throwing up a solo, for example. Our Neve, an inline console, allows us to set the preamp section of the board, then seamlessly switch between DAW and analog monitoring on the fly. It aids our artistic process.”

Conclave Studios
conclavestudios.com



“We worked with Horacio Malvicino of Malvicino Design Group, an internationally-recognized acoustic design firm, and developed sound treatments for our genres.”— Mitch Cox, Founder, The Conclave



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Valentine

(continued from page 20)

ists such as Stan Kenton, Bing Crosby, Frankie Avalon and Burl Ives, soon lost interest in recording as rock 'n' roll music and its associated lifestyle led to projects stretching out over days and weeks. The car shop flourished, so he started using the facility's large tracking room for storage, but not before tackling projects with a few newer artists such as the Beach Boys and Frank Zappa.

Barsony has been trying to get a restoration project off the ground for over 10 years, he says. "It was overwhelming, not knowing many people in the business. Where do we even start? So we hooked up with Nic and said, let's do this." Happily, the parts storage was kept pretty tidy, he reports, and apart from some water damage from a roof leak five years ago, all the facility needed was a really good cleaning to get it operational again.

At the front of the facility, Studio B is a time capsule of the 1960s, with a 12-channel Universal Audio 610A console taking pride of place on the Formica-covered desk. The control room houses a rack of Pultec, Hycor,

UA 177 and other outboard equipment, plus Ampex 356 and 440 and Stephens 811C tape recorders custom-built into cabinets by the technically proficient Valentine, who was certified by Ampex. The small live room, with its original yellow drapes and mood lighting, was popular for voiceover work—Mel Blanc was a regular visitor—and is now being of-

fered as a songwriting space as well as for overdub sessions.

ad at the time, says Jodoin. The monitors, now in different cabinets, are still in use. At the back of the room is an MCI JH-114 tape machine.

Four Altec Voice of the Theater speakers hang in a line above the control room window in the tracking space, which is large enough to house a small orchestra or jazz big band. The mic collection includes multiple

room, "and we could be talking here; the drums barely bleed [into the other mics]."

Valentine, who reportedly kept meticulous documentation, wired every room in the building together. "You can have a band recording here, use the 610 as mic pres and bring those back into the MCI," says Jodoin.

During the clean-up, Jodoin spot-

"When he bought stuff, he didn't just buy one; he would buy three of everything. People thought he was crazy, but it's great for us now."

Justin Barsony

RCA 77 and Sony C-37A models as well as Electro-Voice and Sennheiser examples from the period.

Jodoin believes Valentine invented the first gobos to include a window. *Billboard's* June 22, 1968 edition confirms, "Valentine Recording Studios in North Hollywood has devised see-through baffle separations. Placed on wheels, the baffles can be adjusted to any height or size to avoid visual impairment."

Barsony and Jodoin have been encouraging new clients to record together in the space. "You can have the drummer playing there," says Jodoin, pointing to the corner of the

ted a patchbay label that said "chambers." "We were looking everywhere, but didn't think of looking up," he laughs. Situated above a rear hallway, the two chambers had also become storage units.

One room remains to be restored—Studio C, which is piled high with enough parts to build several Rek-O-Kut and Presto disc cutting lathes. "When he bought stuff, he didn't just buy one," says Barsony, "he would buy three of everything. People thought he was crazy, but it's great for us now."

Valentine Recording Studios
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~ Tommy Lee

Founding member - Mötley Crüe.



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~ Butch Walker

Engineer/Producer - Avril Lavigne, Fall Out Boy, Pink, Sevendust, Hot Hot Heat, Simple Plan.

"I love the way the control and tracking rooms sound now... and so does everyone that records here!"

~ Butch Walker

www.primacoustic.com

Inside *The Great British Recording Studios*

BY STEVE HARVEY

NEW YORK, NY—"Why would an American be writing a book about the British recording studios of the 1960s and 1970s?" asks Howard Massey in the preface to his latest book. As Massey explained at his presentation during the 2015 AES Convention in New York, "The short answer is because I was asked."

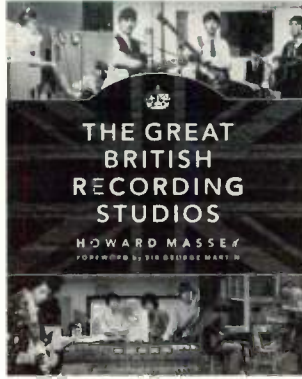
Massey was the ideal choice to write *The Great British Recording Studios*; indeed, he was handpicked for the venture. "Five years ago, I met with Malcolm Atkin, the chair of the APRS in England, which is roughly the equivalent of SPARS, a trade organization of recording studios. Malcolm said, 'I have an idea for a book and I'd like you to write it.'"

And who better to write the book than Massey, who moved to England in the 1970s as a musician and songwriter with a publishing deal. He found himself, in 1979, working at Pathway in North London, where his first session was a mix that went into the U.K. Top 20 singles chart. From there, he went on to work at other

studios around town, including a long stint at Trident, and even sat in on a few mastering sessions at Abbey Road. He returned to the U.S. in the 1980s.

The Great British Recording Studios is described by Hal Leonard Books as the first comprehensive account of that country's recording facilities ever published, and rightly so. As Massey explained during his AES presentation, "I interviewed over 300 people for this book. It covers three dozen studios; sadly, only three of them are still in business today. There are over 100 photos, many never before published, supplemented with over 100 anecdotal stories from the studios—behind-the-scenes peeks at what was going on."

There is plenty of technical information for those interested in the studio equipment that drove what became known as the British Invasion beginning in the mid-1960s. "There's



Howard Massey has captured the quickly fading history of 36 classic British recording studios—only three of which are still open today.

information like specific room dimensions, acoustic treatments, key personnel, key technical innovations, detailed equipment listings—mixing boards, tape recorders, monitors, microphones, outboard gear—and a selective discography for each of the 36 studios," he said.

But before the book launches into details of the studios, from EMI's Abbey Road facilities, opened in 1931, through the studios built by the other three record labels—Decca, Philips and Pye—beginning six years later, and on to the major independents and other important studios, Massey puts forth his thesis. Why did a "British sound," as distinct from an "American sound," evolve during that crucial time period? "The reasons may be as much sociological as they are technical," he said.

For a start, the two countries had very different popular music tradi-

tions. Jazz, blues and rock 'n' roll started as uniquely American forms. Britain had its own exclusive genres, such as skiffle, a tamer version of rock 'n' roll, and the West Indies-influenced ska, which predated reggae's popularity in the country.

There was much less cross-pollination of ideas back then, Massey noted in his presentation. "Flying was very expensive. As a result, engineers didn't travel like they do today."

Further, he said, "One of the most fascinating things that I learned in the course of doing this book is that not only were British engineers largely unaware of American recording techniques, they were largely unaware of the techniques being used by the other British engineers. You worked in a studio for life. It wasn't until the mid-'60s that people like Glyn Johns started becoming independent engineers and moving from studio to studio."

It took a long time for Britain to recover from World War II, and British studios and musicians were unable to afford American-made equipment, instead buying European products. "Until the mid-1960s, al-

(continued on page 27)

performance, amazing results!



"I put up Primacoustic Broadway Panels on the walls and MaxTraps in the corners. The difference was amazing... the room went from unruly to tight and controlled!"
~ Daniel Adair Drummer - Nickelback.

"Not only does my room sound amazing, it's also really beautiful!!!"

~ John Rzeznik

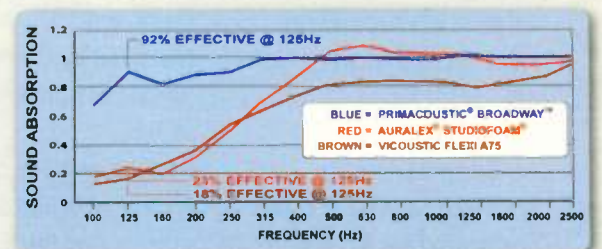


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~ Keb' Mo' Grammy winner, roots-legend.



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~ John Rzeznik Goo Goo Dolls.

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ARTIST: ERIC BELLINGER

TRACK: "VALET"

FEATURING FETTY WAP
AND 2CHAINZ

LABEL: 300
ENTERTAINMENT/
YFS MUSIC

PERSONNEL:

Produced by: J White;

Floyd "A!" Bentley

Engineered by: Dirty Swift
of MIDI Mafia

Studios: YFS Studio (North
Hollywood, CA)

EQUIPMENT NOTES: AVID
PRO TOOLS



ARTIST: SAM MEANS

ALBUM: 10 SONGS

LABEL: HELLO RECORDS

PERSONNEL:

Produced by: Steven
McDonald

Engineered by: Steven
McDonald

Studios: The Whiskey
Kitchen, Fancy Lady Studios
(Los Angeles, CA)

Mastered by: Jamal Ruhe
at West West Side Music
(New Windsor, NY)

EQUIPMENT NOTES: API,
CAPI, Hairball Audio 500
Series Units; Avid Pro Tools
9; KRK Exposé 8 studio
monitors



ARTIST: KEYS N KRATES

ALBUM: MIDNIGHT MASS
EP

LABEL: DIM MAK

PERSONNEL:

Produced by: Keys N Krates

Engineered by: Keys N
Krates

Mix Engineer: Jared
"Jpaul" Jackson

Studios: Rehearsal Factory
(Toronto, Canada)

Mastered by: Jared Jackson
Studio (Arizona)

Equipment Notes:

Steinberg Ableton; Yamaha
NS10, Behringer Behritone
studio monitors



ARTIST: EAST LOVE

ALBUM: UNTITLED

LABEL: SELF-RELEASED

PERSONNEL:

Produced by: Max Wagner,

Jack Wagner, Andrew
Underberg

Engineered by: Max
Wagner, Andrew Underberg

Mix Engineer: XX

Studios: Panhandle Studios
(Westport, CT); Purple
Duplex (New York, NY)

Mastered by: Martin
Anelkus at Cutting Room
(Sweden)

Equipment Notes:

(Panhandle) Avid Mbox
Pro; Avid Pro Tools; ADAM
Audio studio monitors



ARTIST: PHIL COOK

ALBUM: SOUTHLAND
MISSION

LABEL: THIRTY TIGERS

PERSONNEL:

Produced by: Brad Cook,
Phil Cook

Engineered by: Jonathan
Ashley

Studios: Echo Mountain
Studios (Asheville, NC),
April Base Studios (Eau
Claire, WI)

Mastered by: Zachary
Hanson at April Base
Studios

Equipment Notes: API 3288
console with EMI 12x2
sidecar; Avid Pro Tools;
Lynx Aurora converters;
Dynaudio BM6s,
Augsburger studio monitors



ARTIST: SCOTT DUBOIS

ALBUM: WINTER LIGHT

LABEL: ACT MUSIC

PERSONNEL:

Produced by: Scott DuBois

Engineered by: Thomas
Vang

Mix Engineer: Walter
Quintus

Studios: The Village
(Copenhagen, Denmark)

Mastered by: Klaus
Scheuermann at 4ohm
music (Berlin, Germany)

Equipment Notes: Amek
Classic console; Avid Pro
Tools; ATC scm100, scm20
studio monitors



ARTIST: ASTROPOL

ALBUM: THE SPIN WE'RE
IN

LABEL: INGRID

PERSONNEL:

Produced by: Astropol,
Thom Monahan, Måns
Lundberg, Mattias Boström

Engineered by: Thom
Monahan

Mix Engineer: Lasse
Mårtén

Studios: Ingrid Studio
(Stockholm, Sweden)

Mastered by: Henrik
Jonsson at Masters of
Audio (Stockholm, Sweden)

Equipment Notes: API
3232 console; Avid Pro
Tools; Altec Big Red studio
monitors



ARTIST: ADAMADAM

ALBUM: I CAN SING A
SONG

LABEL: CORNELIUS
CHAPEL RECORDS

PERSONNEL:

Produced by: Elliott
McPherson

Engineered by: Shane

Lollar; Les Nuby; Tym
Cornell

Assistant Engineer: Ben
Joseph

Studios: Old Capitol
Recordings (Tuscaloosa,
AL); Elegante Studios,
Wild Honey Recording,
(Birmingham, AL)

Mastered by: Daniel
Farris at Denial Labs,
(Birmingham, AL)

Equipment Notes: 1983
Tascam M600 console; Avid
Pro Tools; SSL plug-ins JBL
LSR4328 studio monitors



ARTIST: ROZES

ALBUM: BURN WILD

LABEL: SELF-RELEASED

PERSONNEL:

Produced by: Ian Walsh
(ETRON); Patrick Mencil;
Brian Phillips

Engineered by: Ian Walsh
Mix Engineer: Brian
Phillips; Ian Walsh

Studios: Hammerhead
(Delaware); Hammerhead
Jr. (Hoboken, NJ)

Mastered by: Eamon Loftus
at Brick House Mastering

Equipment Notes: Avid
Pro Tools; Ableton Live
9; Trident HG3 studio
monitors



ARTIST: BATTLEME

ALBUM: HABITUAL LOVE
SONGS

LABEL: EL CAMINO

PERSONNEL:

Produced by: Matt Drenik;
Jason Drenik

Engineered by: Colin
Hegna; Matt Drenik; JJ Rev

Mix Engineer: Matt Drenik
Studios: Revolver Studios,
The Cave (Portland, OR)

Mastered by: Pete Lyman
at Infrasonic Sound (Los
Angeles, CA)

Equipment Notes: Harrison
Raven 28, Neotek Series
1 consoles; tape machine;
Avid Pro Tools; Yamaha
NS10 studio monitors

notes

Audient Goes to College

MINNEAPOLIS, MN—Hennepin Technical College (HTC), the largest standalone technical college in the Minnesota State College System, recently installed an Audient (audient.com) ASP4816 console, supplied by Vintage King L.A., replacing a 24-channel digital desk in Studio B in the college's Audio Production department.

ADAM Gets Aboard Lost Ark

SAN DIEGO, CA—The multi-purpose B room at San Diego's Lost Ark Studio, the home base for in-house label Randm Records, has been equipped with an analog mixing desk, several racks of outboard gear and a pair of ATX nearfield monitors, together with a Sub7 subwoofer, from ADAM Audio (adam-audio.de).

La Boutique Buys into DiGiGrid

CHESSINGTON, UK—At La Boutique Studio in North London, producer, engineer, mixer and studio owner Matteo Cifelli, musical director and drummer Gary Wallis and studio engineer Raoul Terzi used DiGiGrid (digigrd.net) interfaces for the 5.1 mix of a live album by Sir Tom Jones, recorded via two DiGiGrid IOxs at London's SSE Arena.

Needham Adds Manley Mics

LOS ANGELES, CA—Engineer and producer Mark Needham recently got his hands on new Manley (manley.com) microphones, using them on a project with Newsboys at his L.A. studio, The Ballroom, where he used two Reference and two Reference Gold mics from various sources, including a 1901 Steinway piano.

GameSoundCon

(continued from page 20)

puppeteer. You bring people into a universe.”

Yet there are aesthetic and creative challenges. There is no precognition; there is no way of knowing what will happen next in a game, or when. This requires what Schmidt referred to as “event mapping,” tying sounds to specific cues, triggers or events. Those sounds must be flexible, playing out according to context, therefore requiring layers of multiple audio files with processing. A sword hit might be hard or soft, for example, while footstep sounds will change depending on the surface or size of a space.

Music must be similarly flexible, written to be arranged on the fly as game play progresses. “Even the best music can get tiresome” if it continually loops, said Schmidt, recom-

mending “the magic of silence. You don’t need music all the time.” Lots of redundant assets and processing such as pitching and filtering can add variety, too, he commented.

The technical challenges are many. Resources are shared, and it’s a zero sum game, he said. Audio must therefore be designed to meet the constraints of memory, CPU, data transfer rates and bandwidth—and no two games are alike. “The process is really

software development,” said Schmidt. “And there is no post-production phase; you’re developing as [the game] is built.” Because the game is constantly under development until the final version, “You’re working on a broken game,” he added.

Another difference between game audio and movies: “You don’t mix a game,” said Schmidt. Instead, the audio designer provides the game with instructions on when and how to play

the audio assets.

A typical bit budget for audio in the range of 8MB to 24MB allows for anywhere from 49 seconds to over two minutes of uncompressed stereo, but that can vary, Schmidt noted. Not every sound has to be the same sample and bit rate as the others, which is one way to save memory. “Data compression is your friend,” he said.

GameSoundCon
gamesoundcon.com

British Studios

(continued from page 25)

most every British studio used mixing boards custom-built by their own maintenance engineers. American studios tended to have Ampex and Scully tape machines; British studios tended to have EMI and Studer machines,” explained Massey.

Another technical factor was acoustic design. “Up until the early 1970s, British studios were never custom-built; they were always constructed into existing buildings, often centuries old, which presented complex acoustic challenges. Also, until 1973, when Tom Hidley redesigned Decca Studio 1, they were designed by British acousticians and architects,” said Massey.

America was producing stereo mixes in the 1950s but that was not common in England until the mid- to late-60s, and often an afterthought to the mono mixes. American studios adopted 8- then 16- and 24-track recorders well before British studios.

As a result of these and other factors, British engineers and their clients had to innovate—and innovate they did. As Massey states in the book, the “British sound” was down to the right people in the right place at the right time with the right equipment to hand. The result was a string of British artists—the Beatles, the Rolling Stones, the Kinks, The Who—that stormed across the ocean and up the American charts, and helped drive both music and the recording process in new directions.

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Software Tech: Stability Wars



BY CRAIG
ANDERTON

As we become ever-more dependent on computers, we increasingly run the risk of being blindsided by our tools. For years, I've

been saying that compatibility and system stability would become only more problematic. But it turned out I was wrong—they've become *much* more problematic.

Any DAW forum has thread after thread complaining about "bugs" in the software. Although often user error, the issue goes far deeper.

Today's operating systems are so complex, with so many interdependencies, that it's impossible to know how they're going to work until they're in millions of systems.

Problem #1: Except for Linux folks, our livelihoods depend on operating systems from Apple and Microsoft. When OS X El Capi-

tan appeared, changes in the Audio Units spec meant that many plug-ins couldn't validate. Native Instruments advised users not to update immediately to El Capitan, but they were not alone: as Adrian Kingsley-Hughes wrote on ZDNet two weeks after El Capitan appeared, "I suggest you put your upgrade plans on hold until the first update is out, unless you like dealing with bugs." It took over two months and two major updates until El Capitan had worked out most of its issues.

How is this possible with a tech-savvy company that has virtually unlimited resources? The answer: Very possible. Although Microsoft fared somewhat better with Windows 10, it was not without problems either. Microsoft had a bit of an advantage with its "rolling updates" that did fixes early and often, but still, some people rolled back to the solid-as-a-rock Windows 7, while others waited for issues to be addressed.

Public betas? Maybe, but they can be more about marketing/building anticipation, and besides, few users will do the rigorous "corner case" testing, with reproducible steps, that real QC people do. Which brings us to...

Problem #2: Software companies may hook into parts of the operating system other companies don't use—which is why an expensive plug-in from a big-name company may stop working, while a freebie plug-in some kid wrote works fine. Although companies have access to OS beta versions, testing with beta software simply means you've verified operation with software that will never be released. You can check out the big picture, but until the software is frozen, any testing may end up being a waste of time.

Problem #3: It's not just software, but hardware. Drivers might stop working, require updating, or die a slow death if the company making the driver doesn't see a financial reason to update it.

One solution is to dedicate a computer to the task at hand, and don't update it until absolutely necessary (e.g., when 32-bit machines transitioned to 64 bits). However, there are also overlap issues. For example, when I moved to a 64-bit machine, everything worked great—except those programs that required a particular 64-bit library, and for which only 32-bit libraries existed. I could either stick with 32 bits, or simply write off several programs

(continued on page 29)



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Anderton

(continued from page 28)

until an update appeared (which it did, about a year later). And some programs you use may require a new OS, while others won't work with it.

I'm beginning to think that iOS and Windows 10 may have gotten it right: Put stuff out there, see what breaks, then fix it as fast as you can. Consider that flurry of app updates every time iOS increments by 0.1, or that mysterious weekly Windows ritual that's updating...something, as a parade of multi-digit "configuration" numbers flash across your screen. However, I also think Windows understood the reality of updates by acknowledging that fixing old bugs can

Although companies have access to OS beta versions, testing with beta software simply means you've verified operation with software that will never be released.

introduce new bugs, so they made it possible to roll back to a previous version if you had problems. Then again, what happens if the previous version had problematic bugs, or you buy a

new computer with the new OS pre-installed and have no other option?

For desktop machines, removable hard drives and partitions are your friends—install the new OS, but keep

the old one. Migrate things over and eventually you'll be on a stable operating system. Still, remember that just as nuclear power was supposed to be too cheap to meter, computers were going to save us from burned-out motors, tape alignment, head lapping, cracked rubber pinch rollers and the like. And they did—but they haven't relieved us of having to make choices about how to maintain the gear we have. And sometimes, the winning option isn't the best choice, but the least bad one.

Visconti Goes Barefoot

NEW YORK, NY—There's a thin line between keeping a studio's gear list perfect, and letting it ossify. To wit, Grammy Award-winning producer Tony Visconti has a space in New York City that changes only when necessary. "I've been in this studio for five years," he said. "I've added a little more equipment, including these wonderful speakers behind me, but nothing much has changed. I'd like to keep things status quo for a while."

The speakers, as it turns out, were Barefoot Sound MM27 monitors, which he got after hearing them when Foo Fighters was recording nearby. "The first time I heard a pair of Barefoots was during the *Sonic Highways* sessions at the Magic Shop in New York City when Butch Vig brought his own pair," Visconti recalls. "I thought it was the in-wall monitor speakers, but it was the Barefoots sitting on top of the console that I was listening to. Then I finally got it: These are great speakers and I've got to have them."

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barefootsound.com



Tony Visconti with his Barefoot Sound MM27 studio monitors.

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NEUTRIK

SMPTE Dives Into Immersive Sound

BY STEVE HARVEY

HOLLYWOOD, CA—The 2015 annual Society of Motion Picture and Television Engineers (SMPTE) Technical Conference and Exhibition attracted its highest attendance in more than a decade, drawing 2,328 registered attendees from more than 35 countries. Co-chaired by SMPTE Fellows Paul Chapman and Jim DeFilippis, SMPTE 2015 offered a program that focused predominantly on topics related to Ultra HD video, Virtual Reality (VR) and Augmented Reality (AR), and also turned the spotlight on immersive sound and personalized audio.

According to Chapman, “In so many ways, this was a banner year for the SMPTE annual Technical Conference and Exhibition. For starters, so many high-quality papers were submitted that we literally had to make room for presentations. We also had to add space to accommodate more than 90 exhibitors. That, coupled with the record number of attendees, indicates that the industry is on a real upswing.”

Addressing the T in SMPTE, Peter Poers, Junger Audio’s managing



At The SMPTE Conference, Fraunhofer USA’s Jan Nordmann said the next generation of codecs will likely combine audio channels and audio objects.

director of marketing and sales, advocated for immersive audio to accompany the adoption of 4K, high-dynamic range (HDR), wide color gamut (WCG) and high frame-rate (HFR) video. The timeframe for adoption will be set by the codec developers and uptake into consumer products, he said.

The best way to give these NGA, or next-generation audio, formats a fighting chance for adoption is to keep cost and effort to a minimum, he suggest-

ed: “The use of existing digital production infrastructure is essential to start content creation for new formats soon and within the next two years.”

But there will need to be new tools and workflows. A critical component in production and post will be the Multichannel Monitoring and Authoring unit (MMA), bringing together audio interfacing and computing, along with metadata authoring, said Poers. The MMA will

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Audio for VR Becomes a Reality

BY STEVE HARVEY

NORTHRIDGE, CA—It’s beginning to look like 2016 will be the year that VR—virtual reality—goes mainstream, as more and more headsets become commercially available. But while consumers can now get their hands on equipment to experience VR, there are still significant challenges facing producers and post producers, who are currently struggling to find efficient tools and workflows.

The AES Los Angeles Section recently addressed these issues with a presentation entitled “Virtual Reality for Consumer Media,” hosted at Harman International’s headquarters in Northridge, CA. Organized and coordinated by Linda A. Gedemer, adjunct professor at LMU-School of Film and Television’s Recording Arts Department, presenters included Tim Gedemer, president/CEO of Source Sound, and Charles Deenen, director of Source Sound Digital, a Los An-

geles-based sound design and mixing group that specializes in immersive, VR-specific audio services, together with Joel Susal, director of Virtual and Augmented Reality at Dolby Laboratories and Adam Somers, senior software engineer at Jaunt VR.

Gedemer began with an announcement that the 2016 AES Convention will include an immersive conference. The market is blossoming: Oculus, Sony and HTC are launching headsets with PC and PlayStation connectivity, and Google and Samsung are making inexpensive smartphone-powered headsets available. “Smartphones have made VR accessible,” he observed.

“Headphones are the most important aspect of the consumer experience,” said Somers, since viewers are unlikely to have a speaker array capable of reproducing immersive sound. In addition to the 360-degree camera arrays coming to the market, he said, there are choices of single-point “3-D” microphones, including the Core Sound TetraMic, MH Acoustics Eigenmike, and devices from VisiSonics, Dysonics with Telefunken and 3Dio.

“The more capsules, the higher

(continued on page 30)

briefs

Students Prep with Calrec

BANGOR, ME—Video production and audio engineering students at Husson University’s New England School of Communications (NESCom) in Bangor, ME, will receive hands-on training on a newly installed Calrec (calrec.com) Summa audio console in a studio environment used to produce live newscasts and recorded public affairs shows.

Lawo Supports TV Cloud First

RASTATT, GERMANY—DutchView Infostada’s new Cloud Production system recently produced the first live multi-camera broadcast to be aired by means of cloud-based technology, using an infrastructure built on Lawo (lawo.com) IP-based video, audio and routing equipment, including Lawo mc²56 audio mixing consoles, Nova compact routers, DALLIS I/O systems and A_mic8 analog-to-IP audio interfaces.

Focusrite Networks on the Road

LOS ANGELES, CA—NEP’s newest remote truck, SSCBS, designed primarily for major PGA and NFL events, includes two Focusrite (focusrite.com) RedNet D64R units—NEP’s first use of Dante, enabling bridging between legacy MADI-connected systems and the network. All Mobile Video’s newest truck will utilize two RedNet 1 eight-channel analog I/O units and seven RedNet 2 16-channel I/O units to interface with the RTS ADAM Frame’s OMNEO media networking architecture.

Holubec Relies on Lectro

PRAGUE, CZECH REPUBLIC—Location sound engineer Michal Holubec, C.A.S., based in Prague, recently completed work on a period adventure film, *Emperor*, starring Adrian Brody, and an absurdist comedy, *Lost in Munich*, starring an African gray parrot, using his Lectrosonics (lectrosonics.com) VR Field Modular Receiver, SRb transmitters and an SRb receiver to feed eight tracks to a Sound Devices 788 recorder.

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Virtual Reality

(continued from page 30)

the spatial resolution,” he said. Jaunt favors first-order Ambisonics, which occupies four tracks and is easy to work with and stream, he added.

Susal commented that VR falls into two basic categories, interactive and experiential. The former essentially comprises games; the latter includes music concerts, sports, tourism and documentaries. Audio for VR needs to be the same quality as for movies, so Dolby is adapting Atmos for the market, he said, with software for creation and playback currently going through beta testing. Post production can help bring the better-than-real-life quality of movies to the format, he said, building upon the initial mic capture.

But as Gedemer noted from a recent experience, “It can be unexpectedly difficult.” An Ambisonic mic by the camera was rendered useless by unwanted noise. Plus, spill between the lavalier mics on the seven characters on his project—boom mics would have been visible—meant ADR was not an option, so Gedemer had to “remove the bleed forensically,” he said.

Source Sound has had plenty of experience with the VR post audio process, working out a series of “hacks,” according to Gedemer and Deenen. For example, there is currently no way to embed audio with picture, necessitating syncing by hand from two playback devices. Since it’s impractical—impossible, even—to perform a mix while wearing VR goggles, the 360-degree image has to be displayed two-dimensionally, with various degrees of the circle marked on the screen. When panning sounds, “You hear it behind you but see it in front,” said Deenen. “It takes some getting used to.”

The VR format is also very revealing, requiring pans to be within +/- 2 degrees to sound precise, he continued. In terms of level, tolerances are +/- 2 dB on the X/Y plane and +/- 5 dB in the Z (vertical) plane.

A new platform brings with it loudness issues, too. Source Sound mixes to -16 LKFS/LUFS (YouTube uses -13 LUFS), which is the target used by game companies for online streaming. Deenen recommended a reference monitoring level of 60 to 65 dB for speakers and 70 to 75 dB for headphones. “Many are listening in noisy spaces and mixing louder would produce too wide a dynamic range,” he said. He also cautioned, “If you mix on headphones, it tends to be too dense, because you can hear all the sounds.”

Audio post can be performed in a DAW then sent into a middleware game engine such as Unity or Wwise for manipulation in the 360-degree sound field. “But none of the engines handle rotational sound, or how sources change as they move” relative to the listener, in terms of filtering and phase, noted Deenen.

Plus, said Gedemer, there are no currently tools that can control fixed versus dynamic sources. On one proj-

ect, in order to have the music remain fixed while head-tracking allowed everything else to rotate appropriately, he reported, he had to mono the music and place it in four quadrants of the 360-degree field.

There also needs to be new technology for consumers, commented Susal, enabling them to easily browse, stream and pause content. With an estimated 1.7 billion smartphones in use, Jaunt hopes to galvanize a large

audience, said Somers. The early signs are hopeful: a recent VR news report from North Korea clocked up 20 million hits in three days.

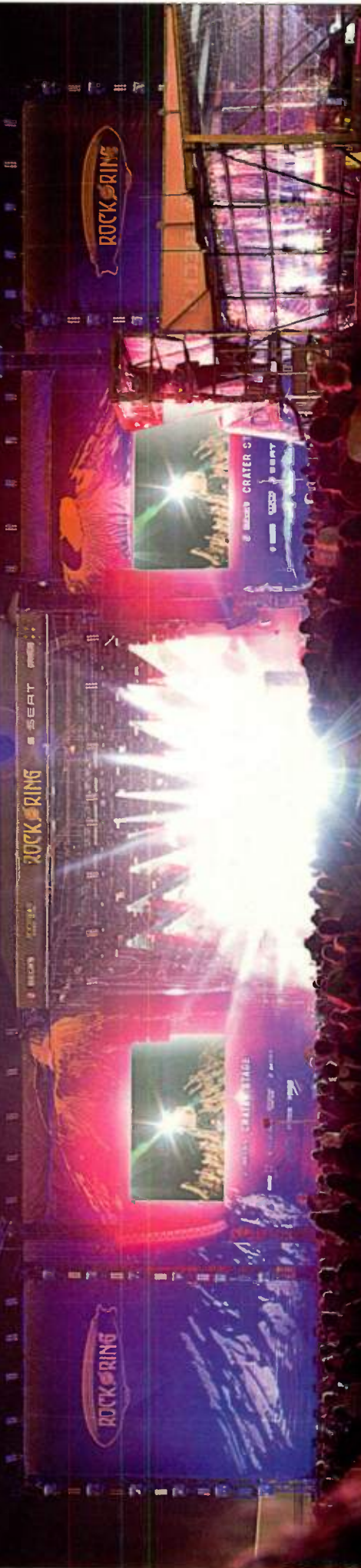
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ARTIST
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Immersive Sound

(continued from page 30)

enable the delivery of personalized audio—consumer selection of alternate languages or commentary tracks, or adjustment of levels of certain audio elements—and will incorporate stereo-to-surround upmixing and provide loudness control.

The next generation of codecs will likely combine audio channels, audio objects and, in the case of Fraunhofer's MPEG-H, Higher Order Ambisonics (HOA), according to Jan Nordmann, senior director business development for Fraunhofer USA. "We need to binaurally render that immersive audio experience over headphones," he said.

"If you want to do immersive audio over headphones for VR, you need head tracking, you need to be able to render audio elements from every direction and distance, and if you want to target mass consumer platforms, you need to have resource-optimized implementation," he added.

VR cameras are coming onto the market and there are a few mi-

crophones that have been used in a broadcast context, including a 3D mic tree used by Fraunhofer in its experiments. "These are usually expensive or difficult to use. Making 3D audio capture more convenient is a topic of ongoing research," he commented.

"If you do immersive audio right in VR, it really helps you to tell stories in a new, different way," said Nordmann. But, he cautioned, "Immersive

vides immersive audio, meaning 3D height information, and it's flexible, in terms of listening environments or consumer devices."

In summary, said Nordmann, "I'm glad SMPTE has a VR symposium for the very first time and we have a talk on audio. Experiment and learn; use the tools that are out there to create great content."

Nils Peters, senior staff research engineer at Qualcomm, discussed

number of important sounds at a time, with less important sounds fading into a diffuse and reverberant background. This concept allows efficient compression of immersive audio for broadcast, as the HOA order of the less critical sounds may be reduced without significant perceptual impact, he said.

The impact of object-based audio (OBA), with its capabilities to enhance the listening experience and for personalization, will be as revolutionary as sound was to motion pictures in the 1930s, according to Steven Silva, VP of technology and strategy at 21st Century Fox. Silva offered various mix strategies and workflows for OBA in television broadcast, including deployment at live events of a "sidecar mixer" to insert metadata for those audio sources designated as objects.

Immersive sound will be combined with Ultra HD television in the next generation of encoders, said Silva. "OBA and immersive sound will create innovative commercial ventures for programmers, broadcasters and multichannel video programming distributors."

SMPTE
smpte.org

"The use of existing digital production infrastructure is essential to start content creation for new formats soon and within the next two years."

Peter Poers, Junger Audio

audio is quite new. People will experiment; they will often fail."

Fraunhofer is introducing new tools for immersive audio, including a VST reverb plug-in that enables dynamic placement of channel beds or sound sources in virtual space. Known for its development work on mp3 and AAC, the company is proferring MPEG H, he added. "It pro-

why scene-based audio, in particular HOA, is a practical and elegant solution for creating and transmitting immersive content for next generation audio services. In MPEG-H, scene-based audio may be coded and transmitted with high efficiency and rendered specifically to a consumer's personal reproduction environment.

Humans tend to focus on a small

Who put the 'high' in the 'high fidelity'?



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innovations: the manufacturer's view



Mixing Modern and Amish Technologies

SOUND DEVICES CL-12 ALAIA LINEAR FADER CONTROLLER

BY MATT ANDERSON

Portable audio mixers have played a significant role in television and film production for several decades, and are indispensable to a sound mixer who needs to stay mobile during on-location shoots. Such devices are sometimes referred to as “bag” or “over-the-shoulder” mixers because that’s how they are typically carried and operated by audio professionals in the field. Sound Devices has built a dedicated following around the world by manufacturing high-quality audio field mixers and recorders, renowned for their rugged durability, operational flexibility, and pristine audio quality. Our pioneering heritage lies within its production-oriented field mixers and recorders. As the industry evolved from analog to digital tape-based and fully file-based workflows, Sound Devices’ innovative 7-Series was instrumental in helping audio professionals make the transition.

We strived to continue this focus on innovative audio solutions when we designed the Sound Devices’

6-Series line of production field mixers, which includes the 633, 664, and most recently, the 688. These portable mixers come equipped with integrated recorders all housed in one compact device.

Prompted and inspired by customer feedback, we designed our latest 688 mixer/recorder by incorporating the best features of our existing products, while making it even more versatile. The 688 mixer/recorder is a powerful and feature-laden device, offering 12-inputs and eight output buses for flexible routing, 12-channel auto-mixing capability, plus a 16-track recorder, internal Ambient timecode generator, easy-to-read LCD metering, and much more. As soon as the 688 launched, our sights quickly shifted to, “How could we improve?”

Inspired by past successes with the ever-popular 788T system, along with its numerous add-ons, we listened to 688 users, their challenges and more immediate requirements. That customer-focused design approach is what drove Sound Devices to develop the CL-12 linear fader controller, an optional accessory for the 688.

The CL-12 is a breakthrough accessory that significantly expands the mixing capabilities of the 688. For starters, the CL-12 provides full 12-channel 100 mm linear fader mixing, three-band parametric equalizer on all inputs, large sunlight-viewable 22-segment LED level indication for output controls, and seven-segment level pre- or post-fade metering. The CL-12 also offers easy keyboard metadata entry, illuminated dedicated push button controls for transport controls, arming, routing, naming and much more.

Despite all of this functionality, perhaps the most striking feature of the CL-12 is its appearance. The product’s profile is a mere 11-inches x 15-inches, and it adds only five pounds to a sound mixer’s toolkit. Extremely sleek and stylish, the CL-12 is available in two models: a standard model and the CL-12 Alaia (pronounced “ah-LIE-ah”). The key



Sound Devices CL-12 Alaia Linear Fader Controllers

differentiating feature of the CL-12 Alaia is its silky smooth Penny & Giles linear faders. Penny & Giles is a manufacturer revered by the production sound community for engineering the smoothest faders in the industry.

Another key feature of the CL-12 Alaia is its custom-made hardwood side panels. The side panels are truly a work of art, specially made by Amish craftsmen through our partnership with J&E Custom Woodworks in Cashton, Wisconsin. The CL-12 Alaia is available in either blonde curly maple or red mahogany hardwood, and also ships with standard black anodized aluminum sides.

The unique custom hardwood panels are crafted at J&E with no electricity; all of the shop’s power tools are powered via diesel engine through a system of belts. We communicate with J&E via a weekly phone call from the lone phone line in a shed next to Cashton’s town hall. The partnership between us—a high-tech manufacturer and Amish craftsmen—seemed like an unusual pairing, but the end result was truly a landmark product for us. This collaboration successfully bridged the gap between modern audio technology and custom Amish craftsmanship, and it was fun. The attention to quality, hands-on development and the natural durability of the hardwood side panels inspired us to name it the “Alaia.” Alaia is the name for the historic, hand-carved wooden surfboards out of Hawaii, renowned for their flawless design, durability, and longevity.

The hardwood side panels are also a nostalgic nod to classic mixing consoles and wood-encased consumer electronics from the 1960s. The addition of wood adds a one-of-a-kind quality as unique as the grain and feel of each individual piece of wood. It’s also an aesthetically pleas-

ing touch that hints at the artistry needed, beyond technology, to be a successful sound mixer.

Of course, the CL-12’s beauty is not just skin deep. Sound Devices products have long been associated with meticulous engineering, and the CL-12 is no exception. The slope and profile of the control panel was specially designed to facilitate fast-paced operation, provide enhanced operator comfort, and help prevent fatigue during long periods of use.

Both CL-12 models were designed from the ground up to withstand the often rugged conditions encountered during field operations. Frames and panels are constructed with high-strength aluminum that has been powder coated to handle the harshness of daily handling. The CL-12 was rigorously tested, as are all of our products, to help ensure that it will continue to deliver the same exceptional performance it had during its first use. To give you a better idea of the extreme testing methods we’ve used over the years, some production models have been dropped, kicked, or run over with a car. Others have been repeatedly shaken by a vibration table, and a few have even been fired at with our homemade ‘potato canon.’

Connecting the CL-12 and the 688 is quick and easy via two cables. First, a single USB cable delivers both power and control information between the two units. A second 1/4-inch headphone cable provides a passive passthrough for the headphone signal. Two rear-panel USB ports are available for connecting both a lamp and a keyboard.

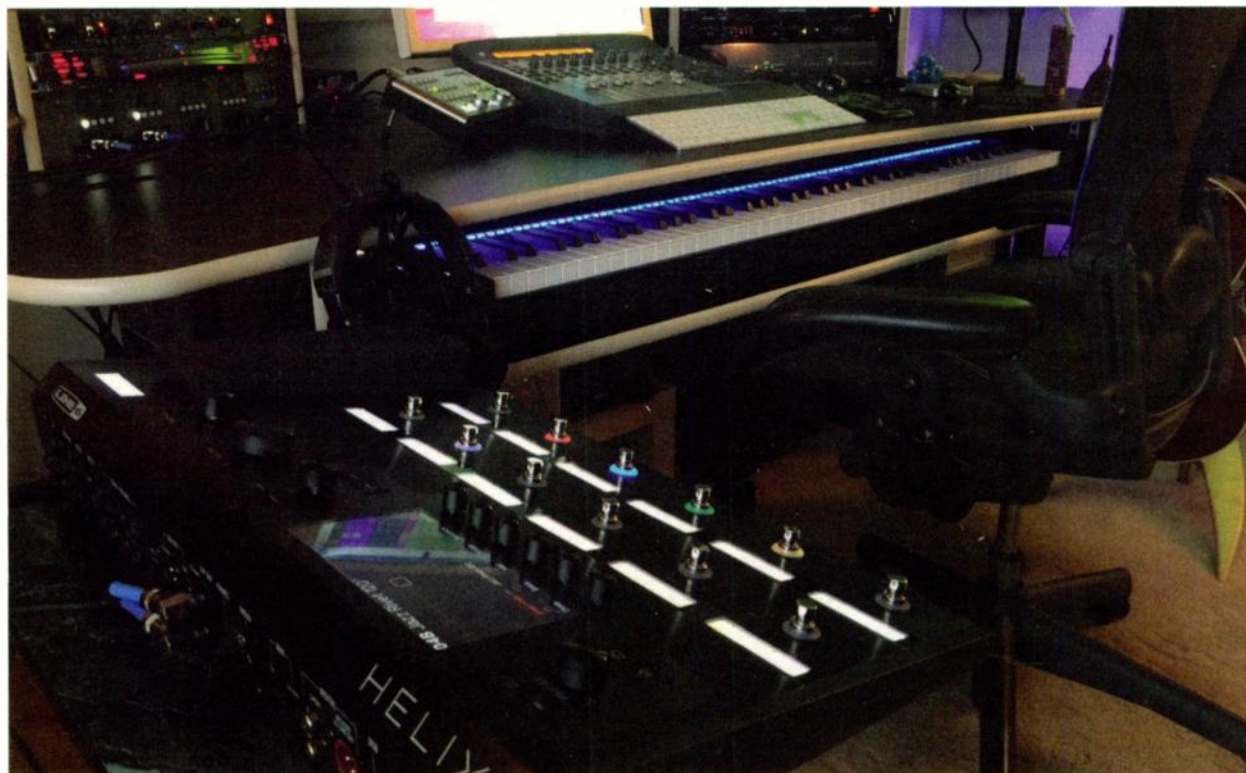
The 688, along with the new CL-12, moves easily between over-the-shoulder and mixing cart environments, and both are equally at home in television field production and cinema on-location shoots—anywhere portability, flexibility, ease of operation, and high reliability are required. Matt Anderson is the CEO of Sound Devices, LLC.

Sound Devices
Sounddevices.com



The CL-12 Alaia’s hardwood side panels are produced by Amish craftsmen at J&E Custom Woodworks in Cashton, Wisconsin.

Session Notes: Top 5 Things I Like About Line 6's Helix



The Helix Floorboard Multi-Effects Pedal, at Rich Tozzoli's personal production studio in New Jersey.

I recently plugged into Line 6's new Helix Floorboard Multi-Effects Pedal (\$1,499 street) on a few sessions in a fast-paced weekend of recording. Starting at my studio, I used it while composing for an A&E show needing moody ambient guitar tracks. Next, I took Helix to Clubhouse Studios in Rhinebeck, New York to record some fiery Latin cues with flamenco/world music guitarist Romero for the upcoming NBC Olympics. While I will dig deeper into this unit within the next few months, here are the Top 5 initial things I liked about it.

5. TAP TUNER/TEMPO

While it may be odd to like a tuner as a "Top 5" feature in a product as feature-packed as this, Helix has one of the coolest, easiest ones I've ever used in any product, or anywhere. Helix provides 12 stomp footswitches; FS 12 is fixed as the TAP Hold for Tuner. After holding it down for two seconds, a large bar tuner appears on the nice 6.2-inch LCD color display window. Then it's as easy as striking a note, lining up the bars until in tune, then it's back to work. I was surprised how many times I used it, partly because everything needs to be in tune, of course, but partly because it's just cool. When not using it as a tuner, I was able to quickly tap the tempos of delay times on relevant presets.

4. TOUCH AND GO

If there's one thing I dislike on multi-effects pedals, it's getting lost in layers of menus while trying to tweak sounds.

With this bad boy, you simply touch a footswitch and the relevant information for that effect appears on the lower part of the LED display in color. It's very cool and incredibly useful.

For example, if I have a delay on one of the patches (this can be, of course, easily assigned to any footswitch if it's not already built into the preset), I simply touch the top of the footswitch and the associated parameters will automatically appear on the bottom of the display window. Below those values in the LED display sit a row of six knobs, each of which adjust the parameter above it. While turning knobs, if I forget where I started, I can just press it once to reset to default. Also, if an effect has more than six parameters to adjust, I simply scroll over with the Page button.

I didn't realize how valuable this touch control was until popping through the various effects, finding I could tweak them within seconds.

3. HOME AND AMP/CAB BUTTON

If you do get too deep into tweaking Helix and get confused, Line 6 has included a button below the Preset knob that has an icon of a house on it. Press that, and you're instantly on the home screen.

Even better is the Amp/Cab button next to that, which brings you right to the Amp+Cab setup in the display window. There, you can change settings for the amp such as Drive, Bass, Mid, Treble, Presence and Ch Volume. Scrolling over a page, you'll find cool parameters such

as Master, Sag, Hum, Ripple, Bias and Bias X. Most importantly, they really work well; I found myself constantly pushing Sag and Bias to drive the amp. Scrolling one page further, you can tweak the cabinet and settings such as Mic (there's a whole lot of microphones to choose from), Distance, Low Cut, High Cut, EarlyRefl (early reflections) and Level.

2. COMPREHENSIVE I/O

Wow, did Line 6 think this through! The rear of the unit is loaded with I/O options: AES/EBU and S/PDIF, MIDI I/O, Variax, quarter-inch phone and quarter-inch L/R out, XLR L/R outs, four pair of Send>Returns, XLR Mic In and quarter-inch Aux In, Guitar In, Ext Amp, CV, and Exp 3 and 4 (for additional Expression pedals). Patches can be split up into different output pairs, and even standard stomp effects can be inserted into the signal path. Impressive.

1. THE FEEL OF THE PRESETS

As I was told, Line 6 worked on this box for five years before it came out. I didn't know anything about Helix until I stumbled across it at the recent AES show and heard some cool sounds coming from the booth. Curious, I stopped in to see this sweet-looking, heavy-duty multi-effects unit. "Hmm," I thought, "a POD update?" Not even close. This thing was built new from the ground up using the latest modeling technology and multiple DSPs. They let me play through it a little and I knew I had to try one in the stu-



BY RICH TOZZOLI

Rich Tozzoli is an award-winning, Grammy-nominated producer, engineer and composer for programming such as FOX NFL, Pawn Stars, Duck Dynasty and Oprah & Deepak Chopra. richtozzoli.com

dio, as I need a huge variety of guitar sounds for all the TV tracks I do.

Possibly being too brief (I will dig much more into this later), Helix is pretty bad-ass. I would say the part I like the most is the rare ability of a "box" to allow for the sponginess I feel when plugging into an amp. I can hit my guitar hard, and the Helix responds accordingly. Lightening the touch, it lightens the sound. It's a real treat that allows the player to dynamically control the sound. I can tweak the amp's mics and cabinets to suit my needs, too.

I do a lot of hard rock tracks, and this thing can get pretty sick; the German Ubersonic and Angl Meteor settings are great examples of this. Having said that, I feel hard rock tones are easier to nail than clean ones when it comes to modeling, but they get that, too; my favorites include the US Deluxe Vibe and the Tweed Blues Nrm.

At the Clubhouse, we plugged an old Fender Jazz bass into Helix and used some bass presets. Then we plugged in a vintage Wurlitzer electric piano and got a great sound with a little delay (Bucket Brigade), some great modulation effects (Ubiquitous Vibe) and a touch of distortion (Arbitrator Fuzz). So Helix is not just for guitar players, though that's certainly the target market.

I can't wait to dig into this unit further, but I'm already highly impressed. We even had a group of guys gathered around it in the studio looking and listening as we learned what it can do. It's built like a tank, sonically diverse, has a ton of useful I/O and can deliver many great tones. I'm glad they took the time to do it right, and the Helix seems equally at home on the stage and studio.

Line 6
line6.com/helix

EARTHWORKS QTC50 OMNIDIRECTIONAL SDC AND SR20 CARDIOID HANDHELD CONDENSER MICROPHONES

To record flamenco guitarist Romero for that NBC Olympics session, we used both the updated Earthworks QTC50 small diaphragm omnidirectional condenser and updated SR20 handheld cardioid condenser microphones into my 1024 four-channel Earthworks ZDT (Zero Distortion Technology) preamp, which I've had and relied on for years. Earthworks is celebrating its twentieth anniversary, and I've been using its mics for almost that long, so I know them well.

The SR20 has a 50 Hz–20 kHz frequency response, with a self-noise of 16 dB, down from 22 dB. Its sensitivity is 20 mV/Pa, up from 10 mV/Pa and the Max Acoustic Input is 139 dB SPL, down from 145 dB SPL. What that means is the sensitivity went up while the noise floor went down, getting about 4 dB hotter for the same acoustic input. They gave up a bit of maximum SPL because the sensitivity per acoustic input has increased.

Similar improvements apply for the QTC50, which has a frequency response of 3 Hz–50 kHz (far above the range of human hearing, though benefits of such extended response are debatable). The QTC50's self-noise moved from 22 dB to 20 dB,



Flamenco/world music guitarist Romero records cues for 2016 Olympics broadcasts on NBC Networks via Earthworks QTC50 omni microphones at the Clubhouse Studios in Rhinebeck, N.Y.

sensitivity went from 30 mV/Pa to 20 mV/Pa, and Max Acoustic Input went from 145 dB/SPL to 139 dB SPL. The ATC50 is now a bit hotter and, being that I've used this lineage of omni microphones for so long, it's truly noticeable.

In the Clubhouse's live room, I

placed one QTC50 on the neck of Romero's guitar and another on the body, turned up the 1024 preamp, and we were stunned in the headphones—I'm not kidding. It's the combination of a well-designed omni mic with a hotter output, the near-silent ZDT preamp and a fine acoustic

space allowing the guitar to breathe. Recording the Cajon and flamenco claps, we used the SR20 pair, placed far left and right in the room, with the QTC50 pair on the front and rear; in all, it was superb.

Earthworks Audio
earthworksaudio.com/microphones

RADIAL ENGINEERING HEADLOAD GUITAR AMP LOAD BOX

The Headload from Radial is a dream come true for many of us who have personal production rooms within earshot of neighbors and can't let our Marshall and Mesa Boogie heads rip into 4X12 cabs. It's basically a combination load-box and attenuator that allows a guitar head's output to be plugged into it, simulating the sound of a miked cabinet. It can also be used with up to two cabinets connected, to turn the output levels down on stage (or in the studio) while retaining the pure tone of your head. It can handle up to 130W RMS (180W peak) and can be rack-mounted for use on the road.

I won't go through every setting, but Headload has more than enough to make it an invaluable studio tool. There are multiple ways to run it; I took the 8 ohm output from my Mesa Boogie Mark IV head and plugged it into the 8 ohm Amplifier/Speaker quarter-inch input on the back of the Headload. I then took the JDX Post-EQ/Mon Out XLR output and ran that into my Pro Tools rig via a Manley Labs preamp. The Headload has a JDX Reactor direct box built in; on the back, there are two separate XLR



Radial Engineering's Headload sits with Rich Tozzoli's personal guitar/production rig.

outputs: one for Pre-EQ/PA output and another for Post-EQ/MON Out.

On the front, I set the Load to "off," which is recommended when there is no cabinet connected. The Range knob is basically a trim, allowing users to run from 1 to 20 percent; it's active only when a cabinet is plugged in. I armed my DAW and wham—I had the sound of my favorite head, at any volume I choose.

To take it a step further, I used the JDX Balanced Output Controls Low and High EQ as well as the Speaker Cab Voicing knob. There are six settings that users can click through to subtly (but clearly) change the sound, somewhat like moving a mic on a cabinet—or, to my ears, changing cabinets. For my setup, I actually recorded signal twice, adding in Universal Audio's Ocean Way Studios room plug-in directly to the signal. With the Wet/Dry control, it sounded like my Boogie was in a nice recording studio. Combined with the direct signal on the other channel, panned opposite, it was a superb guitar tone, all thanks to the Radial Headload.

Radial Engineering
radialeng.com/headload.php

AUDIO-TECHNICA BP40 ■ BOSE F1 ■ MACKIE REACH

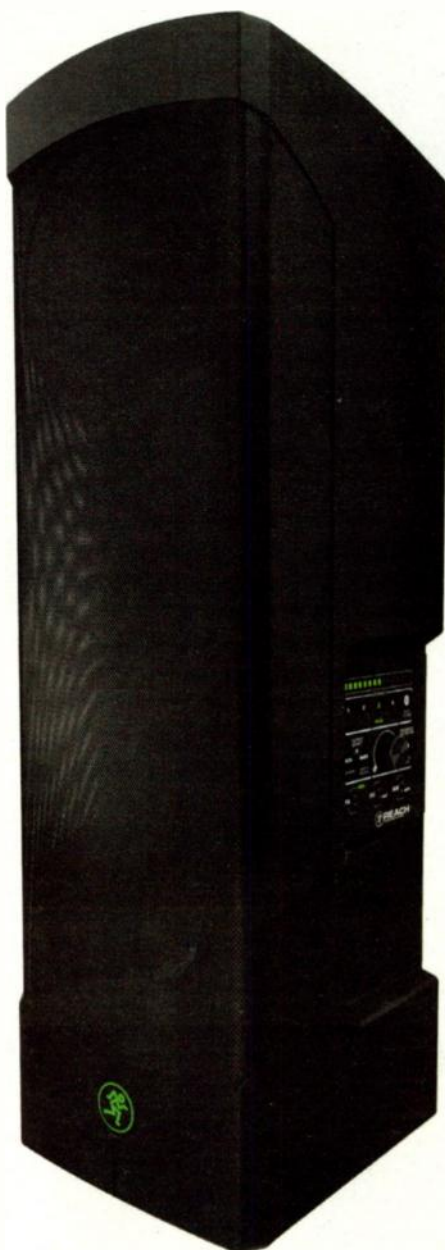
MACKIE REACH ALL-IN-ONE PORTABLE PA SYSTEM

Having recently evaluated Mackie's unique FreePlay Personal PA, the subsequent arrival of a Reach portable PA (PPA) system for review made a lot of chronological sense. While the "new century boom box" design of the 11 lb, battery-powerable FreePlay makes it the easiest PPA I've ever traveled with, the significantly larger Reach is entirely practical for use in sound reinforcement applications where a very small footprint yet comprehensive stage and audience coverage is desired—yet all from one box. You heard that right: One Reach enclosure will deliver both main and dual stage monitor duties quite well in many small- to medium-size rooms.

Reach's size and form are probably its most important attributes: 28.7-inches high by 9.5-inches wide by 8.6-inches deep; it's a skinny, tall, 31.7 lb, self-powered cabinet. It features a built-in six-channel digital mixer feeding 720 W of peak Class D power, which pushes an impressive 150 degrees of horizontal coverage out front (thanks to Mackie's proprietary ARC array technology) at up to 121 dB maximum SPL. Meanwhile, its adjustable EarShot personal monitoring system—consisting of dual side-to-rear firing two-way monitors with an additional 50 degrees of horizontal monitor mix coverage per side—allows performing musicians a built-in monitor on either side of the unit when positioned slightly in front of them.

On Reach's rear panel are four XLR/TRS combo inputs/preamps plus an 1/8-inch aux input and TRS jacks for phones output, footswitch control (to mute/unmute internal effects), link in, and link out connectivity. Its interface is intuitive, too. Simple press/hold button controls allow level and effects send adjustments, side monitor, and oh-so-valuable Feedback Destroyer features. Its four effects—Verb1, Verb2, Delay1 and Delay2—are well chosen, middle of the road acoustic treatments that should suit most common live applications. Preselected EQ voicings are available, as are EarShot speaker selection settings; for the latter, left, right, both or neither mute options further expand Reach's on-stage usefulness.

Bluetooth features take Reach



Reach's size and form are most important: 28.7-inches high by 9.5-inches wide by 8.6-inches deep. As such, it's a skinny, tall, 31.7 lb, 720 W self-powered cabinet plus a six-channel digital mixer, and much more, built-in.

to an entirely different level than its closest competition. With the free Mackie Connect mixing app—allowing level, EQ, effects, monitoring and other adjustments—Reach is truly a tether-free system with the simplest, most logical of touchscreen mixers I've had the benefit of using live. Usefully, it pairs with OSX and iOS as well as Android devices. More information about Reach's Bluetooth-enabled functionality is available on the Mackie website.

I utilized Reach in a wide range of environments with a variety of input sources: most notably for a house of worship (HOW) youth band performance; as a portable DJ rig in a very large school gymnasium at an elementary public school fundraiser; as a main monitor at two different



Reach's EarShot personal monitoring system allows performing musicians a built-in monitor on either side of the unit when positioned slightly in front of them.

small club gigs with a four-piece cover band; and in a variety of ensemble rehearsal situations. In each case, the Reach performed surprisingly well.

Depending only on its four-channel internal digital mixer, Reach impressively covers many portable PA applications, though I paired the unit with an external mixer for more channels (most notably in the cover band and HOW scenarios) with much success. The system excelled in DJ applications; low-channel count, club-based ensemble sound reinforcement; and typical rehearsal room scenarios where vocals, acoustic instruments and other low SPL sources must mix with other ampli-



BY STROTHER BULLINS,
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MEDIA AV/PRO AUDIO GROUP

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fied or naturally loud sounds (e.g., drums).

In the gymnasium setting, rife with potential feedback, Reach's Feedback Destroyer literally saved the evening. As two school representatives roamed with wireless microphones through the crowd, speaking over prerecorded music, sound effects and such, I punched the appropriate button at least a half-dozen times; Reach scanned for the guilty frequencies, grabbing them and ducking them out in literally a second. In more acoustically friendly environments, one Feedback Destroyer scan is all it took, and those gigs went off without a problem—or a squeal, to be specific.

Reach's EarShot monitoring system is ingenious and quite amazing, actually. In the club gig setting, we placed Reach at the front of the stage, pole-mounted at about head-height to band members. Standing on either side and slightly behind Reach, monitoring the mix on-stage was a pleasure, as the bassist manned the mix via his iPhone. Only the drummer complained a bit for not hearing the mix very well. I'd simply suggest adding a small powered monitor for any backline players positioned too far away from the Reach cabinet. As such, Reach plus a powered wedge equals nearly 360 of combination main/monitor coverage, all without feedback problems. I tried it later, and all I can say is, "Wow!"

I've used Fishman SoloAmp and Bose L1 systems extensively, and they're the closest comparative products I can think of to Mackie's Reach. At \$999 street, Reach is the same street price as the SoloAmp SA220, yet far more powerful, useful and feature-packed. In direct comparison,

(continued on page 39)

AUDIO-TECHNICA BP40 LARGE DIAPHRAGM DYNAMIC (LDD) BROADCAST MICROPHONE



In both performance and aesthetics, the BP40 resides somewhere between a classic broadcast microphone—think Electro-Voice’s venerable RE20.



The BP40 features a 1.5-inch diaphragm, definitely placing the BP40 in the “large diameter dynamic” camp.

Designed for use as a broadcast vocal microphone, the BP40 is actually quite superb in a broad range of applications where a large diaphragm dynamic (LDD) transducer with a hypercardioid polar pattern can be useful. In both performance and aesthetics, it resides somewhere between a classic broadcast microphone—like Electro-Voice’s venerable RE20—a workhorse large diaphragm condenser, and, in some ways, the variety of dedicated large drum/kick drum microphones currently available in the marketplace. That said, it’s truly unique in its sonic signature and will be a great choice for discriminating professionals for a variety of good reasons. What might those be? Read on for more.

The BP40 features a 1.5-inch diaphragm with A-T’s patented floating edge design; while there is no firm pro-audio industry rule on what makes a dynamic microphone a “large diaphragm” one, I and my contributing colleagues to *Pro Audio Review* generally consider any diaphragm with a diameter greater than one inch “large,” which definitely places the BP40 in the LDD camp. The BP40 provides a 100 Hz high-pass filter (HPF) switch, rolling off frequencies between 50-100 Hz; its response tops out at 16 kHz. Marketed as a broadcast microphone, the BP40 includes a humbucking coil to prevent electromagnetic interference (EMI), which can be valuable in applications beyond traditional broadcasting, too.

Included in the BP40 package is the simple-but-effective AT8483 mounting clamp; an AT8484 shock mount is available at extra cost. For my needs, the AT8483 worked well enough, even with the BP40 placed in tight areas such as through a bass drum’s ported front head. So, yes—the BP40 also handles high SPL, or

at least handled everything I threw at it with no audible distortion.

In my own applications on vocals of all types—sung and spoken word, male and female with varying ranges and styles—I found the BP40 to be notably articulate and attractively full. It is not boomy (unless the source is) or overly sculpted (like some drum-centric LDD microphones can be), while its vocal range-friendly frequency “emphasis” is significant yet classy. The BP40’s sonic signature is centered on its slow-rising presence peak—from 1 kHz, it climbs to +10 dB at 4 kHz before touching down (momentarily) to 0 dB at 5 kHz. With its unique frequency response, the BP40 is certainly its own thing.

The BP40’s multistage proprietary

windscreen is a notably great pop filter. In application, I A/B’d it alongside some of my favorite vocal microphones—both dynamic and condenser in type—and it was arguably superior at controlling troublesome ‘p’ and ‘s’ sounds while recording, sounding deep, rich and detailed throughout.

I recorded the BP40 alongside some LDDs I’ve used on and off for years, including the aforementioned Electro-Voice RE20 and Heil Sound’s PR30 and PR40, plus the ubiquitous AKG D112, where applicable. These informal shootouts included vocal, electric and electric bass guitar cabinets, and kick drum applications. Size-wise, the BP40 is closest to the RE20 yet slightly shorter and only-slightly lighter.

Noteworthy, the BP40 was the only hypercardioid of the lot (all others were cardioid), effectively making it the “most sonically focused” in blind A/B comparison. Also, I believe its frequency range and response signature add to its intimate sound on vocals and, for example, its immediacy on guitar cabs.

The BP40 on kick drum truly surprised me. I clearly preferred it on all three drums I placed it in front of and/or within: a mid ’60s Ludwig 22-inch, a late ’70s Ludwig Super Classic full-maple 22-inch and an early ’90s Mapex full birch 22-inch. My best guess is that the BP40’s “open” sonic characteristics, unhyped bottom end and hypercardioid-enabled focus gave me the closest approximation of the drums upon playback, but with some emphasized frequency definition around the “beater-meets-head” ballpark. Further, I found the 100 Hz HPF most always useful, cutting unnecessary flab down low.

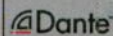
At the risk of sounding cliché, I believe the BP40 could be a future classic, destined to serve many broadcasters and recording masters alike who give it a try. It’s affordable enough for self-recordists as well as most live venues, houses-of-worship and other budget-conscious facilities. For those needing a focused, high SPL-handling LDD that sounds natural yet immediate and significantly detailed—one that’s equally at home on vocal, drum and various applications in between—the BP40 should serve them well.

Audio-Technica
bit.ly/1Q7y9Kq

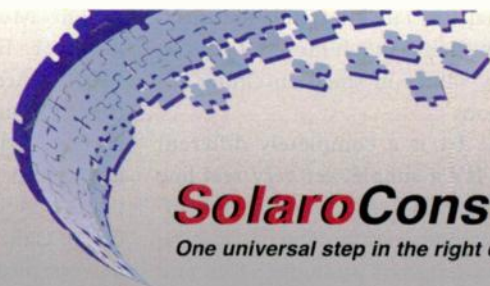


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BOSE PROFESSIONAL F1 FLEXIBLE ARRAY LOUDSPEAKER SYSTEM



Together, Model 812 and F1 Subwoofer system conjoin with the sub's unique built-in speaker stand, creating a sturdier-than-pole-cup, very attractive full-range/subwoofer tower.

Earlier this year, I visited Bose HQ to experience the company's entrée into what I consider pro-grade portable PA (PPA) territory—their new F1 Flexible Array Loudspeaker System. While Bose's L1 is a super-useful product, it was—as I understand it—the result, first and foremost, of efforts to produce a pure-sounding, user-friendly acoustic instrument amplification system; the concept essentially was that a performer within an ensemble may often need an individual PA. The L1 fulfills that need quite well and much more, of course; it truly shines in small ensemble applications.

The F1 is a completely different beast. It's a simple, yet very real line array for PPA applications: a front-of-house sound reinforcement rig covering a range of audience sizes and types with proprietary Bose FLEX array technology, as easy to position and carry as any typical "black box" PPA gear. Over the past two months, I've had an F1 rig (two full-range cabinets and two accompanying subwoofers) to use in various live sound applications and am sold on its quality and impressive sound via the unique design, build quality and components.

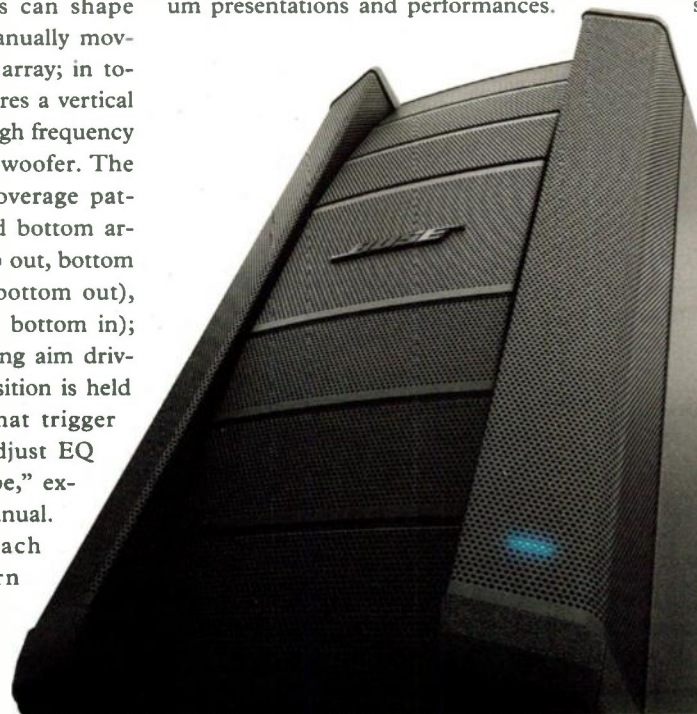
At first glance, the self-powered 1,000 W Bose F1 Model 812 Flexible Array Loudspeaker looks much like other similarly sized PPA gear. It measures 26.1-inches x 13.1-inches x 14.6-inches (H x W x D) and weighs 44.5 lbs.; its accompanying self-powered sub, the 1,000 W F1 Subwoofer,

measures 27-inches x 16.1-inches x 17.6-inches (H x W x D) and weighs 57 lbs. Both are easy to carry with built-in ergonomic-friendly handles and are notably scratch- and impact-resistant thanks to a proprietary blend of polypropylene ingredients. I simply love the enclosures, as they are unique, rigidly hard, tough and road-worthy, yet lightweight compared with similarly strong multiply wooden cabinetry of competing products.

The Model 812's main appeal, however, lies in its simple-to-use Flexible Array technology, a first for the PPA market. Users can shape coverage patterns by manually moving its top and bottom array; in total, the Model 812 features a vertical line of eight small mid/high frequency drivers plus a 12-inch woofer. The Model 812 has four coverage patterns—Straight (top and bottom array "out"), J pattern (top out, bottom in), Reverse J (top in, bottom out), and C pattern (top and bottom in); not only does each setting aim drivers differently, "each position is held in place by magnets that trigger internal sensors that adjust EQ according to array shape," explains the Model 812 manual.

Per application, each Flexible Array pattern serves specific settings. The Straight pattern is for performances where the audience is standing, with heads approximately at the

same height as the loudspeaker—for example, typical bar/bar band settings. The Reverse J delivers sounds to audiences in raked seating that starts at loudspeaker height and extends above the top of the loudspeaker—or typical theater or concert hall environments. The J pattern is ideal when the loudspeaker and band are on a raised stage and audiences are seated and/or standing on the floor below—such as typical club/music venue environments. And finally, the C pattern is for raked seating when the first row is on the floor with the speaker—for example, most auditorium presentations and performances.



The Model 812's main appeal lies in its simple-to-use Flexible Array technology, a first for the PPA market.

In all, the Model 812 allows for the most customizable and flexible live sound coverage I've ever personally experienced in portable PA form.

The Model 812 offers two input channels, each with respective Volume knob and Signal/Clip light; its I/O is well chosen for PPA. For Input 1, there is a combo XLR/quarter-inch input accepting TRS balanced or TS unbalanced cables, switchable mic or line level; Input 2 offers a quarter-inch TRS/TS input and two RCA connectors, internally summed to mono. A third section on the rear input panel, labeled System, offers two switches: one is a Front LED selector for power and limit lights; the other switches the Model 812 between Full Range and With Sub settings (engaging an high-pass filter at 100 Hz).

The F1 Subwoofer provides dual inputs and an accompanying line output per channel, thus allowing one or two F1 Subwoofers to be used in conjunction with the full range "top" speakers. Like the Model 812, the F1 Subwoofer also provides switchable Power and Limit front LEDs plus an overall Volume knob, Polarity reversal switch and Line Output EQ switch, the latter offering Thru (no filtering) and HPF (passing input via a high-pass filter at 100 Hz, affecting Line Output signals only).

Together, Model 812 and F1 Subwoofer system conjoin with the sub's unique built-in speaker stand, creating a sturdier-than-pole-cup, very attractive full-range/subwoofer tower. The stand is enclosed within the back of the F1 Subwoofer; users simply pull the stand from the back of the sub and insert it into stand slots on the top of the sub. The Model 812 fits snugly and securely atop the stand. That said, if a live subwoofer isn't needed, or if F1 Series users only have one sub—a reasonable setup I used within the span of this review—a standard pole cup is also included on the bottom of the Model 812. Notably, the pole cup on the Model 812 is probably the best I've encountered in PPA; it tapers from a wide opening to the snug 35 mm diameter, reducing common misplacements and "fidgeting for the hole" situations that we PPA users have become so accustomed to.

In use, the Model 812 and F1 Subwoofer sound incredibly full, balanced and powerful. Similar to a tour-grade line array, the system is notably even in its cov-

(continued on page 39)

Bose

(continued from page 38)

erage throughout a variety of venue types, as I experienced in my own use and earlier this year, at Bose's own large venue F1 demonstration at Patriot Place, Mass., where a stage-front Model 812/F1 Subwoofer rig, just like the one I've reviewed here, replaced the house's world-class line array.

From a musical presentation/keynote address in a large gymnasium (Reverse J pattern), to extensive house-of-worship, auditorium and rock club use (J, Reverse J and Straight patterns), to rehearsals and an outdoor acoustic music performance (Straight pattern), each array adjustment really worked as touted in Bose promotional materials, proving the F1 Series' mettle as a "real" affordable line array for portable use. In the larger, more reverberant venues, I regularly used both F1 subs, but often ran with just one sub (plus a speaker stand) for convenience, space and weight needs; the Model 812 is in no way dependent on the F1 as it is a truly full-range speaker with plenty of power—right at the now-industry standard of 1000 W for a pro-grade PPA enclosure.

Both the Model 812 and F1 Subwoofer are street priced just under \$1,200 each—a very attractive price point considering flexibility, build quality and time-proven Bose pedigree. If nearly \$5,000 for a complete system is cost prohibitive, Bose has

made it easy to employ the Model 812 tops with powered subwoofers of any brand (as I doubt the F1 will be many users' first PA), getting 812 users up and running while the Subwoofer (one or two) can be added at a future date; while conducting my review, I did use the Model 812 with another manufacturer's powered subwoofer with predictably good results, too. That said, Model 812 tops and a F1 sub are made for one another

and are complimentarily voiced; aesthetically, too, a Model 812/F1 "tower" doesn't really look like portable PA, making it an elegant choice for budget-conscious live music venues, modern houses-of-worship and other environments where looks truly matter, yet coverage, quality and portability do, too.

With the F1 Series, Bose provides our market with a portable PA that even the most discriminating au-

dio engineer can love, with the basic functionalities previously found only within line array systems costing far more (and those certainly don't fit in the trunk of a typical SUV). As word spreads about the F1 through the communities of discriminating musicians and journeyman audio engineers, I expect to see a lot of F1 Series rigs employed in all sorts of places.

Bose Professional
bose.com/f1

Mackie

(continued from page 36)

Reach is incredibly "bass deep." An entry-level L1 is available at \$899 street and is very nice indeed, yet it lacks the many features and attractive accessories of a thousands-more fully featured L1, which is closer to what Reach ultimately offers its users.

Further, both these Fishman and Bose rig examples lack Reach's input count, effects and Bluetooth-enabled mixing features, and the incredibly useful EarShot monitoring system. For that reason, I highly recommend Reach for any DIY, jack-of-all-trades live audio pro, performer or band in similar gig situations as illustrated above. Also, it's an ideal PPA for institutions—schools, HOWs, and other event centers—as it can cover many applications, is small and lightweight, and is very intuitive.

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Focusrite RedNet AM2 Dante-Compatible Stereo Headphone Amplifier

The RedNet AM2 is a compact stereo monitoring unit for a Dante network. RedNet AM2 features quarter-inch front-panel headphone socket plus a pair of balanced XLR line outputs on the rear panel, intended for loudspeaker monitoring and other applications. RedNet AM2 is designed for use on stage, front-of-house or in the studio.



Other features include independent headphone/line output level controls, a line output mute switch, integrated Gigabit Ethernet switch, built-in microphone stand mount, power over Ethernet (PoE) or 12 V DC operation, and a solid aluminum chassis.

Shure KSE1500 Electrostatic Earphone System

Shure's KSE1500 Electrostatic Earphone System is reportedly the world's first Sound Isolating electrostatic earphone and amplifier rig for use with portable and traditional media players. The KSE1500 system features single-driver electrostatic Sound Isolating earphones matched to a USB DAC/ADC that processes audio from portable digital (Mac, Windows, iOS and Android OS) or analog audio sources.



The system's amplifier DSP is able to process (EQ) digital audio directly via micro-USB as well as analog via a direct line in. An analog signal can completely bypass the DSP for full analog audio amplification.

The KSE1500 system features a high-resolution conversion rate of up to 24 bit/96 kHz and has been submitted to and verified by the Japan Audio Society (JAS) as qualified for the organization's "High-Resolution Audio" rating.

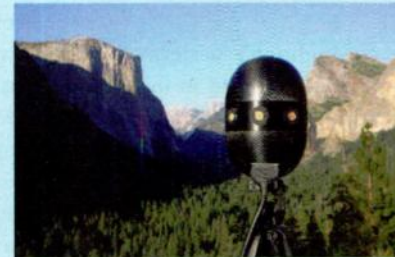
Sonnox Oxford Evolution Plug-in

Oxford Evolution is a frequency-dependent envelope shaping plug-in designed to "radically modify" the sound of individual tracks, buses and master outputs, as explained by the company's official press release. Evolution is available in Native—AAX Native, Audio Units and VST—AAX DSP formats.

firstlook

Telefunken Elektroakustik/ Dysonics Eight-Capsule Mic Array

Telefunken Elektroakustik has partnered with Dysonics on an eight-capsule, 360-degree microphone array for immersive audio and VR capture. Using the Samsung Gear platform, the system features what is reportedly the first solution to combine 360-degree motion-tracked audio with 360-degree video.



At the core of the offering is Dysonics' proprietary RondoMic, a patented mic array that houses eight custom omni-directional Telefunken M60 FET microphones that capture sound environments in 360 degrees. Via patented spatial and motion-tracking audio software, Dysonics is able to stitch the eight recordings together in real time and faithfully reproduce the environment over headphones.

Evolution offers independent control of transients and sustain, with "Tilt" or "Focus" controls to choose where in the frequency spectrum the effect is applied. This allows in-depth manipulation of the audio's envelope to produce a variety of results. For example, transients can be boosted to add presence and punch, or reduced to create perspective, while the sustain section can make the ambience around a recording bloom, or can be cut back for gating.

Radial Engineering JX42 Compact Switcher

Radial's latest, the JX42 Compact Switcher, is used to matrix four guitars and two amps. Its four input channels feature on-off switches that immediately turn the previous channel off when the new channel is selected. Switching is done using opto-resistive couplers that ramp up and down the signal. Inside, Radial's all-discrete Class A buffering circuit is employed, while each input channel provides a dual function "set and forget" potentiometer that can be assigned as either a level control to match various ac-



tive or passive guitar or bass signals, or can be set to Drag for precise load correction when using passive magnetic pickups.

Cakewalk Rapture SessionVirtual Instrument

Based on the same sound engine as its flagship Mac or PC-ready Rapture Pro, Cakewalk's new Rapture Session virtual instrument includes a 4 GB library with 450 presets, browser for fast searches and previews and a stage-oriented Live Performance Control page for real-time control. Rapture Session is compatible with sound expansion packs for Rapture Pro, Dimension Pro, Rapture, and Cakewalk Sound Center.



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WRH

Lectrosonics Frequency Agile Compact Transmitters and Receivers

The Lectrosonics IFBT4-VHF frequency agile IFB transmitter, designed to operate in the less-trafficked VHF broadcast band, offers 239 frequencies between 174 to 216 MHz. The transmitter can be used as a stand-alone device or patched directly into popular intercom systems. The all-metal IFBR1a-VHF receiver is designed for use for talent cueing and crew communications in broadcast and motion picture productions, as well as for use by directors and management to monitor audio during a production.



the front panel, which allows for the connection of MP3 players, cell phones, or other media devices.



Neutrik 10-Pin XLR Connector

Neutrik USA has introduced its 10-pin XLR line, designed for transmitting both data and power. Fitting in the same form factor as other XLR connectors, Neutrik's 10-pin XLR can transmit four twisted pairs of data at Cat 5e performance, plus up to 16 A of power @ 50 V using two large, dedicated power pins. The cable connectors for the new 10-pin XLR line are based on Neutrik's latest-generation XX series. The chassis connectors are derived from Neutrik's DLX family, offering industry-standard D-size housings, RF protection and shielding via the DLX connectors' duplex ground contact design.



Aaronia USA Signal Generators

RF manufacturer Aaronia USA has released a pair of compact, battery-powered, portable signal generators—the BPSG4 and PSDG6. The BPSG4 RF signal generator offers up to 4.4 GHz, while the BPSG6 offers up to 6 GHz. Both units run up to four hours in battery operation (though a 12 V power supply is included for continuous operation) and can be programmed with intelligent batch profiles.

Both signal generators offer on-board TCXO for high frequency accuracy and can be connected to external reference clock for even higher accuracy. Sporting onboard CPUs and memory for intelligent self-running profiles, the units provide stand alone operation—no PC or USB connection required—but a USB connector is included for real-time PC control or for storing programs.



Switchcraft Data-Con-X Sealing Cap

Switchcraft has unveiled the Data-Con-X sealing cap, a new IP68-rated seal for unmated standard data connectors. Increasingly, USB, HDMI and RJ45 Ethernet connectors are becoming more common in harsh environment applications, such as field recording applications. When not in use, such ports can allow the ingress of dust and moisture, which can cause electronics to fail. The new Data-Con-X sealing cap, when used with Data-Con-X Panel Connectors, provides a reportedly watertight IP68 seal. The caps can also be used in conjunction with Data-Con-X connectors, which are sealed when mated. Switchcraft's Data-Con-X connectors and sealing cap are made in the USA and available at many leading electronics distributors.

firstlook

Mackie Master Fader v4.0 Control App Software

Now available, Mackie's Master Fader v4.0—the control app for DL32R, DL1608 and DL806 digital mixers—includes a number of new features. These include a real time RTA, a built-in



oscillator, the ability to copy and paste channels and mixes, a scalable UI including a new Split View in iOS 9, quick assign function for assigning channel ID; an overall tighter integration with iOS, reportedly improving importing and exporting for better use of iCloud Drive, Microsoft One Drive and Dropbox; and more. Version 4.0 marks the full integration of iPad, iPhone and iPod touch support within a single app, doing away with the need for the separate My Fader app for personal monitor mixing. Master Fader now recognizes which device type is being used and sets its features accordingly.

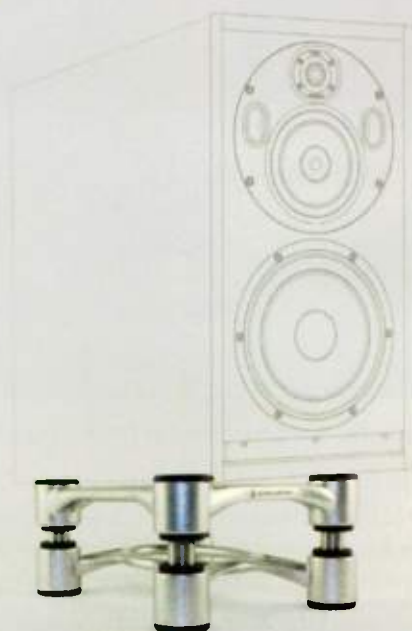
There's more information on all the products featured at prosoundnetwork.com/jan2016.



Galaxy Audio RM-RDSTNR Rackmount RDS Tuner

Galaxy Audio has shipped its new RM-RDSTNR AM/FM Rackmount Tuner with RDS (Radio Data System). Intended for use in commercial audio installations, the unit provides material for music systems in clubs, restaurants, hotels and more. The new RM-RDSTNR includes the Radio Data System and displays artist and song title information on the front panel display. The RM-RDSTNR features a 1/8-inch AUX jack on

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Mark Knopfler Tour Makes Tracks



Mark Knopfler's fall world tour supporting his latest album, *Tracker*, carried audio support from Berlin-based Black Box Music.

PETER MACKAY

BY LARRY JAFFEE

NEW YORK, NY—Dating back to his days with Dire Straits, guitarist extraordinaire Mark Knopfler has always been a stickler for sound, perhaps culminating with his 1985 multi-platinum *Brothers In Arms* global smash album that was so impeccably recorded that consumer electronics stores often used the CD as a demo disc to show off the pristine aural attributes of the then-new digital format. Of course, taking that sound on the road presented new challenges that his Eighties sound crew, including current solo tour moni-

tor engineer Kerry Lewis (who first mixed Dire Straits in 1983), delivered in spades in arenas and stadiums around the world.

Providing sound for Knopfler's current world tour in support of his eighth solo album, *Tracker*, was Black Box Music of Berlin, Germany. Since 1992, Black Box Music has provided complete solutions for major act concert tours. *Pro Sound News* caught up with the fall tour on the first of two sold-out nights at Manhattan's 2,894-seat Beacon Theater; the production eventually wrapped up in Fort Lauderdale, Fla.

When Knopfler launched a solo

career in the mid-1990s, he mostly pared down the production to fit a more intimate theater setting, and that was the case with the U.S. leg of the *Tracker* tour. Of course, the music played by his nine-member band, most of whom had played with Knopfler more than a decade, was as impeccably intricate as ever, especially live. On some numbers, musicians picked up instruments—some exotic like the stringed cittern—that they weren't used to playing.

Knopfler brought on tour some 40 odd electric and acoustic guitars, of which 10 were actually played—all

(continued on page 51)

Metallica, Meyer Kick Off Quebec Arena

QUEBEC CITY, CANADA—Metallica recently played Quebec's 20,000-seat Videotron Centre, becoming the first musical act to play the new arena, which had only opened a week earlier. Giving the new edifice a good shake, the gig marked another first, because while the band has often used Meyer Sound loudspeakers to play in the round, this marked the first time that it did so using a Meyer Sound LEO system with 1100-LFC low frequency control elements in a TM Array configuration.

The Videotron Centre main arrays comprised 72 LEO-M line array loudspeakers for the long ends of



Metallica was the first act to play Quebec's new, 20,000-seat Videotron Centre, using a Meyer Sound LEO system provided by Solotech.

the arena and 72 LYON-W wide-coverage line array loudspeakers for the shorter side throws, while downfills for the end hangs were four-each LYON-M and LYON-W loudspeakers. Eight MICA and 16 M'elodie line array loudspeakers provided front fill, four JM-1Ps were suspend-

ed for side down fill, and 48 700-HP subwoofers covered the lower seating area. A Galileo Callisto loudspeaker management system with two Galileo 616 AES and 10 Galileo Callisto 616 array processors provided system drive and alignment. The TM

(continued on page 51)

briefs

SSL Monitors Gilmour Tour

NEW YORK, NY—Gavin Tempany is mixing monitors for Pink Floyd guitarist David Gilmour's current tour behind his solo record, *Rattle That Lock*. Tempany is using an SSL (solidstate-logic.com) L500 Plus console running at 96 kHz; the set up on the tour uses nearly 100 inputs, feeding 16 stem groups for an Aviom system for the drummer, 14 stereo in-ear monitors, and 16 floor wedge outputs.

Riot Fest Rocks Three Cities

CHICAGO, IL—Audio Visions of Omaha, NE provided its new Adamson Systems Engineering (adamsonsystems.com) E Series PA at one stage in all three editions of this year's RiotFest. A dozen Adamson E15 and two E12 enclosures were hung at stage left and right, while 16 E219 subwoofers provided low end. A pair of S10 enclosures provided front fill; six E119 subwoofers were used for side fills and drum subs; and everything was powered by Lab.gruppen.

Indiana Tech Enrolls WorxAudio

FORT WAYNE, IN—Indiana Tech's new Academic Center has an equally new PA that was designed and installed by Advanced Systems Group (Ft. Wayne, IN). Part of the system was required to be mobile, so two UltraWave 218S enclosures from WorxAudio (worxaudio.com) hold down the low end, and keep out of sight when necessary.

Pros Xperience Powersoft

LOS ANGELES, CA—Powersoft (powersoft-audio.com) recently held listening sessions in Los Angeles and San Francisco to demonstrate its Class D amplifiers and moving magnet linear technology, including its including K Series, X Series and its Armonia software. The company's roadshow will continue into 2016.

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Jump Jive An' Jingle With The BSO

BY CLIVE YOUNG

STAMFORD, CT—Brian Setzer may be best known as a Stray Cat, but the man's more like a chameleon. Over the course of a two-hour show with the Brian Setzer Orchestra, he takes equal turns as a genteel big-band leader, Fifties crooner, virtuoso guitar player and rockabilly wildman.

You can add unabashed sentimentalist to the list, too, as proven yearly by the BSO's annual Christmas Rocks tour, which mixes revved-up holiday standards like "Angels We Have Heard On High" and "Here Comes Santa Claus" with classics from Setzer's own catalog, ranging from "Stray Cat Strut" and "Rock This Town" from his Stray Cats days to the BSO's hit remake of Louis Prima's "Jump Jive An' Wail."

The band just wrapped up its 12th annual Christmas tour, and in recent years, the 19-piece orchestra has been carrying production from Sound Image (Escondido, CA) with longtime engineers Gary Har-

The Brian Setzer Orchestra heads out every year on its Christmas Rocks tour, with the guitarist's trademark Gretsch captured via a Shure KSM32 and a SM7B, placed on his vintage Fender guitar amps.



tung and Marcus Douglas manning the FOH and monitor desks, respectively. By necessity because of the holiday season, the tour heads out in mid-November and hits the road hard—between November 14 and December 29 last year, the BSO played 31 shows, in addition

to making appearances on Conan O'Brien's late-night show and a Sirius Radio concert in New York City's Times Square.

With such a hectic schedule, consistency is key, particularly since the tour uses local PA at each stop. Hartung mixes every show on

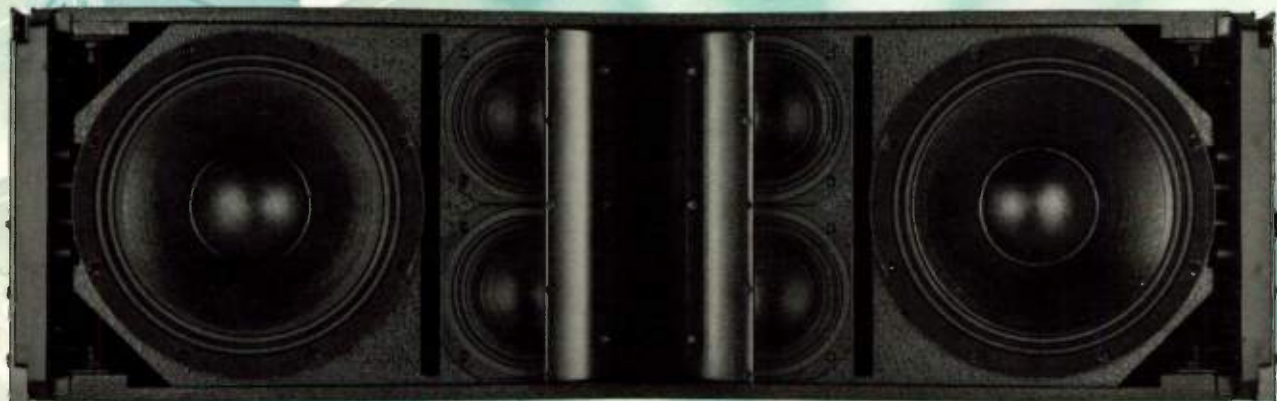
a Midas Pro9 desk, and noted that while he has some outboard units, "I haven't changed my effect parameters in two years. I have standard things I like, like a [Lexicon] PCM70 for the snare plate; the 480 Hall program on a [TC Electronic] M5000 for my main vocal reverb; and then there's a [Roland] SDE-3000 delay for Brian's vocal—I do that 140-150 ms, no-repeat delay to get that old Elvis, rockabilly kind of slap. On the Christmas stuff, I lay off that a bit, but on the rockabilly and the Stray Cat songs, I put in more delay."

Ultimately, Hartung goes light on the effects, in part to provide a mix that's present and in the moment. "I don't go about recreating the album, because in a live environment, the energy is different," he said. "That's why I like mixing live on the fly—because you can do scenes and snapshots, but the reality is that different nights have a different energy, and you have to react to that."

"Brian's on top of the mix because it's his show and naturally he should be in a certain place; then it's just finding that balance because they're all playing off of each other. There are parts like on 'Rock This Town' and 'Jump Jive an' Wail' where the trumpets and the saxes go back and forth, and I'm literally pushing faders, alternating—trum-

(continued on page 46)

HDL50-A



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Brian Setzer

(continued from page 44)

pets up, saxes up, trumpets up, saxes up. So it's a pretty dynamic mix, but the rhythm section stays where it is the whole time and I just gas the horns when necessary."

Over in monitorworld, Douglas provides 25 mixes variously through in-ears and wedges around the stage, mixing on a Yamaha CL5 console. "We have 24 channels of wireless out here, and setting that up can be the hardest part of the day," he said. "Some days I'm fighting to find room and other days, it's easy. It's all Shure PSM 1000s for the in-ears with JH Audio ear buds, and then we use the Shure UR4Ds for the mics and the horns."

Setzer eschews in-ears, opting for four wedges, with two in front providing vocals, and both outer wedges and Vue Audiotechnik side-



Monitor engineer Marcus Douglas provides mixes for the Orchestra through a variety of in-ear monitors, wedges for Setzer and Vue Audiotechnik side fills, all supplied by Sound Image.

fills serving up some guitar, piano and rhythm section. In-ear mixes go to one of the background sing-

ers; Tim Messina, musical director and fourth sax; Kevin McKendree, a newly added piano player; and the drummer, who alternates with a wedge. "The saxes all share a PreSonus [HP4] headphone amp and they share a mix of just themselves and little of the others. It's the same with the trombones—but the trumpets don't want anything. I tried a hardwire mix on one of the trumpet players the other night and he had a hard time, getting tangled up, so they go without."

Key to the Brian Setzer Orchestra's sound, of course, is Brian Setzer—specifically his guitar. Capturing every lightning-quick run up and down the fretboard are a variety of mics. "On Brian's amp, I use a Shure KSM32 and an SM7B, the big broadcast vocal mic," said Hartung. "I like the combination of a condenser and a dynamic, because it gives me a different texture, flavor. The reality is that even though Brian's tone is loud, it's good tone that's very consistent. There's no curveballs ever thrown when it comes to that, so I use a condenser and a dynamic, and they blend well."

All vocals are captured with Shure SM58s, while the drums are heard via a selection of Shure and Audix mics. "On the kick, there's an SM91—not a Beta because I like the SM91/D6 combination; you can't go wrong with it," said Hartung. "I always use the Audix D2 on snare; it wasn't designed for that, but I love it. Then there's D2s on rack toms, D4s on floor toms, AKG 414s on overheads, Sennheiser MD-441 on snare bottom, and KSM137s on high hat."

The horn players all use wireless mic setups with Shure WB98H/C capsules, while the glockenspiel is

heard via a Sony ECM 54P "Nobody uses it, but it's just a gem of a mic," said Hartung. "We have all Radial JDIs and J48s. There's Shure VP88s at FOH, just to capture the stereo mix of the audience because we record every night."

While the tour's pace can be tough—not to mention the timing, being that it's across the holidays, taking everyone far from home—both Hartung and Douglas readily admit the spirit of the production makes it worthwhile. "It's such good people out here," said Douglas. "The crew is great, same with the band, and it goes all the way to the top to Brian. We enjoy doing it—and it's a great show. I get the chills every night just watching it, being a part of it."

Sound Image

Sound-image.com

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The Brian Setzer Orchestra

Sound Image (Escondido, CA)

FOH Engineer:

Gary Hartung

Monitor Engineer:

Marcus Douglas

Production Manager:

Mike Richter

FOH Console:

Midas Pro9

Monitor Console:

Yamaha CL5

Monitor Speakers:

Wedges; Vue Audiotechnik H-15 sidefills

Personal Monitors:

Shure PSM 1000; JH Audio ear buds

FOH Equipment/Plug-Ins:

Lexicon PCM70; TC Electronic M5000; Roland SDE-3000

Microphones:

Shure KSM32, KSM137, SM7B, SM58, SM91, VP88, WB98H/C capstules; Audix D2, D4, D6; AKG 414; Sennheiser MD-441; Sony ECM 54P; Radial JDI, J48; Beyerdynamic M 88

GCP Pro Updates Fellowship

DALLAS, TX—The 10,000-member Oak Cliff Bible Fellowship church in Dallas, Texas, recently upgraded its technical facilities across the board, from sound to lighting to video. For the project, it turned to Guitar Center Professional (GC Pro) to source the right components and appoint systems integrators for the AVL and control systems.

This is a large facility building, across from the church's main campus, that houses their activities areas, such as their youth centers," said Jeffery McDaniel, account manager based at the GC Pro location in Dallas. "They needed a lot of additional audio, including a lot of speakers and DSP processing, as well as new video displays and new lighting. But they also wanted to add more sophisticated control over the AVL systems, to enable a wider number of users to access and configure the systems as needed more easily. That called for a Crestron control system. Installing audio, video and lighting requires one set of specialized skills, and programming a complex control system requires a different set of skills, so we matched Oak Cliff Bible Fellowship with two different Affiliate Program member integrators for this project."

Crown Audio Video was assigned to the Crestron programming tasks while Trinity Group International took on the job of installing new audio, video and lighting. The latter aspect of the project included over a dozen ceiling-mount QSC speakers, including in-ceiling subwoofers, with QSC processing and amplification for the main activities hall; Community Sound all-weather speakers for outdoor use; an LG 47-inch LCD display and a Blackmagic Design HDMI SDI-to-HDMI conversion unit for one of the building's youth centers and a Sennheiser wireless microphone system for a second youth center on another floor. Chauvet LED lighting components were also added to several areas. All of these were sourced through GC Pro.

"It was a pretty sizable project," observes Walter Jones, media director at the Oak Cliff Bible Fellowship. "The main entrance area is huge at about 30 feet wide and about 300 feet long, and it serves as the main artery that leads to the other areas of the building. We wanted to have a zoned sound system in that area to support live events, background music and announcements. We had a vision of what we needed to achieve here, and Jeff and GC Pro had the re-

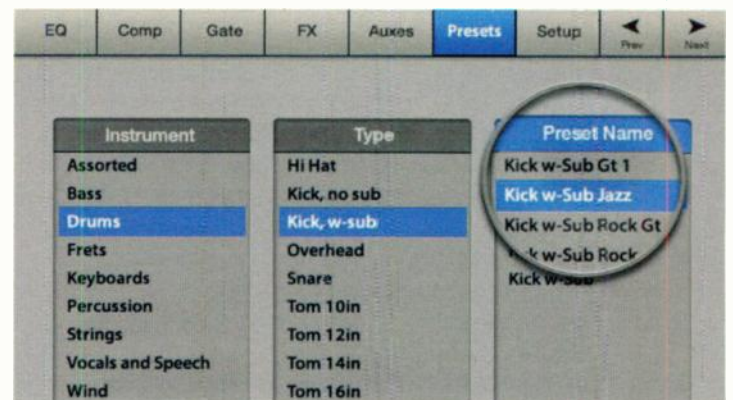
sources to pull that all together and make it happen."

Guitar Center Professional
gcpro.com

GC Pro sourced components and appointed systems integrators for a massive systems upgrade at Oak Cliff Bible Fellowship in Dallas.



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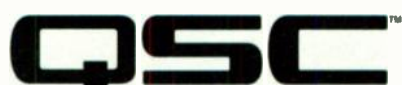
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*Our research indicates that professional sound engineers have, per capita, more ponytails than any other profession. We're still investigating the cause of this phenomenon.



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Keeping Tabs on NY CityFest

NEW YORK, NY—As any RF engineer will point out at the drop of a hat, there's far more audio happening at a major event than just what's coming out of the loudspeakers. Take com systems, which are crucial for big productions, like the annual NY CityFest, a religious music event that drew a crowd that packed the Great Lawn at

New York City's Central Park this past summer.

Veteran show production manager Kevin B. Hart wore a in-ear CM-iX intercom headset from Point Source Audio throughout the music festival. Clair Broadcast (part of Clair Global) provided the RF wireless coordination.

"Standard issue muffs are com-

plicated when trying to go between the audio feed and the environmental sounds," opined Hart. "I was able to integrate my 1964 EARS in-ear monitors with the CM-iX, and wore the



LAUREN NATALE PHOTOGRAPHY

Kevin B. Hart in Central Park, wearing his CM-iX Intercom Headset.

headset for the first time, without ever taking them off, throughout the entire festival, from 3:00 p.m. to 10:00 p.m." NY CityServe & NY CityFest <http://www.nycityserve.org>

Point Source Audio
www.point-sourceaudio.com

A Tent's Situation

BEAUMONT, TX—MSC Systems, based in Beaumont, TX, recently supplied audio for a sizable outdoor corporate function in its hometown, turning to its inventory of Yorkville Sound PA for the occasion.

For the affair, held for more than 250 people seated at tables under an event tent found the company using Yorkville Sound EXM400 Ultra Compact Complete Four Channel Active Stereo PA Systems from its inventory as delayed backfill. Additionally, four Unity Series U15P powered loudspeakers and another four UC-S1P powered subs provided most of the coverage at front-of-house, with time-aligned delay signal sent to the EXM400 further down the tent.

Since 1987 MSC Systems has been has provided sound, lighting and audio visual capabilities throughout southeast Texas and southwest Louisiana, as well as tackling design and installation of sound, lighting and multimedia systems for churches, auditoriums, board rooms and more. MSC is a Yorkville Sound dealer.

Yorkville Sound
Yorkville.com



MSC Systems supplied a variety of Yorkville Sound PA boxes for a recent corporate event.



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Allen & Heath Shuffles Off to Buffalo Center

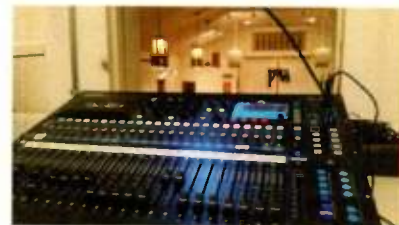
BUFFALO CENTER, IA—Jeremy Rollefson has toured the world, working as a live sound engineer, monitor engineer and production manager for acts like Toby Keith, Miranda Lambert, Newsboys and Switchfoot. But while he's used to working behind massive FOH consoles, when he recently consulted on a new audio system for the First Reformed Church in Buffalo Center, IA, he opted for something

that fit better with its surroundings, choosing an Allen & Heath Qu-24 console for the church's soundbooth, and a ME-U Monitor Hub and a Ar-2412, which were placed behind stage right in a custom stage rack.

"The Qu consoles have massive processing capabilities. The workflow is extremely recognizable for those

who are used to an analog mixer, so it makes training church volunteers easy," said Rollefson. The mixer's integrated USB recorder can playback multi-track files, so Rollefson uses it to explain basic mixing techniques and workflow.

Allen & Heath
allen-heath.com



An Allen & Heath Qu-24 console is the focal point of a new audio system installed at the First Reformed Church in Buffalo Center, IA.

Congregation Takes on Martin

KENLY, NC—Mention audio systems going into a church and often times a mega-church with an arena-sized PA comes to mind. That kind of arrangement wasn't needed, however, when the 200-seat Faith Free Will Baptist Church in North Carolina recently upgraded its audio system.

RMB audio tech Matt Johnson served as the planner, installer and designer for the system. "I grew up in the church," he explained, "which was originally built in 1962 on a tract of farmland donated by my great-grandfather, its first pastor. My father, Edgar Alberdeen Johnson Jr., is Deacon of the church.

Johnson is an MLA Compact-trained technician, and created a system primarily used for spoken word, acoustic instruments and CD playback during plays and worship singing. To adequately cover the room, he installed two Martin Audio CDD10s in the 13-foot high cathedral style ceiling.

Johnson noted, "The fact that they can effectively cover such a short and long distance with a smooth frequency response was really impressive and a major advantage." The audio system also includes a Midas Venice 320 console, Ashly EQ, XTA processing and Crest amplification.

Martin Audio
martin-audio.com



Martin Audio CDD10s cover the 200-seat Faith Free Will Baptist Church in Kenly, North Carolina.



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Dallas HOW Doubles Down on DiGiCo Desks

DALLAS, TX—Dallas' First Baptist Church bought a DiGiCo SD7 for its FOH position in April 2013, and now a second SD7 has joined it, tackling monitor duties at the 3,000-seat worship center.

The two consoles are linked through no less than five DiGiCo SD-Racks—three placed just off stage in a remote location, one underneath the monitor console, and one down in the broadcast mixing studio near video control—as well as a 16-channel Nano-Rack located in the orchestra pit and used to provide extra inputs if needed.

First Baptist Church's initial SD7 console went in as part of a \$130 million renovation of its main downtown location, which was completed two years ago. "We specified the first SD7 largely because of its high I/O capacity," said consultant Steve Reed. "When it came time to install a dedi-



Brad Roberts, First Baptist's lead audio engineer, with the new DiGiCo SD7 console at the church's monitor mix position.

cated monitor console, we naturally went back to the SD7. It's a large-format console that has the capacity to handle the large number of instru-

ment and vocal inputs coming off of this stage. All of the front-line singers are using in-ear monitors, so they needed a high number of inputs and

outputs. The SD7 has them."

Brad Roberts, First Baptist Church's lead audio engineer, began his career there just ahead of the arrival of the first SD7. "Up until now, there was no monitor world," he said. "We had been mixing monitors from the SD7 at front-of-house, which, with so many inputs, was complicated."

Roberts can now accommodate the 13 stereo in-ear monitor mixes used by the vocalists as well as the Aviom mixers for the band and orchestra. "We have two complete universes of Aviom systems, and there are over a hundred inputs coming off the stage altogether. The SD7 was the console we chose that could handle that many inputs and outputs."

First Baptist Church
firstdallas.org

DiGiCo
DiGiCo.biz

Delivering a Roland to Rose Heights

TYLER, TX—Rose Heights Church in Tyler, TX recently upgraded its sound and lighting systems, adding audio components, video production capabilities, five cameras, video projection, environmental projection, new screens, upgraded lighting, LED components and a new lighting console. On the audio side, a key addition was a Roland M-5000 OHRCA live mixing console.

Shane Weber of Web Feat Productions, a media consulting firm specializing in serving churches and not-for-profit organizations, was brought in for the project. "I needed a front-of-house console that would play well with these components and the existing infrastructure, and the M-5000 was a natural fit," he recalled. "I did the installation for all the video equipment and designed and installed the audio systems."

The "existing infrastructure" in-

involved several Roland M-48 live personal mixers as well as Roland S-4000D splitter and power distributor units. Weber added more M-48s, which are now used for personal mixes for the church's individual musicians, as well as another S-4000D to route audio. "With their Roland units already in place, the M-5000 was a natural progression from what they had. And its open architecture is future-proof, working well with whatever they're bound to throw at it—Dante, the REAC protocol, and the list goes on."

The church's decision-makers did not require much convincing. Webber added, "They have a new part-time audio engineer and he's learned the M-5000's operation very quickly. Everyone is pleased with this solution, and I'm proud to have been a part of it."

Roland
proav.roland.com



A new Roland M-5000 OHRCA live mixing console has been installed at the Rose Heights Church in Tyler, TX.



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Mark Knopfler

(continued from page 42)

with his recognizable patented tone—during the 14-song, two-hour set that occasionally delved back to the Dire Straits catalog for arena-rock hits like “So Far Away,” and of course, “Sultans of Swing.” With such a deep body of work, the setlist changed nightly to keep everyone on their toes, including the longtime monitor engineer, whose favorite Knopfler tour to work was the no-frills country-rock of Nottingham Hillbillies, a big departure from Dire Straits’ commercial peak of “Money For Nothing.”

Onstage, the musicians heard their mixes via a selection of Sennheiser and ACS Custom in-ear monitors. “Mark wants the mix like the record; it’s his music,” said Lewis, when asked of his approach for the guitarist’s mix. “The rest of the musicians decide what they need to listen to in order to play the songs. All the mixes are totally different. The drummer picks his own, but the rest of the band rely on me for whatever they need.”

The show presented the full realm of “light and shade,” and everything in between, explained FOH engineer Dave Dixon, meaning that the repertoire can go from a big production number, such as Dire Straits’ “Romeo & Juliet” to more serene, intimate pieces like the Celtic-tinged “Father to Son” from Knopfler’s 1984 soundtrack of the Irish film *Cal*, or “Laughs and Jokes and Drinks and Smokes,” an instant Knopfler classic from *Tracker* that starts out with a jazz drumbeat reminiscent of Dave Brubeck’s “Take Five.” Dixon’s goal “more than anything” is to deliver

clarity in the mix, which requires 90 inputs from the board.

“Mark definitely knows what [kind of sound] he wants,” said Dixon, who has worked Knopfler tours since 1996. “While [live show] technology has changed since then, so

“Mark wants the mix like the record; it’s his music.”

Kerry Lewis, monitor engineer, Mark Knopfler

has the band. It’s much bigger now,” said the engineer, who hails from Lancashire in northern England. He has been involved with Black Box for other tours, including Sade and Pink, as systems engineer.

Dixon noted that it was “a natural progression to get Black Box involved with Knopfler because I knew the infrastructure and people,” he said. Among the crew serving as systems engineer was Ulf Oeckel, who comes from what was known as East Germany. Dixon met Oeckel at an audio class a few years ago, and being on the same wavelength regarding their approach to live sound, they vowed to work together at some point.

For the tour, both engineers mixed on DiGiCo SD7 consoles. At front of house, Dixon noted he especially liked the board’s ability to program each complexly arranged song as a snapshot, as well as its intuitive nature, noting, “The workflow on all the DiGiCo desks is just so obvious; you don’t have to think about it. It’s a really good logical workflow.”

When it came to effects, the show

was pretty light, with Dixon simply using a TC M6000 for reverbs, voice doubler and delay; Summit Audio TLA 100s on Knopfler’s voice and the electric bass; and a dbx 162 on the acoustic guitars and upright bass. Anything else requiring compression was tackled with the SD7’s onboard compressors.

A key to a Mark Knopfler mix is to keep his fluid trademark guitar leads front and center—and making that happen for audience was an L-Acoustics PA built around 48 K2s, six KARAs and four Arcs2, all powered by two-dozen LA8 amplifiers. “[L-Acoustics] is very clean and provides the full spectrum, a good lower end,” commented Dixon.

Of course, the secret to filling a venue with good sound is to mic the musicians properly in the first place. To capture Knopfler’s fret work, electric guitars were miked with a pasel of Audio-Technica AT 4050s and a beyerdynamic M160, all held via AT8430 clips on K&M 232 Table

mic stands. Meanwhile, acoustic guitars were heard via Radial JDI Dis and his near-trademark National Reso-Phonic guitar ran into a DAV DI. Drums were captured with a variety of Shure, A-T, EV and AKG mics, while vocals were heard via AT 5400s on backgrounds and an AT4055 on the main attraction.

Dixon noted that in his experience, within two weeks into a tour, everything works like clockwork, and the afternoon proved that to true. After running through a song-and-a-half soundcheck, Knopfler glanced around the theater and seemed satisfied with what he was hearing. “It looks like we’re all good, Dave,” he said from the stage. “Brilliant.”

Black Box Music
black-box-music.de

L-Acoustics
l-acoustics.com

DiGiCo
Digico.biz

Metallica

(continued from page 42)

Array configuration comprised 40 1100-LFC elements configured in four arrays suspended directly over Lars Ulrich’s drum kit to spread a uniform, donut-shaped pattern of low-end frequencies throughout the seating area.

“Working in the round, you have to get a grip on what you’re doing,” said Metallica’s longtime FOH engineer, “Big Mick” Hughes. “You’re in the near field of one part of the PA, but you can have problems with room ambience generated by all the other array elements going off in other directions. LEO makes it completely manageable. With its phase coherence, you get much better penetra-

tion into the room, and you don’t get low-mid frequencies spreading out to the back and sides. And because LEO is so well-focused, there’s more energy going where you want it, which also makes it better for the band on stage.”

All systems were provided by Montreal-based Solotech. Metallica tours with its own stage monitoring system, which typically includes as many as 36 Meyer Sound MJF-210 stage monitors.

Hughes mixed the shows on a Midas XL8 digital console, and gave special commendation to the DPA d:vote 4099 microphones on the drums. Vocal mics were the Shure Super 55 supercardioid dynamic models favored by the band for their vintage look.

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ACT / STATISTICS

CREW

EQUIPMENT

1 MADONNA | EIGHTH DAY SOUND

Andy Meyer (be); Demetrius Moore (he); Matt Napier, Sean Spuehler (me); Mark Brnich (cc); Mike Hackman (se); Wayne Hall, Clinton Reynolds (ae); Greg Horning, Rachael Lawrence (tech)

HC: DiGiCo SD7; MC: DiGiCo SD7; HS: d&b Audiotechnik J8, J12, J Sub, J Infra, V12; MS: d&b Audiotechnik V8, V Sub, M4; IEM: Sennheiser; HA: d&b Audiotechnik D80; MA: d&b Audiotechnik D80; HARDWIRED MICS: Audio Technica; Sennheiser; Shure; Milab; WIRELESS MICS: Sennheiser; FOH EQUIPMENT: Waves; MONITOR EQUIPMENT: RME

2 TAYLOR SWIFT | EIGHTH DAY SOUND

David Payne (he/be); Scott Wasilk (me); Jordan Kolenc (me/cc); Edgardo Vertanessian (se); Casey Stewart (ae); Bill Flugan (rf); Andy Dudash, Bill Fegley, Turner Pollari (tech)

HC: DiGiCo SD7; MC: (2) DiGiCo SD7; HS: d&b audiotechnik J and V series with array processing; IEM: Ultimate Ears; Sensaphonics; Shure PSM 1000; Albatross Audio PH9B; HA: d&b audiotechnik D80; HARDWIRED MICS: Shure Beta 91/52; Telefunken M80SH; Audio-Technica ATM450; DPA 4099; AKG 414; Sennheiser 935; Radial J48, Tonebone PZ-Pre, JX2, JR1M, Hot Shot DM1; WIRELESS MICS: Sennheiser 9000 Series with 9235 capsules, 5000 Series with 5235 capsules; FOH EQUIPMENT: Waves SD7 Pro Show Bundle; Rupert Neve Designs MBP and Portico II Channel; SPL TD4; Bricasti M7; Lexicon PCM 92; Elysia Nvelope; TK Audio BC1; MONITOR EQUIPMENT: Waves SD7 Pro Show Bundle; Rupert Neve Designs Portico II Channel; SPL TD4; Lexicon PCM 70, PCM 92; Eventide Eclipse; Bricasti M7; TC Electronic M-One XL; dbx 160x; UBK Fatso Jr.

3 PAUL MCCARTNEY | CLAIR GLOBAL

Paul "Pab" Boothroyd (be); John "Grubby" Callis (me); Chris Nichols (se); Paul "Swanny" Swan (mse); Sean Baca, Andy Bongardt, Bryce Beauregard (techs)

HC: Avid Venue Profile; Midas Pro9; MC: (2) Midas Heritage 3000; HS: Clair Cohesion CO-12, CP-218 sub, i-3, P-2; 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 SPX990

4 SHANIA TWAIN | VER TOUR SOUND

Nigel Green (be); Connie Fernstrom (me); Kenny Sellars (cc/se); Ike Zimbel (rf tech); Carter Hassebrock (m tech); Joey Armada, Justin Keasling (techs)

HC: Avid D-Show, sidecar; MC: DiGiCo SD5; HS: Meyer Leo, Lyon, 1100 LFC, Mica, Mina; MS: d&b audiotechnik M4; IEM: Sennheiser SR 2050; MA: d&b audiotechnik D12; HARDWIRED MICS: Shure; Sennheiser; Royer; Earthworks; Radial Firefly, SW8; WIRELESS MICS: Sennheiser SKM5200; DPA 4088 Headsets; FOH EQUIPMENT: Venue Pack 4; Waves Mercury; Crane Song Phoenix

5 MARC ANTHONY | VER TOUR SOUND

Jose Rivera (he); Eric "Pyle" Ramey (me); Jimmy Ibañez (se); Greg Mahler (cc); Alfonso Torres (m tech); Cody Seaver (tech)

HC: DiGiCo SD7; MC: DiGiCo SD7; HS: Meyer Sound LEO, LYON, LEOPARD; MS: Meyer Sound MJF-210, MJF-212, Mica; JBL M20, M22; IEM: Shure PSM 1000, P6HW; MA: Crown I-Tech 4x3500HD; HARDWIRED MICS: Shure; Sennheiser; Audix; WIRELESS MICS: Shure Axient, KSM9 HS

6 AC/DC | CLAIR GLOBAL

Paul "Pab" Boothroyd (be); John Lewis (me); Kenny Check (msys tech); Chris Nichols (sys tech); Jon Brook (stage tech); Rich Thompson, Andrew Bongardt, Emmett Tubritt, Leon Rieger, Trystan Forbes, Tyson Clark (pa techs)

HC: Midas XL4; MC: Midas Heritage 4000; HS: Clair i-5D/i-5b, i-3 FF, i-5 (delays); MS: Clair CP-212, SRM, CP-118, Vision, CP-218; IEM: Shure PSM-1000; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; WIRELESS MICS: Shure UR series; FOH EQUIPMENT: GML 8200; Summit TLA-100; dbx 160SL, Quantum; Drawmer DS-201; TC Electronic D-Two, M6000; Lake LM44; MONITOR EQUIPMENT: TC Electronic EQ Station 8, D-Two, M2000; Eventide H3000, H3500; BSS DPR-901; Drawmer DS-201

7 JUAN GABRIEL | 3G PRODUCTIONS

Erwin Rios (be); Oscar Gonzales (me); Manny Perez (cc/se); Sara Jean Holt (rf tech); Ken Quinlan (ae); Stephan Gauthier (monitor tech); Robert Valdez, Lance Jessick (techs)

HC: DiGiCo SD10; MC: DiGiCo SD10; HS: Martin MLA, MLAC, DD12, MLX Subs; MS: d&b audiotechnik M2, M4, Q1, B2; IEM: Shure PSM 1000; MA: d&b audiotechnik D80; HARDWIRED MICS: Shure; DPA; Sennheiser; WIRELESS MICS: Shure UHF-R handhelds, beltpacks; Professional Wireless DB-24 Distro; FOH EQUIPMENT: Lab.gruppen LM44; Avalon VT-737; MONITOR EQUIPMENT: TC Electronic 6000; Shure E5

8 JANET JACKSON | VER TOUR SOUND

Kyle Hamilton (he); Jim Roach (me); Andre "Dre" St. Pierre (cc/se); Erick Ruiz (m tech/rf); Kyle Fletcher, Colin Hardy (techs)

HC: DiGiCo SD7; MC: DiGiCo SD7; HS: d&b audiotechnik J Series Mains, Sides, J Infra/J Sub, V Series Front Fill; MS: d&b audiotechnik M, V, C Series; IEM: Sennheiser SR 2050; Albatross Audio; MICS: Lewitt; Royer; Radial; DPA; Heil Sound; Sennheiser; Shure; FOH EQUIPMENT: Avalon VT-737sp, VT-747sp; Lake LM44

9 STEVIE WONDER | EIGHTH DAY SOUND

Danny Leake (he); James Berry, Rico Gonzales (me); Victor Arko (cc); Edgardo Vertanessian (se); Krysten Dean (ae); Chris Bellamy, Ben Smith (tech)

HC: DiGiCo SD7; MC: (2) DiGiCo SD7; HS: d&b Audiotechnik J8, J12, J Sub, B2; MS: d&b Audiotechnik M2, M4; HA: d&b Audiotechnik D80; MA: d&b Audiotechnik D12; HARDWIRED MICS: DPA; Shure; Neumann; WIRELESS MICS: Shure; FOH EQUIPMENT: Eventide, Lexicon, TC Electronic; MONITOR EQUIPMENT: TC Electronic

10 ED SHEERAN | MAJOR TOM

Chris Marsh (he/me); Charlie Albon (cc); Tristan Nelson Hauer (se); Josh Schmitz (ae); Kasper Brogaard (tech)

HC/MC: DiGiCo SD7; HS: Meyer Sound Leo; MS: Meyer Sound MJF-212a; IEM: Sennheiser 2000; WIRELESS MICS: Sennheiser 9000 Series Digital mics/instrument packs; EQUIPMENT: Avalon 737; Bricasti M7; Eventide Eclipse; Waves Max BCL; Radial SW8

LEGEND: (he) house engineer. (ah) 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 grossing tours according to *Billboard*. 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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Cory Schaeffer

QSC has named **Cory Schaeffer** as its director of Systems Solutions for QSC Systems. She will lead development and execution of end user strategies and forge relationships with consultants, as well as contribute to product development efforts and various marketing initiatives. A co-founder of Listen Technologies Corp., most recently, Schaeffer was at Harman/AMX as vice president, Western Sales for the Corporate, Education and Government Business Unit.



Alessandro Travaglini

Minnnetonka Audio has hired broadcast audio veteran **Alessandro Travaglini** as product manager, research and development group, expanding its research and development team. Previously, he was at Fox International Channels, where he held a variety of positions for 11 years including sound supervisor, senior sound designer, and music composer.



Chris Halon

Roland Corporation U.S. has appointed **Chris Halon** to vice president, Marketing. Most recently, Halon served as director of Marketing Communications for Roland U.S. In his new role, he will continue to head all marketing efforts in the U.S. for both the Roland and BOSS brands, as well as lead a team of Global Content creators. Halon joined Roland Corporation U.S. in 2004.



Ryhaan Williams

Riedel Communications has named **Ryhaan Williams** as its vice president of sales, eastern U.S. Williams will be tasked with strengthening existing relationships and creating new strategic alliances for the eastern region in addition to expanding sports markets nationally. Previously, Williams was director of strategic accounts at Joseph Electronics.

60SECONDS



HANNAH BLISS, *Focusrite Novation, Inc.*

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

A: I am now the Focusrite Novation, Inc. director of Marketing for the U.S. territory. I develop and oversee all marketing activities for Focusrite, RedNet and Novation products, communicating directly with customers, media and our dealer channel. This means I am involved in everything our brands touch, from events and trade shows, advertising and press, and dealer communications, to in-store point of sale and beyond. Additionally, I help provide Focusrite's R&D department with end-user feedback and identify emerging market trends. In short, if you see a Focusrite, RedNet or Novation logo being used in the U.S., I know how it got there! I am also responsible for nurturing a growing marketing team, empowering them to make smart decisions to get us closer to our goals.

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

A: I have worked for Focusrite for over seven years. I started as a marketing coordinator at the company's HQ in England, then later transferred to our California office as a marketing manager and now director of Marketing. Focusrite is definitely in my blood!

My father is a songwriter and a touring musician. Growing up, we always had a full, professional recording studio (including Focusrite products) in our house. Daily, I would see what new recording technology or products would make him tick, what would make him happy, what would get him excited. Now it's exciting influencing and being a part of the industry that figuratively raised me!

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

A: Mid-2015, Novation went through a complete rebrand, meaning we clearly defined who Novation is, its voice and what its values are. We can now make very tactical decisions about what to do and what not to do. In coming months, I expect to develop more strategic partnerships with other complementary brands that reflect our values, both in and outside the music industry. We will be attending and hosting more events, meeting our customers face to face.

We place great importance on understanding and getting to know our customers better, for both Focusrite and Novation. Once we clearly identify whom it is we are talking to, where they make music and what their challenges are, we will offer them the best solution. At NAMM this year, you'll see how we are presenting our products in real-life scenarios to help customers more clearly identify the best-use cases.

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

A: In order to carry out successful marketing campaigns, hit sales goals and grow the company, we need the right people, working together, with the same professional ethics, values and drive. My short-term goal is to enhance and develop a passionate and hardworking marketing team who are committed to delivering results to our high standards.

Our team will concentrate on delivering our customers market-driven products that are better, faster and easier to use than ever before, while ensuring that we display consistent product messaging and top quality branding.

Q: What is the greatest challenge that you face?

A: Getting customers to love Novation's Britishness, just like they have embraced Focusrite's, and to understand that the brand has a long and rich synth and controller history, is a distinct challenge. Both brands sit in extremely competitive market places, so it is all about telling customers why we are unique and how our history proves our quality.

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Growing FBT's Customer Base in Fertile US Ground

JOHN KRUPA, PRESIDENT, ITALIAN SPEAKER IMPORTS, INC.

BY SILAS LYNCH

Originally a musician and active audio engineer, John Krupa entered the pro audio industry via MI retail in the late 1980s. After a short period, he was already working his way up the chain into retail management before hopping over to a new role as a manufacturer's rep, where he remained for nearly 15 years. Next, following a stint as another pro audio manufacturer's director of Sales, Krupa arrived at his current position, president and majority owner of Italian Speaker Imports, Inc. (ISI), the exclusive US distributor of FBT, a high-end portable sound, touring/install and audio contractor loudspeaker manufacturer based in Italy.

"I love the music industry and have worked in many aspects of it," Krupa offers in retrospect. "In my earlier days, I used to be a tape op guy at some famous New York studios; I've done live sound for some pretty well-known bands; and I've also played and sang with some great people over the years. I've been truly privileged to have such a diverse background. I believe that everything I've done has affected me [positively] and influenced [my career] in some way. I take something out of every experience. In the end though, I think success is equal parts where you've been, and who you are."

Detailing his work at ISI, Krupa

need not be a fleeting experience—or we'd prefer it not to be. Under this definition, people who make these purchases are our partners."

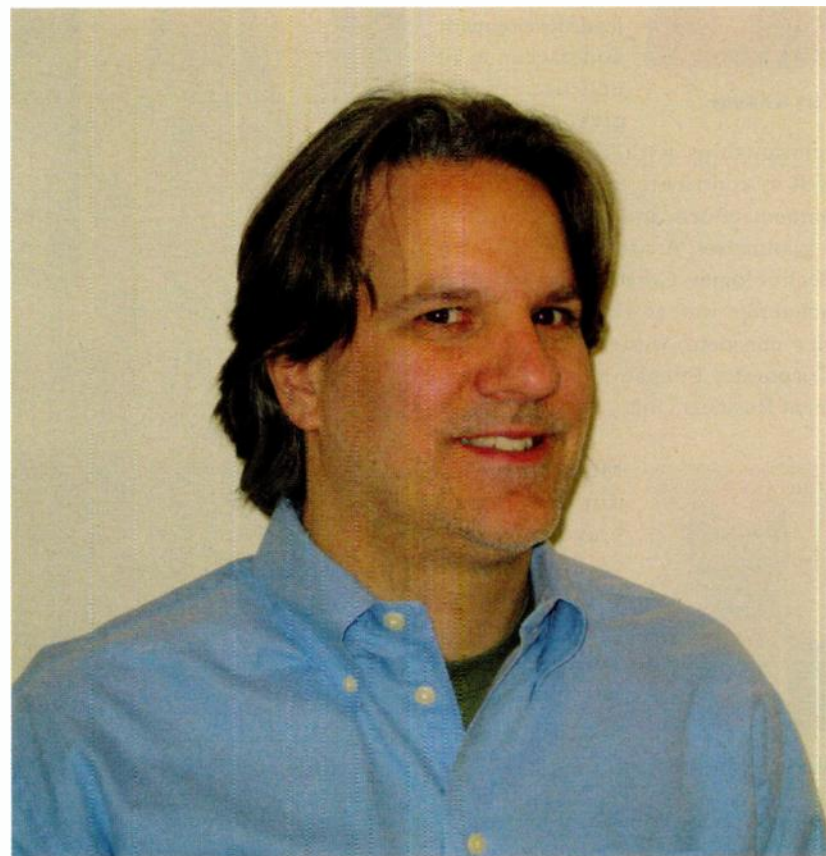
In defining ISI to the industry, Krupa explains that he prefers to make his own path rather than following the trends and practices of his competitors. "It's so easy to get bogged down with what other people are doing," he reasons. "I prefer to focus on what we're doing and how to do it the best we can. Someone once told me, 'If you're a race car driver and you spend your whole race drafting behind the leader, the best you'll ever finish that race is in second place.' I don't do anything to finish second."

"I prefer to focus on what we're doing and how to do it the best we can. Someone once told me, 'If you're a race car driver and you spend your whole race drafting behind the leader, the best you'll ever finish that race is in second place.' I don't do anything to finish second."

John Krupa

notes that as it is still a new company, it is important that he regularly reinforces its goals "to be the most friendly, righteous and helpful company in this industry. There are lots of great choices in loudspeakers out there, and my greatest desire is to have people looking forward to doing business with us. I can't tell you how honored I am to be working with our partners. I use the word 'partner' where others may use 'customer;' a customer is someone who buys your products, whereas a partner is someone who invests in your company. We believe each sale we make is an investment into us and

Krupa is a fan of analogies and uses one in explaining ISI's corporate structure. "Those who know me know that I'm more of an eighteenth-century farmer than a twenty first-century tech wiz," he quips, "so it may come as a surprise that I have embraced twenty first-century technologies when establishing the structure of this company. All of my team operates out of remote offices and are tied into our system via some pretty cool VoIP phones and cloud-based software. We have offices throughout the country so as to better assist customers and make my employees happy. It's working



John Krupa, president, Italian Speaker Imports

real well and I strongly recommend it. Italian Speaker Imports has seven full-time employees and numerous part-timers. We begin each day with an hour-long, company-wide conference call where we lay out the goals for the day. I preach [about] efficient and effective work, and I love to reward people for a job well

ly believe in leading by example out on the frontlines."

ISI's business is most easily divided into three distinct sections: live sound, retail and installation. "Today, we live mostly in the sound live/production world, but that's not to say that the other segments have less significance to us," tells Krupa. "2016 will see most of our new products fitting our core. I also hope to see great strides in the other segments. That said, I've never believed in changing who you are in order to find success in new markets."

Krupa is happy to note his confidence in the FBT Loudspeakers he distributes via ISI. "Not only do I not fear competitors, but I welcome them and often try and help them," he says, noting that his approach may be unique.

"I've always believed that this marketplace is big and strong enough for everyone and more. That said, there are over 2,000 different styles of shoelaces for sale in this great country! I have many friends who work for our competitors, but I have never seen them as anything less than dear friends, and I would do just about anything for my friends."

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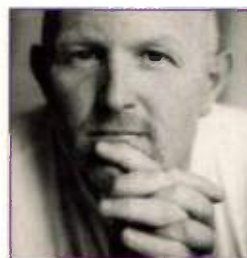
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Go-To Gear

(continued from page 1)

can get it to sound like an LA-2A or an 1176. It's got a button that says 'Nuke,' which is awesome. Who doesn't want to nuke something? That does the 'all buttons in' thing that the 1176 does."

It's a true go-to box, he says: "It's part of my vocal chain, I use it for drums, for overheads, for guitars. I even use it on the mix as a hardware insert in Pro Tools."

He continues, "It's got a little light: when it starts to go yellow, it sounds good; when it gets closer to red, it sounds better. It has different filters and high-pass; you can change the detection circuit on it; you can add distortion. There are things that it does that you shouldn't be able to do with hardware."

There's just one problem: "Nobody has come out with a Distressor plug-in yet. It's hardware only," says Ruccia. He may soon be in luck, however; in December, Empirical Labs began teasing social media followers about a plug-in that company founder Dave Derr calls "The Real Thing." It's expected to debut at Winter NAMM 2016.

Ruccia adds, "If there was another piece that I had to have, it would be my Avalon 737. Before the Distressor in a vocal chain, it's beautiful. I love the 737 for bass, coming out of an Avalon DI box. Between Avalon and Empirical Labs, I can do anything."

Paul Horabin, owner of ReadyMix Music in N. Hollywood, CA, also values his equipment for the color it imparts to his projects, which typically involve "live musicians, playing instruments," he says. "The music we've been listening to sounds that way because of the color of the gear it's put through."

If stranded, Horabin would rescue his favorite vocal chain. "For me, it's

the API 3124+ and Dave Pearlman's microphone, the TM 2. Dave let me try a TM 2 and it's been my go-to since."

He has other mic preamps: "I have the Millennia, a UA 2-610 and an Avalon. But the API, I just love it too much. The pairing of the Pearlman and the API works wonders for a vocal. The Pearlman through the API is instant 'vibe' on a vocal and gives it a character that makes it sound authentic. It sounds musical."

Horabin prefers to record without compression. "The TM 2 has a pretty hot output, so it depends on the singer. I've also got an A-Designs ATTY in front of the API, so that I can turn the input of the API down without putting the pad on, because that changes the tone."

"I'm not averse to having the API pre go into the red and distort on the way in; that's not for everything," he laughs, "but it does give a certain im-

pedience. That brings a little more detail and clarity out of the mic."

For the remote sessions, he continues, "One of my go-to plug-ins is iZotope RX. It allows me do these remote recording places that are great for emotional reasons but maybe not sonic reasons. It lets me go in and fix some of the sonic sins of the environment."

"It's taken a long time to come to that place of trust where I use gear because it fits my style and helps me realize what I have in mind, as opposed to using what others use," says Scott Frankfurt, owner of Scott Frankfurt Studio in Woodland Hills, CA, and VP

of design for virtual instrument software developer Spectrasonics.

"A perfect example are my GP2 Inc. BL99 mic preamps. They are rare—we have eight channels—and I fell in love with two things: the tone and the interface. The sound is hefty but clear; it's based on 990 op-amps and well-matched Jensen transformers."

On the interface, he continues, "There is a 'glow light' level indicator per channel—no VU or segments. You can get a sense of how hot it is by how bright it is, but you have to use your ears."

"Another great interface touch is that while the gain pot is continuous, the control is stepped, so I can always repeat a setting, but can also go 'in-between' the 1.5 dB steps. I wish I had more. It's definitely one of the secret sauces of Scott Frankfurt Studio."

He also has a favorite plug-in: "Using a Harmonizer on the under-snare mic is not a new technique, but lately I am addicted to the sound of the UAD Eventide Harmonizer for this application. Since you typically have decent bleed on this mic, you can get an amazing sense of width on the kit by stereo pitch-shifting it without resorting to aggressive panning or widening later, which can compromise the overall sound. We are big fans of the UAD platform—those folks are listening—and the 140 and 250 [reverb] plates never get ignored."

Frankfurt also has some love for a microphone: "Our AEA R88 MkII stereo ribbon mic. We shot out mics for strings, and this mic won. But we've found amazing applications for this mic all around the studio."

Finally, he says, "Of course, I'm biased since I had a significant involvement in the development of Spectrasonics Omnisphere 1 and 2, but using Audio Import and applying Inner Space convolutions, many of which I created at our studio, will break open a palette of never-before-heard sounds."

"It's taken a long time to come to that place of trust where I use gear because it fits my style and helps me realize what I have in mind, as opposed to using what others use."

Scott Frankfurt, Scott Frankfurt Studio

mediacy."

At his Veneto West complex in Venice, CA, studio owner Ronan Chris Murphy says, "I'm a big fan of Quad Eight-style mic pres. I would say 90-something percent of the vocals I record go through either an A-Designs Pacifica Ventura or original Quad Eight MM71 modules. Those A-Designs boxes are modeled after Quad Eight as a starting point. Especially in my own studio, I can't think of the last vocal I recorded where I used something other than that. For me, they tend to be the perfect balance of detailed and colored."

As part of the vocal chain, he



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productSPOTLIGHT

Touchscreens

(continued from page 1)

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WaveMachine Labs is not a hardware manufacturer; it is dependent on whichever iOS tablets are shipping as well as currently available USB class compliant I/Os—the latter of which were relatively scarce upon Auria's NAMM debut a half decade ago, in 2011. Today Auria remains a simple download from Apple's App Store and a favorite among audio engineers for its straightforward, near-traditional studio aesthetic and features that arguably rival some widely accepted DAW standards.

"I think our developer and owner, Rim [Buntinas], had a lot of foresight when he started developing Auria," explains Corey Winer, technical support supervisor/product special-

ist, WaveMachine Labs. "He took a chance when making the prediction that the industry was headed this way. And it seems like it is. Just go into a lot of studios now, with their big Pro Tools rigs, and they have an iPad [running] the Pro Tools controller. It's just an easy way of working."

As consumer technology bled into professional work, everybody "wanted touch," reasons Winer, "because everyone had an iPhone or Android in their pocket. And then we pushed the envelope; we developed software that was ahead of its time. With the original Auria, it wasn't until the iPad Air 2 that [Apple] caught up with just enough processing power to allow for what we really needed Auria to do; we move forward as fast as we can, hoping that hardware catches up with us. Of course, we want to see the capabilities of a MacBook Pro in an iPad, but that's going to take time and further technology. Already with iPad Pro, we see CPU usage dropping when using Auria Pro and its new MIDI sequencers; its processors are really good."

As Auria's popularity has grown since 2011, more potential customers consider WaveMachine Labs' Compatibility page on its website, offering a healthy collection of interfaces from USB I/O manufacturers including AKAI, Antelope, Apogee, Avid, Cymatic Audio, Lexicon, Lynx, Mackie, PreSonus, RME, and Tascam, among others. The list continues to grow.

Winer says that Auria users are attracted to the DAW for various reasons, but that in the end, it ultimately leaves users with more money to invest elsewhere. "Originally people were just completely blown away by what we developed for iPad and how it went beyond GarageBand—which is severely limiting [to professional users]. I think we're still a little way off from the point where, quote unquote, professional engineers move away from their Pro Tools rigs, but we have a lot of artists using Auria Pro that are Grammy-winning/Grammy-nominated engineers, showing that you can use it in lieu of your Pro Tools rig—it's real. But because we're charging \$49.99 for it, compared to the \$300-\$400 for many desktop DAWs, our users can justify the purchase some of the additional professional plug-ins

that work with Auria and are, fortunately or unfortunately, on the iOS pricing tier. It allows more users to have more professional plug-ins, the DAW and an interface for not even a fraction of the cost of a comparable desktop DAW setup. Once people discover the quality of what they can do with Auria and the plug-ins that are available for it, they do things like spend more on the microphone or mic preamp that they've wanted, or buy a lunchbox-style interface filled with good 500 Series modules—saving money up front on the software, spending more on those nice things you want, like the hardware."

Despite very promising Windows and Android OS advances, bleeding-edge pro audio developers, designers and manufacturers are still mostly found plying their trade within Apple environments. "Right now, we're solely focused on iOS and iPad because the power and the development is there," offers Winer. "With Android, it would be hard for us to keep up with compatibility issues simply for the sheer number of devices available. That's definitely a hindrance. I won't say we won't develop for Android, but there are \$60 Android tablets out there and [owners] may expect it to do what an iPad Pro can do. It could be a messy situation and we don't have the resources to deal with it."

Such resources, like a large tech support staff, are nearly essential when attempting to build an ultimately bug-free DAW for a non-proprietary OS. "I do tons of technical support for [WaveMachine Labs] plug-ins, made for Macs and PCs," continues Winer. "You can see big differences troubleshooting between Pro Tools on a Mac and Pro Tools on a PC. It's the same difference [as iOS and Android app development]; there are so many PCs out there that the differences inside—in terms of performance, troubleshooting and what their BIOS (basic input/output system) looks like—make service increasingly more difficult."

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Wu-Tang

(continued from page 5)

based creative director for PMC. "It has given us the opportunity to convey our 'Studio to Home' message, where we believe that there are huge benefits of using loudspeakers with identical characteristics throughout the production chain and finally in the home.

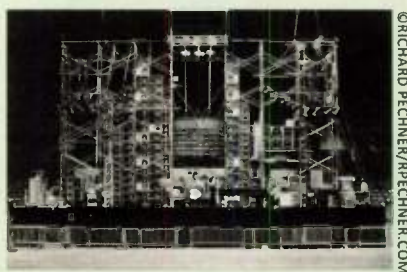
"We understand that the negotiations for the purchase of the album started many months ago with an undisclosed buyer. With this in mind, no party, apart from the buyer, would have been aware of what would unfold in recent weeks. These are certainly exceptional circumstances."

"We wanted to do something to inspire artists," says Azzougarh. To stimulate debate, "Let's sacrifice a record for that point to be made," he says. "It will only hit home if you make it untouchable—which is sending it into the next century, when all of us are dead. It's a statement we're making, not about the money we're making."

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Correction

Proper credit for Richard Pechner's photo of the Grateful Dead's "Wall of Sound" PA (seen here) was unintentionally omitted from the Spring, 2010 issue of *Audio Solutions* and *Pro Sound News'* 2011 *Line Array Gear Guide* supplement.



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Song Dudes

BY JAQUES SONYIEUX

Some music evokes open spaces, removing boundaries of thought and liberating the senses. Such is the case with *Above The Prairie* from The Pines, which is out early February on Red House Records. Combining acoustic instruments, soft synth pads and dreamy melodies, *Above The Prairie* gently beckons the listener into a vast expanse of the American plain, seemingly making time itself slow down. *Pro Sound News* spoke to songwriter Bensen Ramsey about the elements that help make *Above The Prairie* soar as one of the most authentic, compelling music releases of late.

ON STARTING WITH A SPARK:

The process for making *Above The Prairie* was not too different than what we've done on our other records. They always take a couple of years to write and then to work everything out. Usually a spark happens with one song or some sort of other energy that we are thinking about a lot, then that will spiral into a whirlwind very quickly. There might be one or two songs that have hung around for six or eight months, then we will write the rest. Once there is a kind of vision that we can see and hear, it goes into hyper-overdrive for us in the studio.

We've been doing this for quite a while—writing songs, making records and playing shows—but this record felt pretty vulnerable. We were really just trying to answer the question

where are we and where are we from? I think every piece on the record has to feel like something. This one may not be perfect, but we are very glad we got it down.

ON STUDIO SELECTION:

We were thinking about going into some really high-profile, amazing studios, but the thought of doing that made us kind of anxious. So we went to EarthTone Studio in Iowa City, IA. It's where we did our very first recordings, way, way back. We wanted to go back there because it is home, and kind of where I grew up. It is a cool, little studio, but now it's gone. The bridge seemed to be collapsing behind us just as we were finishing this record, so I'm glad we had a chance to do it there. During the recording process, I was kind of



BENVA KRUEGER

The Pines' latest album, *Above The Prairie*, is out next month.

out of it, to be honest, because I was pretty tired—I think we all were. But going to Iowa made it all a little more relaxing.

ON BEING SPONTANEOUS:

Once we start working, it all happens so fast and it is all kind of a blur. There are 100 things I wouldn't change about it, and 100 other things that I would change.

We've had the same team now for almost all of our records, and everyone kind of knows their drill. Alex [Ramsey] and David [Huckfelt] and I are the core—we wrote it all and put it together—so we are the only ones who really know what's going on. We don't take a lot of time to rehearse with JT or James, because we want it to be really put together, but not really put together—it is a high art and folk art kind of thing. But those guys are so good and they always kind of push it, and we always end up pleasantly surprised.

ON STAYING FOCUSED:

I geek out on things like mics and gear all the time, but honestly, once we get into the studio, I honestly can't really think about it because I am just trying to record the songs. If I am thinking about the microphones and technical items while I'm doing all that, I will have a freaking aneurysm, so I kind of trust the engineers we are working with and I am at their mercy. That said, there are a million new things on each record that I'd like to try. On this particular record, we tracked it all live; I think 99 percent of the songs went down in maybe one or two takes. After that, we took it to Bellow's Studio in St. Paul, MN to do some overdubs and

mix, where we worked with Adam Krinsky. He engineered and mixed our last record.

ON BEING IN THE MOMENT:

This recording is pretty darn close to how we play live. For our live shows, we always want the songs to fit so people just hear the songs. For example, if we don't have drums but they are on the record, it is most important for people to hear the song itself rather than each of the different elements. Because at the end of the day, we are really just kind of song dudes, and our whole thing is about being in the moment. You do as much as you can to make it close and familiar as on the record, but then it is completely open to where we are that day. We wanted to be able to do things that you can't do live, but at the same time, we just want the songs to be able to speak.

ON ASSIMILATING LYRICS:

There is this guy on the record, John Trudell, who is a Native American poet. He is one of our biggest inspirations. Last fall, we brought him to Minneapolis and we did a live performance together and we ended up writing songs together. "Aerial Ocean" was one of the lyrics that we picked out he had written—we just felt we had to get this down. Those lyrics blew us away, so we were very lucky to incorporate them into our music. It is kind of like one of those pieces where if we don't ever do anything again, at least I'm glad we got that.

Jacques Sonyieux is a devout explorer of recording studios and the artists that occasionally inhabit them. Please send any tips or feedback to Jacques at: jacquesonyieux@gmail.com.

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THINKING SOUND

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