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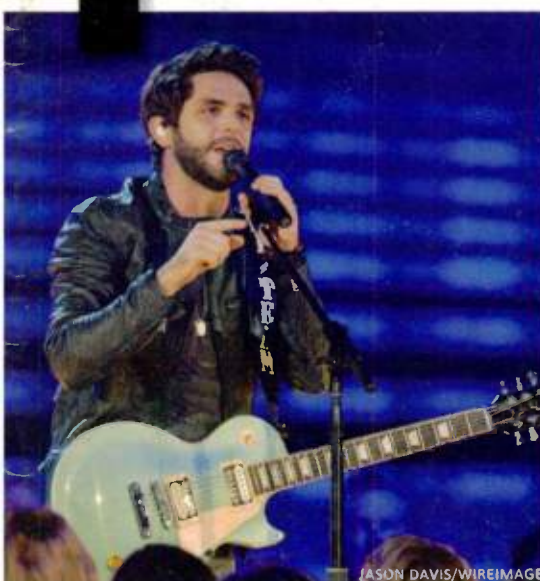
Volume 36 No. 12

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December 2014

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**THAT AND THIS—**  
At the 2014 CMA Awards Extravaganza in November, Best New Artist Nominee Thomas Rhett performed "Get Me Some of That," a Top-5 hit from his latest album, *It Goes Like This*. Rhett used Audio-Technica's Artist Elite 5000 Series UHF Wireless System and AEW-T6100a Cardioid Condenser Handheld Transmitter.

## Immersive Sound BOTTOM-UP MARKET DEMAND

BY STEVE HARVEY

Initially debuting in cinemas in 2012, immersive—or 3D—sound has moved with lightning speed into the living room compared to previous multichannel audio formats. But while the major movie studios and independent film post production facilities have been busily retrofitting rooms to handle the new platform in its various

object- and channel-based formats, will immersive sound playback capabilities in the home drive demand for content creation beyond the movie theater?

The uptake by the consumer market of new technologies originating in the movie theater does appear to be accelerating. Dolby's Dolby Digital (or AC-3) introduced 5.1 sound into cinemas in the summer of 1992, but

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## Nipper Dodges The Wrecking Ball

Nashville's historic RCA Studio A, A.K.A. Ben Folds' Grand Victor Sound, was saved from demolition at the 11th hour by an angel investor.



## Stocking Up

Focusrite Audio Engineering's Phil Dudderidge, shown here upon accepting the 2012 Queen's Award for Enterprise on behalf of his company, has announced that the manufacturer will soon float on the London Stock Exchanges' AIM international market.



## Streaming Builds Up Steam, Heats Debate

BY KELLEIGH WELCH

Taylor Swift took a big stand against the rising music streaming

services recently, when she pulled her entire discography from Spotify just days after the release of her fifth studio album, *1989*. Her reasoning

was that art should be paid for, and that streaming services are scamming the artists from earning a fair wage for their creativity.

However, despite Swift's popularity, it was estimated in some reports that pulling from Spotify would lose her a cool \$6 million, along with a loss of her place in one of the few growing segments of the music industry.

The debatable business models of these online services can arguably be blamed on the record labels and

services equally, and Swift's stand highlights how the services are affecting the industry—both monetarily and technologically.

When it comes to online music streaming services, the verdict is still out, but there's no doubt that their rise in popularity is changing the way consumers listen to music, with some even saying that streaming could pull the music industry out of its downward spiral. Nielsen's Soundscan reported that

(continued on page 52)



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# ENGAGING ARTISTS EVERYWHERE

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

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

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

— Jeremiah Slovarp

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# RCA Studio A Deal To Close New Year's Eve

BY CLIVE YOUNG

NASHVILLE, TN—The much-contested historic RCA Studio A in Nashville, which narrowly avoided being demolished earlier this year, will officially be sold to the non-profit group Americana Music Triangle (AMT) Trust on December 31. The non-profit aims to announce plans for the studio's future on March 29, 2015, which will be the facility's 50th anniversary.

According to reports in *The Tennessean*, preservationist/philanthropist Aubrey Preston is leading the AMT



KERRY KOPP

The very public crusade to save RCA Studio A/Grand Victor Sound in Nashville was spearheaded by Ben Folds, seen here during a press conference in the facility this past summer.

Trust team as it purchases the studio from its current owners, Bravo Development. Preston intends for his group to research Studio A's history and use the resultant findings as the basis for its plans going forward. Over the years, the studio has hosted recording sessions by the likes of BB King, Loretta Lynn, Willie Nelson, Dolly Parton, Tony Bennett, Chet Atkins, Nancy Sinatra, Miranda Lambert, Perry Como, Charley Pride, Keith Urban and many other name artists.

For the last dozen years, indie rock-

er Ben Folds has rented the facility, one of the last remaining old-school studios on the city's famed Music Row. When plans to redevelop the building at 30 Music Square into condos and a restaurant surfaced earlier this

year, Folds initiated a widely supported campaign to save the studio—an effort that gained national attention and sparked a regional debate about what the loss of facilities like Studio A means for Nashville's character and history. The city has undergone a major development boom in recent times—a mixed blessing that has seen Nashville get a considerable economic boost, but at the cost of losing numerous revered—but arguably dying—sites of the region's musical heritage.

Preston plans to use the expected historical findings about RCA Studio A to determine the next course of action for the site. While those plans may include efforts like attaining protective zoning that would keep the building in its current configuration, a main focus will be to find a new owner—AMT Trust seeing itself as a temporary footnote in the building's history—that will respect and preserve the integrity of the building and its musical heritage.

Save Studio A  
savestudioa.com

## briefs

### ATC Labs Teams With Digigram

MONTBONNOT, FRANCE—Digigram (digigram.com) and ATC Labs (atc-labs.com) have partnered to place Digigram VX222e, UAX220v2, and VX222HR sound cards into ATC's Perceptual SoundMax audio processors. The cards will also be built into ATC Labs' ALCO Blue rackmount IP codecs, and be used in conjunction with the ALCO Professional line of integrated IP audio SoftCodec solutions for the professional audio and broadcast industries.

### OBEDIA Marks 10 Years

NASHVILLE, TN—OBEDIA (obedia.com) has marked its 10-year anniversary. In 2004, it began offering live-training, tutorial how-to and technical support services for music creation software products, and has served thousands of customers since. The company plans to announce several initiatives and special offers in the coming months, starting with half-off session bundles up to 120 minutes through December 31, 2014.

### SMPTE Conference Sets Record

LOS ANGELES, CA—The Society of Motion Picture and Television Engineers (smp-te.org) reports that the SMPTE 2014 Annual Technical Conference & Exhibition set a new record for paid attendance. The event attracted roughly 2,000 attendees representing 31 countries: the U.K., Japan, Germany, Belgium, China, South Korea, Hungary and France, as well as the U.S. and Canada. Paid registrations were up 11 percent over 2013.



## Focusrite To Go Public

BY DAVID ROBINSON, EDITOR,  
PSNEUROPE

UNITED KINGDOM—Focusrite Audio Engineering's Phil Dudderidge has confirmed to *PSNEurope* that the audio equipment manufacturing firm he founded in 1989 is preparing to float on AIM, the London Stock Exchange's international market for "smaller growing companies." The news was leaked to *The Sunday Times* and published soon after. Focusrite is being advised on the float by stockbroker Panmure Gordon. Dudderidge, Focusrite executive chairman, said he was not currently in a position to comment further on the matter.

Based in High Wycombe, Bucks, Focusrite Ltd. was formed by studio design legend Rupert Neve in 1985, and acquired by Dudderidge (who

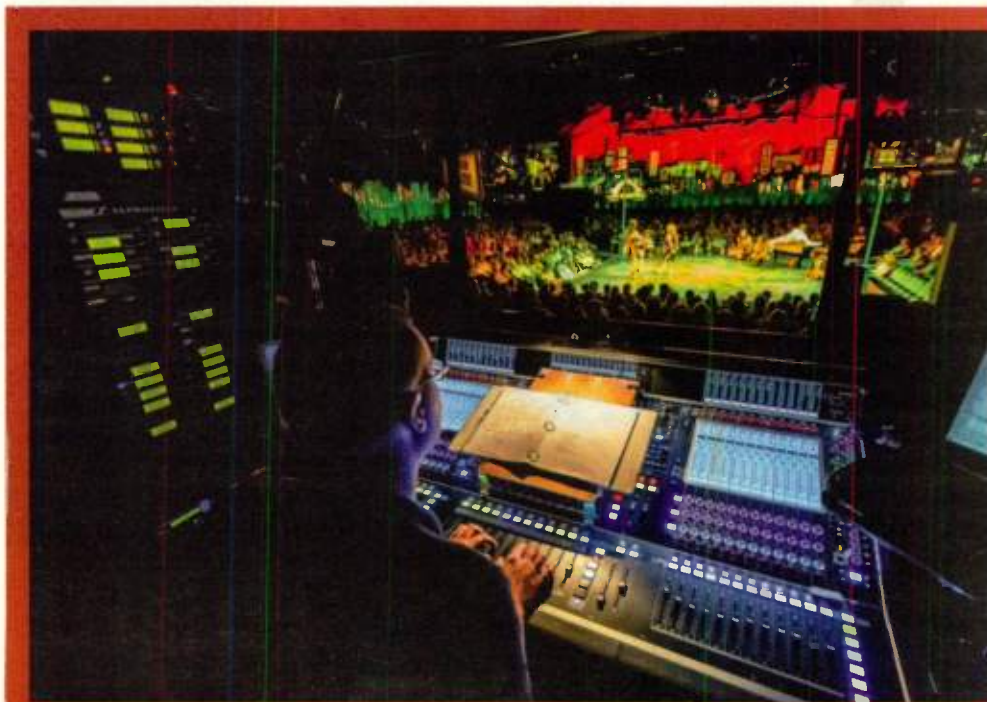
had already created and sold Soundcraft) in 1989, when it became Focusrite Audio Engineering. In 2004, Dudderidge bought the Novation synthesizer company out of administration. Dave Froker, ex-Line 6 and Stanton Group, joined as CEO in early 2012.

Turnover for Focusrite increased from £25.3m to £36.1m in the 12 months from Aug 2012 to Aug 2013,

and pre-tax profits were £5m for the same period.

Focusrite currently employs 114 in the UK, 20 in the US and three in Germany. For the last three years, the company has featured in the *Sunday Times* Top 100 Best Small Size Companies list. "Staff levels increase monthly!" joked Dudderidge.

Focusrite  
focusrite.com



DIGICO BOOKS INTO MARRIOTT THEATRE—The Marriott Theatre in the Chicago suburb of Lincolnshire boasts being the most subscribed musical theatre company in the US. The venue recently made the transition from analog to digital with a new DiGiCo SD7T digital console furnished by TC Furlong Inc. of nearby Lake Forest, IL. TC Furlong says the SD7T satisfied his client's demands for "superior audio quality, flexibility and ultra reliability for all equipment acquisitions." Shown here is sound engineer James Guess mixing a recent production of *On The Town* with the DiGiCo SD7T, flanked by a substantial Sennheiser wireless microphone system.





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## SOUNDRECORDING

**Getting Faithfull With Dimitri Tikovoi 24**  
Dimitri Tikovoi, co-producer/engineer/musician, talks about working in London on Marianne Faithfull's new album, *Give My Love to London*, marking the fiftieth anniversary of her music career.

**Larrabee Takes Over Schnee Studio . . 26**  
What is a facility to do when the recording studio right next door goes up for sale? If that facility is Larrabee Studios, and the business next door is the legendary Schnee Studio, it's a no-brainer—welcome to Larrabee's new sixth room.

## SOUNDPOST/BROADCAST

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**HPA Focuses On Evolving Market And Workflow . . . . . 35**  
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## SOUNDTECHNOLOGY

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Inspired by pervasive complaints about large studio monitor performance, PMC has introduced the QB1-A. PMC's R&D team applied the sum total of its experience to the project, with Capitol Studios in Los Angeles serving a test facility and, based on the results, the first customer for the loudspeakers.

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**Live Sound Showcase: Linkin Park . . 42**  
Touring the world and decimating crowds in the process, Linkin Park is out in support of a new back-to-basics album, but everything from the FOH and monitor mix positions to the on-stage network used by the band itself is cutting edge.

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Jaques Sonyeux talks with Canadian band Elliot BROOD about leaving the familiar behind to record its new album, *Work and Love*.



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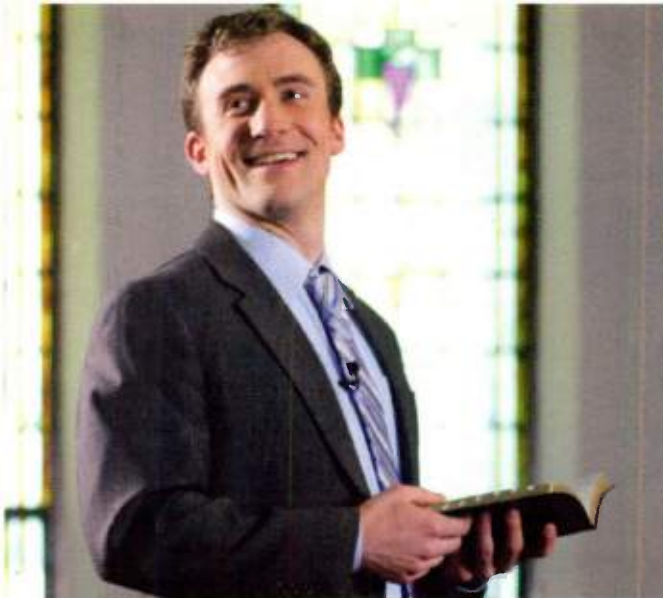
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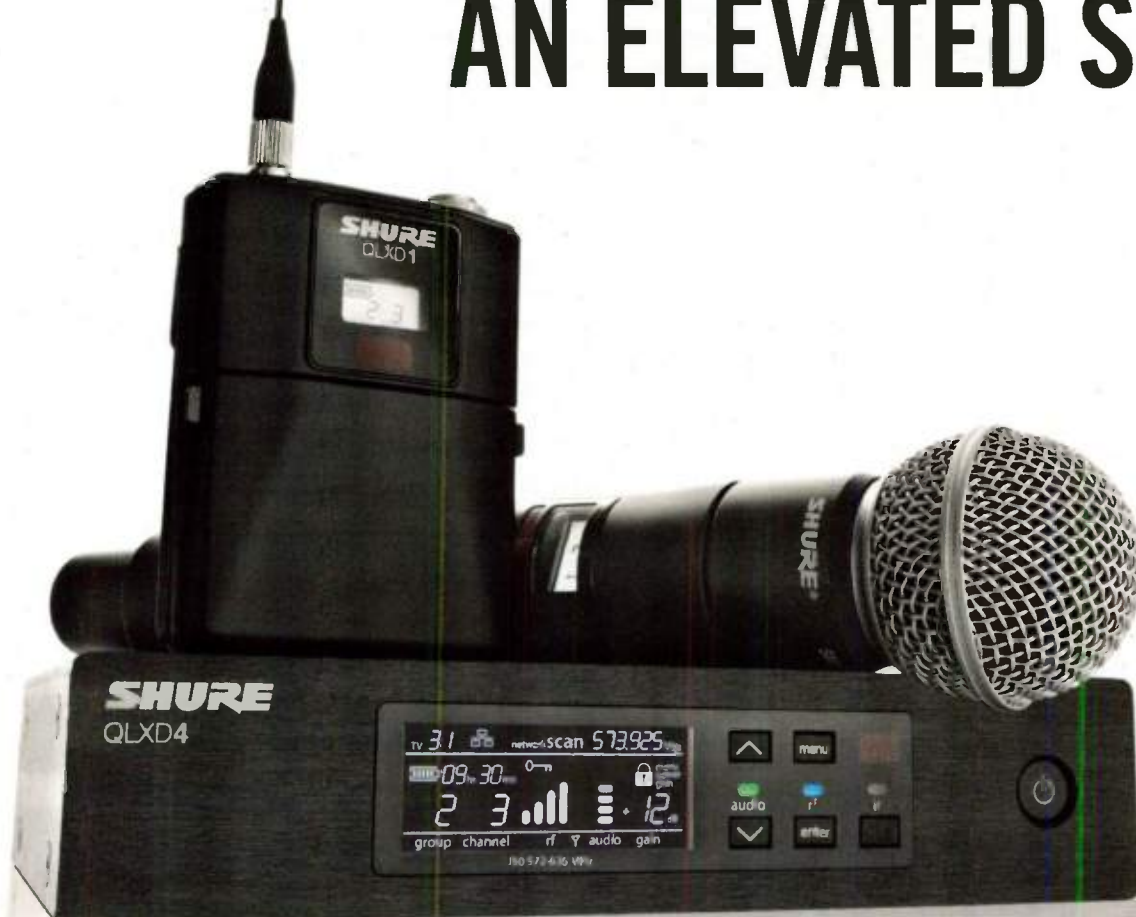
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FRANK WELLS  
fwells@nbmedia.com



editorial

**FRANK WELLS**, editor  
212-378-0400 x535, fwells@nbmedia.com  
**CLIVE YOUNG**, managing editor/web editor  
212-378-0424, cyoung@nbmedia.com  
**KELLEIGH WELCH**, assistant editor  
212-378-0423, kwelch@nbmedia.com  
**STEVE HARVEY**, west coast editor  
818-909-9790, sharvey.prosound@gmail.com  
**CRAIG ANDERTON, STROTHER BULLINS,**  
**JAQUES SONYIEUX, RICH TOZZOLI** contributors

advertising

**CHARLIE WEISS**, group publisher  
212-378-0484, cweiss@nbmedia.com  
**TARA PRESTON**, associate publisher  
917-331-8904, tpreston@nbmedia.com  
**JANIS CROWLEY**, west coast sales  
415-505-1985, jcrowley@nbmedia.com  
**ZAHRA MAJMA**, specialty sales  
212-378-0400 x517, zmajma@nbmedia.com

art & production

**NICOLE COBBAN**, senior art director  
**WALTER MAKARUCHA, JR.**,  
associate art director  
**FRED VEGA**, production manager  
212-378-0445, fvega@nbmedia.com

circulation

**MEG ESTEVEZ**, group director,  
audience development  
**MICHELE FONVILLE**, circulation coordinator

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The end-of-year holiday season is a mixed bag for audio professionals. In the studio, it's not uncommon to have seen holiday decorations as early as summer to set the mood for holiday music and video releases. Those lead times have shortened with efficiencies in production and a changing distribution model, but the pace is still certainly more relaxed than in other parts of our industry. The holidays typically represent a slowdown in music studio

production companies to speak about the impact of the holidays on their bottom line as it is for retailers to focus on Black Friday, Cyber Monday and the weeks that follow as being critical to their annual revenue.

Pro audio manufacturers and gear retailers have jumped into a similar holiday mode as retailers, adopting three-day post-Thanksgiving specials as a part of their sales initiatives. As most pro-audio gear is sold through

form of targeting all gear owners and in press releases that manufacturers wish us to share with our readers to help spread the word.

There's an accounting angle for retailers and manufacturers as well, as they look to reduce inventory to boost annual profit statements. Indeed, a former regional sales rep for one prominent pro-audio manufacturer told me that anything ordered in the last few months of a year was as likely as not to ship after year-end, based on an aggressive inventory reduction policy.

Manufacturers are also busy ramping up for the year to come. R&D departments are pushed to deliver new products ready to show at the Winter NAMM convention and, for products with a direct consumer crossover, even sooner at the early January CES trade fair. The industry media applies additional pressure to that process with requests for details on those new products for timely coverage around those events.

Whatever your individual role is in all the holiday hustle and bustle, here's hoping that you find the time to commune with your pro-audio compatriots, to reach out to those who can use a good dose of holiday cheer, and to spend time with those near and dear to you. The *Pro Sound News* and NewBay Media family wishes each of you the happiest holiday season ever. And, as we move into 2015, we wish you good health, prosperity and music in the air (in superlative fidelity, of course).

It's as common for live production companies to speak about the impact of the holidays on their bottom line as it is for retailers to focus on Black Friday, Cyber Monday and the weeks that follow as being critical to their annual revenue.

production activities, a time to regroup and address maintenance issues and facility upgrades (consultation with accountants often leading to purchases partly conceived for their tax benefit).

This season is not only one of the busiest times of the year around your local mall, but for live sound professionals, it's filled through New Year's Eve with special events. Those range from national holiday-themed tours to regional and local one-offs to live, televised extravaganzas, the latter keeping broadcast production crews busy alongside of the SR pros serving live audiences. It's as common for live

retail channels these days, that should perhaps come as no surprise, though it's not just via retail outlets that special deals can be had; direct marketing for direct sale specials are a significant part of these strategies. The NewBay Media mail server starts fussing at me to reduce my mail account footprint when I approach the cap on my allotment of space. Typically, that happens about once a quarter, but as I received such a notice about a month since I last cleaned house, the volume has obviously increased, and I attribute a good deal of that ramp-up to holiday special offers, both in the

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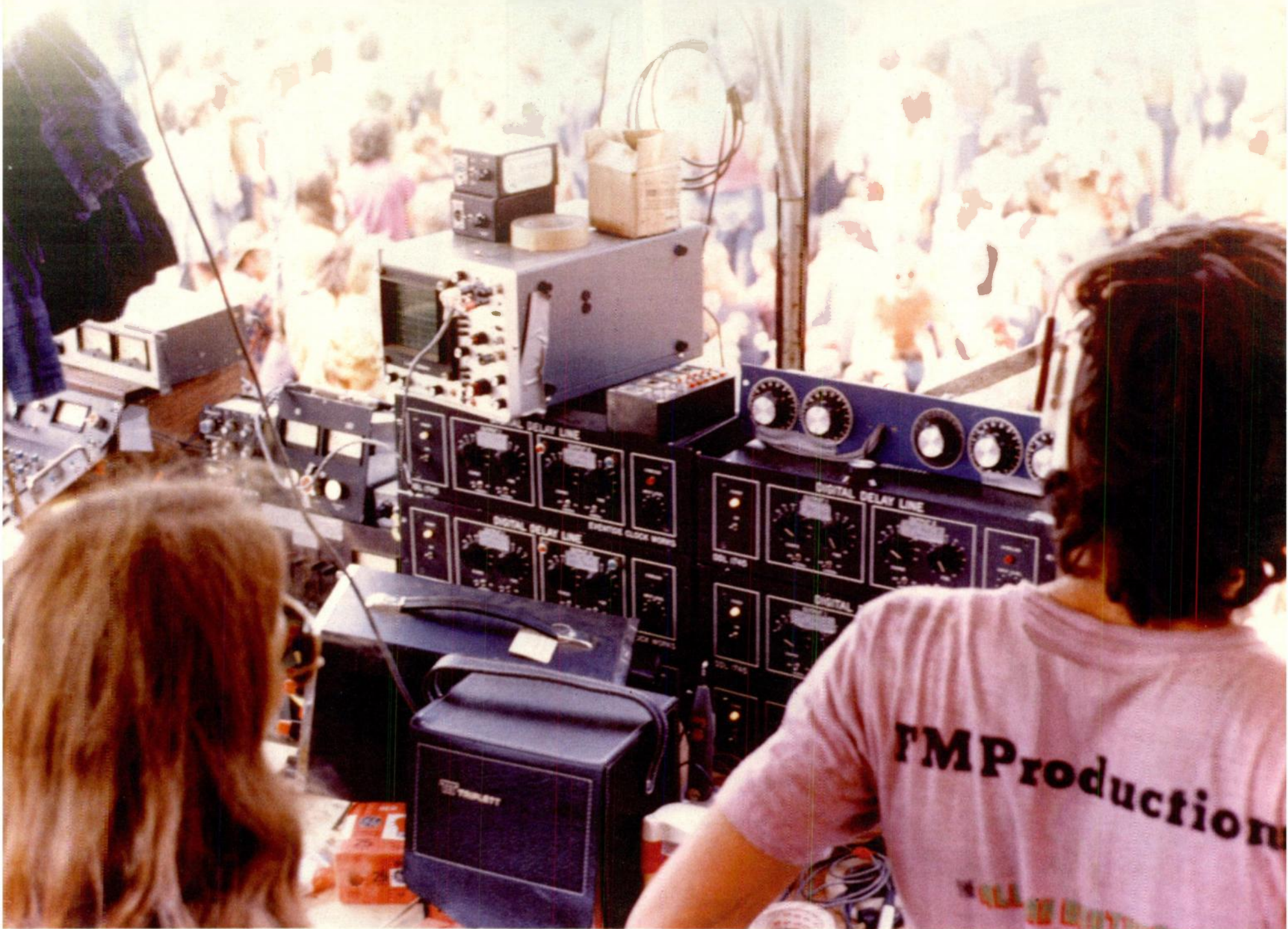
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# Hub Int'l Bows Industry Solutions

CHICAGO, IL—Hub International Limited (Hub), a global insurance brokerage, has launched Hub Entertainment Industry Solutions, focused on providing risk management and insurance solutions for the entertainment industry, in-



cluding film, television, music, theatre, video gaming, business management, venues and high-risk live events. The practice is aimed to help industry coverage solutions for performances, professionals, events and services.

"We are the only broker in North America that brings together deep expertise in each of these eight entertainment specialties, and has the geographic footprint of over 300 office locations around the world," said Andrew Forchelli, president of Hub's Entertainment Industry Solutions. "This combination allows us to meet

the needs of our entertainment clients regardless of what they're doing or where they're doing it."

Hub's entertainment practice is structured around eight distinct specialties: Film & TV Production (studios, animators, DICE and television); Music & Touring (entertainers, festivals, promoters and suppliers); High-Risk Live Events (high-risk public marketing events and campaigns); Business Management (financial management for high net-worth individuals); Theatre (on and off-Broadway productions); Video Gaming (online and console publishers and developers); Venues (performance venues for live audiences); Contingency (event cancellation and non-appearance).

Hub's Entertainment practice has offices and experts in key geographies including Los Angeles, New York, Nashville, Miami and Toronto. The practice will also support the 300-plus Hub offices throughout North America to serve the needs of local productions, venues and on-location opportunities.

Hub International  
hubinternational.com

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## Patrick Stansfield Passes

BURBANK, CA—Patrick Stansfield, the tour and stage manager often credited with creating the modern arena rock concert, died Tuesday, October 28 at Providence St. Joseph Medical Center in Burbank, CA, due to kidney failure. He was 70.

Stansfield got his start in the concert production field working as a stage manager for Bill Graham at FM Productions. Throughout his career, Stansfield worked with numerous artists, including Neil Diamond, Barbra Streisand, The Rolling Stones, Bob Dylan, George Harrison, the Grateful Dead, Santana, Tina Turner, and others. In 1987, he readied Dodger Stadium in Los Angeles for a papal visit and got a repeat call from Yankee Stadium in New York in 2008.

Stansfield leaves behind his wife, Claudia, two daughters, and three grandchildren.

Patrick Stansfield: A Celebration  
patrickstansfield.org



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# Magnolia Acquires Wrecking Crew Documentary

HOLLYWOOD, CA—Magnolia Pictures has acquired worldwide distribution rights to *The Wrecking Crew*, a documentary film directed by Denny Tedesco about the L.A. session musicians behind some of the biggest hit records of the 1960s and early 70s.

The uncredited and anonymous musicians of the Wrecking Crew were behind hits by the Beach Boys, Frank Sinatra, Nancy Sinatra, Sonny and Cher, Jan & Dean, The Monkees, the Righteous Brothers, Elvis Presley and numerous others, and were Phil Spector's Wall of Sound. Many of the musicians went on to become major artists in their own right,



including Glen Campbell, Dr. John and Leon Russell. Those interviewed in the film include Tommy Tedesco (father of filmmaker Denny), drummer Hal Blaine, bassist Carol Kaye and sax player Plas Johnson.

Tedesco began the project in 1996, working against time to capture the reminiscences of his father, who had been diagnosed with terminal cancer. It was completed in February, 2008 and premiered at SXSW the following month. The film played the North American film festival circuit for several years, as well as audio-related conventions such as AES and NAMM, before Tedesco launched a Kickstarter campaign in 2013,

which raised more than \$310,000 to cover the licensing fees for 100-plus songs used in the film and final production costs.

"Music lovers will be astonished at the breadth of influence the Wreck-

ing Crew wielded over rock and pop music from the Sixties," said Eamonn Bowles, president of Magnolia, in a statement. "Their story is key to understanding how some of the most important music of that time was created, and Denny Tedesco has made a fascinating and highly entertaining film that will be stuck in your head for a very long time."

Magnolia Pictures, the company behind recent recording studio-related documentaries like *Muscle Shoals* and *Big Star: Nothing Can Hurt Me*, is reportedly planning a theatrical release for the first quarter of 2015.

**Magnolia Pictures**  
magnolpictures.com

**Danny Tedesco's Wrecking Crew site**  
wreckingcrewfilm.com

## P&E Wing to Honor Nile Rodgers for Grammy Week

SANTA MONICA, CA—The Recording Academy Producers & Engineers Wing will honor Grammy-winner Nile Rodgers for "his commitment to excellence and ongoing support for the art and craft of recorded music," during the organization's eighth annual Grammy Week event, scheduled for Tuesday, February 3, 2015 at The Village Studios in West Los Angeles.

Michael Ostin and Cameron Strang will serve as honorary event co-chairs at the event. Grammy Week culminates with the 57th Annual Grammy Awards on Sunday, February 8, 2015, airing live on the CBS Television Network, at 8 p.m. ET/PT.

"Our Producers & Engineers Wing members are passionate about sound quality, the importance of music creators, and most of all, the integrity of recorded music," said Neil Portnow, president/CEO of The Recording Academy. "This year, it is with great pride that we honor a musical icon who is the epitome of everything the P&E Wing represents. Nile Rodgers is not only a revered member of the music community but also a founding member of the Wing and we look forward to celebrating his astonishing career, which continues to reach new musical heights and inspire generations."

A musician, composer, arranger and guitarist, Rodgers began his career as a session guitarist in New York, first toured as a teenager with the *Sesame Street* band, and played with the house band at Harlem's Apollo Theater. In 1970, Rodgers and bassist Bernard Edwards met and

formed the Big Apple Band. In 1977, the band changed its name to Chic and subsequently generated chart-topping hits such as "Le Freak," "I Want Your Love," "Everybody Dance" and "Good Times."

Following Chic's dissolution in 1983, Rodgers embarked on a solo production career that launched hits for artists such as David Bowie, INXS, Duran Duran, Madonna, Sheena Easton, Jeff Beck, the Thompson Twins, Mick Jagger, Grace Jones, Cyndi Lauper, Howard Jones, the B-52's and Al Jarreau, among others. Rodgers' work with a variety of popular artists soon led to opportunities to share his sound on film soundtracks such as *Alphabet City*, *Grem-lins*, *Against All Odds*, *That's Dancing*, *White Nights*, *The Fly*, *White Hot* and *Earth Girls*

*Are Easy*, in addition to collaborating with Peter Gabriel on Laurie Anderson's concert film *Home Of The Brave*. In 1988, Rodgers composed his first orchestral score for the film *Coming To America*.

In the Nineties, Rodgers produced the Vaughan Brothers' *Family Style*, which was released shortly after the untimely death of guitar virtuoso Stevie Ray Vaughan, along with projects for Bowie, Eric Clapton, the B-52's, David Lee Roth, Ric Ocasek, Dan Reed Network, Cathy Dennis,



Nile Rodgers will be honored by the Recording Academy Producers & Engineers Wing in February, 2015.

Patty Griffin, Jimmie Vaughan and The Stray Cats among others, along with continued soundtrack work on films such as *Thelma and Louise*, *Cool World* and *Beavis And Butt-Head Do America*.

In 1998, Rodgers founded the Sumthing Else Music Works record label and Sumthing Distribution, an independent music label distributor. The label focused on a new genre: video game soundtracks. Its titles include the complete *Halo* and *Resident Evil* franchises, including *Gears of War*

and *Borderlands*. During this time, Rodgers focused on additional soundtrack projects such as *Rush Hour 2*, *Snow Dogs* and *Semi-Pro*. In 2002-2003, he co-produced *Astronaut*, with the original five members of Duran Duran.

Prompted by the September 11 tragedies, Rodgers created the We Are Family Foundation to help promote the healing process and organized a rerecording of "We Are Family," the Grammy Hall of Fame-inducted song he and Edwards wrote for Sister Sledge.

Rodgers' career has seen a resurgence in the electronic dance community through his work with such acts as Avicii, Disclosure and Tensnake. His collaboration with Daft Punk on its album, *Random Access Memories*, garnered him three Grammy Awards for 2013, includ-

ing Album Of The Year and Song Of The Year. Rodgers continues to tour worldwide and remains an in-demand producer.

As the Producers & Engineers Wing 2015 honoree, Rodgers joins past honorees like Chris Blackwell; T Bone Burnett; Tom Dowd; Ahmet and Nesuhi Ertegun; Jimmy Iovine; Quincy Jones; Arif Mardin; Al Schmitt; Jerry Wexler; and Neil Young.

**The Recording Academy**  
grammy.com



# First Annual Innovative Product Awards



NEW YORK, NY—NewBay Media Pro Audio Group's Innovative Product Award winners are comprised of manufacturer-submitted pro audio products, voted on by the readerships of *Mix*, *Pro Audio Review* and *Pro Sound News*.

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- SSL XL-Desk
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- Neve Genesys Black Console

## INTERFACE WITH PROCESSING

- Aphex USB 500 Rack
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- Softube Console 1 DAW Interface

## INTERFACES

- Antelope Audio Zen Studio USB
- Apogee Ensemble 30x34 Thunderbolt Audio Interface

- MOTU 1248 Thunderbolt Audio Interface

## SOFTWARE/PROCESSING SYSTEM

- iZotope RX4 and RX4 Advanced Audio Enhancement and Repair Toolkit
- Universal Audio UAD-2 Satellite Thunderbolt DSP Accelerator

## LOUDSPEAKERS/SYSTEM CONTROL/STANDS

- PMC QB1-A Reference Monitors
- Elite Acoustics Sunburst Gear M3BR8 Monitor
- IsoAcoustics Arista Modular Aluminum Isolation Stands

## MICROPHONES/WIRELESS/ACCESSORIES

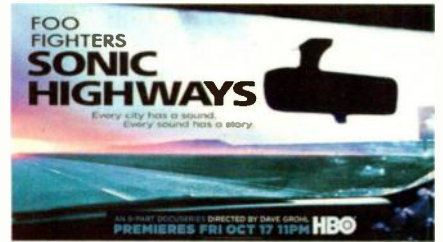
- AEA N22 Ribbon Microphone
- Audio-Technica AT5045 Condenser Microphone
- DPA d:screet Necklace Microphone
- Radial J48 Stereo Direct Box
- Shure GLXD16 Guitar Wireless System

# Foos Ride *Sonic Highways*

NEW YORK, NY—Foo Fighters' *Sonic Highways* HBO documentary series isn't a runaway hit, but it's found a core audience; after an October debut with 584,000 viewers, it has since settled into landing audiences averaging 350,000.

Directed by Foo Fighters frontman Dave Grohl, the eight-part series sees the band travel to music studios in Chicago, Austin, Nashville, Los Angeles, Seattle, New Orleans, Washington, D.C. and New York to write and record its latest album, *Sonic Highways*. Each episode features interviews with artists, producers and studio owners, ranging from Dolly Parton and Willie Nelson to Steve Albini and Daniel Lanois.

The editing and sound teams established a collaborative post production environment with the Avid Artist Suite's Avid Media Composer software and Avid Pro Tools software. According to sound mixer Jeff Fuller, "We went from having a week-and-a-half to turn around the first episodes to just three or four days by the end, but Pro Tools



was amazingly robust," he said. "We had absolutely no glitches with it throughout the entire production. The workflow didn't change much, but we changed the mix stylistically for each episode to keep it fresh."

Six video editors each took the lead on one or two episodes, also collaborating closely with Grohl, and writer Mark Monroe. With an average of 400 hours of footage per episode, Media Composer's media management and project sharing capabilities were used to handle the sheer volume of footage. "Using Avid Artist Suite solutions for both the audio and video delivered reliability and stellar results," said Brian Lazarte, who cut the Seattle episode.

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# AES, SMPTE Team For Conference

LOS ANGELES, CA—The Audio Engineering Society will host its 57th International Conference on Friday, March 6 to Sunday, March 8, 2015 at the TCL Chinese 6 Theatres in Hollywood, CA.

Following the success of the Sound for Picture program track at the 137th AES International Convention in Los Angeles, the 57th AES Conference will team up with industry partner SMPTE (the Society of Motion and Television Engineers) to focus the conference on the latest issues facing audio professionals today in regards to cinema, television, online content and more. The three-day event is co-chaired by Brian McCarty and Dr. Sean Olive.

This first-ever Future of Audio Entertainment Technology Conference brings together the best researchers, acousticians and engineers to address the current and future audio needs of the cinema, television and Internet (online) mediums. Topics slated to be covered at the AES 57th International Conference include acoustical design and performance of the modern motion picture

theater; testing and alignment practices for cinemas; dialog intelligibility; playback of film as well as live event broadcasts in a cinema; immersive sound and psychoacoustics; reproduction of immersive sound in home theater applications; reproduction

Bringing together traditional production communities and new media distribution channels.

of multi-channel audio using lesser numbers of speaker locations; speech intelligibility and microphone design; production sound immersive audio recording; loudness control and OSHA/European Standards; lossless coding of immersive sound for low bandwidth channels; immersive sound using headphone technologies; and loudspeaker performance from all-in-one television receivers and

sound bars.

Also of note at the AES 57th Conference is the SMPTE report entitled *B-Chain Frequency and Temporal Response Analysis of Theatres and Dubbing Stages* in regards

to current standards and practices regarding B-chain electroacoustic response and calibration. The paper was produced with extensive participation from AES members and will serve as a foundation for further necessary advancements in audio technology in the Sound for Picture arena.

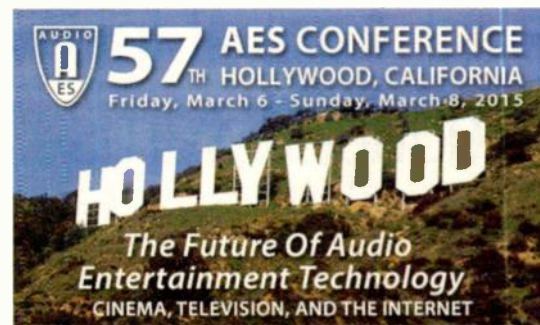
"AES expertise has been responsible for major improvements in live sound, streamlining of game audio production, and advancements in music production. The AES has called this conference to bring together the traditional production communities of cinema and television with the 'new media' audio distribution channels to address current and future audio needs," commented McCarty.

"SMPTE has been involved heav-

ily in examining and exploring ways in which standards work can help to enhance the production, delivery and presentation of audio for moving images," said Barbara Lange, SMPTE executive director. "We partnered with the AES at the AES137 International Convention to deliver compelling sessions addressing the future of audio engineering in both the cinema and television sectors. The Conference gives us another chance to work closely with the AES to offer industry members a fresh look at critical issues and advances in the realm of audio and visual entertainment technology."

Audio Engineering Society  
aes.org

Society of Motion and Television Engineers  
smpte.org



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# WSDG Renovates Epworth Studio

LONDON, UK—While originally built as a massive stone church in 1855, London's The Church Studios has become a hit-making factory since its conversion to a recording facility in 1984. Originally owned by producer/Eurythmic Dave Stewart and then later artist David Gray, the building was purchased in 2013 by producer Paul Epworth (Adele, Coldplay, U2, Lorde, Paul McCartney), who immediately embarked on a considerable renovation of the site. Now stage one of the effort has been completed, reconfiguring the Studio 2 live and control rooms and creating a new Writing Room as well.

When Epworth bought the facility last year, he'd recently worked at Anne Mincieli's Jungle City in New York; taken by that studio, he reached out to its architect/acoustician John Storyk and WSDG. "I was very impressed with the feel and the monitoring of Jungle City," said Epworth, "and wanted to be the first to build a WSDG/Augspurger room in Lon-

don to meet the needs of both British and international artists, producers and engineers. Bringing WSDG in to design two of their world-renowned rooms was the first step and the collaboration with Miloco [supervising construction and operations] has been an incredibly successful team effort."

Today, the new, 961-square-foot Studio 2 features a completely re-capped SSL 4000G console, custom WSDG/Augspurger monitors and a sizable amount of outboard gear. The 'Space Age' 267-square-foot Writing Room, designed from the ground up by WSDG, sports an Equinox summing mixer, a 20-channel Neve sidecar and complete access to The Church's vintage gear collection. Following the design and construction stage, WSDG partners Dirk Noy and Renato Cipriano flew to London from Basil, Switzerland and Belo Horizonte, Brazil respectively, to perform final measurements, confirm acoustic accuracy and fine tune the new rooms.

"After building hundreds of idio-

syncratic studios around the globe over the past 45 years, The Church marks our first footprint in London," Storyk remarked. "We customized an extremely effective system for him. Paul also worked closely with my business (and life) partner Beth Walters on an LED mood lighting system with a vastly programmable color palate. Installed in the totally white Studio 2 Control Room and Studio 3 Writing Room, the system provides infinite mood enhancing color options; it's a huge aesthetic boon to creativity."

The result is a studio facility that both meets Epworth's needs and the expectations of his clientele, as the producer noted: "The Church provides nearly 8,000-square-feet of recording space over three very different rooms, including rare and vintage recording gear married to the most modern digital and analog equipment



Enjoying the Church Studio 2 live room are (l-r): Dirk Noy, WSDG partner; Paul Epworth, producer/studio owner; John Storyk, co-principal, WSDG; Pete Hofmann, technical director, Miloco Builds; Beth Walters, co-principal, WSDG.

to give users the freedom to indulge their creative impulses instantly." Still in the planning stages for future renovation, Church Studio 1 is an 800-square-foot tracking room with a triple-height ceiling and a vintage 72-channel EMI Neve console, credited with recording such albums as Pink Floyd's *Wish You Were Here*. Walters-Storyk Design Group  
wsdg.com

The Church Studios  
thechurchstudios.com

## MPG Lobbies for Production Credits

LONDON, UK—The UK's Music Producers Guild has enlisted the help of producers such as Trevor Horn, Tony Visconti, Nigel Godrich and Spike Stent to make the case for the inclusion of production credit information with streaming or downloaded music.

In a video filmed earlier this year at the MPG Awards in London, recording professionals spell out the importance of accurate credit information. The video forms part of the MPG's *Credit Where Credit Is Due* initiative, which promotes the inclusion

and accuracy of credit information.

"We feel it is time that all those involved in the production of recorded music got the credit they deserve," says MPG director and producer Tommy D, who is spearheading the initiative. "These credits were previ-

ously included and easily accessible within the sleeve notes and artwork of CDs and vinyl albums. They were an essential and standard practice, within the music business. And don't underestimate how essential they are—not just because they acknowledge the hard work and effort that had gone into making a recording, but also because they accurately define and thus allow the industry to compensate those professionals, for years to come."

Tommy D adds, "The MPG is encouraging all consumers and recording artists to make their voices heard so that the music and technology industries, responsible for the distribution of recorded music are left in no doubt that we want credit information, and that it needs to be attached and accessible at the source of the listening experience."

The MPG supports the initiative of mastering engineer and MPG member, Barry Grint, who has worked to persuade record labels to implement industry standard ISRC codes into digital files to guarantee the identity of the recording and allow the attachment of accurate credits.

The Music Producers Guild (UK)  
www.mpg.org.uk



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—Frank Filipetti, Grammy Award-Winning Producer

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—Vance Powell,  
Grammy Award-Winning Chief Engineer,  
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[prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014)







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## From The Pro Sound News Blog:

### Studio Sense: The Future Is Now

PAR contributor Rob Tavaglione recently blogged about where he's coming from when he reviews gear and how mediums are helping broaden his message:

Neither riding the top of the charts nor clamoring to get my foot in the door: I'm a journeyman. Pro audio has been my everything for all but four years of my adult life, almost 25 years now. Some days I'm "just the engineer," and those are the good days. Many days I'm wearing the fedoras of the engineer, producer, bassist, de-facto arranger, receptionist, runner and psychologist. Such juggling is what we audio engineers do, whether running monitors or FOH (or both); tracking, overdubbing, editing, mixing or mastering; calibrating tape machines, de-fragging drives, or soldering output jacks; scoring film, dubbing ADR, or cutting a 30-second donut. I am an audio engineer—the first on-location and the last to leave, perhaps the smartest person in the room and the least understood.

Sound familiar? Chances are, you are me. Or maybe you were me, back before you clawed your way to the top. Or maybe you will be me, as you wrestle incredible sounds out of that laptop that I can only dream of. You know the struggle: the competition from above is getting serious as the big rooms aren't eager to close, even as many are; the competition from below is hungry and eager to steal away a piece of precious pie; and the competition from either side is relentless with dropping rates, skyrocketing quality and a hunger to survive to in the post-recession/post-information/DIY-age.

For the full post, visit [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014).



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Pro Sound News brings you professional audio news every weekday on [prosoundnetwork.com](http://prosoundnetwork.com)—you can find links on our Twitter feed (@[prosoundnews](https://twitter.com/prosoundnews)) and Facebook page ([facebook.com/ProSoundNews](https://facebook.com/ProSoundNews))—but we also share links to interesting mainstream audio news. Here's just a few of the stories we found recently. Get their links at [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014).

- ▶ "People think they have a studio because they put equipment in a room, but that's not the case"—from Rhythm House profile.
- ▶ Lansdowne House Studio in London is now this \$12m duplex apt
- ▶ Austin's Arlyn Studios is producing a new TV series where @wil-lienelson will interview artists recording there.
- ▶ Sound engineer Bernie Krause analyzes the sounds of the Sierra Nevada Mountains before and after selective logging.



## BLOGGINGS

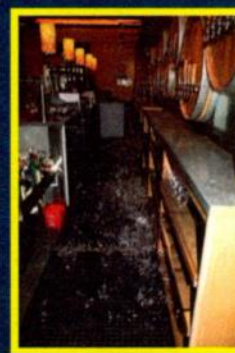
### LFO BRINGS SUSPENSE TO AUDIO

Kelleigh Welch reviews Scandinavian director Antonio Tubten's 2013 film, LFO, sharing, "I wasn't sure what to expect—the film's synopsis gives you a brief idea of where the story is headed, with a introverted scientist experimenting with sound waves until he makes an astonishing discovery, only to have his experiment unravel out of his control. But even with that description, I was expecting more of an evil-experiment-gone-wrong scenario versus the psychological themes of morality and megalomania centered around this lonely main character."



### CITYWINERY BOUNCES BACK AFTER EARTHQUAKE

When a 6.4 earthquake hit Napa Valley this summer, the region's wine industry was left shaken, but not destroyed. Among the business affected was Napa's City Winery, an upscale restaurant and opera house in the heart of wine country, which had only recently installed a new Meyer Sound System to its historic, 350-seat, cabaret-style venue.



See these blog posts and more at [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014)



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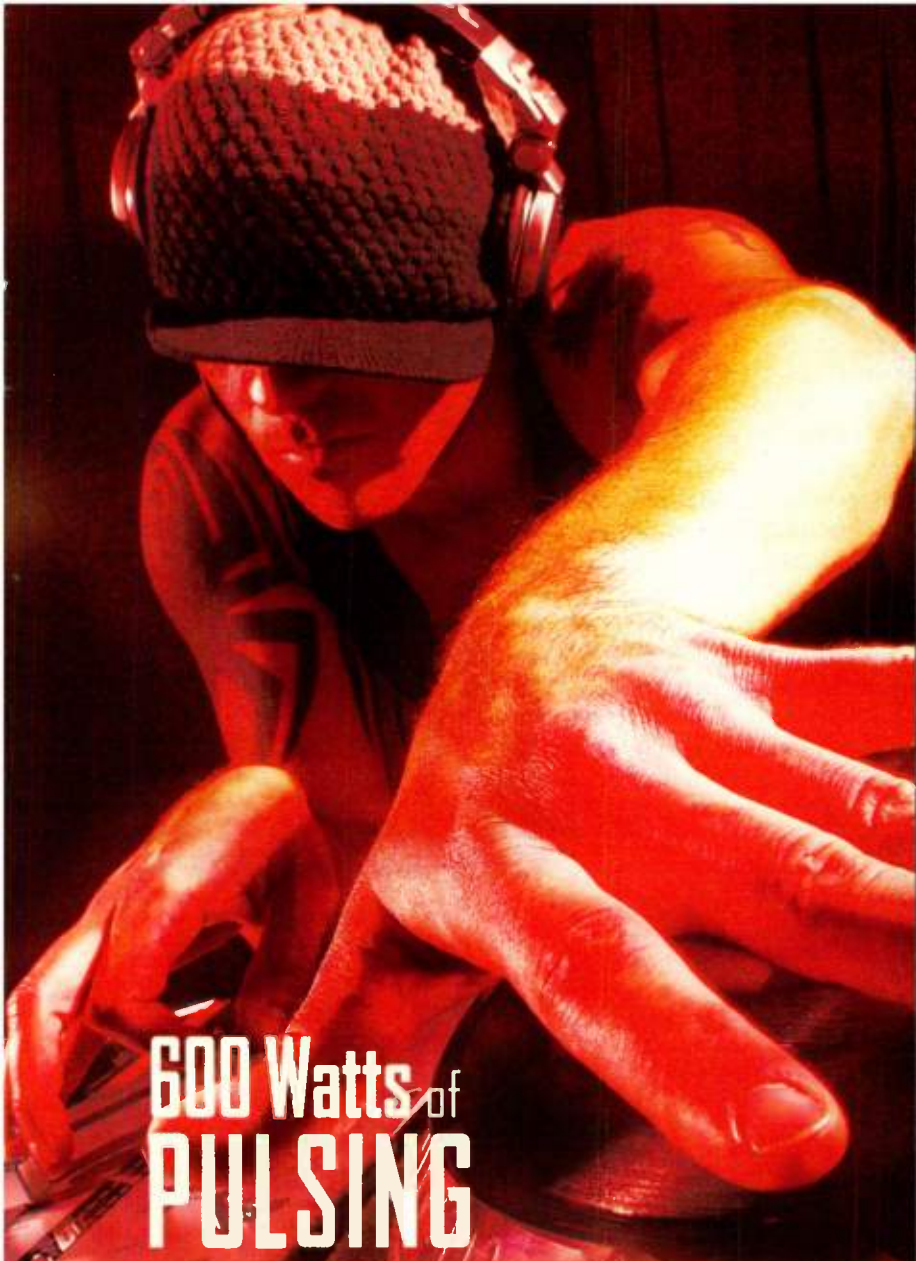
### Mastering Iron Maiden



The legendary Iron Maiden re-released all eight of

its albums from the 1980s on 180-gram black vinyl this fall, along with 19 seven-inch singles released during that era. In this Parlophone Records clip, Abbey Road mastering engineers Sean Magee and Christian Wright discuss their work on the project, covering how a song's loudness is related to groove depth in the vinyl; the need for different RPM speeds; sourcing; taking audio from original analog tapes via a Studer A80 tape machine; cutting on a Neumann VMS80 lathe; and, of course, which album cover "Eddie" is each one's favorite. Catch the clip at [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014).





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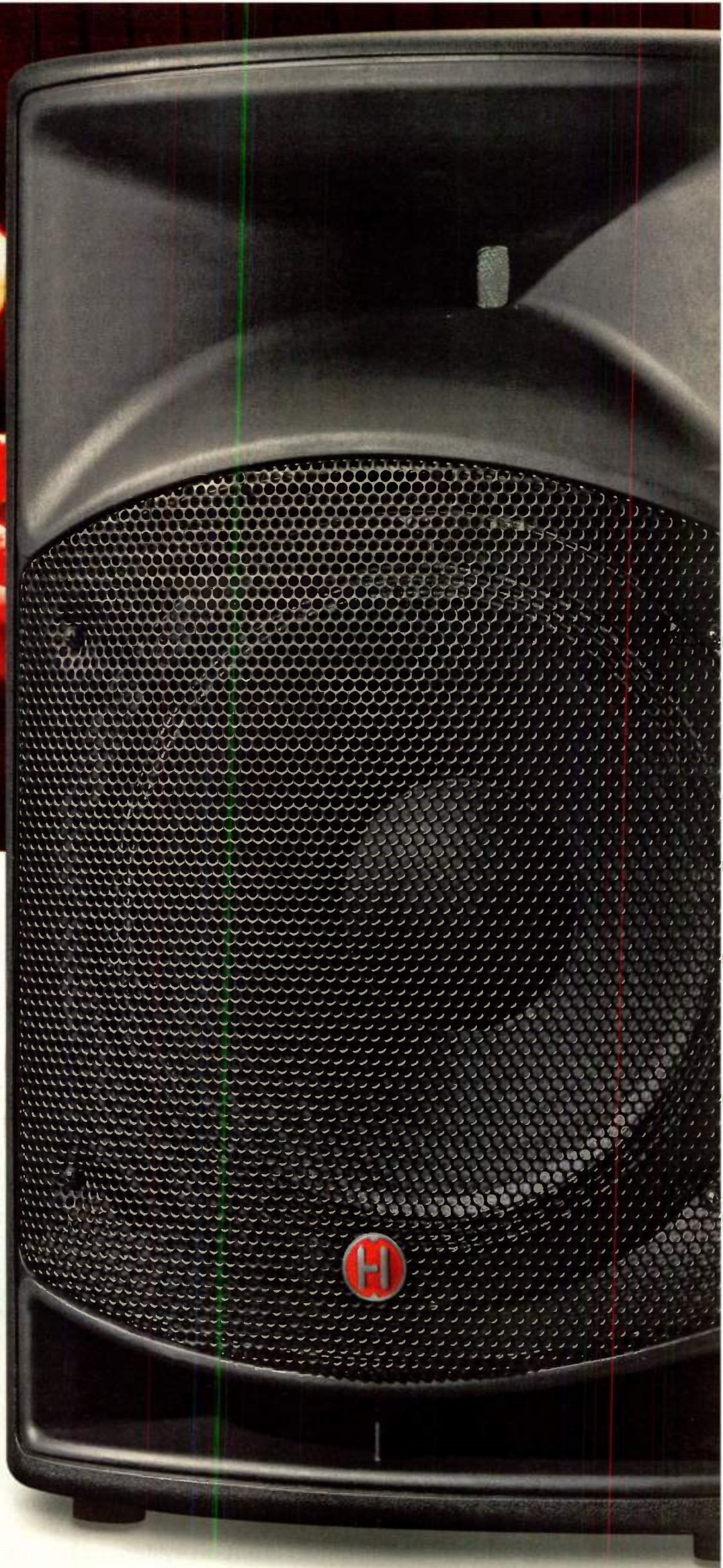
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# Shure Helps Capture CMA Awards

NASHVILLE, TN—The recent broadcast of the 48th Annual CMA Awards from Nashville's Bridgestone Arena served up some of this year's best and brightest in the country music world. While a mix of wireless microphone brands was available to performers, Shure PSM 1000 personal monitors were the exclusive

choice for all performances as stage in-ear monitors.

Shure users took home numerous awards this year, including Entertainer of the Year for Luke Bryan, Song of the Year for Kacey Musgraves, Vocal Group of the Year for Little Big Town, and Vocal Duo of the Year for Florida Georgia Line. All performed live dur-

ing the show.

Led by audio producers Tom Davis and Paul Sandweiss, the production team for this year's CMA Awards included systems provider ATK Audioteck, which brought in the PA system, wireless mics and in-ear systems, and backline gear, with wireless frequency coordination and system de-



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Kacey Musgraves and Loretta Lynn perform during the 48th annual CMA Awards at the Bridgestone Arena.

sign handled by James Stoffo. The broadcast music mix in 5.1 surround was again provided by M3 (Music Mix Mobile), with Jay Vicari and John Harris at the controls. Inside the arena, the music was mixed by Rick Shimer, while Pat Baltzell handled the production mix.

Monitors for all music performances were mixed by the team of Jason Spence of Nashville's J Sound Services and independent engineer Tom Pesa. "We had 100 percent Shure PSM 1000 in-ears again this year," says Spence. "Tom and I had 20 channels available, and we used upwards of 60 wireless belt packs during the show. We also had four hardwired in-ear systems, mainly for drummers. Those were powered by the Shure P6HW bodypack."

Spence noted, "The PSM 1000 provides the RF performance required on hostile events such as award shows. And it doesn't hurt that they have the cleanest sound and the widest stereo image of any IEM system. I received numerous compliments on the ear mixes again this year, and I attribute a lot of that to the sound quality and performance of the Shure PSM 1000."

House sound mixer Rick Shimer remarked, "Whether they are using a classic SM58 head or the KSM9 condenser, I know I'm going to get that signature Shure sound. And RF-wise, they are solid as a rock," he says. "It's amazing how far we've come with wireless systems. They are so reliable, we don't think twice about using them everywhere, even backing vocals, which is a huge help in terms of production and staging. We moved 21 music performances on and off of two stages during a three-hour show, and there was never a glitch."

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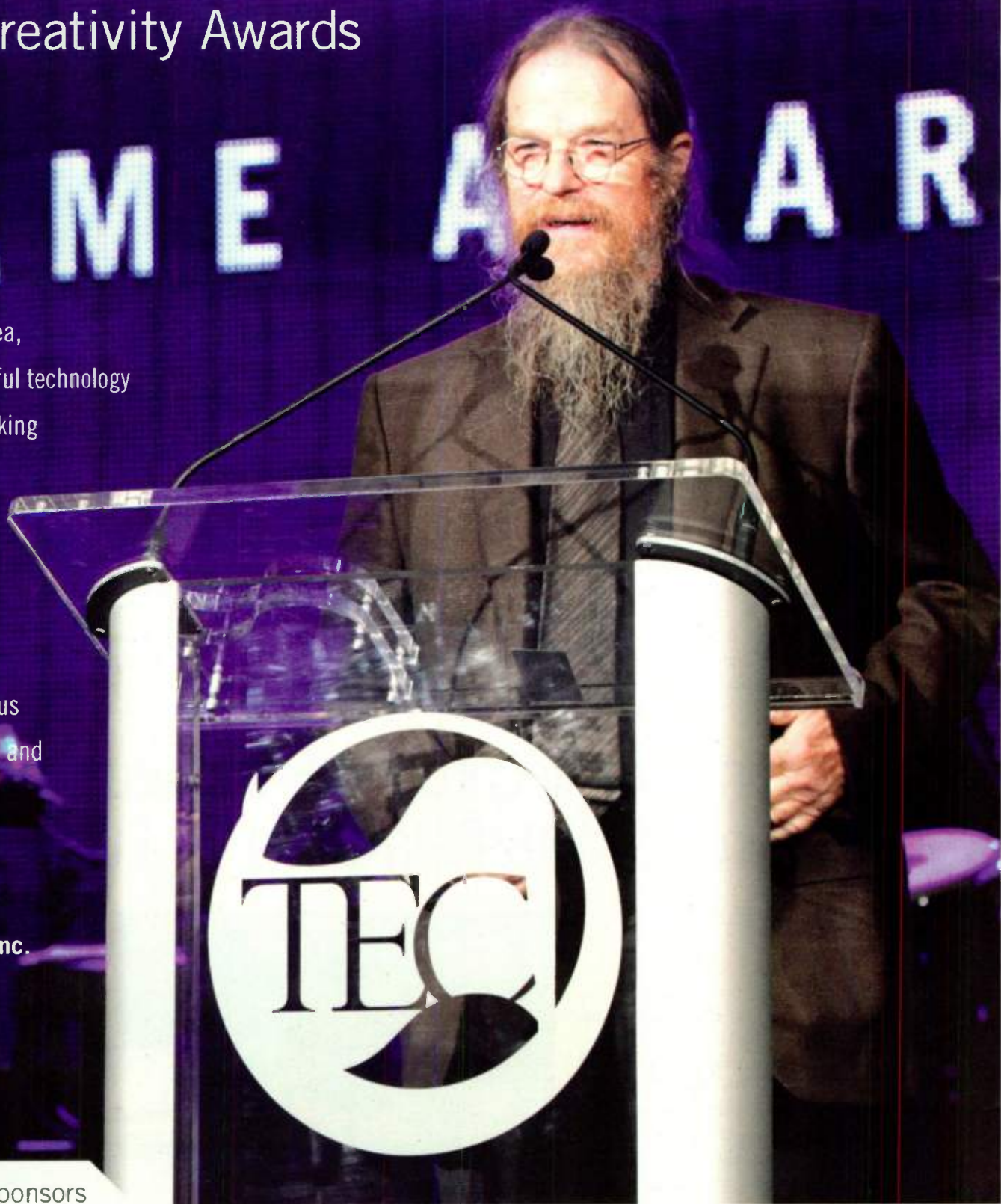


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# Getting Faithfull With Dimitri Tikovoi

BY STEVE HARVEY

LONDON, UK—Marianne Faithfull has just released a new album, *Give My Love to London*, marking the fiftieth anniversary of a music career that began with a hit single—"As Tears Go By," one of the first songs written by Mick Jagger and Keith Richards—at the age of 16. Recorded in London, this latest album features collaboration with Nick Cave, Roger Waters, Steve Earle, Ed Harcourt, Anna Calvi, Tom McRae, Patrick Leonard and others, was mixed by Flood, and was co-produced by Rob Ellis and Dimitri Tikovoi.

"Instead of doing all of the arrangements and getting Marianne to sing at the end, I thought it would be better to start with basic piano and vocal and then do all the arrangements around her voice," says Tikovoi. The award-winning, multi-million-selling, Parisian-born producer, multi-instrumentalist, songwriter and DJ has previously worked with Pla-

cebo, The Horrors, John Cale, Goldfrapp and numerous others.

Tracking for the project, Faithfull's twentieth album, began at the private Miloco Hoxa Studio on Kilburn Lane. "We were trying to find a studio that wasn't too much of a commercial studio, something that had a bit more of a vibe," explains Tikovoi. "The control room and the live room are in the same space; there's no separation. I wanted her to feel like she was in a lounge more than in a studio."

The entire process was very organic, he reports. "We started with two or three weeks in the studio, and did a song a day. We would build the track a little bit before she came to the studio, so she'd have something to sing over. Then, after she'd left, we'd put all the arrangement and all the ideas on top of the track. After that we took a little break, then went back and did some more arrangements, strings, guests and stuff like that."

Tikovoi and Ellis divided the pro-



Dimitri Tikovoi, co-producer/engineer/musician, worked with Marianne Faithfull on her new album, *Give My Love to London*.

duction tasks between themselves: "We started working on the pre-production separately, and then we met in the studio and worked on the arrangements together. I get more involved in the engineering/arrangement side and Rob gets more involved with the vocal, looking after Marianne's lyrics and singing. But at the same time, Rob ended up writing the string arrangements, and it kind of melted together. It was really, really nice working together."

The pair also played on the al-

bum. "Rob played drums on quite a few tracks. I ended up playing the bass on all of the tracks," says Tikovoi, who also contributed percussion and other instruments, and co-wrote a track, "True Lies," with Faithfull. The musicians also included Portishead's Adrian Utley on guitar, Nick Cave collaborator Warren Ellis on violin and Harcourt on keyboards. "For all the basic takes, drums, piano, bass and guitar were done together," he adds. "Then we did some guitar,

(continued on page 34)

## Destination Recording: Panoramic House Combines Recording With Relaxation To Fuel Creativity

BY KELLEIGH WELCH

WEST MARIN, CA—As the affordability of quality recording gear has sparked the rise in home studios, it has also challenged professional studio designers with the task of creating facilities that are appealing to artists both technically and creatively. Musicians and producers aren't concerned so much about having access to the necessary gear and recording space anymore, but instead having access to a studio in a destination where they can relax and create their best work.

Adhering to the appeal of every realtor's favorite slogan, "location, location, location," veteran studio owners John Baccigaluppi and Bobby Lurie wanted to create a recording space within a vacation property, where artists could record while relaxing with family or friends. Working off of this idea, Baccigaluppi and Lurie's result was the Panoramic House, a vacation house with studio gear as an amenity located on the western Marin coast, just north of San Francisco, a destination known for scenic cliff views overlooking the Pacific



John Baccigaluppi recently expanded his API 1608 console to 32 channels and then moved it from his previous facility to the new vacation studio, Panoramic House, in West Marin, CA.

Ocean.

"I think what musicians and producers are looking for these days is a different experience," said Baccigaluppi, who also owns The Dock, a recording studio in Sacramento, CA. "I got into this somewhat by accident—I had a lot of clients asking me to build a short-term studio

in a vacation rental spot, and for a while, I would just help them find a rental space with good acoustics and I'd bring a bunch of gear to them."

When that recording scenario became increasingly popular, Baccigaluppi realized there was a market for this working vacation space, and started searching for a location

to build a more permanent facility. His initial idea was to use the house mainly as a vacation rental, with a small studio with the basic gear, so musicians and producers could record if they wanted. However, upon seeing the house that would later turn into the Panoramic House, Baccigaluppi knew it had far more potential.

"We were looking for something with a closet that could hold a small Pro Tools rig or something, and then we found this place. It was like a light bulb went off and I thought, 'This may not be the best vacation rental for a family with four kids, but it would be perfect as a retreat for an artist,'" he explained.

It was the acoustics that attracted Baccigaluppi to the property. Built in the 1960s, the house was made completely out of recycled architectural materials from the Bay Area—including stone from the local quarries and large beams salvaged from San Francisco's docks.

"The first time I walked into the house, I thought, 'Wow, this sounds amazing!' The acoustics are just great. There are almost no 90-de-

(continued on page 34)



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# Larrabee Takes Over Schnee Studio

BY STEVE HARVEY

**LOCATION**—What is a facility to do when the recording studio right next door goes up for sale? If that facility is Larrabee Studios, and the business next door is the legendary Schnee Studio, it's a no-brainer—welcome to Larrabee's new sixth room.

Built in 1981, Schnee Studio soon gained a reputation as one of the best-sounding recording facilities anywhere. Built by Bill Schnee—nominated 11 times for engineering Grammy Awards, winning twice with Steely Dan (for *Aja* and *Gaucho*), and with dozens and dozens of gold and platinum records to his credit—in collaboration with his mentor, Toby Foster, plus Steve Haselton and others, Schnee Sound featured a custom console, custom tube mic amps and an enviable collection of classic tube microphones.

But the real magic lay in the tracking room: a very large space with a special acoustic signature that was perfect for capturing the natural sound of acoustic instruments, in particular. That magic has been carefully retained in the renovation, along with the two spacious iso booths.

"It's breathtaking, just a stunning space. And it was a perfect fit; we're next door. How could we pass it up?" says Amy Burr, Larrabee's studio manager. "So many incredible albums were done here."

Indeed, it's almost easier to list the artists that have not recorded or mixed at Schnee Sound. Suffice it to say, Barbra Streisand, Bette Midler, Diana Ross, Miles Davis, Cher, Toto, Supertramp, Rod Stewart, Diana Krall and Natalie Cole all worked at the studio.



Larrabee studio manager, Amy Burr (left), with Aaron Becker, Larrabee's longtime chief engineer at the SSL Duality SE now anchoring the control room of the studio's latest addition—the former Bill Schnee Studio next door to the multi-room main facility.

"[Bill] had all these beautiful signatures from clients on the walls. We didn't want to destroy them, so they're still here," under the new wall treatment in the control room, says Burr. "You can still feel the good vibes."

Larrabee's history and reputation is not too shabby, either. Opened more than four decades ago, originally on Larrabee Street in West Hollywood, the present location was launched in 1991 in what was previously Giorgio Moroder's studio. For a time known as Larrabee North (there was also an East and a West), Larrabee Studios currently houses four control rooms with two tracking rooms, plus a production suite. Notable clients have included Michael Jackson, Madonna, Prince, Mary J. Blige, Alicia Keys, Fleetwood Mac, Dr. Dre and numerous others. Eight-time Grammy-winning mixer Manny Marroquin has been in residence in Studio 2 for many years, and former Larrabee intern

turned mixer Jaycen Joshua, who has three Grammy Awards to his credit, works out of Studio 1.

All four control rooms house SSL consoles—XL 9080 K series consoles in Studios 1, 2 and 3, plus a 56-input G/G+ in the newer Studio A—so it's not surprising that the newly acquired facility is also equipped with an SSL desk: a new Duality SE. "It contains the K electronics, so it has that K sound," says Aaron Becker, Larrabee's longtime chief engineer.

But the Duality offers some improvements over the older K series, he continues. "The routing is much easier; the automation has been streamlined; the electronics, the functionality and the DAW integration—that's really why we got the board in here."

Plus, adds Burr, "We wanted to have the best of all worlds. In terms of bookability, it's a multi-purpose tracking facility; you can do everything from pop to rock to strings to whatever."

The control room's front wall was totally reworked during the refit. "We had a lot of discussions with regards to the front wall and the speaker placement," Becker reports. "I really love the front wall; it's beautiful. It really came out nice."

The previously installed soffit-mounted main monitors, like much of Schnee's gear, were entirely cus-

tom. "The crossovers looked like something from the phone company—very industrial," Becker recalls. "So these are custom Augspurger cabinets; they're based off the George Augspurger design, but there are some subtle differences, like the MLR horns. I like those horns a lot."

Becker oversaw consultations with the outside vendors involved in the facility's refurbishment and wired all of the outboard equipment in the credenza. "We have 12 Neve 1066s and four 1081s. We've also put in two Telefunken V72s," he says.

Some of the gear was purchased for the new credenza. "But some stuff remained from our old Larrabee West location, so we had it available to us here," he adds. The credenza also houses classic pieces from AMS, Eventide, GML, Pultec, Teletronix, Universal Audio and others, and there is a vintage API sidecar at the rear of the room.

"At Larrabee, the idea is that people—depending upon what they're doing—can move from one room to another. There are similar choices in each of the rooms so that there can be continuity," Burr elaborates.

"But this studio can also be standalone, if we have a client that wants to do a whole album here and have their privacy. It's a pretty private facility next door anyway, but sometimes people want something even more private. And they would still have all the amenities they would have over there—the front desk, the runners and the service."

After an initial shakedown period, the room has already been attracting clients, she reports. "We have a new Island Records artist, Linus Young, who's been doing some tracking in here. Ricky Reid, who also goes by Wallpaper—he's a pretty hot producer right now, through Sony—was here for a couple of days. And we've got Salaam Remi and Jordin Sparks coming in."

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The control room at Larrabee's newest addition features an SSL Duality SE, custom Augspurger main monitors, ample outboard gear, an API sidecar in the rear of the room along with new wall treatments to improve acoustic performance and room aesthetics.

**STUDIO: LARRABEE STUDIOS OWNER: KEVIN MILLS LOCATION: HOLLYWOOD, CA**

There's more ▶ Watch producer Hit-Boy at Larrabee Studios in 2011 mixing Kelly Rowland's "Lay It On Me" at [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014)





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**dbx**  
by HARMAN



## From The Designer's Perspective

*In his Continuing Adventures In Software, Rich Tozzoli makes a new friend.*

One of the software bundles I started using quite a bit recently is the eXplorer III release from Rob Papen. It's a powerful collection of Virtual Synthesizers and FX plug-ins that offer up a ton of diverse composition possibilities. Recently, I caught up with Rob himself, as well as Erik Klein of Soultech Marketing to talk further about the products.

**RT: CAN YOU GIVE US A LITTLE BACKGROUND ON THE EVOLUTION OF ROB PAPEN PLUG-INS?**

**RP:** The evolution is as the flow goes, like making music. Of course, we plan things, but very often spontaneous ideas pop-up and we go with it. For instance, the BLUE-II project, we planned a few years ago, but some other plug-ins like RP-VERB, Punch and Blade came in between. Which, in the end, is great since we used the technology of RP-VERB and Blade (XY pad) in BLUE-II. So the flow is

not very planned in some ways. The same goes for our new project, which was an initial idea from two Dutch DJs. Thinking out of the box is something I love to do, but always with "making music" as the foundation for each product.

**RT: THE EXPLORER III BUNDLE, WHICH I USE, FEATURES A LOT OF PLUG-INS—12 IN TOTAL. TELL US A LITTLE ABOUT EACH ONE.**

**EK:** Predator—is a monster analog synth; try this one first!

Blue II—is an FM synth with analog style filters; it's a great companion to Predator.

Sub-Boom Bass—bass synth tones combined with punchy tuned percussion samples. It has a nifty, old-style step-sequencer that can't be more fun.

Punch—drum machine, rhythm programmer. You can apply the built-in synthesis to the many built-in samples or import your own samples, then use the built-in sequencer to build patterns. Trigger the patterns for live use or to quickly build a song.

Punch BD—based on the bass-

drum module from Punch, it lets you stack up to six bass-drum sounds and apply effects like distortion and EQ. It's meant for EDM and Hip-Hop music, though soundtrack composers will like it, too.

Blade—FM synthesis that is sonically different from Blue II. Control of harmonics through an XY pad creates sounds that continuously move and evolve.

RG (Rhythm Guitar)—lets you create rhythm guitar grooves based on electric and acoustic guitar sounds and a multitude of chord patterns that can be triggered from your keyboard. Makes a great writing tool too.

RP-Verb—rich-sounding reverb with modulation effects. I think you'll find that it goes beyond the run-of-the-mill reverb.

RP-Delay—a companion to the RP-Verb, the added effects like the



Rob Papen's eXplorer III bundle includes 12 plug-ins, from synths to drum sounds to effects.

"reverser," filters and 4-LFOs make it a musical (and addictive) delay.

RP-Distort—the distortion options can be combined with built-in filters, compressors and a "widen" effect with a changeable signal-flow.

(continued on page 32)

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## Digital Archival Storage: Are We There Yet?

softwaretech

CRAIG ANDERTON



One year ago, this column covered backup. Now let's turn our attention to archiving—a related but very different topic.

If anyone thinks archiving isn't important, try re-issuing a project from the early 70s. With one re-issue of an album I played on, the record company couldn't find the master. They eventually tracked down a safety copy at an Italian pressing plant, but in those days, copies weren't clones. Although a second-generation copy is better than nothing, for a different re-issue, another company had to pay through the nose for unopened vinyl copies on eBay, then use restoration software.

There are two main archiving considerations. The first is the format itself. If you're using today's "version 15.0" DAW, it's highly doubtful any projects you generate will be readable in 2035 on the 35.0

version—even if the DAW, and the company making it, still exist. Unless you have a working computer from 2015 that can load the project, it will likely be useless (although you may be able to extract some raw audio files if the data is readable).

time flies), another does XP, and there's a Mac with System 9. But maintaining a computer museum takes you only so far.

Therefore, I also archive multi-track projects as individual tracks, each with three audio files: One with

Then there's the media on which the data is stored. The cloud or hard drives are fine for backup while you're working on projects, but I wouldn't trust either option to survive multiple decades (one study showed 12 percent of hard drives

I often keep an older computer around "just in case." One machine can open anything for Windows 95 (two decades ago—how time flies), another does XP, and there's a Mac with System 9. But maintaining a computer museum takes you only so far.

Craig Anderton

I use removable system drives, and upon buying a new computer, test whether the previous one will boot on the new machine. If so, great. If not, I often keep an older computer around "just in case." One machine can open anything for Windows 95 (two decades ago—how

just the raw audio, one rendered with all processing and one rendered with all processing and automation. Because all files start at the project's beginning, bringing them into anything that can play back WAV or AIFF files can at least re-create what the project sounds like.

fail within three years, and 22 percent within four). So far, the digital media with the best longevity record are Linear Tape-Open format magnetic tape and optical. Tape is inexpensive and has a proven archival life of around 15 to 30 years, but the

(continued on page 33)

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**ARTIST:** KAT PERKINS  
**ALBUM:** FEARLESS  
**LABEL:** INDEPENDENT  
**PERSONNEL:**  
**Produced and engineered by:** John Fields  
**Studios:** Suburban Serenade (Deephaven, MN)  
**Mastered by:** Randy Merrill (Merrill Mastering, New York, NY)  
**EQUIPMENT NOTES:**  
 Avid Pro Tools; Grace, API, Neve, Blue Cactus tube microphone; Universal Audio 610; Empirical Labs Distressor; Mackie HR824 studio monitors



**ARTIST:** OH, CASSIUS!  
**ALBUM:** ON SUCH A FULL SEA ARE WE NOW AFLOAT  
**LABEL:** INGROOVES  
**PERSONNEL:**  
**Produced by:** Brendan Muldowney, Oh, Cassius!, Oliver Chastan  
**Mixed By:** Rachel Alina  
**Engineered by:** Brendan Muldowney  
**Assistant Engineer:** Jason Polise  
**Studios:** Carriage House Studio (Stamford, CT), Stamford Recording (Stamford, CT), Waterfront Studios (New York, NY)  
**Mastered by:** Fred Kevorkian (Avatar Studios, New York, NY)  
**EQUIPMENT NOTES:**  
 Trident 80B, 1973 Helios consoles; Avid Pro Tools; Neve 1073, SSL E, API preamps; Thermionic Culture Phoenix; Teletronix LA-2A amplifier; Focal Twin 6 Be, ProAc Studio 100, Barefoot MM27 studio monitors



**ARTIST:** THE DOLLYROTS  
**ALBUM:** BAREFOOT AND PREGNANT

**LABEL:** ARRESTED YOUTH/HUNNPOT  
**PERSONNEL:**  
**Produced by:** John Fields, Luis Cabezas  
**Engineered by:** John Fields, Paul Hager, Luis Cabezas  
**Assistant Engineer:** Kelly Ogden  
**Studios:** Wishbone Studio (North Hollywood, CA), Hotel Wilshire (Los Angeles, CA)  
**Mastered by:** Stephen Marsh (Marsh Mastering, Hollywood, CA)  
**EQUIPMENT NOTES:** API Legacy console; Avid Pro Tools HD; Universal Audio LA610 mic pre; Empirical Labs Distressor; Genelec 1030a, Barefoot Sound MicroMain27 studio monitors



**ARTIST:** WORMBURNER  
**ALBUM:** PLEASANT LIVING IN PLANNED COMMUNITIES  
**LABEL:** DIVE RECORDS  
**PERSONNEL:**  
**Produced by:** Tommy Allen  
**Engineered by:** Jamie Muffett  
**Assistant Engineer:** Alan Camlet, Ben Lindell  
**Studios:** Mercy Sound Recording (New York, NY)  
**Mastered by:** Paul Gold (Salt Mastering, Brooklyn, NY)  
**EQUIPMENT NOTES:**  
 Avid Pro Tools; Neve 1073 reverb; Inward Connections Tube Sidecar; Evil Twin DI; Neve 1176, Distressor compressors; Adam S3X-H, Yamaha NS-10



**ARTIST:** DECKER.  
**ALBUM:** PATSY  
**LABEL:** SELF-RELEASED  
**PERSONNEL:**  
**Produced by:** Craig Schumacher, Brandon Decker, Christopher Schultz  
**Engineered by:** Christopher Schultz  
**Studios:** WaveLab Recording (Tucson, AZ)  
**Mastered by:** Dan Coutant (Sun Rim Audio, New York, NY)

**EQUIPMENT NOTES:**  
 Soundcraft Ghost console; Avid Pro Tools; Ampex AG440 tape machine; Fulltone Tube Tape Echo; Multivox Multi Echo; Roland RE-501 tape effect; Audix 3a, ATC SCM20SL, Yamaha NS-10M



**ARTIST:** WYATT  
**ALBUM:** HERE COMES EVERYBODY  
**LABEL:** N/A  
**PERSONNEL:**  
**Produced by:** Matthew Maroulakos, Grant Zubritsky  
**Engineered by:** Matthew Maroulakos  
**Assistant Engineer:** Grant Zubritsky  
**Studios:** The Den Recording (Woodland Park, NJ)  
**Mastered by:** Hans DeKline (Sound Bites Dog)  
**EQUIPMENT NOTES:**  
 Apogee Ensemble; Avid Artist Control, Artist Mix; Apple Logic Pro X; API 3124+, Universal Audio 4-710d, UAD-2 preamps; Focal Solo6 Be, JBL 4410, Yamaha HS5

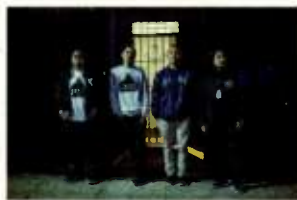


**ARTIST:** PALE HANDS  
**ALBUM:** SPIRIT LINES  
**LABEL:** N/A  
**PERSONNEL:**  
**Produced and engineered by:** Mike Latulippe  
**Studios:** Old Growth Studios (Somerville, MA)  
**Mastered by:** Mike Latulippe  
**EQUIPMENT NOTES:**  
 Apple Logic; Universal Audio 4-710d mic preamp, Apollo interface, UAD-2 Quad, Satellite Quad; iZotope plug-ins; Yamaha HS8, Boston Acoustics VR-M50



**ARTIST:** CAITLIN CANTY

**ALBUM:** RECKLESS SKYLINE  
**LABEL:** INDEPENDENT  
**PERSONNEL:**  
**Produced by:** Jeffrey Foucault  
**Engineered by:** Justin Pizzoferrato  
**Studios:** Sonelab (Easthampton, MA)  
**Mastered by:** Alex McCollough (Yes Master, Nashville, TN)  
**EQUIPMENT NOTES:**  
 MCI JH-636 console; Avid Pro Tools; Tascam MS-16 tape machine; Lynx Aurora converter; Yamaha NS-10M, B&W Matrix 805



**ARTIST:** FAR EAST MOVEMENT  
**ALBUM:** KTOWN RIOT  
**LABEL:** CHERRYTREE/ INTERSCOPE RECORDS  
**PERSONNEL:**  
**Produced by:** Far East Movement, Sidney Samson  
**Engineered by:** Jimmy Cash  
**Studios:** Purple Reign Studio (Inglewood, CA)  
**Mastered by:** Jimmy Cash  
**EQUIPMENT NOTES:**  
 Digidesign Control 24 console; Avid Pro Tools HD; Telefunken AR-51 RFT Tube condenser mic; Avalon 737 SP tube mic pre; Empirical Labs EL8 Distressor; JBL LSR4328P studio monitors



**ARTIST:** HONDURAS  
**ALBUM:** BREAK EP  
**LABEL:** BLACK BELL  
**PERSONNEL:**  
**Produced by:** Ayad Al Adhamy  
**Engineered by:** Ben Julia  
**Assistant Engineer:** Phil Abbot  
**Studios:** Converse Rubber Tracks and Little Room Studios (Brooklyn, NY)  
**Mastered by:** Heba Kadry  
**EQUIPMENT NOTES:** API 1608 console; Avid Pro Tools; Adam AX7, Yamaha NS-10

## SSL Goes Clubbing

LAS VEGAS, NV—An SSL (solidstatellogic.com) Matrix console/controller is the centerpiece of Wynn Studio, a private facility for EDM artists passing through the dance clubs at the Wynn luxury hotel in Las Vegas. The facility was designed and built by Studi's DML and also houses an SS-1 Sigma summing engine.

## GC Pro Takes One Louder to 11

CINCINNATI, OH—Engineer/producer Mark Lienhart, owner of Cincinnati's One Louder Studio, has moved into a new location, outfitting with assistance from Guitar Center Professional (gcpro.com), which supplied a Slate Pro Audio Raven MTX console and Genelec 8050 active monitors with Primacoustic room treatments.

## Sweetwater Adds API Vibe

FORT WAYNE, IN—Operating for 35-plus years, Sweetwater Studios, designed by RBDG and located on the retailer's 44-acre campus, has added new API (apiaudio.com) gear, including a 500 VPR 10-slot rack, 527 compressors, 512c discrete mic/line preamps, a 525 compressor and more, complementing an existing 2500 bus compressor and 550A modules.

## Right Coast Relies on Lexicon

COLUMBIA, PA—Right Coast Recording, owned by FOH mixer Dave Natale, uses Lexicon's (harman.com) PCM Native Reverb Plug-In Bundle, two 224 digital reverbs, an MX200 effects processor and a classic PCM 70 digital effects processor at a facility built around a 42-foot by 35-foot by 16-foot main studio space.



# Glyn Johns' *Sound Man* A Breezy Read

BY CLIVE YOUNG

One of the first studio engineers in England to break through into producing, Glyn Johns worked with the greatest acts of the Classic Rock era, recording many of their best-known albums. The sheer number of famous performances that he captured—songs that you hear every day of your life—is remarkable, and as a result, he worked over the years with The Beatles, Led Zeppelin, The Rolling Stones, The Who, CSN, Eric Clapton, The Eagles, Bob Dylan, Jimi Hendrix, The Steve Miller Band, The Clash, Rod Stewart, Neil Young, Joe Cocker and dozens of others, all of who appear in the pages of his new autobiography, *Sound Man* (Blue Rider Press, \$27.95).

The book follows Johns all over the world as he heads from one musical hotspot to the next, and it's all recalled with a clear head as he didn't take drugs, unlike many of his clients. While controlled substances affect the story from time to time—a tale of carrying 13 pairs of Beatle boots through customs for Steve Miller is particularly harrowing—Johns' story focuses on getting the work done and capturing great performances.

As a result, while typical readers will enjoy the fun behind-the-scenes stories about their favorite rock stars, the book provides some insights for recording professionals. Since it's intended for a mainstream audience, Johns tends to stay away from talking gear, but he still finds time to talk about his famed method for recording stereo drums (the YouTube videos are all wrong, he says), Helios consoles (loved them), SSL consoles (hated them), and the acoustically perfect studio designs of the 1970s (they're charmless).

Instead, *Sound Man* offers plenty of psychological observations about what it means to work in the studio. Johns kicks off the book defining what a producer does: "You just have to have an opinion and the ego to express it more convincingly than anyone else." Then he adds, "Every time I start another project, I wonder if I am going to get found out." Knocking himself down a peg or two is something Johns does quite a bit, often dismissing some of his younger decisions as brash, like when he quit recording Paul McCartney's *Red Rose Speedway* "in a puff of steam."

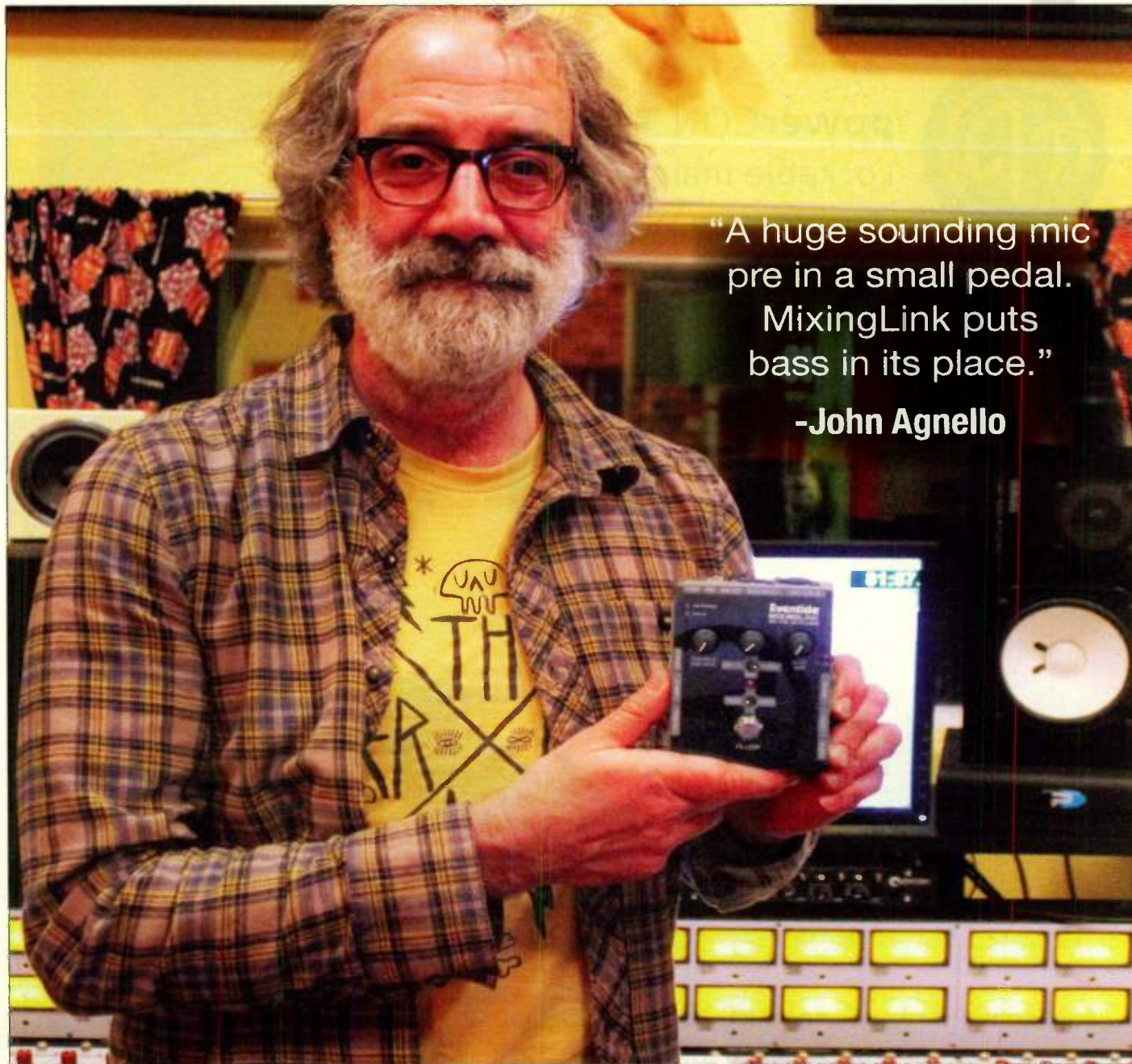
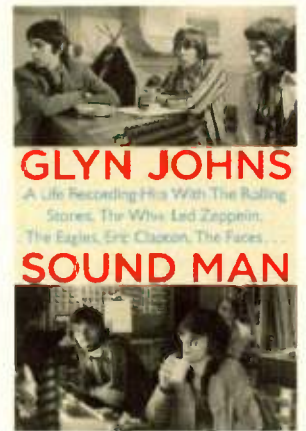
Many of the best stories in *Sound Man*, however, will send you scrambling to listen to tracks you've heard a millions times before, like the Rolling Stones' "Let's Spend The Night Together." Turns out Mick Jagger was smoking a joint in the vocal booth between takes when the local police acci-

dentally wandered into the studio. Quick action between producer Andrew Loog Oldham and Johns saved the singer from getting busted, and the upside was that the policemen's nightsticks wound up used as percussion that's just barely audible in the final mix.

Rock stars aren't the only ones to walk through the pages of the book either, as Laurence Olivier, Clive Davis,

David Geffen, Jean-Luc Godard, Robert Towne, Roman Polanski and Sharon Tate, George Martin, Shel Talmy, Joe Meek, Jac Hotzman and plenty of others make cameo appearances. A breezy, speedy read, *Sound Man* is a no-brainer for the audio pro on your holiday present list.

Glyn Johns  
glynjohns.com



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## Tozzoli

(continued from page 28)

RP-AMOD—classic modulation effects like phaser, flanger, chorus and ensemble can be tempo-synced with your music. It's actually free to any RP Synth user.

**RT: I THINK THE RP DOCK IS**

**SUCH A USEFUL PRODUCT. I FIND MYSELF USING IT TO TRY ALL THE PLUG-INS OUT WITHOUT HAVING TO LAUNCH MY SEQUENCER. HOW DO YOU DESCRIBE THE RP DOCK?**

**EK:** The RP Dock is a free app for use with any of the RP plug-ins to run them stand-alone. Besides providing instant gratification for using the synths, running them stand-alone may be preferable for live use with potentially less latency and CPU use

than running a DAW.

**RT: THERE'S A LOT OF SYNTHS ON THE MARKET TODAY. WHAT MAKES THESE A BIT DIFFERENT?**

**EK:** The fact that Rob is a user and producer himself brings both musicality and practical design to the plug-ins, not to mention an attention to sonic detail. Rob and his partner, Jon Ayers, are very responsive to customer input and can quickly integrate

improvements and new features. The synths, as a result, are "deep" and innovative, and each synth has been improving and expanding in functionality. Blade, for instance, is a whole new take on doing real-time FM synthesis control using a unique XY interface design he calls the "Harmolator," which was recently added to Blue II as well. So, advancements in one synth benefit the others, too. There is nothing "throw-away" in the bundle.

**RT: THESE PRODUCTS ARE DEEP AS WELL. I LEARNED MOSTLY BY WATCHING THE ONLINE TUTORIALS—WHICH ARE QUITE GOOD. WHAT'S THE BEST WAY TO KEEP IT SIMPLE?**

**EK:** All the RP synths come with hundreds of presets, many created by leading producers. There's an option to quickly add them as favorites in the menu. Try switching on and off

"Advancements in one synth benefit the others, too. There is nothing 'throw-away' in the bundle."

Erik Klein

the arpeggiator mode; you'll notice some of the sounds take on a completely different life. The arpeggiator will automatically "lock" with your DAW and you'll be doing amazing sequences in minutes. Punch has presets with instant grooves that you can play from your keyboard that'll get you going quickly!

If you want simplicity, Predator PL is a "player" version of Predator with just the presets and basic controls, but it's exclusive through Sweetwater.

**RT: ARE THERE TRIAL VERSIONS AVAILABLE FOR PSN READERS?**

**RP:** Sure, demo versions can be downloaded at the robpapien.com page

**RT: WHAT'S NEXT?**

**RP:** RAW is next and coming this month. It will also be part of the explorer-III Bundle. This special project started with the idea of two DJs who wanted more distortion inside the synthesizer. We took this idea and started building a very different synth. Another cool thing is that we will deliver RAW with preset banks of DJs with fame and name in certain music dance fields. It's all very exciting.



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setting standards



## Anderton

(continued from page 29)

sequential access means it's a hassle to actually retrieve the data. While not crucial for an archival situation, if you ever need to go "data hunting" because there isn't adequate documentation, it can take forever to find the proverbial needle in a haystack.

For optical, Blu-Ray media is more robust than DVDs, and today's BD-R disks can store 50 GB of data for about \$2. However, it's important to choose BD-R media that uses inorganic alloy or composite materials, which are identified as having a data signal polarity of HTL (High to Low). This is a different process than that used for most CD-Rs and DVD-Rs, resulting in an estimated shelf life of 100 years. The organic dye process (LTH) has a shelf life more like older optical media, which is typically sev-

eral decades if stored properly. LTH material tends to be less compatible as well, depending on your drive's firmware.

Of course, estimates of a "100-year life" are based on accelerated life testing and represents a fictional average, so who knows. But there's no doubt Blu-Ray media is physically stronger and much better suited to archiving than DVD-R, CD-R, hard drives or tape.

Finally, BD-R continues to be

developed. Sony and Panasonic recently announced work on archival-quality 300 GB BD-Rs with a shelf life of at least 50 years, and which are expected to reach 1 TB capacity eventually. They plan not only to deliver these discs in 2015, but to create a demand for archival storage using them. Then the issue becomes whether drives capable of reading these discs will exist in 50 years—but as always, the beauty of digital storage is you can "clone" the data

to new types of storage media as they become available.

Craig Anderton has written dozens of books on music technology, as well as lectured on technology and the arts in 38 states, 10 countries, and in three languages.

**THERE'S MORE** ▶ For an interesting study on hard drive life spans and failure rates, visit [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014)

## CRAS Adds ATCs

GILBERT, AZ—The Conservatory of Recording Arts and Sciences (CRAS) recently expanded its facilities with the addition of control rooms F and G, putting ATC SCM25A Pro reference monitors in both.

"Our rooms reflect reality in the industry," said Tony Nunes, music production instructor and manufacture liaison at CRAS. Other gear in the studios include Pro Tools HDX rigs with Apogee converters, soundBlade HD rigs with Mytek converters and SSL AWS 948 combined console and control surfaces.

"The ATCs are certainly the most transparent monitors we have at CRAS," said Nunes. "Students don't get to studios F and G until they are a little ways into the program. By that time, they can really appreciate the details that the ATCs reveal. For example, when we're tracking in those control rooms, students will notice fret buzz on the bass. One time, we had a vocalist who was struggling with an allergy and sinus problem. After he rested and had some tea, he came back and all the students could really hear the physicality of the difference."

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## Panoramic Studios

(continued from page 24)

gree angles, so with these weird angles, the stonework and the wood beams, it's a really neat sounding room."

Panoramic House's co-owner, Bobby Lurie, who owns Mavericks

features including API 550As, 550Bs and 506s.

The studio holds mostly analog gear, with a 16-channel Neve Sidecar and a vintage RCA tube mixer, but to be more accommodating to clients, Baccigaluppi said they've added a number of digital pieces to make the studio more well-rounded. Among the listed products in Panoramic House's control room are an Apogee Symphony Converter; Avid

closed, Baccigaluppi moved most of his gear to Panoramic, and brought the rest to The Dock in Sacramento.

Regarding Panoramic House, Baccigaluppi made it clear that his intention with creating it was to provide artists with an affordable space that could be used as a vacation house and a workspace. "It was important to us to create something that working class musicians could afford to use," he said.

"The first time I walked into the house, I thought, 'Wow, this sounds amazing!' The acoustics are just great. There are almost no 90-degree angles, so with these weird angles, the stonework and the wood beams, it's a really neat sounding room."

John Baccigaluppi

studio in New York City, joined Baccigaluppi during the renovation and design process, helping to turn the run-down property into the studio it is today. The main live room is located in the large living room space, with the control room in the basement.

After Panoramic House celebrated its first year in business in 2014, Baccigaluppi relocated his five-year-old API 1608 console from his former studio, The Hangar, and expanded it to 32 channels to accommodate the studio's 16- and 24-track analog tape decks. The console contains eight aux sends and eight groups paired with modular 500-series slots, and the studio offers a number of EQ outboard

Pro Tools, running on an HD Native System; Otari and MCI 2-inch tape machines; a Studer A-812 quarter-inch tape machine; a Universal Audio Apollo 16 built into one of the mic pre racks; and Adam Audio P22As, Yamaha NS-10s, Auratones, and an Event subwoofer for monitoring.

"The API is the heart of the studio," emphasized Baccigaluppi. "All the gear came from my old studio, The Hangar. I was there for 23 years, but the building was falling apart—the roof had leaks and there were holes in the floor all over the place. I could tell that something was going to change at some point, so I was on the lookout [for a new studio space]." As the Hangar

Since opening, Panoramic House has hosted a number of indie bands, including My Morning Jacket, Band of Horses and Thee Oh Sees. Baccigaluppi said they also rent the house out to non-musicians who just want to vacation in the area.

"It's funny," he said, "that most of the vacation renters come to town during the summer when it's foggy to the point that you feel like you're in a cloud. But that's when people take vacations, I guess. Conveniently, most musicians are touring during the summer. The other three seasons are lovely, and that's when most musicians want to settle in and create."

Panoramic House  
singlefinstudiogroup.com

## Tikovoi

(continued from page 24)

string and piano overdubs."

Everything was tracked to tape, then sent to Pro Tools, he continues. "For Marianne's vocal, we went to Pro Tools first and then did three generations of tape—we went back onto the Studer two or three times, depending on the song. We tried to get more compression out of the tapes, because everything was recorded without compression."

Working to tape was as much about the creative focus as the sound quality: "The psychology of it is very different than working with Pro Tools. You're just trying to get a really solid take and you're trying to get the vibe. And just the fact that you rewind the tape, you've got a little bit of time to think; you listen to it differently. I thought, for Marianne, it would be a really good idea to do that." Plus, says Tikovoi, "Just the simple fact that you're using your ears to listen to music. You're not using your eyes to see what you've recorded. I think it's a very different thing."

The choice of vocal mic was also critical to the process as much as the sound. "I wanted her to record without headphones, because I didn't want her to be isolated. We were all in the same room with her, so we could speak to each other. We tried different microphones and ended up choosing a Shure SM7 so we could record with the speakers quite loud. Especially with the kind of album we were trying to do, a bit of bleed was part of the vibe and the charm of the album. There is some music on the vocal takes, but for Marianne, it made her sing quite differently. For someone like Marianne, it's all about the connection, the performance."

The album was mixed on the Neve V60 at Assault & Battery 2, a joint venture between Flood, Alan Moulder and Miloco. "Flood doesn't think like a mixing engineer; he thinks like a producer," says Tikovoi. "He's not worried about making things sound good; he's focused on getting the feeling right, which was what we were after for the album. It just pushed the envelope a little bit further."

Flood had earlier visited the tracking session. "He was already suggesting ways that he was going to mix the tracks. It made things a little more radical as we started changing a few things, thinking of the way he was going to mix. It was all very interactive as an album."

Dimitri Tikovoi  
dimitritikovoi.com

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briefs

## Jereco Mixes with Nuage

BOZEMAN, MT—Award-winning Jereco Studios in Bozeman, MT, which offers sync-to-film ADR and voiceover recordings with remote link-up, and is equipped for 5.1 and 7.1 surround sound formats, has upgraded to a new Yamaha (yamaha.com) Nuage system after more than a decade working on an 02R96 and Nuendo.

## Dig It Audio Combines

NEW YORK, NY—Dig It Audio (digitaudio.com) has combined with The Station (thestationmedia.com), The Lodge Music, The Diner and The Music Playground to create a single 11,000 square-foot Manhattan-based facility with editorial, animation, motion graphics, original music and licensing, sound design, audio mixing and color grading under one roof.

## Countryman Reels in Sound

OXFORD, OH—Much of the dialog for fishing show Stihl's Reel in the Outdoors with Joe Thomas is captured by Jim Kramer, the show's producer and videographer, using EMW omnidirectional lavalier microphones from Countryman (countryman.com), paired with Sennheiser (sennheiser-usa.com) EW series wireless systems.

## McGill Meters with RTW

MONTREAL, CANADA—McGill University's Schulich School of Music is using RTW (rtw.com) TM3 TouchMonitor audio meters in its Studio A, where it is integrated with Euphonix MC mixers, Merging Technologies Pyramix, Avid Pro Tools, ATC, Genelec and JBL loudspeakers and monitoring systems, to instruct students in the art of loudness control.

## Trilogy Hosts Studio Sorcery

SAN FRANCISCO, CA—San Francisco's Studio Trilogy (studiotrilogy.com) hosted scoring sessions for Brujo, director Glenn Mack's feature directorial debut, including a drum and cello rendering of Vivaldi's The Four Seasons by PC Muñoz, known for his genre-defying productions, recorded with former Kronos Quartet cellist Joan Jenrenaud.

# Apollo On Forefront Of Mission Bound For Unexplored Virtual Horizons

BY STEVE HARVEY

MONTREAL, CANADA—As the audio industry has evolved from mono to stereo to quad to surround to immersive sound formats, there have always been those willing to blaze a trail into the unknown. Now, with immersive audio beginning to take off, Jean-Pascal Beaudoin and a team at Apollo Studios in Montreal are pioneering what is sure to be the next big thing—sound for virtual reality, or VR.

Beaudoin, director of special projects at the creative music and sound company, which has won multiple awards for its advertising and experiential presentation work, is one of the first to wrestle with how to create a realistic soundfield to match interactive, all-encompassing, live-action virtual reality images. A meeting with virtual reality startup company Oculus VR at South by Southwest in early 2013, at which Apollo Studios demonstrated its first audio-for-VR project, has since catapulted Beaudoin and his team to the forefront of the new format.

Virtual reality is rapidly picking up momentum. Earlier this year, Facebook acquired Oculus VR for

\$2 billion, while Google sank nearly \$550 million into another VR startup, Magic Leap, this past summer. Meanwhile, VR cameras are beginning to appear on the market from 360Heroes, Jaunt (with investment from UK broadcaster BSkyB), Sam-

"They do understand that sound is fundamental to having the best VR experience."

Jean-Pascal Beaudoin

sung and others, including a DIY cardboard device from Google that works with a smartphone. For its part, Apollo produced a live-action VR trailer (VR has so far been largely computer-generated) to demonstrate a special edition of Samsung's Gear VR headset, developed in partnership with Oculus, which was officially announced on November 11.

But audio tools applicable to VR have been lagging behind. First and

foremost, how do you capture audio that not only offers a 360-degree perspective but can change perspective as the viewer's head swivels? Beaudoin went back to fundamentals, adapting a system first introduced in 1881: binaural sound. "Obviously, the new thing with VR is that it has to be 360 degrees, which does bring a level of complexity," he says.

For that 2013 SXSW project, a short performance film of Canadian singer/songwriter Patrick Watson made by Felix Lajeunesse and Paul Raphaël of Felix & Paul Studios, Beaudoin had a custom microphone made. "It's very simple—quad binaural. It's similar to the one used for the Beck experience, I learned afterwards," he says, referring to an interactive film by music video director Chris Milk for car maker Lincoln which featured Beck performing in the round with 160 musicians. That film debuted the month before SX-SW 2013. An ambisonic microphone system or the VisiSonics 5/64 audio camera—a sphere encapsulating five HD cameras and 64 mic elements—could also be worth trying, he says.

(continued on page 36)



# HPA Focuses On Evolving Market And Workflow

BY STEVE HARVEY

HOLLYWOOD, CA—The annual SMPTE Technical Conference and Exhibition came to Hollywood in late October, and for the first time featured a pre-event symposium hosted by the Hollywood Post Alliance. As noted by Leon Silverman, HPA's president, "Technology, filmmaker options and consumer choices are driving us to learn how the Hollywood professional community can better understand how to evolve our current workflows to meet the demands and characteristics of next-generation content and delivery platforms."

The keynote address, by Chris Fetner, director of global content partners operations, Netflix, put the spotlight on some of those future delivery platforms. As it turns out, the future is now: Fetner noted that Netflix was first to market with the ultra high-definition experience with *House*

of Cards, is also moving toward HDR (high dynamic range) and greater frame rate pictures, and has adopted IMF, the Interoperable Master Format standard developed by SMPTE, as a common platform for content owners.

IMF is the answer to "versionitis," as he described it. Netflix currently receives eight different file types, he noted, leading to a high rate of failed deliveries due to mismatched assets.

IMF enables extras such as alternate languages and subtitles to travel with the content. Netflix hopes to make the format its sole deliverable by 2016. But "IMF is an immediate thing," said Fetner, revealing that upcoming original miniseries *Marco Polo* will be the first content delivered to Netflix in the IMF 2+ extended format.

Jan Eveleens of Axon in the Netherlands brought attendees up to date with the latest IEEE Ethernet AVB networking developments. AVB's

benefits, in the form of its time synchronization, bandwidth reservation, traffic shaping and configuration abilities, are being touted as ideal for next-gen live broadcast infrastructures; indeed, it's the backbone of ESPN's new facility in Connecticut. Development of AVB's second generation format, also known as Time Sensitive Networking (TSN) is being driven by the more time-sensitive demands of the automotive and industrial automation markets, said Eveleens.

"The standard does not guarantee interoperability," he noted, hence the establishment of the AVnu Alliance, which currently has 80 members and is growing 20 percent year-on-year, he said. As for the "V" in AVB, professional video certification will begin Q2 2015, said Eveleens, who is chair of AVnu's pro video working group. The standard will reportedly be ratified in Q1 2015. The aim is also to have layer 2 and layer 3 protocols in the AVB network standard by the end of 2015 or early 2016, he said.

Object-based audio has become a hot topic of late. Charles Robinson of Dolby Laboratories presented the re-

(continued on page 36)



## VR

(continued from page 35)

But the real challenge comes during mixing. "So far, it's been only recording and doing some EQ and leveling; not that much post production. It's basically 3D positioning, but the only 3D positioning tools that exist are for cinema. So we're really at a point where it's a totally new venture for sound."

For example, having captured a bed of multiple binaural recordings, "The only way you can assemble this into a seamless 360 experience is into a game engine such as Unity or Unreal. The way we've been working so far is with zero degrees, 90 degrees, 180, 270, and then, in the game engine, cross-fading those mixes. It's basically head tracking."

"But then you have to do the post production, because you want to add sound design. I'm going into Pro Tools and working on it, and listening to it, and back into Unity, so it's a very tedious process."

Nevertheless, so far the results of his workflow have been good, he says. "It's seamless. But probably the best way to do this is to work with gaming middleware, like Wwise and FMOD—more like an audio-for-gaming workflow." Ultimately, he says, object-based cinema formats that can render to a binaural output could offer a solution. "I would bet that in six months, my workflow will have

changed. And it does bring someone new into the equation of mixing, which is the sound programmer. I think it's going to foster a new type of hybrid mixing engineer that isn't purely gaming—it's mixing very, very real sound with post."

There are mix tools emerging such as the VisiSonics RealSpace 3D Gaming Engine and the 3D AfterEffects Engine, which enables offline immersive audio mixing via a VST plug-in. In October, Oculus announced it had licensed the technology, which was developed at the University of Maryland and combines head-related transfer functions, head tracking and room models. "A 3D positional plug-in will do the job instead of having to do it by hand, which is how I'm having to do it right now," says Beaudoin.

"Every project, there's a technological iteration. The way we're working, recording, doing post production, every project, we learn something very important and then move on to the next. We're really not at that level where it's just regular business. It's so exciting."

The Oculus plug-in licensing deal is also an indication that VR developers are aware of the importance of audio. "They really want to elevate the quality of sound, because they do understand that sound is fundamental to having the best VR experience."

Apollo Studios  
apollostudios.com

## SMPTE

(continued from page 35)

sults of tracking object placement and dynamic moves made by various motion picture re-recording mixers using data from the Dolby Atmos system. The results suggested that certain common panning tracks—screen bottom to center; up and over the audience—are perhaps guided by available automation tools, he observed.

We are in the early stages of a paradigm shift for the consumer experience delivered via broadcast, noted Dolby's Jeff Riedmiller, offering a presentation on immersive and personalized next-generation audio. Dolby's object-based Atmos immersive audio system, available in movie theaters for a couple of years, has recently started to migrate into the home and is poised to jump to mobile platforms.

Despite the Atmos bitstream carrying a tremendous amount of data associated with its potential 128 objects, there are methods for compressing or generally streamlining that load, said Riedmiller. For example, he suggested, "You can take advantage of the fact that not everything is happening on all tracks" and use lossless compression.

Substreams can carry objects or groups of objects—alternate languages, or commentary—that are then combined into a presentation. Spatial coding, too, is a way to simplify, he said, rendering those 128 objects into 15 spatial groups, or 15 outputs. The result would be a set of program building blocks that could be variously combined.

Dolby Labs is not the only player in the immersive audio field, of

course, but supports any move toward an open standard, according to Riedmiller, in order to deliver a next-gen experience to consumers. "The only way we can make it work is all together," he said.

Fraunhofer is offering its MPEG-H encoding scheme as a potential solution to broadcast delivery of immersive audio. According to Fraunhofer's Robert Bleidt, tests have shown that just four height speakers can create a more realistic surround sound. A high-end immersive playback system might only be within the grasp of one percent of the viewing audience, but Fraunhofer's 3D soundbar potentially could deliver the experience to a wider audience, he said.

As for how broadcasters might make transition to MPEG-H, Bleidt laid out a four-point roadmap. First, replace AC-3 encoders with MPEG-H encoders simultaneously with the implementation of HEVC or SHVC picture encoders. Next, add audio objects such as alternate commentary or additional dialog tracks, either in a channel-plus-objects or Higher Order Ambisonics-plus-objects format. Then, add-in the four height channels. This would require additional channels through the plant, he said. Lastly, add dynamic objects; this would require the transmission of control data through the TV plant.

For those wondering how immersive audio could be monitored, he suggested several alternatives. Simply use the existing speakers and add four height speakers, use a suitably equipped remote studio or use headphones with a personalized HRTF profile, he said.

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## Red Bull Builds eSports Studio

SANTA MONICA, CA—The Red Bull eSports studio in Santa Monica, CA is using Riedel's MediorNet real-time network, RockNet audio system, and Artist digital matrix intercom system, in the production of live streaming events.

Within the control room, the MediorNet system acts as a pre-switcher, dynamically feeding eight signals to the video switcher, and also provides feeds to the edit bay, two SSD recording units, and to a monitor wall. The MediorNet also serves as an audio de-embedder, in turn feeding audio to the audio mixing desk. The resulting audio and video mix is sent to two encoders for streaming via the internet. Riedel Communications  
riedel.net



The Red Bull eSports studio uses Riedel's MediorNet real-time network, RockNet audio system, and Artist digital matrix intercom system.



# innovations: the manufacturer's view

## A Capitol Concept

### PMC QB1-A ACTIVE STUDIO REFERENCE MONITOR

BY KEITH TONGE

Anger is an energy, as former Sex Pistols singer John Lydon famously said. And it's true that dissatisfaction with an existing state of affairs can be a powerful motivation for change. In the case of PMC's newest active professional reference monitor, the three-way QB1-A (launched at the recent AES show in Los Angeles), a major part of the inspiration for creating the product was disappointment. Our US-based president of Sales & Marketing, Maurice Patist, is constantly in and out some of the finest studios in the world, and has noted a consistent refrain among the top engineers and producers: dissatisfaction with the main studio monitors they were expected to use. He was regularly told that the mains were just there for loud playbacks to impress record company or advertising executives, while the critical listening and mixing was mainly being done on smaller near- or mid-fields.

PMC, of course, first appeared on the market with a large-scale reference monitor—the mighty BB5, still on sale and popular today — so we felt that we had already disproved this notion. But not all studios have space for a pair of BB5s. We became aware that there was a gap in the market which could be filled by a premium-quality, large-scale, active reference monitor, one with the excellent imaging, dynamics and performance of the BB5, but in a smaller housing, and which would be equally transparent and detailed whether used free-standing or flush-mounted to save space. Together with Maurice Patist, PMC's owner and chief designer Peter Thomas toured studios worldwide, listening to what was currently installed, and considering what improvements could be made using PMC's technology. After these extensive discussions and listening sessions, the QB1-A design project began.

As with all PMC products, the company's proprietary Advanced Transmission Line (ATL) bass-loading technology is at the heart of the QB1-A. Peter Thomas's contention has always been that this approach gives an extended, low-frequency re-



sponse down below the lower limits of human perception, without the tonal compromises and detrimental effect on dynamics and vocal transparency that can be introduced by bass-reflex designs based on resonant ports. With ATL, PMC speakers can be used flush-mounted or free-standing—one of the original customer requirements for the QB1-A.

The PMC R&D team, steered by Peter and Maurice, made use of further feedback from key audio professionals around the world. Many users wanted their main monitors to offer both analog and digital inputs, so both were included in the QB1-A. A wired RJ45 remote was also added (already standard on all recent professional-division PMC monitors); it offers control of level, analog/digital input selection and custom EQ settings for individual engineers.

Digital signal processing was also included in the QB1-A. DSP is often frowned upon in hi-fi circles, and the PMC design team is aware that it is sometimes used to produce passable results from sub-standard loudspeakers with inferior components—but it has its place, if used to refine the performance of an already well-engineered design by a few percent at the end of the design process. In the QB1-A, DSP is used to manage the highly engineered crossovers and thereby extract the best possible performance from the three driver types.

The QB1-A also benefited from re-

search conducted at the UK's National Physical Laboratory. Working with the team at NPL, PMC developed an opto-acoustic technique, RAOS (Rapid Acousto-Optic Scanning), to more accurately measure the dispersion characteristics of loudspeakers and speaker components using lasers rather than measurement microphones. RAOS directly influenced the design of the QB1-A's mid-frequency driver.

Nothing was left to chance with the QB1-A's drive units. We maximized the performance of our hand-built 34 mm and 75 mm soft-dome drivers, and employed four of our patented flat-piston carbon-fiber bass units per speaker, engineered to a very high standard with outsize magnets to ensure a dynamic response. The finished designs exhibit respectable efficiency of 90 dB for 1 W at one meter. To ensure that everything runs comfortably within maximum tolerances, we designed proprietary Class-D amplification to supply more than 4800 W of power per channel with a high damping factor. This can be regarded as abundant over-provision, but it unquestionably makes for a faster, more dynamic monitor.

For high-level output with low distortion, the QB1-A's transmission line had to be heavily damped with various types of bespoke, acoustically absorbent foam. To reduce acoustic and airflow turbulence, the line was also divided into sections with profiled wooden strakes (vanes) along

#### Capitol Studios & The QB1-A

Capitol Studios in Los Angeles initially expressed interest in the QB1-A for a possible upgrade of its mastering studios, but during the speaker's development phase, plans expanded as part of a complete refurbishment and relaunch of the renowned studios. The new speakers would be installed in prototype form at the main Studio B at Capitol, on the understanding that a sale would follow on completion of the design if Capitol's internationally renowned engineers were satisfied.

A qualified acoustic specialist with intimate knowledge of PMC's designs and speakers, Maurice Patist is always closely involved in fine-tuning PMC systems at the installation stage, but the Capitol project proved to be a particularly detailed test of his expertise, as the existing soffits used by Studio B's previous speakers were tapered, and could not initially accommodate the QB1-A prototypes. Partnering with Capitol Studios' chief engineer and general manager Arthur Kelm, Patist thus oversaw the redesign and physical reconstruction of the soffits, carefully adding mass and bespoke acoustic elements. Capitol has decided to purchase QB1-As for Studio A also. As a British manufacturer, it's a great honor to have one of our designs chosen for an iconic American studio.

the bottom, effectively using aerodynamic principles to create a more laminar flow. The cabinet was engineered to high standards, with a 36 mm thick Medite front baffle, and extra bracing and reinforcement to eliminate coloration and resonance.

Our starting beliefs with QB1-A were that most main studio monitors were underpowered and based on aging designs and technology that did not include the latest developments in the field of drive unit and cabinet design, minimal-intervention DSP management, and really good Class-D amplification. The QB1-A makes good on those deficiencies.

Keith Tonge is the creative director of the UK-based Professional Monitor Company.

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pmc-speakers.com



## BLUE MICS YETI STUDIO

Blue Microphones has announced the new Yeti Studio, an entry-level vocal recording system that combines the Yeti USB microphone with custom recording software from PreSonus and studio vocal effects from iZotope.

The Yeti USB microphone is intended for recording of vocals, podcasts, voiceovers, interviews, musical instruments, field recordings and more. Yeti features proprietary condenser capsules set in a three-capsule array that provides four different recording patterns—cardioid for vocals and voice-overs, bidirectional for interviews, omnidirectional for the whole band, and stereo for separate left and right audio. Yeti also features a built-in headphone jack for zero-latency monitoring, and direct controls for headphone volume, pattern selection, instant mute and microphone gain.

Yeti Studio features PreSonus Studio One Artist Blue Microphones Edition recording software and a 32-bit audio engine. Yeti Studio also includes iZotope Nectar Elements studio vocal effects software, with vocal style presets for various genres and applications.



## LYNX PCI EXPRESS CARDS

Lynx Studio Technology has introduced its new line of PCI Express Cards, combining the connectivity of the Lynx AES16e PCI Express card with the audio quality of the company's Aurora converters. The first two offerings are the E44 and E22 cards.



The E44 (pictured) offers four analog input and output channels and four AES/EBU channels, expanding on the I/O offered by the LynxTWO-A card. The E22 offers two analog input and output channels and two AES/EBU channels—essentially the equivalent of the L22 PCI Card. A new software mixer, similar to the one developed for the AES16e and Aurora Thunderbolt, will be available. Built upon the LynxONE and LynxTWO cards, E44 and E22 performance eclipses that of Aurora converters according to Lynx.

## BLACK LION B12A MKII MIC PREAMP

Black Lion Audio has released its B12A MKII, a single-channel microphone preamp which it says is "in the style of an API 312A." The unit will reach dealers this month.



The MKII version of the B12A features an upgraded input transformer, reportedly higher gain, and lower noise than the original B12A. It also sports an output transformer, a Hi-Z input, phantom power, pad, phase and is housed in a 1U, 1/2 rack chassis. All Black Lion Audio products are designed and manufactured in Chicago, Illinois.

## SOUND MAGIC SERENADE DSD WORKSTATION

Sound Magic has announced its new Serenade music workstation, designed for high-resolution music production. Consisting of the Serenade 384 KHz USB2.0 audio interface, a digital audio workstation, a DSD/DXD effect plug-in bundle and DSD and PCM bi-directional converter software, the package is designed for editing and processing of DSD formats. In 1999, Sony and Philips introduced Digital Stream Data—formally known as Super Audio Compact Disc. DXD—which stands for the Digital Extreme Definition and has a 24 Bit/352.8 KHz resolution—is an alternative encoding scheme developed to aid in editing DSD.

Serenade Workstation provides a USB audio interface which supports up to 32-bit/384 KHz (which can playback DXD) and native playback support for four kinds DSD resolutions: DSD64, DSD128, DSD256 and DSD512. It also offers a DAW and plug-ins that work at 32-bit/352.8 KHz and 32-bit/384 KHz resolution, making DSD an editable format, allowing for mixing and mastering.



## firstlook

### GRACE DESIGN DEBUTS M905 CONTROLLER

Grace Design has introduced the m905 analog monitor controller. Based on the m905, this version offers same exact same design, but is intended for users who already have digital to analog converters yet still need analog monitor selection and control.



The m905 Analog is configured with a 2U mainframe Audio Control Unit (ACU) and a sleek desktop Remote Control Unit (RCU). All audio connections are made on the ACU, and all system control is from the RCU. Analog inputs include 2 balanced via XLR, one unbalanced via RCA and one balanced CUE in via XLR. Outputs include 3 balanced speaker outputs via XLR, 2 subwoofer outputs via XLR, balanced CUE output via XLR.

All system status is displayed clearly on the LCD operating screen, while all system control is done with hardware switches and a large level knob. All monitoring features—volume, speaker selection, dim, mono, mute, L-R, solo, subwoofer mute/solo—are all accessible on the RCU's front panel. Level readout is done with characters in .5 dB steps. A talkback feed is available with the built-in microphone on the RCU or via a built-in Grace Design mic preamp on the ACU. Additionally, the RCU main operating screen has a full-time SPL level meter, which is sourced from the built in microphone.

Grace has also announced the m905 IR Remote Option, which is available on new or existing units (Digital and Analog). This feature allows wireless infrared remote control of a select set of monitoring controls via the Grace Design Remote, a standard Apple Remote, or with iOS and Android via the Logitech Harmony Remote.

## CAD MH210 HEADPHONES

CAD Audio has expanded its studio headphone line with the new MH210 model, created with a closed-back, circumaural design.

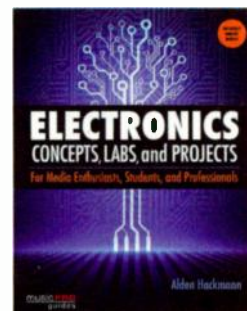
The MH210s are equipped with high output 40mm neodymium drivers in an effort to provide a powerful sound and extended frequency response. Available in black (MH210) and white (MH210W), the MH210s feature soft leather earpads outfitted with high-density memory foam to enable listening comfort and isolation from external noise.



## ELECTRONICS CONCEPTS, LABS, AND PROJECTS

*Electronics Concepts, Labs, and Projects*, is a new book from audio professional Alden Hackmann, published by Hal Leonard, which introduces concepts, techniques, and tools needed by pros in the fields of audio, video and multimedia recording.

The book includes theory relating to electronics principles specific to the audio world, as well as practical lessons on soldering, how to use a digital multimeter for testing audio gear and cables, and how to use an oscilloscope and function generator to diagnose circuits. Also included are descriptions of the components found in electronic circuits and how they work. Hackmann uses a minimum of math to demonstrate practical concepts, and every chapter includes a hands-on lab to reinforce that chapter's concepts. The accompanying DVD-ROM contains lectures and illustrations that support and reinforce the concepts presented in the text.



There's more information on all the products featured at [prosoundnetwork.com/dec2014](http://prosoundnetwork.com/dec2014).



## KALTMAN IEMRADIATOR ANTENNA

Kaltman Creations LLC. has released the IEMRadiator antenna, a device designed for in-ear monitoring systems. The IEMRadiator antenna incorporates a combination of advanced circular polarization technology with a horn-style radiator for directional, high-gain, enhanced radiating transmission that is never out of phase. Kaltman Creations says it guarantees the antenna will reduce interference, reduce drop outs, help eliminate 'swishing' noise artifacts, improve RF signal to noise, and enhance reception of signals propagated through and around objects.

The IEMRadiator design has a flat panel design and 'thumb-screw' removable horn radiators. It also features forward enhancing horn radiators that increase gain and directivity, creating a radiated signal with a frequency range of 470 MHz to 890 MHz, with gain of 10.5 dBic.



## MACKIE DL32R 32-CHANNEL WIRELESS DIGITAL MIXER

Mackie has introduced the DL32R, a 32-channel digital mixing system controlled completely wirelessly from Mackie's Master Fader iPad app. The 3U DL32R feature set also includes on-board DSP and multi-track recording/playback (dual USB interfaces for interface with a DAW or an external hard drive).

Each of the 32 inputs feature Mackie's new Onyx+ recallable mic preamps, with remote control over preamp gain and phantom power. Fully assignable using the Master Fader control app are 14 XLR outputs. A front panel stereo AES digital output allows connection to gear like speaker processors. Multiple engineers can work wirelessly from a single DL32R mixer using their own iOS device, including performers who wish to control their own monitor mixes.



## POWERSOFT DEBUTS DIGIMOD IK KITS

Powersoft has launched new DiGiMod IK kits, consisting of three separate elements, designed for OEMs and integrators who require Class D amplification technology for loudspeaker applications in the professional audio markets.

By separating the DiGiMod into three different elements, Powersoft was able to deploy upgrades to each component. The three components, which consist of an aluminum heatsink plate, a DSP/interface kit and an amplifier module, now include an onboard autoswitch circuit, an upgraded DSP circuit board to include external A/D converters and a set of gaskets designed to prevent air leakages. The new DSP-D circuit board is also fully compatible with Powersoft's Armonia Software Suite, which enables remote control and monitoring of the full range of Powersoft products.



## SENNHEISER DANTE CARD / DIGITAL 9000 FIRMWARE UPDATE

Sennheiser has announced the availability of its Dante card for the EM 9046 receiver, enabling their top-of-the-range Digital 9000 wireless microphone system to be integrated into Dante audio-over-IP networks. Also available for free download are the associated Digital 9000 firmware version 3.0.3 update and the new Wireless Systems Manager 4.2 with new clocking, monitoring and other functionality.

The EM 9046 DAN extension card fits the expansion slot of the EM 9046 eight-channel receiver. Internally, the card features sixteen audio inputs to send the digital audio and command signals over the Dante network. Connection is via two Gigabit RJ45 sockets that serve to either establish two redundant network circuits or daisy-chain the signals. The card works with sampling rates of 44.1/48/88.2 and 96 kHz at a resolution of 24 bits. Sennheiser has also adapted its Wireless Systems Manager software to include a monitoring function for the Dante card.



## AUDIX SPECIAL EDITION D6 MIC

Audix has created a special limited edition of its D6 microphone to mark the company's 30 year anniversary. The special edition D6 microphone features a five-layer, hand-dipped anodizing process for its unusual finish, ensuring that no two mics are alike. The limited edition mics are numbered and serialized, and only 750 have been produced. The microphones are available through Audix authorized dealers and distributors worldwide.

The D6 was first introduced to the music industry in 2005, becoming part of the D Series of mics as well as Audix's drum packs, such as the DP7 and Studio Elite 8. Audix combined VLM capsule technology, transformerless design, and precision machined aluminum housings for the microphone, which is designed for drum and percussion applications.



## MIDAS PRO SERIES FIRMWARE UPDATE

Midas has issued its G2.5 firmware for Pro Series digital live performance consoles, along with select DL15x and DL25x fixed-format I/O devices. The new firmware features allow users to: Solo Follow Select on the Pro1; disable automation buttons on the control surface; turn bulkhead fans off and restart automatically; and flatten the GEQ from the surface. It also adds 48 kHz capability for DL15x and DL25x Series I/O devices, provides compatibility with version 2.09, or higher M32 console firmware and adds DL155 and DL231 support.



## firstlook

### YAMAHA RIVAGE PM10 LIVE CONSOLE

Yamaha has announced its new flagship live mixing desk, the Rivage PM10 Digital Mixing Console, part of the company's PM Series of Digital Live Sound Consoles. The Rivage PM10 system is comprised of the CS-R10 control surface, DSP-R10 DSP engine, RPi622 I/O rack, three types of RY cards, and two types of HY cards, allowing users to configure and match the scale and functional requirements of any application.

Console operation centers around Yamaha's traditional Selected Channel section paradigm, allowing all parameters of the selected channel to be directly controlled. There are also two large LCD touch screens that provide logical continuity with the faders, offering the same operability as the Centralogic interface in 12-channel groups. Scene memory sports new features such as "Isolate," which enables the engineer to specify entire channel modules. The CS-R10 control surface and DSP-R10 DSP engine are connected via a dedicated CAT5e ring "Console Network." The DSP engine connects to the RPi622 I/O racks via the newly developed TWINLANE ring network using multi-mode optical fiber.

Key features of the new desk include its Hybrid Microphone Preamplifiers and analog section. Incorporated into them are digital models of Rupert Neve Designs' SILK processing platform, created through Yamaha's VCM (Virtual Circuitry Modeling) technology. The channel EQ and dynamics are based around three newly developed algorithms along with Yamaha's "Legacy" algorithm. A total of 45 plug-ins are available for processing, including new plug-ins of note created in collaboration with Rupert Neve Designs, TC Electronic, and Eventide.





## Ward Powers Usher's Latest Tour

BY KELLEIGH WELCH

NEW YORK, NY—As a teaser for his upcoming album, *UR*, Usher has embarked on a 27-city tour, called The UR Experience Tour, with the first leg launching on November 1, 2014 in Montreal. The tour will continue through December 14, hitting most major cities in the U.S. and Canada before heading out for the tour's European leg in January.

Like many of his previous tours, Usher has spared no expense when it comes to theatrics, opting for an impressive lighting setup and background dancers to accompany the power of his voice.

And the man who brings Usher's power to the audience is FOH engineer Horace Ward, who has handled Usher's house mixes since 2013, bringing to the table years of experience from mixing for some of music's top acts, including Beyoncé,



Veteran engineer Horace Ward holds down the FOH fort on Usher's current tour.

cé, Lady Gaga, Mary J. Blige and Prince.

With 37 years as a live sound engineer, Ward knows what to do to make a show sound great, but

doesn't hesitate when it comes to trying out new gear. For The UR Experience Tour, Ward is working with a whole new setup, provided by the

(continued on page 46)



## Bareilles' Little Black Dress Tour Goes Big

BY KEITH YOUNG

NEW YORK, NY—Bringing a solid dose of traditional pop smarts to the singer/songwriter genre, Sara Bareilles has made a name for herself over the last few years, and with good reason. Since kicking things off with her 2007 hit, "Love Song," Bareilles' career has only grown stronger, as shown by her most recent album, 2013's *The Blessed Unrest*, which debuted at number two on the *Billboard* album chart. Supporting the album after its release, the songstress's touring cycle hit its high-point with last summer's U.S. leg—a

24-city jaunt dubbed The Little Black Dress Tour—which was her highest-profile headlining effort yet.

"This tour has definitely taken it up a couple of steps as far as venue sizes and production go; for instance, this is the first time she's carried video elements and PA," said her longtime FOH engineer, Trey Smith, speaking inside The Theater at Madison Square Garden in New York City. Carrying an audio system provided by Spectrum Sound (Nashville, TN), the production was Bareilles' most modern yet, but at its heart was an FOH position that was a surprising throwback.

"I've been working with Sara since 2008," said Smith, "and the last few years, we've had a Midas Pro9 console at FOH. This tour, I decided to take out an analog desk and go that route; I chose a Midas XL-4." Smith relished the opportunity to go old school, noting that "you can't always do this nowadays because of tours becoming more complex. Due to large amount of inputs coming off the stage, it's tough to fit everything on an analog board."

The decision wasn't made for novelty's sake, of course. "Her music is really fitting for the analog sound," he said. "Going from digital to analog has been a welcomed change, adding some nice mixing benefits. Unlike digital, you can actually feel the changes made while making EQ or fader adjustments, for example."

Nonetheless, going analog meant giving up some conveniences as well: "I don't have snapshots for songs like I used to. On the Pro9, I utilized the console automation to provide starting points for each song, as well as large changes during the show; they were basic fader moves and different mutes for inputs I wasn't using on a specific song. Now that I'm on analog, I don't have that, so I have to adjust on the fly—for instance, we'll go from a ballad to something where I need a completely different mix with the drums and the different instru-

(continued on page 47)



Trey Smith, FOH engineer for Sara Bareilles, mixed the singer/songwriter's Little Black Dress tour on a Midas XL-4—a change of pace from the Pro9 he'd used for her shows over the last few years.

## briefs

## Powersoft Hits The Gym

TOLEDO, OH—Ottawa Hills Local School District recently upgraded its high school's gym with a new audio system that included three Powersoft (powersoft-audio.com) K series amplifiers set up in a secure location and controlled remotely using Armonia software

## Behringer Home In Daryl's House

PAWLING, NY—Behringer (behringer.com) X32 digital mixing consoles and a P16 personal monitoring system were recently installed in Daryl Hall's new club, Daryl's House, in Pawling, NY. The desks are installed at FOH and monitor positions, and inputs are split digitally over an Ethernet cable via the consoles' onboard AES50 ports.

## RH Adds To Fine Arts Center

ROEBUCK, SC—The District Six Fine Arts Center auditorium at Dorman High School recently got a new Renkus-Heinz (renkus-heinz.com) Varia modular point source line array system, with the FOH system comprised of left and right flown arrays of eight Varia VA101-7 7.5 degree cabinets and one VA101-15 15 degree cabinet.

## Sonnet Nets OneRepublic

IRVINE, CA—Zito, FOH engineer for OneRepublic and owner/operator of Zito Production Services, is using a Sonnet Technologies (sonnettech.com) Fusion F3 two-drive RAID storage system to capture the band on the band's current "Native" tour.

## DiGiCo Makes It In Hollywood

HOLLYWOOD, CA—A pair of DiGiCo (digico.org) SD7 digital mixing consoles were purchased by The Hollywood Bowl to serve as mixers for the venue's FOH and monitors.

## AKG Augments McCain

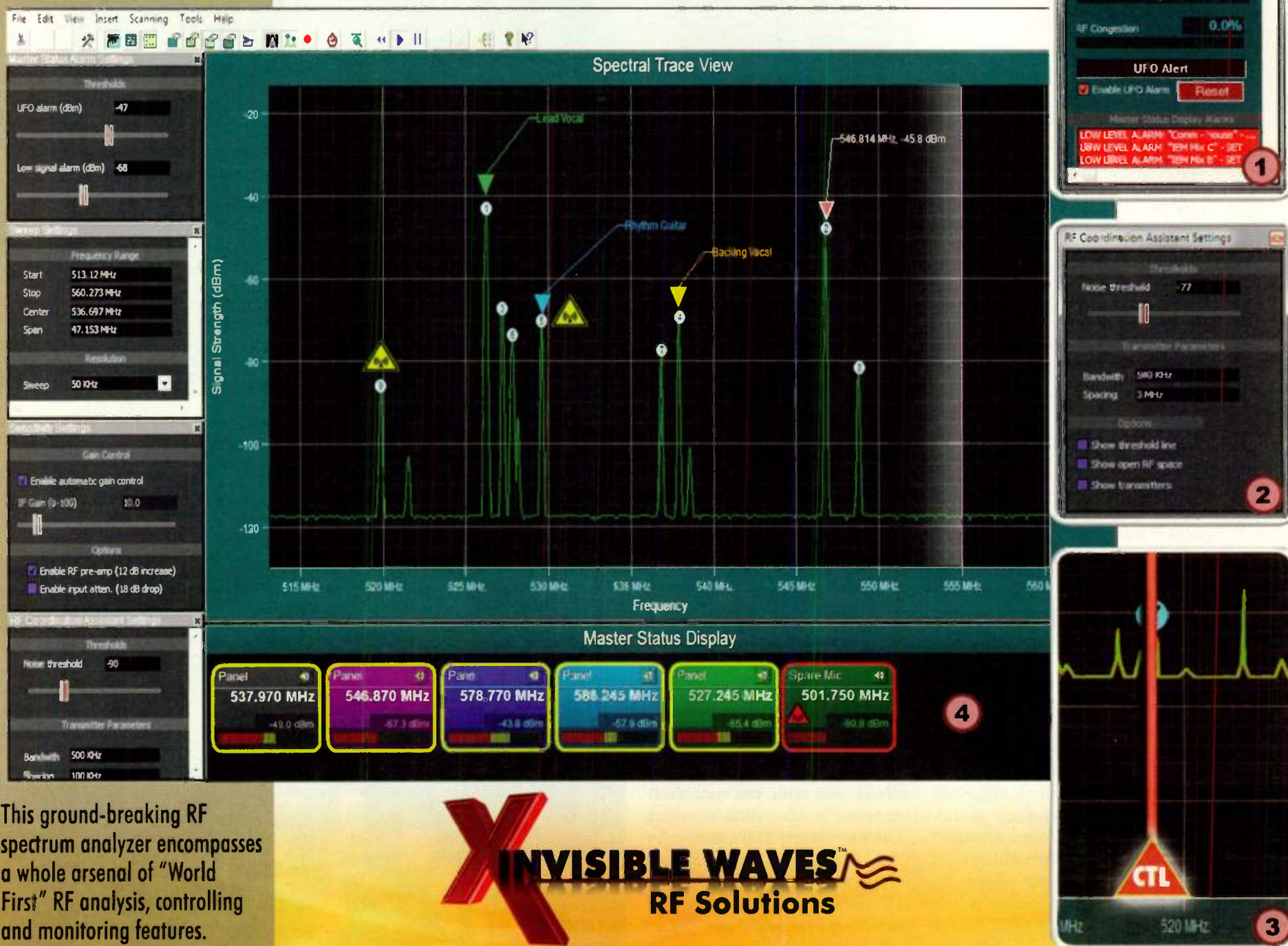
VICTORIA, CANADA—Songwriter Edwin McCain plays more than 300 gigs a year, and for each of them, he brings along an AKG (Harman.com) WMS4500 professional wireless system for his guitar and a WMS4500 vocal system with an HT4500 wireless transmitter using a C535 capsule to capture his vocals.



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## Hunting Party in the Park

BY CLIVE YOUNG

It's hard to believe it's been nearly 15 years since Linkin Park broke out with its debut, *Hybrid Theory*, but 60 million albums later, the band's shape-shifting mix of hard rock, hip-hop and electronica remains as eclectic and accessible as ever. Case in point: *The Hunting Party*—the band's latest album that came out this past summer.

While the group is touring the world in support of the back-to-basics collection, the audio systems in tow are anything but old fashioned. In fact, everything from the FOH and monitor mix positions to the on-stage network used by Linkin Park itself is cutting edge.

"In January, we met with the band and talked about a full-on audio upgrade from what we'd been using," said longtime FOH engineer Ken "Pooch" Van Druten. The band wanted to expand the number of tracks it used on stage and have 128 inputs available if needed. "I had 96 and it was not enough," said Pooch. "Our setup on an average show is about 80 inputs, but they do crazy things sometimes, like have a choir come in and a marching band. We literally have 20 inputs that are set aside for when they do stuff like that. So I only had 96 here, and while the monitor desk could do 128, it didn't have enough outputs anymore. On top of all that, we all wanted to have a 96 kHz solution as opposed to 48 kHz."

The end result was that Pooch and monitor engineer Kevin "Tater" McCarthy each bought their own DiGiCo SD7 consoles and respective mix position equipment, and now rent them back to the band. "It was a major investment," Pooch conceded. "You've got to buy all the bells and whistles, so we got things like an Antelope Isochrone 10M atomic clock—it adds up, but it makes a difference. We both agree we've significantly improved the audio quality of Linkin Park by doing



In January, Linkin Park kicks off the next U.S. leg of the world tour supporting its latest album, *The Hunting Party*.

this. I find I EQ less and if you look down most of my inputs, there's just high pass filters and small cuts and boosts here and there—not a whole lot. We're pretty pleased with what's going on."

Both Pooch and Tater make use of a Waves SoundGrid Server for their plug-ins, with Pooch leaning on favorites like the L2 Ultramaximizer Peak Limiter, C6 Multiband Compressor and Renaissance Axx. Each show is recorded at 96 kHz to main- and backup multi-tracks via four MADI streams exiting the console into four DiGiGrid MGB interfaces (two main, two redundant) connected to Mac Minis recording in an open-source DAW, Reaper by Cockos. "I bought the commercial version which is \$200, and literally, you can record 128 tracks and surf the web—it's just solid," said Pooch.

Both the FOH and monitor desks share the same SD Rack system—four SD Rack units on an Optocore loop. Pooch explained, "There's no splitter, so from the stage racks where we're converting, it's digital all the way to the amps, right before the speakers." The PA in question is a considerable JBL VTX line array system provided by Sound Image (Escondido, CA), based around left and right V25 hangs, flown S28 subs and G28 subs on the ground, all powered by Crown I-Tech 12000 HD amplifiers. Said Pooch, "That VTX25 is a pretty great box; it's a beast with tons of headroom. I've always been concerned about mixing at lower volumes but having the appearance of it being loud. It's more challenging to mix something at 100 dB and make it sound amazing, but



Beneath the massive JBL VTX system provided by Sound Image is the Linkin Park audio team (Back Row, l-r): Kevin "Tater" McCarthy, monitor engineer; Ken "Pooch" Van Druten, FOH engineer; Scott Taylor, PA tech; John Leary, crew chief; Vlc Wagner, systems engineer. (Front Row, l-r): Paul White, monitor tech/RF; Nathan Payne, PA tech.

we're having some success with that and I think part of it is the VTX; it's got this D2 dual compression driver that's pretty cool—no harmonic distortion."

Up onstage, Lab.gruppen-powered Adamson SX18 side fills and M12 wedges are on-hand for gui-

tarist Brad Delson's monitor mix. The rest of the band uses Shure PSM 1000 IEM systems, all wearing JH Audio earbuds, with the bassist, drummer and DJ using the Roxanne Siren Series model and vocalists Mike Shinoda and Ches-

(continued on page 44)



# PARASOURCE



## Maximum Impact

Our Parsource Series active loudspeakers and subwoofers is the culmination of Yorkville Sound's fifty plus years of speaker cabinet design and innovation. Built for the most demanding live sound applications, Parsource Series innovative high headroom power supply and Class-D amplifier design delivers increased overall loudness from the most compact cabinet design possible. Highly precise multiband limiting ensures a completely transparent listening experience, even at the highest volumes these cabinets can produce.

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1200 watts

PS15S  
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## Linkin Park

(continued from page 42)

ter Bennington on JH16s. Ensuring the mixes reach them is a honed system. "We use a Shure AXT600 scanner—that's been our go-to tool," said Tater. "We also have the GX-8 combiner from Professional Wireless and the Clair CF1090 Fractal Antenna. I started using the antenna

when it first came out, and I was one of the first non-Clair people to purchase one."

Mic-wise, the stage is covered by a variety of choices. "We use Sennheiser wireless mics and mainly sE and Audio-Technica after that; those sE mikes are fantastic," said Tater. Drums are captured by a Shure SM91 and an Audio-Technica AE2500 dual-element mic on the kick; AE3000s on the various Toms; sE RN17s on the hi-hat and ride cymbals; and an sE 4 and Telefunken M81 used for the snare top and bottom, respectively. "We also have sE 4400As on overheads," said Pooch. "They sound like the old-school C 414—really great." Also covering the stage is a slew of Radial gear—largely SW8s and J48 DIs. "We use all Radial cables, Radial DIs—any interconnects we have out here are Radial," Tater confirmed.

All backing vocals are captured by Sennheiser e865s, while the two main vocalists, Shinoda and Bennington, use Sennheiser EM 2000 wireless mics with e865 capsules. "We have a guy that screams and a guy that barely sings and then raps, so we wanted to put them on two

different mics because they're two very different singers—they didn't want that," said Pooch. "They wanted to be on the same model, so it was a tall order to find one that worked for both singers. We had a huge mic shootout about two years ago with the band in rehearsals, where we got 10 of the top wireless models and did a blind taste-test, covering up all the logos and giving them one after another. There were a lot of mics that sounded good but as soon as you cupped them and got into them, they fell apart; this is the only microphone that survived all of that."

If the vocal mics are a holdover from previous tours, the band's onstage audio network is definitely not. Thanks in part to the heavy electronic-based elements in Linkin Park's music, the group has long played to tracks, with its desire to expand into 128 inputs sparked in part by a need for more tracks. In the past, tracks were handled by a tech offstage using Pro Tools, but a switch was made to Ableton Live for the current tour. As Pooch explained, "Now they have a network all over the stage where any band-

member can start or stop playback, can manipulate tracks, do any sort of filtering of a track...so it makes it more of a live experience even though they're using playback. Along with that, we changed from regular guitar amps to Fractal Audio Systems, so now Ableton triggers MIDI information to the Fractals, taking care of all the patch changes. Pretty soon there's not going to be a need for any humans!"

For all the linking between technologies onstage and behind the scenes, Linkin Park's biggest connection remains with its fans, and that's something that won't change anytime soon. With a second U.S. leg due to start next month and a series of major festivals lined up for Summer 2015, there'll be plenty of opportunities for them to solidify that bond and have audiences join *The Hunting Party*.

DiGiCo  
digiconsoles.com

JBL Professional  
jblpro.com

Sound Image  
sound-image.com



Sporting six screens, the sizable FOH position on Linkin Park's tour is centered around a DiGiCo SD7 console.

### VITALstats

#### Linkin Park Sound Image (Escondido, CA)

##### FOH Engineer:

Ken "Pooch" Van Druten

##### Monitor Engineer:

Kevin "Tater" McCarthy

##### Systems Engineer:

Vic Wagner

##### Crew Chief:

John Leary

##### Monitor Tech/RF:

Paul White

##### PA Tech:

Nathan Payne, Scott Taylor

##### FOH Console:

DiGiCo SD7

##### Monitor Console:

DiGiCo SD7

##### House Speakers:

JBL VTX V25, S28, G28

##### Monitor Speakers:

Adamson SX18, M12

##### Personal Monitors:

Shure PSM 1000; JH Audio JH16, Roxanne Siren Series

##### House Amplifiers:

Crown I-Tech 12000 HD

##### Monitor Amplifiers:

Lab.gruppen

##### FOH Equipment/Plug-Ins:

Waves SoundGrid Server, L2 Ultramaximizer Peak Limiter, C6 Multiband Compressor, Renaissance Axx; Antelope Audio Isochrone 10M atomic clock; DiGiGrid MGB interfaces; Lake LM44; Bricasti M7

##### Monitor Equipment/Plug-Ins:

Waves SoundGrid Server; PWS GX-8 combiner; Shure AXT600; Clair Fractal Antenna

##### Microphones:

Sennheiser e865, EM 2000 with e865 capsule; Shure SM91; Audio-Technica AE2500, AE3000; sE 4, RN17, 4400A; Telefunken M81; Radial SW8, J48 DI

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## Usher

(continued from page 40)

Lititz, PA-based sound rental company, Clair.

The FOH position is centered around a DiGiCo SD7 desk, where Ward mixes, using a number of Waves plug-ins for effects, specifically the L1, C4, Renaissance Compressor and

the DeEsser. Also on-hand is an extensive range of Focusrite RedNet gear. This setup, the largest in the U.S. at the moment, consists of 96 channels of RedNet 4 Microphone Pre Amps; RedNet 6 MADI Bridge units feeding to the DiGiCo SD7 console; RedNet 5 HD Bridge devices to connect to Pro Tools for recording of the 96 tracks; RedNet 1 and 2 A/D to D/A analog units for outboard device processing; and 96 channels of

RedNet PCIe for backup recording with Reaper software. The whole system is networked using Dante.

"The Dante stuff is basically the highlight of what I'm doing. Ninety-six channels of independent mic pres that aren't part of the console enables you to have a good sound," Ward explained.

The relationship between the console and mic pres is vital, Ward added, as he said that sometimes a

console's built-in mic pres aren't to his taste. "We've learned that in the studio and take the knowledge we gained on the road," Ward said. "I don't always like the pres on the console, so I grab as many quality mic pres as I can."

While mixing, Ward said his ultimate goal is clarity—even with a quality arsenal of gear, he has to make sure every member of the audience, whether in the front row or the last, has the same experience.

"We have a saying: Loud is beautiful only if it's clean. That's the idea—we need to achieve a strong low end so we can get a really clean show. It makes the show more enjoyable for the audience, and makes it seem like they are closer to the artist. If you go to a concert that sounds bad, it always makes the artist seem like he's in the distance. If it sounds good, the artist seems like he's right in front of you," Ward explained. "It all depends on the efficiency of the system that you use."

Helping ensure Usher is heard everywhere in the venue is Clair's proprietary PA—i-5 cabinets used as mains and the company's new CP subs, all amplified by Lab.gruppen amplifiers in Clair's custom StakRak arrangement.

Of course, even with Ward's hand-picked gear and his years of experience, there are challenges he faces at each show. "I will say that he uses a headset for the first few songs, and just getting the music [bleed] through the headset can make it difficult to get his voice," Ward said.

The tour's staging can also create challenges for Ward, especially when it comes to speaker placement. "Because the stage is asymmetrical, we don't really have the space for subs. I stacked three subs into the ground, and I'm flying eight subs," explained Ward.

Load in begins as early as possible the morning of each show—usually around 5 or 6 a.m., depending on the venue—to accommodate the extensive lighting design.

Ward said he holds two soundchecks before each show, one with the band and one with Usher. "Usher does a soundcheck party with some fans, so he's there every day."

Even with Usher's extensive catalogue of hits (he's won eight Grammy Awards), Ward had difficulty choosing one particular song he enjoyed mixing most during the tour.

"You have to look at every song as a complete mix, and I've got to mix each song as an individual," he said.

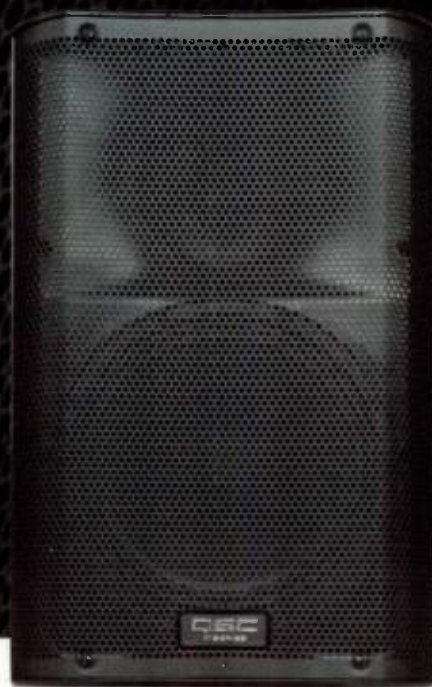
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## Sara Bareilles

(continued from page 40)

ments on stage. It keeps me on my toes where I'm really busy out there and I don't have the luxury to just hit 'Next,' but it's been a fun experience to do more mixing again."

For the *Blessed Unrest* touring cycle, Bareilles' band was bulked up, seeing the addition of female multi-instrumentalists who provided backing vocals as well as cello, violin and keys. "It's been really cool," said Smith, "because on the albums, Sara does a lot of her own background [vocal] layering. In the past, it's only been guys singing up there and they've done great, but it's a different sound with girls now. It's nice to have their voices and the strings to fill out the sound and bring back some more elements of the album."

Those backing vocals were captured on Shure Beta 57As, and as a Shure-endorsed artist, there were plenty more of the company's microphones on the stage. "She's always used Shure," said Smith. "Sara started off on an SM58. Then for a while there, we were on the Beta 57A; it sounded nice on her vocal, but we eventually went to the KSM9 and I love it for front of house. It's the original KSM9 capsule, set on the super-cardioid pattern, which helps eliminate a lot of the stage noise while still capturing her vocal. The KSM9 is very smooth on Sara's vocal, and adds a perfect amount of brilliance and warmth to her voice."

Guitars were captured with an SM57 on the pedal steel guitar amp and KSM313/NE ribbon mics on the guitar cabinets. Over at the drums, a 57 and a KSM313 miked the snare top and bottom, respectively, while a Beta 91A half-cardioid condenser mic was used inside the kick drum. The hi-hat and under-heads for the ride and crash cymbals were grabbed by Beta 181 ultra-compact, side-address condenser mics. Elsewhere on the drums, a Beyerdynamic M88 could be found on the kick, and a Sennheiser MD 421 on the tom. Meanwhile, DPA d:vote 4099 mics captured the strings, and Radial J48 DIs were used for bass, keys and other instruments.

The Shure presence continued in monitorworld, where monitor engineer Wesley Crowe used a DiGiCo SD10 console to send mixes to Shure PSM 1000 and PSM 900 personal monitors worn by the band and techs.

Bareilles sported Ultimate Ears UE 18 ear buds, while the guitar, keys, bass and violin players chose UE 11s, the cellist went with JH Audio ear buds and the drummer supplied his own Westones. In addition to her in-ears, Bareilles herself also had two d&b audiotechnik M4 wedges in case of emergency—one at the piano and one at her standing position.

The audience, too, got an earful of d&b audiotechnik loudspeakers nightly, as the tour carried a V-Series

PA built around left and right hangs of V12s and V8s with V-Subs flown next to the PA and a dozen J-Subs on the ground in a sub arc formation across the front of the stage, providing even low-end distribution. Powering it all were new d&b D80s amplifiers.

While the tour is over, Bareilles has remained as busy as ever, and soon her fans will get the chance to experience her music live in a new context outside the concert venue, as

she's continuing work on a stage musical adaptation of Adrienne Shelly's 2007 film, *Waitress*, which expected to premiere at the American Repertory Theater in 2015-16.

Spectrum Sound  
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Shure  
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## ACT / STATISTICS

## CREW

## EQUIPMENT

## 1 KATY PERRY | CLAIR

Pete Keppler (be); Manny Barajas (me); Ben Rothstein (cc/se); Hope Stuemke (stech); Matt Moser (mtech); Pete Erskine (RF/com); Kory Lutes, Taylor Holden (techs)

HC: DiGiCo SD5; MC: DiGiCo SD5; HS: Clair i-5D, i-3, i-dl, BT-218, Cohesion CP-218, Cohesion CP-118, P-2; MS: Clair 12AM, SRM; IEM: Sennheiser SR 2050, AC 3200, A5000; JH Audio JH7, JH13, JHFR; HA: Clair StakRak (Lab.gruppen); MA: Clair StakRak (Lab.gruppen); MICS: AKG; DPA; Shure; Sennheiser EM 3732, SKM 5200-II, MD5235; Radial JDI; EQUIPMENT: Waves Soundgrid Extreme Server; Genelec 1031A monitor speakers; Radial SW8, Workhorse

## 2 PAUL MCCARTNEY | CLAIR

Paul "Pab" Boothroyd (be); John "Grubby" Callis (me); Chris Nichols (se); Paul "Swanny" Swan (mse); Sean Baca, Nicole Wakefield, Brandon Allison (techs)

HC: Avid Venue Profile; Midas Pro9; MC: (2) Midas Heritage 3000; HS: Clair i-5D, i-5, i-5b, BT-218 subs, i-3, i-dl; MS: Clair SRM, ML-18, R-4 III; IEM: Shure PSM 600; HA: Lab.gruppen; MA: Crown; MICS: Shure UR series with Beta58a capsule; Radial J48; FOH EQUIPMENT: dbx 160SL; TC Electronic 6000; MONITOR EQUIPMENT: XTA GQ600b; Drawmer DS201; Yamaha SPX990

## 3 MARC ANTHONY | 3G LIVE

Jose Rivera (be); Eric "Pyle" Ramey (me); Manny Perez (cc); Ken Quinlan (se); Joe Ramos, Jimmy Ibanez (techs)

HC: DiGiCo SD7; MC: DiGiCo SD10; HS: (128) d&b audiotechnik J8, J12, J-Subs, J-Infra, Q10, V8, V12; MS: d&b audiotechnik M2, V8, B2; IEM: Shure PSM 900; Sennheiser G2; HA: d&b audiotechnik D80, D12; MA: d&b audiotechnik D80; HARDWIRED MICS: Shure; Sennheiser; Audix; WIRELESS MICS: Shure Axient; Sennheiser 5200; FOH EQUIPMENT: 3G Live Drive Rack Lake LM44; Avalon VT-737

## 4 ERIC CHURCH | CLAIR

Billy Moore (be); Marc Earp (me); Jared Lawrie (se); Rachael Aull (m tech); Bryce Beauregard, Matthew Patterson (tech)

HC: (2) Midas Heritage 3000; MC: Avid Venue Profile, Venue SC48; HS: Clair i-5, i-3, CO-8, CP-218; IEM: Sennheiser G3; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Shure; Sennheiser; Royer; WIRELESS MICS: Shure; FOH EQUIPMENT: Manley VoxBox; Avalon VT-747SP, VT-737SP; Summit DCL-200; Tube Tech LCA 2B; Drawmer DS201; dbx 903; Yamaha SPX990, TC Electronic D-Two; Eventide H3500; MONITOR PLUG-INS: Waves Live Bundle; Crane Song Phoenix

## 5 BLAKE SHELTON | CLAIR

Jeff "Pig" Parsons (he); Brad Baisley (me); Tim Holder (cc/se); Jason Bennett (mse); James Higgins (pa/stage tech); Brian Leedham (pm)

HC: Avid Venue Profile (96 Ch.); MC: Avid Venue Profile (96 Ch.); HS: Clair i-5, i-5B, BT-218, i-DL, Clair Cohesion-8 micro array; MS: Clair Cohesion CM-22, 12AM; IEM: Sennheiser G3; JH Audio JH13, JH16; Aurasonics; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Sennheiser e901, e902, e904, e905, e906, e614, e602, e914, e935, 421; Radial J-48, JDI; WIRELESS MICS: Sennheiser em2050 receivers with SKM2000, e935 capsule; FOH EQUIPMENT: Avid VenuePack Pro 3; Rane Serrato; MONITOR EQUIPMENT: Avid VenuePack Pro 3; Crane Song Phoenix; McDSP MC2000; Flux Epure II; Radial 500 Series PowerStrip, PowerPre, Q4

## 6 LUKE BRYAN | CLAIR

Pete Healey (be/pm); Ed Janiszewski, Chris Holland (me); Kevin "Kap" Kapler (se); Tyson Clark (ase); JP Howell (tech)

HC: Midas XL-4; Avid Venue Profile; MC: DiGiCo SD7; HS: Clair i-5D, i-5, BT-218, CO-8; IEM: Shure PSM 1000 IEM; Sensaphonics; Westone; Ultimate Ears ear buds; HA: Clair StakRak; Lab.gruppen PLM 20000; HARDWIRED MICS: Shure 91, 98, 57, SM27, Beta98, Beta52; Radial DI; WIRELESS MICS: Shure; FOH EQUIPMENT: Focusrite ISA 430; Aphex 622; UREI LA-4; dbx 160x; Summit DCL-200; TC Electronic 2290 M5000, M3000; Eventide H3000; Yamaha SPX 90; MONITOR EQUIPMENT: Yamaha SPX-1000; Eventide Eclipse; TC Electronic M3000

## 7 LADY GAGA | EIGHTH DAY SOUND

Mike Hackman (he); Chris Rabold (be); Ramon Morales (me); Jim Allen (cc); Wayne Bacon (se); Dan Bluhm, Andy Dudash, Matt Strakis (tech)

HC: DiGiCo SD7; MC: DiGiCo SD7; HS: d&b Audiotechnik J8, J12, J Sub, B2, Q7, Q10, V8, V12; MS: d&b Audiotechnik V8, Q Sub, V Sub; IEM: Sennheiser; Shure; HA: d&b Audiotechnik D80; MA: d&b Audiotechnik D80; HARDWIRED MICS: Shure; Telefunken; Heil; Beyer; AKG; Earthworks; Radial ProD8; WIRELESS MICS: Sennheiser; Shure; FOH EQUIPMENT: Bricasti M7; Empirical Labs EL8, Lil Freq; Sonic Farm Creamliner; Radial SW8; TC Electronic System 6000

## 8 ENRIQUE IGLESIAS/PITBULL | SOUND IMAGE

Jim Miller (cc); Brooks Jackson, Bryan Naumes, Shane Darrington (tech); Iglesias: Brad Divens (be); Eddie Caipo (me); Chris Sharp (mtech); Pitbull: Wil Madera (be); Rico Domirti (me); Chris Demonbreun (mtech)

HC: (2) Avid Venue Profile (96ch.); MC: Avid Venue Profile (Iglesias); DiGiCo SD-5 with SD racks (Pitbull); HS: L-Acoustics (28) K1, (12) K1SB, (48) Kudo, (14) Kara, (24) SB-28; MS: Sound Image MA 1x15 (Iglesias); d&b audiotechnik M2, J8, J-Sub (Pitbull); IEM: Sennheiser; Shure; HA: L-Acoustics LA-8; MA: Crown I-Tech12000HD; d&b audiotechnik D12; HARDWIRED MICS: Sennheiser; Shure; Telefunken; Neumann; Beyer; Radial DI; WIRELESS MICS: Sennheiser; Shure

## 9 JUSTIN TIMBERLAKE | SOLOTECH

Andy Meyer (he); Dan Horton (me); Colin St-Jacques (cc); Etienne Lapré (se); Francois Hallé (ae); Alexandre Bibeau, Eric Marchand, Matt Holden (tech)

HC: DiGiCo SD7; MC: DiGiCo SD7; HS: L-Acoustic K1, Kara, SB28, V-Dosc, SB18, K1-SB, 108XT; IEM: Shure PSM 1000; HA: L-Acoustics LA8; HARDWIRED MICS: Shure SM57; Audio-Technica AE5400, ATM25; Rode; WIRELESS MICS: Shure Axient; Audio-Technica 5000 series with AEW-T6100 transmitter; FOH EQUIPMENT: Waves; Bricasti M7; MONITOR EQUIPMENT: Bricasti M7; Eventide Eclipse; Radial SW8

## 10 BRUNO MARS | CLAIR

Derek Brener (be); Lawrence "Filet" Mignogna (bme); Erik Rodstol (me/mtech); Randen Weinholtz (cc/se)

HC: DiGiCo SD7 with SD Racks; MC: DiGiCo SD7 with SD and Mini Racks; HS: Clair i-5, BT 218, i-micro; MS: Clair BT 218, BT 118; IEM: Sennheiser SK 2000, AC 3200 combiner; Clair antenna combiner, Helicals; HA: Lab.gruppen PLM 20000Q; MA: Lab.gruppen PLM 20000Q; HARDWIRED MICS: Earthworks KP1, SR30, SR 40, DP30/C; Beyer M88, Opus 88; Shure SM 57, Beta 57a, Beta 91; Sennheiser e 945, e 602, MKH 416; Heil PR 30; Radial JDI; Audio-Technica ATM25; WIRELESS MICS: Audio-Technica 5000 series with AEW-T6100 transmitter; Sennheiser SK 2000; FOH EQUIPMENT: Waves Mercury; MONITOR EQUIPMENT: Waves Mercury

**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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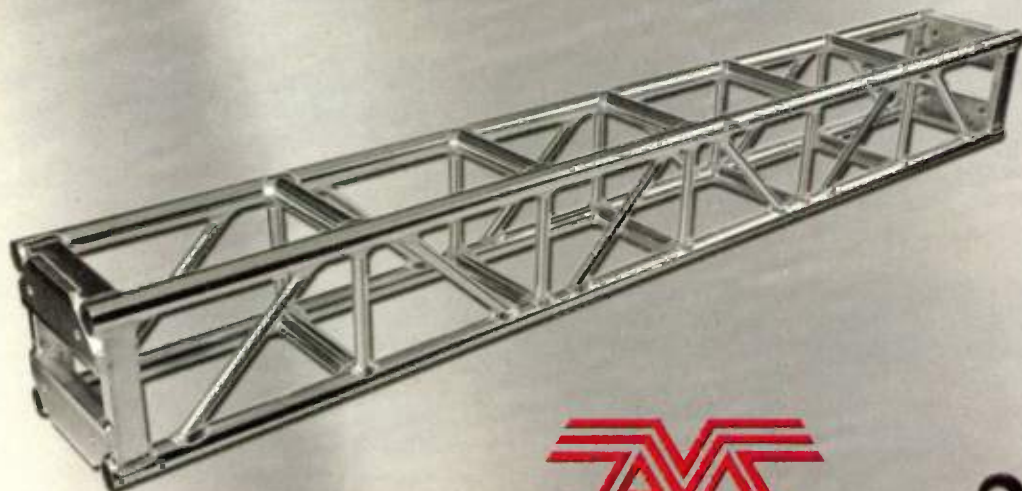
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Arkansas State Fair	<b>SOLID ROCK AUDIO</b> Conway, AR	<b>ARKANSAS STATE FAIR COMPLEX</b> Little Rock, AR	Mark Malone (he), John Petty (me), Lance Gipson (se)	<b>HC:</b> Midas Pro2; <b>MC:</b> Midas Pro2; <b>HS:</b> JBL VerTec 4888; <b>MS:</b> Sennheiser G3; <b>HA:</b> Crown; <b>MA:</b> Crown
Ben Allen Band, Stone Crab Festival	<b>MYSTERY CITY ENTERTAINMENT</b> Naples, FL	<b>TIN CITY</b> Naples, FL	Dave Segerstrom (he), Billy Reeves (ae), Eli Dominguez (tech)	<b>HC:</b> Behringer X32; <b>HS:</b> Electro-Voice, JBL; <b>MS:</b> Yamaha, FutureSonics; <b>HA:</b> Carver, Crest; <b>MA:</b> Crest
Bowzer's Fab 50's Show	<b>ACIR PROFESSIONAL</b> Mays Landing, NJ	<b>WILDWOOD CONVENTION CENTER</b> Wildwood, NJ	John Grasso (he), Dave Lefko (me), Dan Maggio (se), Dominick Friia (Crew Chief)	<b>HC:</b> Yamaha CL5; <b>MC:</b> Yamaha PM5D; <b>HS:</b> d&b audiotechnik J8, J12, B2; <b>HA:</b> d&b audiotechnik D12; <b>MA:</b> Yamaha 7000S
Collin Raye	<b>PEAR BROTHER'S SOUND &amp; LIGHTING</b> Carleton, MI	<b>FIRST MERIT BANK EVENT PARK</b> Saginaw, MI	Carl Vloch (he), Bill Vloch (me), George Favazza (tech)	<b>HC:</b> Soundcraft; <b>MC:</b> Behringer X32; <b>HS:</b> Bag End Gem Series; <b>MS:</b> Bag End, Shure PSM 900; <b>HA:</b> QSC; <b>MA:</b> QSC
Eddie Money	<b>DB SOUND OF CHARLOTTE</b> Charlotte, NC	<b>MAYHEW PROMENADE</b> Mooresville, NC	Matt Barker (he), Dave Barker (me), Gene Starnes (tech)	<b>HC:</b> Yamaha M7; <b>MC:</b> Yamaha M7; <b>HS:</b> VTC Pro Audio EL210, Danley TH115; <b>MS:</b> Worx Audio WaveSeries 12M; <b>HA:</b> QSC; <b>MA:</b> QSC
Emmylou Harris	<b>BOULEVARD PRO</b> Ridgefield Park, NJ	<b>TARRYTOWN MUSIC HALL</b> Tarrytown, NY	Anthony Cioffi (he), Larry Sharkey (me), Tom O'Shea (bhe)	<b>HC:</b> Yamaha PM5D-RH; <b>MC:</b> Yamaha CL5; <b>HS:</b> Meyer M2D, Milo, 700-HP; <b>MS:</b> L-Acoustics 112P, SB15P, Sennheiser G3; <b>HA:</b> Meyer self-powered; <b>MA:</b> L-Acoustics self-powered
Freakfest 2014	<b>INTELLASOUND PRODUCTIONS</b> Verona, WI	<b>STATE STREET</b> Madison, WI	Bryan Schalburg (he), Dan Edwards (he), Jimmy Valenza (he), Aaron Kippley (me), Caleb Reinert (me), Tim Ringgenberg (me), David Maier (se), Tim Woodworth (se), Al Rominsky (se), Matt Naselli (tech), Tanner Gibbs (tech)	<b>HC:</b> Avid Venue Profile, SC48, Midas Pro2; <b>MC:</b> Avid Venue Profile, SC48, Midas Pro2; <b>HS:</b> Electro-Voice X-Line, X-Sub; <b>MS:</b> Electro-Voice XW-15, Turbosound TFM-300, X-Subs; <b>HA:</b> Electro-Voice TG-7; <b>MA:</b> Electro-Voice P3000-RL, QSC PL2
Java Jazz with Michael Paulo and Hawaii Gano 5-0	<b>SYSTEMS INTEGRATION ENGINEERING</b> Temecula, CA	<b>HASR BISTRO</b> Honolulu, HI	Tony Mirador (be), John R. Borja (se), Eddie Pascua (ae)	<b>HC:</b> Yamaha; <b>HS:</b> Carvin Audio TRC400A; <b>MS:</b> QSC KW122
Kaskaskia Trail Chorus	<b>PEARL PRO AUDIO</b> Godfrey, IL	<b>TURNER HALL</b> Columbia, IL	Don Lanier (he), Bobby Allen (tech)	<b>HC:</b> Soundcraft Si 32; <b>HS:</b> JBL PRX415M; <b>MS:</b> JBL PRX415M; <b>HA:</b> Peavey IPR2 7500; <b>MA:</b> Peavey IPR2 5000
Michael Troy is The Elton Joel Show	<b>ESP SOUND SYSTEMS</b> Plymouth, MA	<b>SEACOAST REPRETORY THEATER</b> Portsmouth, NH	Paul Duffley (he, be), Nick Gemelli (tech)	<b>HC:</b> Allen & Heath GLD-80; <b>HS:</b> JBL SRX728, SRX722; <b>MS:</b> JBL SRX712M; <b>HA:</b> Crown i-Tech; <b>MA:</b> Crown i-Tech
Pukkelpop Festival	<b>PRG EML PRODUCTIONS</b> Tildonk, Belgium	<b>KIEWIT HASSELT FESTIVAL SITE</b> Hasselt, Belgium	Patrick Demoustier (he), Tom Vuerstaek (me), Jan Derijcke (se), Kristof Desodt (ae)	<b>HC:</b> Midas XL-4; <b>MC:</b> Midas Heritage 3000; <b>HS:</b> Adamson Energia E-15; <b>MS:</b> Sennheiser 2000; <b>HA:</b> Lab Gruppen; <b>MA:</b> Crest
The Steep Canyon Rangers	<b>RMB AUDIO</b> Raleigh, NC	<b>UNC MEMORIAL HALL</b> Chapel Hill, NC	Rick Null (he), Matt Johnson (me), Roger Dennis (se)	<b>HC:</b> Avid Venue Profile; <b>MC:</b> Avid Venue Profile; <b>HS:</b> Martin Audio MLA Compact, DSX, MLA Mini; <b>MS:</b> Martin Audio LE1200; <b>HA:</b> Martin Audio; <b>MA:</b> Lab.gruppen
The Talbott Brothers	<b>DYNASOUR SOUND AND LIGHT</b> Hastings, NE	<b>THE LARK</b> Hastings, NE	Doc Ivo (he), Don Robertson (se), Neil Brunkhorst (tech)	<b>HC:</b> Soundcraft LX7; <b>MC:</b> Dynamix; <b>HS:</b> Wananosaurus Bins, Trachodon Traps, Saltopus Sidefills; <b>MS:</b> IVO LR-12H; <b>HA:</b> Crown Macrotech; <b>MA:</b> IVO Qudralux
Weezer	<b>IRONMAN SOUND INDUSTRIES</b> St. Louis, MO	<b>PLUSH STL</b> St. Louis, MO	Bob Horner (he), Craig Overbay (be), Rusty Shaw (me), Neil Taylor (bme), John Nolan (ae)	<b>HC:</b> DiGiCo SD8, Yamaha QL1; <b>MC:</b> Yamaha CL5, Yamaha LS9; <b>HS:</b> Martin W8LM, WSX, X12+; <b>MS:</b> Martin LE1500S; <b>HA:</b> Lab.gruppen PLM; <b>MA:</b> Crown

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

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

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## Streaming

(continued from page 1)

during the first six months of 2014, revenue from streaming sites rose by 52 percent, while CD sales fell by 20 percent and digital downloads were down 13 percent. Numerous big media entities are joining the race—YouTube and Amazon each recently

announced their own streaming services, while Apple spent \$3 billion to buy Beats Electronics and its streaming service which is heavily tipped to be rolled into iTunes early next year, and YouTube's parent company, Google, recently took control of Songza, another radio-based platform similar to Pandora.

Pandora Media, with more than 77 million users, is a radio-based model, where users can create a sta-

tion based off of a song, genre, or artist. Spotify is on-demand, where users can create playlists and listen to entire albums. The Pandora paradigm works well for users looking for new music, but its smaller library will guarantee repeats throughout the day. Spotify gives users more control over what they're listening to, so they're not skipping over the songs, but with a much larger library, many of the songs Spotify offers won't get played.

Unlike traditional radio, streaming sites like Pandora and Spotify can keep a much more detailed history of every time a song is played—information that dictates the royalties it pays. David Kelln, a British Columbia-based audio engineer, commented, "I like the idea that what I actually listen to is where the royalty money goes, because each play can be logged."

Pandora pays about 50 percent of its revenue in royalties, while Spotify is closer to 70 percent, according to Quartz News. How much of that actually goes to the artist depends on the contract between each musician and the label.

"The way I would love to see it done is that content is available to any internet streaming broadcaster at a set royalty rate. Then the competition is between those who provide a good service with an interface I can navigate easily," said Kelln.

The other big question related to streaming services is audio quality, and whether users are willing to pay more for a high-resolution streaming service (if the site provides it). Pandora's upgraded service, Pandora One, offers a higher resolution of audio with a monthly subscription (compared to its free version), but there are exclusive high-res audio sites, like Tidal ([www.tidalhifi.com](http://www.tidalhifi.com)), which streams hi-res audio files for a subscription fee of roughly \$20 a month.

"The technology of audio streaming is no big deal at all," argued Tony Faulkner, owner of London, UK-based Green Room Productions. "Netflix can stream 4K video with surround audio, so audio is a walk in the park. The problem is that the main commercial companies couldn't care less about sound quality—it's nowhere on their agenda at all. They are only interested in the bottom line of their business model."

"To me, streaming is just radio reinvented, where music is not presented in a linear way. It just differs on the way you interact with it and the way you get it on your listening device," said Paulo Mendes, a sound engineer and audio systems consultant in Lisbon, Portugal.

Regardless of the listening device or the quality of the audio, one thing is certain—music streaming is growing, and the industry has to adapt. "Artists are now faced with a dilemma. They can either stop making music, which is obviously absurd, or they need to reinvent the way their work is paid and controlled," said Mendes. "I don't have an answer, but if this reinvention fails to see the light, I guess that a recorded song, despite its record media, will become just a lure to live show ticket sales."

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Ralph Goldheim

Music software and hardware company Arturia has named former Focusrite-Innovation Director, US Sales **Ralph Goldheim** to the newly-created position of President, US Operations, as part of the company's ongoing expansion strategy, effective November 12. Goldheim brings experience in sales and marketing management with him to Arturia, including more than 25 years of experience in the pro audio/MI industry, where he has held numerous executive positions at M-Audio (MSN), 360 Systems (VP), Line 6 (VP/co-founder), and Alesis Corporation (VP), prior to Focusrite-Innovation.

"We are extremely pleased that Ralph Goldheim is joining Arturia as President, US Operations. He has a very strong track record, ranging from sales to product marketing, from entrepreneurship to business operations. He has a superb reputation in the music industry and plenty of ideas to bring to Arturia to the next stage of our development," commented Arturia President Frédéric Brun.



Zach Winterfeld

TransAudio Group has hired engineer, educator, and salesperson **Zach Winterfeld** to serve TAG in Southern California. In that capacity, Winterfeld will represent all of TransAudio Group's professional lines, including ATC monitors, Bettermaker, Bock, Drawmer, and Tube-Tech, as well as ATC's hi-fi loudspeakers. Winterfeld's diverse industry experience includes freelance engineering and positions with Mer-

cenary Audio, Boston University, and Berklee College of Music.

"Zach has extensive studio experience," said TransAudio Group President, Brad Lunde. "He worked at Cello Studios (now East West Studios) and The Mix Room, and thus knows what great equipment can do for a project. As 'Head of All Things Digital' at Mercenary Audio, Zach got a premier dealer's-eye-view of the industry that will serve him well at TransAudio Group."



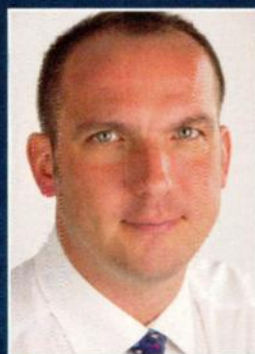
Michael Amkreutz

Guitar Center has announced the appointment of **Michael Amkreutz** to the position of Executive Vice President, Marketing, Merchandising and E-Commerce, for the Guitar Center brand. In this new role, Amkreutz will be responsible for all aspects of GC's product assortment, in-store merchandising, marketing campaigns and e-commerce strategy. Amkreutz joins Guitar Center from Systemax North American Technologies, where he most recently held the role of Chief Marketing Officer. His background in marketing, merchandising and technology developed over the years at companies such as Sears, Newegg, Hannspeer North America and Sharp Electronics.

Reporting to Amkreutz will be Michael Walter, SVP, Merchandising, DAMBO; Michael Doyle, SVP, Merchandising, Guitars and Amps; and Bill Wrightson, SVP, Merchandising, Technology.

"I'm extremely excited and pleased to have the opportunity to work with such a well-respected brand in the music industry," said Amkreutz. "I look forward to collaborating with the outstanding group of minds at Guitar Center to foster

## 60SECONDS


**Luke Ireland**  
*Martin Audio*

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

**A:** I am Managing Director and President of Martin Audio. My role is to ensure Martin Audio reaches its significant potential by creating a vibrant, challenging and fun place to work, driving the team to enhance customer relationships and improving the sonic experi-

ence for audiences worldwide.

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

**A:** My background is in technology, mobile and audio. I have strong international operations and sales leadership skills, which are what Martin Audio needs most to deliver its true potential.

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

**A:** We truly believe the best way to appreciate a Martin Audio product is to listen to it. That inspires customer after customer to invest across the spectrum of our portfolio. Expect to see a raft of experience events that enable that.

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

**A:** I am passionate about delivering and exceeding customer expectations. Short-term, we are focusing on our production processes, starting ground up, providing the basis for the company to meet customer needs of today, rather than simply adding to processes from the past. Longer-term, we are investing in research and development that gets under the skin of customer and end-user needs and challenges so that we can go on to deliver class-leading solutions.

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

**A:** 2014 has been a tremendously successful one for our technology-leading MLA product series. Whether it was Glastonbury, Electric Daisy Carnival, London Invictus or bands such as Steely Dan, we have proved that if you want the best sounding audio with the best SPL control, then MLA is the only serious choice. Our challenge is to continue to improve and develop our MLA technology to keep it right at the top of the market. Coupled with that, we have a growing permanent installation business that in 2015 we foresee becoming a breakthrough year. Getting the right investment and priority balance between touring and installation needs will continue to be an exciting juggling act.

the next batch of big ideas to bring further success to the brand."



Daniel Liston Keller



Jerry Kovarsky

The Bob Moog Foundation has added three new members to its Board of Directors. **Daniel Liston Keller**, **Jerry Kovarsky**, and **Dominic Milano** join the Foundation with an eye towards funding development, project expansion and evolving infrastructure. The trio joins long-time Board members Hunter Goosmann and Bill Sautter.

Keller is Chief Executive Officer of Get It In Writing, a public relations firm specializing in professional audio, video, multimedia and content creation technologies. His career in music technology includes positions in audio engineering, music production, product management, artist relations, and product development with companies includ-



Dominic Milano

ing Cherokee and Paramount Studios, BMG Music, Shure and Tascam.

Kovarsky's 30-plus year career working for leading synthesizer manufacturers includes such roles as Director of Brand Management and Senior Product Manager at KORG; Director of Marketing at Ensoniq; and Product Manager at Casio. He was part of the teams that introduced award-winning products such as the KORG Triton, the KORG Oasys, and the Ensoniq ASR-10.

Milano was one of the original staff members of *Contemporary Keyboard* when it launched in 1975, and later became editor, a position he held for many years. In addition to *Keyboard*, Milano has held positions at a variety of music and digital media publications including *Guitar Player*, *Bass Player*, *InterActivity*, *Game Developer* and *Digital Video* magazine. He is the principal at Dominic Milano & Company, where he assists tech companies explain and promote new technologies.

## soundREPS

■ **QSC Audio Products, LLC** has announced the appointment of the **Peter E. Schmitt Company** as its manufacturer's representative for Metro New York.

■ **Full Scale AV** will distribute **Sonus Limited's** range of audio and MIDI-based products in the North American marketplace. Full Scale is the US distributor of JoeCo, Mic-W, True Systems and Drumagog.

■ **Sweetwater** has received the "Dealer of the Year" award from **Music Group**. This award is given annually to the best performing retailer for sales performance, customer relationships and product knowledge. "We are very proud of the relationship with Sweetwater and their team. Over the past two years, sales of our brands Midas, Turbosound, Behringer and Bugera have seen unprecedented growth," commented Music Group CEO Uli Behringer.



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## Listening and Responding

ERIK TARKIAINEN, VP OF  
GLOBAL MARKETING, HARMAN  
PROFESSIONAL

BY KELLEIGH WELCH

With 10 pro audio brands under its name, Harman Professional holds a unique position within the industry, as providing a high-quality line of products is just the first tier of the company's business model. As Erik Tarkiainen, VP of Global Marketing, explains, Harman has the luxury of dedicating its R&D efforts to designing new products and finding ways to integrate products from each brand together to create a full Harman system.

Tarkiainen joined Harman Professional in June, 2014, bringing with him years of experience within the marketing segments of the pro audio industry. "I've held positions with multiple companies in the professional audio field, including co-founding iZotope, an audio processing and music effects specialist," he said. "I have also served as VP of marketing communications for Line 6."

At an early age, Tarkiainen developed an interest in music, learning to play guitar and keyboards in bands as a teenager—a move that led him to the pro audio side of the industry. "I knew I'd never make it as a musician, so I went to school for engineering and acoustics," he said. "That led to a product management position with Bose early in my career, which introduced me to the marketing side of the business. I feel incredibly fortunate that since then, I've been able to work with a number of great com-

panies and people in a business that I truly love."

Lighting, AMX control and our IDX communication platform, we are taking a systems approach to the market and I'm excited about the directions into which we're expanding."

To continue growing the company, Tarkiainen again emphasized the importance of working across its brands to solve both the individual and system needs of its customers within the various verticals of the pro audio market. "Our goal in terms of the pro audio industry is to continue developing products that are optimized to work in unison with products from other Harman brands, so that our customers can build complete Harman systems, translating into significant time and cost savings," Tarkiainen explained. "We spread ourselves wide—but not thin. We share a lot of technologies between product lines, but we also hold a strong focus on the specific needs within each market. I think my role within that structure in-



Erik Tarkiainen, VP of Global Marketing

us," he said.

Asked for a specific example of Harman's efforts to develop products that cater to the pro audio world, he cited the JBL 7 Series studio monitors, which were developed with technology found in the M2 Master Reference Monitor and 3 Series studio monitors to meet the audio requirements of post-production and broad-

cast applications.

is paying more attention to its end users and dealers, specifically within house of worship, retail and hospitality, to try and pinpoint exactly what those markets need, while also forging strong relationships with its clients.

In terms of competition, Tarkiainen again said his emphasis is on the end-users. "If we aren't listening to the people using our products, you can bet someone else will be more than happy to do that for us. So keeping those relationships and building new ones through dedicated service and support is key to remaining competitive," he explained.

Moving into 2015, Tarkiainen said his vertical market approach will be a top priority. "I don't consider Harman a products company; I consider us to be a systems company. More products are on the way, no doubt, but just as important is how those components will complement and work together as systems."

And while he didn't specifically say what will be there, Tarkiainen added that Harman has a range of new product announcements from AKG, Crown, dbx, DiGiTech, JBL, Soundcraft and others slated for Winter NAMM 2015, to be held January 22 to 25 in Anaheim, CA.

Harman International  
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"If we aren't listening to the people using our products, you can bet someone else will be more than happy to do that for us. So keeping those relationships and building new ones through dedicated service and support is the key to remaining competitive."

Erik Tarkiainen

panies and people in a business that I truly love."

Since joining Harman, Tarkiainen has dedicated his attention towards customer service and maintaining relationships within the industry. "The diversity and prestige of Harman's brands, and the opportunity to work with some of the most creative and intelligent professionals in the industry, made the company very attractive for me," he explained. "We obviously have a great portfolio of audio brands, but Harman is so much more than a pro audio company. Between Martin

cludes maintaining that collaborative philosophy while also making sure that each brand has a very defined and clearly laid-out goal."

Customer input is also a key factor when it comes to Harman's R&D efforts. As VP of Global Marketing, Tarkiainen said he can't rely on the company's reputation alone, but must also listen to the markets and customers to develop quality and innovative products. "This industry is ultimately about the people. Listening to our customers about their needs and their own challenges is a priority for

cast applications.

Tarkiainen also highlighted the Studer Vista V digital console, which features Harman's new Infinity 200 processing engine. "The Infinity 200 offers the same benefits of the original Infinity DSP Core, which is found in the Vista X digital console; we're talking about an unbelievable amount of processing power in this engine," said Tarkiainen.

With more recent acquisitions including Martin and AMX, Harman Professional is arming itself for growth. Tarkiainen said the company



# Immersive Sound

(continued from page 1)

it was to be five years before the DVD spec was finalized, and another three years before DVD-Audio became a reality. In contrast, immersive audio debuted in cinemas in 2012—in the form of Auro-3D in January of that year with *Red Tails* and Dolby Atmos in June with *Brave*—and by September 2014 was available, on Blu-ray Disc, in the home.

Consumer electronics (CE) manufacturers have already made a large selection of immersive audio-capable receivers and speakers available for home theaters—beginning ahead of any content being available, in fact. Dolby Labs, for example, announced in early September that Denon, Integra, Marantz, Onkyo, Pioneer, Steinway Lyngdorf, Trinnov Audio and Yamaha are all making Dolby Atmos AV receivers or pre-processors. Manufacturers developing Dolby Atmos-enabled speakers and add-on modules, enabling reproduction of the all-important height or overhead sound elements in the living room, include Atlantic Technology, Definitive Technology, KEF, Onkyo, Pioneer USA, Teufel and Triad Speakers.

Onkyo is also the first manufacturer to introduce a Dolby Atmos-equipped home theater-in-a-box system. A single-box solution might be attractive to consumers, but might immersive set-ups, with their added height speakers, be difficult to configure correctly in the home?

Will consumers even reach for their credit cards to purchase immersive home audio systems, or will they be distracted by the latest video technologies, such as 4K, HDR and greater frame rates? Here's a clue: 4K display shipments for Q3 2014 were up 500 percent over Q3 2013.

Also worth considering from recent history is that DVD-Audio and SACD content, although still being released, largely faded from sight due to market confusion and bad timing. With the launch of Apple's iTunes just months after the DVD-A spec was finalized, convenience and quantity easily trumped quality.

With Auro-3D, DTS and Dolby Atmos all offering playback of immersive content in the home, and broadcast and streaming delivery schemes such as NHK's 22.2, MPEG-H 3D Audio and ECMA-407 also currently or soon available, could there be another detrimental format war?

Happily, many of the immersive format developers are publically es-

pousing interoperability and the need to develop a standard. A SMPTE working group is already moving toward just such a standard, with the TC-25CSS Audio Technology Committee on Cinema Sound Systems currently developing an interoperable, immersive audio format for digital cinema. That work, partly a result of lobbying by Hollywood content creators and movie theater owners, will reportedly be published by the end of 2015. As SMPTE is quick to point out, innovations in the cinema often trickle down to home systems.

Adopting a single standard, whether it supports object-based or channel-based formats, or both, will certainly help content creators. As noted in the preview of the AES 57th Conference on the "Future of Audio Entertainment Technology—Cinema, Television and the Internet," to be held in Hollywood, CA in March 2015, "some 350 different distribution versions were required for *Captain America: The Winter Soldier* release—most of the variations due to sound requirements." An immersive standard enabling post producers to generate one mix that played on any platform might remove a considerable hurdle for content creators.

Home entertainment-specific mixes require post-production facilities to

either move the mix into a smaller environment to adjust it for living room playback or set up nearfield speakers on the re-recording stage. There will need to be a proliferation of smaller mix rooms equipped for immersive projects—at least matching the 5.1+4 or 7.1+4 configurations (+4 indicating the number of height speakers) expected to become popular in the home—to facilitate production of significant quantities of content.

There are already indications that cable and OTT content distributors will drive initial demand for immersive titles. Streaming services Vudu and Amazon, via its Fire mobile platform, already have the ability to deliver Atmos content, and cable companies and OTT broadcasters are not far behind.

Object-based schemes, in particular, hold the immediate promise of personalization, headphone and sound bar virtualization, and accessibility, especially on mobile platforms, the most prolific playback devices on earth. That could well drive demand for immersive content.

As noted by Roger Charlesworth, executive director of the DTV Audio Group, at the recent LiveTV forum in Hollywood, "This has happened incredibly fast, because of the transition to streaming. The rate of change is really phenomenal."

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# Leave It All Behind

BY JAUQUES SONYIEUX

On *Work and Love*, Elliot BROOD's new album, the Canadian band broke with past traditions by hiring a producer for the first time and expanding its own musical palette. The band's new album deals with themes of growing up and leaving adolescence behind. In so doing, the group also left more familiar ways of recording behind, opting to record in more controlled environments and taking on less of a DIY approach. The new album sees the Juno-award winning act bringing a sharper, musically richer sound to its unique alt-country blend. *Pro Sound News* spoke with drummer Stephen Pitkin on leaving (most of) the familiar behind.

## ON MOVING ON:

Thematically, the new record is about maturing—we are all balancing families, relationships and our music careers, and at the same time, leaving stuff behind. The song “Nothing Left,” for example, is about knowing when a relationship is over and leaving that behind.

We had done several records in a DIY kind of fashion. A lot of the times, I engineered, and we recorded everywhere from townhouses to cabins in the woods, to trucks, to outdoors in rainforests and everywhere else we possibly could. I guess we hit a maturity level where we decided to hone the sounds a little more, and in doing that, we ended up hiring a new producer, Ian Blurton (Weakerthans, Skydiggers, Cursed).

## ON WORKING WITH IAN BLURTON:

Ian came to the table and was our first choice. In particular for us, he had produced The Weakerthans' *Reconstruction Site* album, which was a go-to record for all of us. To hear what he'd done with them, we realized that he wasn't just going to try to make a heavy rock album with us and I think we found that sweet spot and struck that balance.

Before we got with Ian, we spent a lot of time on self-produced preproduction where we recorded rehearsals and discussed song forms and arrangements. Ian came for three days at the end of our preproduction and helped with this phase as well. When we finally got to the studio, it was great working with Ian because he would challenge all of us to do things



The band Elliot BROOD recorded its latest album at Bathhouse Recording Studio on Lake Ontario.

with a little more creativity than we might normally do.

## ON THE BATHHOUSE RECORDING STUDIO:

We ended up working at the Bathhouse Recording Studio, located on Lake Ontario between Toronto and Montreal. It is The Tragically Hip's studio—a wonderful facility with classic gear including an API desk and tons of outboard. It is also a residential facility with a kitchen and all the amenities. So it just worked out really well for us, especially considering the resources we had already spent on preproduction in LA.

Nyles Spencer at the Bathhouse is kind of a genius. Typically, you don't really know what you are getting when you rent a studio with a house engineer. You kind of expect a transparent, quiet individual. But Nyles would be doing like 16-hour days and just never stopped. His main thing was how efficient and creative he was with the outboard gear. He has all this equipment he could grab in a pinch—plate reverbs, Leslie speakers, Eventides and other equipment. He would be doing creative things with tape machines, manipulating the audio and sending it back while we were recording. We've always enjoyed studio fun, and I think he had that—which was great.

## ON THE PAPER BAG SESSIONS:

These sessions were recorded by Mitch Fillion, whose thing is to go in with one camera along with a bunch of live microphones he brings along. This particular session for us was done at University of Toronto's Hart House, which is a beautiful, ambient room that kind of looks like a church. There were no mics on the drums; it's just ambient sounds coming off of the live mics. Mitch put together a decent mix and gave us the tracks. We embellished them a little bit and de-

cided to include them as bonus tracks on the album. It is what it is; it has that immediate and spontaneous feel of a one-camera performance.

## ON COMMANDO RECORDING:

Our early recordings were partly dictated by budget, because we started with nothing. At the time of our first EP, I had some engineering experience and was really champing at the bit to produce stuff when I met these guys. I convinced them to record with me and we did what I call “commando recording.” You take the bare bones out of everything and just do it. I think we learned from all those processes and I wouldn't give up any of that experience.

We had many great moments discovering the nature of recording in different environments, using each to our benefit. We used to record at a place called Avening Hall in Ontario which just had this awesome tone to it. But as we spent more time recording there, we also discovered there was a bird's nest up in the corner of the room. When you are tracking, a couple of bird chirps might be OK, but if you are doing overdubs, it gets to be a bit much, so working in a professional environment was a nice change on this record.

## ON EXPANDING THEIR SOUND:

It's amazing because our sound feels more expansive now. It was a challenge to get these particular songs up and running live—it took a bit of brainstorming. Our past stuff was just ‘get up and go’ since we were almost like a skiffle, busking type of group when we started. Now we are a lot more full—Casey plays bass pedals, Mark plays several instruments, I play keyboards and drums at the same time on about 10 songs. Once we finished the record, we had it all in our head, but getting it together live definitely took a few rehearsals.

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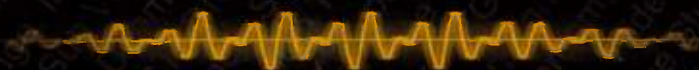


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