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September 2014



Randy Thom, sound designer for such films as Apocalypse Now, gave the keynote address at the Mix Sound For Film event at Sony Pictures Studios in Los Angles, speaking of how sound creatively affects the film-making process.

Immersed In Immersion

BY STEVE HARVEY

CULVER CITY, CA-At the Mix Sound for Film day-long immersive sound event at Sony Pictures Studios in early September, four panels discussed the art and technology of the new formats while an array of manufacturers and retailers offered demonstrations of some of the latest hardware and software tools.

With so much technology on display, award-winning sound designer Randy Thom, CAS elected to talk about art in his keynote speech. Playing clips from a number of films, including Gravity, Barton Fink and his first sound job, Apocalypse Now, Thom made the case for sound designers to begin talking with directors and screenwriters long before the cameras roll. "It's going to make for better movies," he said. "It's also going to make the filmmakers take us more se-

(continued on page 21)

Ears To 3D Manufacturing

Ultimate Ears has quietly incorpo rated 3D printing into its custom IEM manufacturing, digitally scanning ear impressions (shown here is the digitally prepped 3D CAD rendering of an impression, ready for printing). UE shares the details of the fully developed and vetted process with Pro Sound News



The Business Of Small

Microphones reveals the intricate nature of constructing its miniature microphones, paired with an emphasis on quality control that adds up to a leading role in the market segment



AES Returns To LA

BY STROTHER BULLINS

LOS ANGELES, CA-The AES International Convention returns to downtown Los An-

geles, October 9-12 at the Los Angeles Convention Center, after a dozen years away. In its 137th incarnation, the Convention prom-

SPECIAL REPORT

ises its characteristic deep view of the industry through papers, tutorial, workshop and special event sessions, alongside the exhibition hall.

The AES is already promising a bigger show in terms of both exhibitors and attendees. "The exhibition floor for the 137th AES Convention has already expanded into the next adiacent hall," offers Bob Moses, executive director, AES. "There are more exhibitors and sponsors signing on for Los Angeles than exhibited last year in NYC; that's unprecedented for a West Coast AES Convention. Attendee pre-registration took off faster than last year's 135th Convention as well."

Of special note this year are a number of dedicated subject tracks, including the topic of Networked Audio in professional workflows, focusing on the newly adopted AES67 and MADI protocols; the return of the immensely popular Project Studio Expo (PSE) on the exhibition floor, a series of panels and presentations to better educate and serve the modern "DIY" self-recordist

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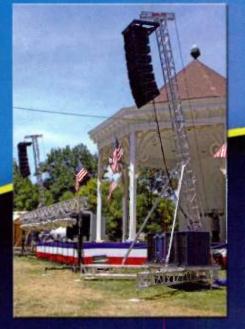


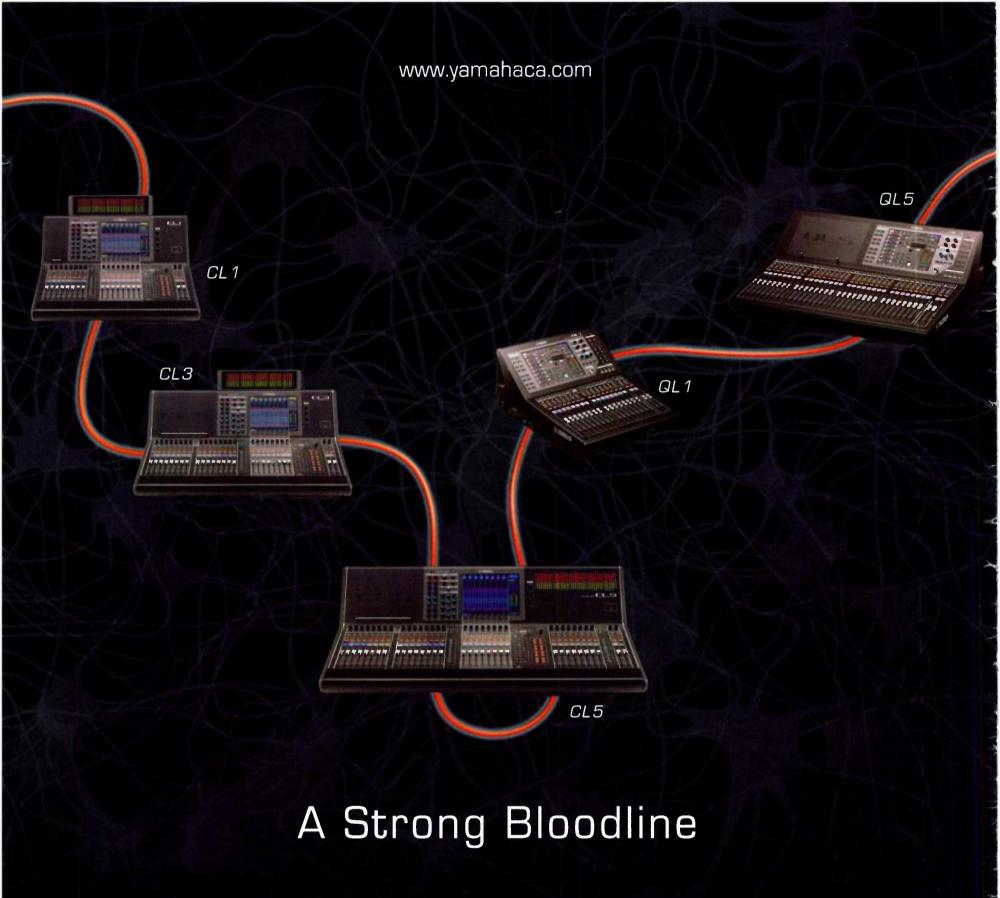
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THE BEST DOG & PONY SHOW IN TOWN

Dog & Pony Studios out of Las Vegas, NV recently upgraded their sound system to feature Yamaha's NUAGE Advanced Production System. As the premier recording studio in the entertainment capital of the world, Dog & Pony's resume features everything from MGM Resorts MLife TV to the recently released Elliot Smith documentary, "Heaven Adores You." With all that goes on in this studio, it's obvious that what happens here definitely doesn't stay here. We sat down with studio Owner/Producer John McClain to get his thoughts on the new system.

"My favorite thing about Nuendo is how you can find multiple ways to solve the same problem. The competition hands you their DAW and says "Work within these predefined parameters." In contrast, Steinberg hands you Nuendo and says, "Work how you want and define the parameters for yourself."

"With Nuage, Yamaha has taken the next logical step to this approach and built a stellar control surface that adds to the ergonomics of Nuendo. Now everything is at your fingertips and you spend less time with a mouse and keyboard. I'm spending time mixing like I would on an analog console but with all the modern conveniences of a top flight DAW and control surface that interact seamlessly. Audio is more fun than ever!"

— John McClain

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III sound BUSINESS

AP Launches New Flagship

BY FRANK WELLS

NEW YORK, NY—Audio Precision has announced a new flagship audio analyzer, the APx555. The APx555 outperforms the company's previous performance leader, the SYS-2700, while blending an update of that device's power user operator interface with the simplicity of the APx style, production-oriented, sequence mode software control. The APx555 extends the analog performance of the APx series beyond that of the SYS-2700, with "the lowest noise and distortion" ever offered in an audio

analyzer, according to Tom Kite, VP, Engineering for AP.

The numbers cited to *Pro Sound News* during a briefing on the APx555 include a typical residual THD+N of -120 dB (with the specification a conservative -117 dB). That's 5 dB better than the SYS-2700 and 19 dB better than the closest competition, claims Spyros Lazaris, VP, Sales and Marketing In mono mode, the measurement bandwidth can extend to 1 MHz. Up to 1.2 million point FFT resolution is available.

Beyond the performance specifications, the APx555 bests the SYS-



Audio Precision's new flagship audio analyzer, the APx555.

2700 in interface and clocking capabilities, embracing a wide range of professional and consumer interface types. Jitter generation and analysis capabilities as well as interface signal degradation tests have been expanded with the new hardware.

The APx555 is slated to begin shipping in October. The standard configuration, which includes "Advanced Digital I/O" and the "Advanced Master Clock," will list at \$28,300. The Bench Mode operator interface will be available for the other APx series devices, included in software version 4.0 on all models except the APx515, where the upgrade is \$2000.

Audio Precision

briefs

Yamaha Donates Desk

NASHVILLE, TN—The Pearl-Cohn Entertainment Magnet High School in Nashville, TN recently received a new Yamaha (yamahaca.com) CL1 Digital Audio Console, donated by Yamaha Commercial Audio, to help further the education of students in the audio engineering track at the school. Lenox Productions facilitated the arrangement with Yamaha, who in turn, enlisted the services of J Sound Services (Nashville) to add the console and a Rio 3208-D input/out box to its 413-seat auditorium.

Masque Sound Rolls To Road Recovery

EAST RUTHERFORD, NJ—Theatrical SR company Masque Sound (masque-sound.com) recently made a charitable contribution to Road Recovery (roadrecovery.org), a music-industry non-profit organization that helps young people battle addiction and other adversities through a range of music-focused programs and events. As part of that effort, the organization makes use of the influence of entertainment industry professionals who have confronted similar crises and now wish to share their experience, knowledge and resources.

Vintage King Rules Summer NAMM

NASHVILLE, TN—Vintage King Audio (vintageking.com) co-founders Mike and Andrew Nehra took the stage during the recent Summer NAMM Show's Retail Summit in Nashville for a chat with NAMM president Joe Lamond. Catch video of the interview at prosoundnetwork.com/sept2014.

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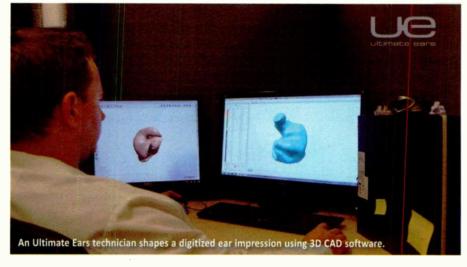
UE Embraces 3D Digital Manufacturing

BY FRANK WELLS

NEW YORK, NY-The 3D printing revolution is quite the rage, with the devices being used for rapid prototyping and for on-site creation of product elements. For the past six months, inear-monitor specialist Ultimate Ears has quietly incorporated 3D printing into its manufacturing process, with around half of its production of custom-fitted IEMs now being produced with the technology. "It's not just digital for the sake of digital, but it's really digital for serving our customer better," says Logitech vice president and Ultimate Ears division general manager Philippe Depallens.

The impetus for exploring the process was to create a better "customer journey," says Depallens; "Getting better has no finish line." A full 40 percent to 45 percent of UE's customers are ordering from outside the USA. Getting an impression in Europe, for example, shipping that to the California factory, then following the steps of the traditional manufacturing process could take 10-15 days before return shipping. Ultimate Ears' German affiliate has begun to digitize customer ear impressions locally, then electronically share the digitized information directly with the factory. Future technology is expected to allow direct digital mapping of customer ear canals, avoiding the impression stage entirely.

Currently, the process of creating custom IEM devices using 3D printing still begins in the traditional fashion, with an audiologist injecting a quick-setting pliable goo into a customer's ears. The hardened (yet still too soft to be a final housing) impression is then trimmed and shaped by specialists before being used to



create a mold for the permanent IEM shell. UE's new process diverges from a manual trim and shaping of the impression by scanning the raw impression digitally and performing the adjustments with a 3D CAD program. The resulting data file is then fed to a 3D printer that outputs the customer's IEM shell. The rest of the process follows the traditional form-drivers and crossover are fitted and inserted into the shell, the driver outputs are coupled to the exit ports by plastic tubes and an outer cap is placed onto the shell. An additional benefit of the digital methodology is that steps can be "undone," whereas if too much material was removed from an impression manually, it could not be restored. UE personnel experienced with the physical process of shaping impressions have been trained on the CAD approach, maintaining the integrity of the new operating mode. None of the traditional steps in the process are bypassed, but instead are simply done digitally, with the bonus ability to revisit a custom data set if fine tuning is needed, and with rapid repeatability if, for instance, a set of IEMs needs to be replaced.

Incorporating 3D printing into the process was not as simple as just ordering a printer and feeding it the data files. "The biggest challenge that we had," says DePallens, "is to actually get an ear that was clear." The manufacturer of the 3D printer could not get UE all the way to the goal of a printed shell that is indistinguishable from a molded product, with no internal striations or outer ridges. Through experimentation, UE developed proprietary processes to reach that goal. "I will candidly tell you this is one of the advantages of being partner with a bigger company like Logitech," DePallens confides, the parent company providing personnel and other resources in the R&D

Despite UE's substantial investment, DePallens says there is no change in pricing for the customer. The biggest benefit to UE customers is the time savings. A process that could have taken weeks for a foreign customer is now standardized to seven business days (down from a 12-15 day standard, sans shipping). Fiveday turnaround is expected to be the (continued on page 52)

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Having made inroads into top cinemas around the world since its introduction in 2012, the Dolby Atmos surround format is setting its sights on the home theater experience

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Innovation Driven Evolution 33 As Mackie celebrates its 25th anniversary, John Boudreau, SVP, Mackie Product Development, takes pause to reflect on the legacy and future of the market-making SRM loudspeaker family, reengineered and reintroduced this year with capabilities that mark a generational shift in performance.

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Back To The Retro Futura 36 Packed with 1980s synthpop stalwarts like Tom Bailey of Thompson Twins and Howard Jones, this summer's Retro Futura Tour sported a surprisingly small FOH/Monitor rig that had all the bells and whistles but none of the weight.

Live Sound Showcase: Katy Perry . . . 38 Following the release of her most recent album, Prism, pop superstar Katy Perry has embarked on a two-year world tour. Joining Perry on the journey are engineers Kris Pooley and Eric Racy, who use the latest tech to keep the fans on their feet all night.

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SPECIAL REPORT

137th AES Convention

Preview . . . 1, 8, 12, 27, 56 As the annual US AES Convention returns to Los Angeles for the first time in a dozen years, anticipation is building for an event that promises to top last year's New York convention. Our preshow coverage highlights the convention's rich program.

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AES Convention in Los Angeles.

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The Most Wonderful Time Of The Year

f a car company can appropriate a Christmas tune for an annual sales event, surely the audio industry can do the same, the sentiment capturing the enthusiastic anticipation of the annual AES Convention here in the US. Returning to city of Los Angeles and the Los Angeles Convention Center for the first time in a dozen years, the enthusiasm for the 137th AES Convention is palpable.

Last year's New York convention saw the greatest attendee registration count in recent history and a renewed vigor evidenced by attendees and exhibitors. The 137th Convention is benefitting from that success. The exhibitor and sponsor count is higher than in NYC in 2013 and still inching upward, necessitating an expansion of the footprint for the exhibition hall.

The equally important factor generating excitement for the 137th is the long-overdue return to LA as a site for the biannual west coast Convention locale. With so much of our industry centered in LA along with its population density, the fit is natural, even if the rebuild of the Los Angeles Convention Center initially necessitated what became too extended an absence. Audio pros in LA are looking forward to welcoming their worldwide peers and to attending the Convention, yet returning to sleep in their own beds each night.

Since last in LA, the technical program of the Conventions has done nothing but continue to improve and expand its perennially superlative offerings. Of particular interest to LA attendees will be the strength of the sound for picture, gaming, recording and live sound tracks. Now entering its third year, the successful Project Studio Expo will find a natural audience amongst LA audio practitioners. The exhibits floor program, free to all registrants, provides training and education for recordists, presented by recording professionals. That model is expanded

If you live and breathe audio, AES conventions are pure oxygen.

this year with the Live Sound Expo. With its own stage and audience area on the exhibits floor, a roster of leading live sound experts has been assembled for a program developed by editors from Pro Sound News and other New-Bay titles. The broad list of LSE topics includes tutorials on fundamentals, paired with application specific training and case study presentations. Veteran live sound engineer and industry journalist, Mark Frink, will be on-hand to host the LSE program.

For audio professionals, AES conventions offer a unique experience. That AES is an organization with a charter keyed on education is part of what makes the conventions unique.

While there are audio elements to the trade shows and other conventions put on by other groups in the greater entertainment community, audio pros can still feel marginalized. At AES conventions, the focus is completely on audio. The attendees are universally focused on audio; the networking opportunities are unparalled. The exhibition, even where exhibitors have non-audio aspects to their business, is audio-centric. If you live and breathe audio, AES conventions are pure oxygen.

Evidence of the unique nature of AES conventions can also be found in the infrastructure of the conventions. The staff of the AES is small, extremely dedicated and impossibly overworked, particularly at this time of year. While the staff has the unenviable task of the cat-herding that goes with having the AES program almost completely developed by volunteers, those volunteers are nonetheless responsible for, year after year, producing the most comprehensive audio program content available at any event worldwide, bar none-content that is also of exceptional quality.

Peruse our Convention preview content in this issue. Visit aes.org/ events/137/ and scroll through the convention program, including the special events listings. Scroll through the list of exhibitors. Start making your plans to get yourself to LA. No excuses. As an audio professional, you owe yourself the experience. See you in LA.



In 1973, at Watkins Glen, live sound went just a bit digital.





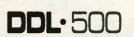
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E Cops Soundman Killed

BY CLIVE YOUNG

OMAHA, NE-Bryce Dion, a soundman for the long-running reality TV show, Cops, was killed by police gunfire in Omaha, NE on August 26, during a robbery at a Wendy's restaurant.

Dion, 38, was onsite recording

the incident with the show's TV crew when he was hit by one of an estimated 30 or more bullets shot during the robbery; the suspect, 32-year-old Cortez Washington, was also killed. The only shots fired during the robbery came from officers, according to police. According to the Omaha World-Herald, three officers opened fire on Washington after the suspect fired an Airsoft pellet gun.

Originally hailing from Lawrence, MA, Dion lived in Santa Monica, CA, and had a lengthy career working in reality television. In addition to handling sound on shows such as Container Wars, Trading Spaces and The Glee Project among many others, he worked as a production sound mixer on more than 80 episodes of Cops between 2009 and 2013. Dion also had



numerous credits as an assistant cameraman on shows such as Last Comic Standing and Top Chef.

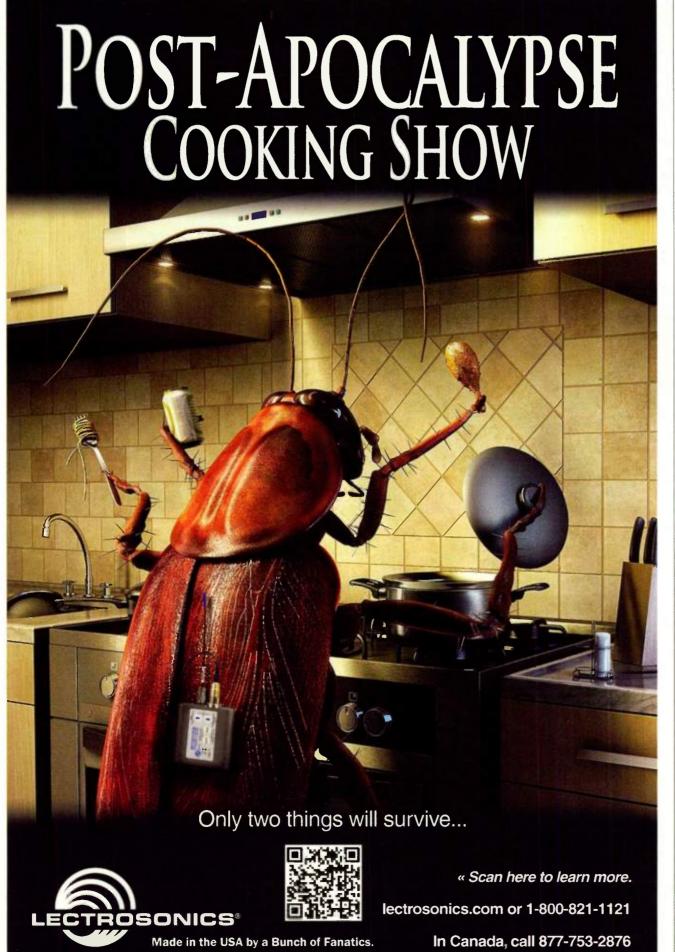
TV crews for the reality show are required to wear bulletproof vests, but Dion was struck in an unprotected area near his left arm. According to Langley Productions, which produces Cops, this marks the first time a crew member has been seriously injured, shot or killed during the taping of the show since it first began airing

d&b, Skan Test OCA at Glasto

GLASTONBURY, UK-d&b audiotechnik, a recent addition to the OCA alliance, and UK live sound vendor Skan PA put the OCA (Open Control Architecture) communications standard to the test by beta-testing the new D80 amplifier on the Other Stage at the Glastonbury Festival earlier this year.

Tom Tunney of Skan remarked, "We deployed it at Glastonbury to put it through the rigors of a festival to prove its stability and performance. This control and monitoring is a milestone for us. All happy faces here. Having used the same subwoofer array here for the last three years, it was astonishing to hear the array perform measurably louder, while the energy efficiency of the D80 saw lower power consumption. We are looking forward to deploying this system on our upcoming tours." d&b audiotechnik

dbaudio.com



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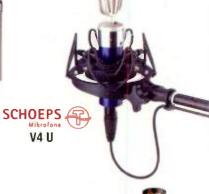
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Connect To Networked Audio

LOS ANGELES, CA-The 137th Audio Engineering Society Convention will present a series of workshops, tutorials and special sessions focused on the latest developments in audio networking technology, standards and practices.

The convention's Networked Audio Track will feature presentations dealing with the latest developments and technologies in networked audio, as well as applications for system integration, broadcast, live sound, recording, contractors and more. Tim Shuttleworth, a noted networked audio engineer and engineering manager at systems manufacturer Renkus-Heinz, chairs the track.

From Audio-over-IP used across continents in the broadcast sector, to super-low-latency audio transfer in the studio environment, to low-latency systems for live sound reinforcement in fixed installations and touring systems, the medium of choice is increasingly a high performance Ethernet/TCP/IP network. Workshops and tutorials will cover the history of audio networking as well as leading-edge developments, with session titles including "Using AES67 Networking — Practical issues in AES67 Deployment;" "Software Tools for Telematic Performances;" "Large Scale AVB Networks/AVDECC

Control;" "Implementation of a Large Scale Ethernet AVB Audio Network at ESPN;" and "Using Audio Content Over IP Technology in Public Radio."

Additionally the AES Convention will play host to a Telematic performance linking Los Angeles, Montreal and Stanford University in a showcase featuring live, interconnected performances with musicians across time zones and geographical locations. Networked Audio Track at the AES137 Convention

aes.org/events/137

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AES Scores With Game Audio Track

LOS ANGELES, CA-The 137th Audio Engineering Society Convention will feature Game Audio Track programs and events focusing on audio trends and issues in the gaming industry.

Game Audio Track Chairman

Steve Martz has assembled a series of panels, sessions and presentations.

A special highlight will be "Diablo III: Reaper of Souls, The Devil Is In The Details," a panel that will examine how the audio team behind

Diablo III: Reaper of Souls created the entire audio soundscape for the game, including sound design, music and dialog.

Other sessions will include: "Effective Interactive Music Systems:

The Nuts and Bolts of Dynamic Musical Content"; "Dynamic Mixing for Games"; and "Yes, your mobile game can have awesome audio!" The Game Audio Track will also include a career development session: "Game Audio Careers 101-How to jump start your career," and a session on the state of game audio education.

High-Res Audio A Hot Topic At AES

Engineering Society Convention will feature a High Resolution Audio (HRA) program on Friday, October 10, 2014.

The direct result of a collaborative effort between the AES and DEG: The Digital Entertainment Group, the HRA program will include a number of panels and sessions that address the current and future direction of HRA from various perspectives, including content creation, digital distribution, licensing of hires music files, archiving, subscription models, marketing/promotion of hi-res music, compatibility of playback devices and more. These panels and sessions will feature some of the brightest minds in the business as they discuss some of the most current and controversial issues concerning

the rapid adoption of high-resolution audio across the industry.

Additionally, there will be an HRA Exhibition Zone that offers a unique opportunity for CE manufacturers and music industry executives to engage the professional recording community and discuss strategic HRA initiatives.

137th AES Convention www.aes.org/events/137

AES App Goes Mobile

LOS ANGELES-A nifty addition to any iOS or Android mobile device is the Audio Engineering Society's free AES Los Angeles 2014 Mobile App. Designed to help AES Convention visitors make the most of their experience, whether planning ahead or finding out what's going on during the annual convocation, the App offers cool features and intriguing info.

The Dashboard keeps users organized with up-to-the-minute Exhibitor, Speaker, and Event information, while My Schedule organizes a schedule with one click. Alerts allow users to receive important real-time communications from the AES. Users can rate the sessions they attend and comment on them, too-while the Floor Plan Map lets convention visitors interactively locate companies they want to visit; they can also use the Friends feature to find their colleagues to connect with at the show.

Also, the App links to industry news on LinkedIn and Facebook groups, and a built-in Twitter feed lets users follow and join in on the show chatter in real-time.

AES Apps aes.org/mobile



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-Elliot Scheiner, Grammy Award Winning Recording & Mixing Engineer

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-Frank Filipetti, Grammy Award Winning Producer

I noticed immediately a clarity in the stereo image and the frequency response that had been missing in my NS10's... The IsoAcoustics generally made them more enjoyable to - Vance Powell, Grammy Award listen to, no small feat as I am sure you know... Winning Chief Engineer,













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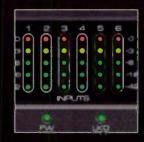
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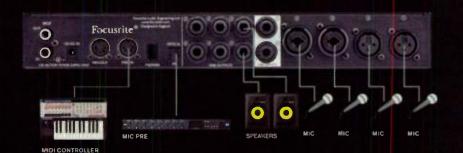
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Focusrite sound is everything

= Pro Audio Comes to Times Square

BY KELLEIGH WELCH

NEW YORK, NY-In August, Guitar Center opened its new 2,800-squarefoot flagship store in the heart of New York City's Times Square. To help enhance the experience expected by the millions of tourists that flock to the neighborhood each year, Guitar Center's Pro Audio division, GC Pro, helped with audio and visual installs throughout the new store.

Upon entering Guitar Center at 218 West 44th Street, guests descend down escalators decorated to give the illusion of entering onto a stage at a concert, with a QSC loudspeaker system projecting the sounds of a cheering crowd, controlled by QSC's Q-Sys system. "The idea is to give the illusion that you're entering onto a stage," said Rick Plushner, vice president, GC Pro. "We wanted to create a crowd noise that completely surrounds you."

From a Pro Audio standpoint, the most impressive part of the new store is in the Platinum Club, a customized room that houses a number of specialty and vintage guitars, and also acts a performance space and recording studio for musicians passing through. For the room design, GC Pro hired Horacio Malvicino of Malvicino Design Group as a consultant for the room acoustics, to make sure the sound was as isolated as possible for performance and re-



Guitar Center's Pro Audio division, GC Pro, helped with audio and visual installs throughout the chain's new flagship store in New York City's Times Square.

cording purposes.

"This will be a functional live sound club," said Plushner. In the main space, an Avid S3L controls the FOH, with a set of IBLVRX speakers installed for the club. For recording, the S3L sends the mix to an Avid S6 controller in a separate studio control room that includes a set of Adam S3X studio monitors and a variety of outboard gear including a Manley Pultec, Universal Audio LA-2A, and Empirical Labs Distressor.

Beyond the expected walls of guitars, drums, keyboards and other musical instruments for sale, the new store also houses nine customized lessons rooms, each treated with Auralex acoustic panels for soundproofing. The store's pro audio section in-

cludes a powered speaker wall, where visitors can test out the PAs on site before a purchase, as well as walls of microphones, production/recording software, and more.

And to give the music history enthusiast a reason to stop by, the new Guitar Center store will be the permanent home to two of Eric Clapton's guitars, including his famed "Blackie" Fender Stratocaster. In 2004, Guitar Center bought the guitar for US\$959,500 at a Christie's auction held to raise money for the drug and alcohol rehab center founded by Clapton, the Crossroads Center. At the time, the bid set the record for the world's most expensive guitar. **Guitar Center**

guitarcenter.com

Westlake **Pro Hosts** Scheps

LOS ANGELES, CA-Westlake Pro recently hosted a Mixing Master Class with audio engineer Andrew Scheps. The seminar, which took place at The Village Studios in W. Los Angeles, was filmed and edited into a video series, with the first of 13 now available for viewing on Westlake Pro's YouTube channel.

Scheps has engineered and mixed for some of the biggest rock bands in music: Metallica, Red Hot Chili Peppers, Weezer, Audioslave, Linkin Park, Green Day and U2. He's also worked with icons such as Johnny Cash. Neil Diamond and Iggy Pop, as well as many independent artists.

Having successfully mixed with computers and software, or "in the box," and on large format analog consoles, Scheps brought a unique perspective to mixing workflow, as he demonstrated by deconstructing some of his current work using Avid Pro Tools and S6 Control Surface.

The Mixing Master Class video series is divided into 13 videos of five to eight minutes in length and cover a wide variety of mixing topics as well as a Q&A session with the audience of around 150 people, most of which are working audio professionals.

Westlake Pro westlakepro.com

NewBay Connect Debuts

NEW YORK, NY- NewBay Media, publisher of Pro Sound News and Pro Audio Review, has announced the launch of NewBay Connect, a digital resource library for the worldwide broadcast, professional AV, and pro audio sectors. Free and easy to use, the website provides a wide range of information and research.

NewBay Connect newbayconnect.com



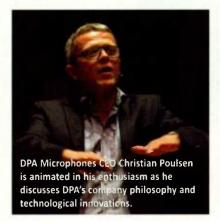


From Denmark, With Pride: DPA Microphones

ALLERØD, DENMARK-There's no better way to get to know the internal culture of a company than to visit it on its home turf. If the opportunity arises to do so alongside the company's business partners and end-users, so much the better. Such an opportunity arose this year when Pro Sound News and Pro Audio Review were invited to attend the second annual DPA Microphones Partner Conference in Denmark.

DPA Microphones is headquartered in Allerød, a small municipality with roughly 25,000 residents situated towards the center of the northern peninsula of the island of Zealand (the peninsula is also home to Copenhagen, at its southern base). The company's factory is located near the northwest coast of Zealand, in Asnæs, a town with a residency of near 3,000 individuals in the Odsherred Municipality. The surroundings for both are bucolic and tranquil, suggesting part of why Denmark has sat atop the rankings in recent World Happiness Reports. This environment implies an inevitable attitude of friendliness amongst its residents, and it's hardly surprising if that infuses the corporate culture of a local business, even when that business is international in

Such is true for DPA Microphones. Enthusiasm for the company's products is plainly evident among its employees, and spills over to its partners even if they are based on the other



side of the planet. Many of DPA's partners are not just distributors, but also end-users, exhibiting just as much enthusiasm for the products as the people who make them.

The Conference began its packed two-day agenda in Copenhagen, in a grand performance hall located in the riverfront Black Diamond extension of the Royal Danish Library. CEO Christian Poulsen welcomed the attendees, promising that the conference would reveal the DNA of the "new DPA." Poulsen outlined the heritage of DPA, combining the merger of two companies-one a spin-off of the non-measurement microphone division of the storied Brüel & Kjær company, the other a company specializing in microphones for the huge Danish hearing aid industry. The Asnæs factory was the home of the latter company and an appreciable amount of DPA's business still involves the hearing aid industry.

While the legacy of B&K is evi-



dent in DPA's product catalog by way of reengineered and newly conceived extensions to that inherited mic family (typified by the familiarity of the silhouette of the d:dicate 4006A omni mic), some 80 percent of DPA's business is in the category of miniature microphones, where experiences of both the B&K and hearing aid mic heritage are evident. The tolerances in the development and manufacture of miniature microphones are incredibly tiny ("It's actually amazing that it all works," says Poulsen, after putting the scale of the elements in perspective). The microphone circuits are further tuned for identical performance based on the actual characteristics of the individual capsules, as there is a range of comparative performance amongst the capsules that make it through QC. The details of the process, the stages of assembly, the amount of handwork is phenomenal. Given the intricacies of the manufacture of the miniature microphones, the process for the 19 mm elements used in the rest of DPA's microphones is almost simplistic, though held to similarly exacting standards. A significant distinction made by Poulsen is that DPA can implement a far greater fixed charge to its capsule membranes than can its competition, aiding the company in producing mics with higher performance for the same relative size.

Opportunities to experience comparisons between DPA products and competitive offerings were plentiful during the conference, through musical performances at the Black Diamond to a series of headquarters demos across multiple product categories and applications. As a relatively new product, emphasis was placed on demonstrating the performance of the d:facto II series, available in a handheld version and as a retrofit capsule for leading wireless microphone models. Its "super super cardioid" polar pattern uniquely minimizes the rear lobe characteristic of highly directional microphones. Additional d:facto II features include enhanced pop and wind rejection and a remarkable 154 dB SPL peak input specification. The handheld version is further optimized for minimal handling noise.

The "new DPA," Poulsen says, can be characterized by the company's drive to know its customers, market and the applicable technology, and to improve its products, overall quality and network. Further, DPA is committed to implementing a unique product portfolio, a great brand, "fantastic" distribution and a unique relationship with key individuals in the audio industry. Four years into the company's campaign to improve its entire product line, Poulsen says that DPA's drive for excellence has not slowed, with a goal of being "best in class" in all categories where it is active. Based on the experiences shared at the 2014 DPA Microphones Partner Conference, DPA is poised for continued success.

DPA Microphones dpamicrophones.com





Ahmad Jamal has played with some of the greatest legends in jazz.

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Bose* RoomMatch* systems. There's a lot riding on every show you do, like your reputation. And your sound system can make all the difference. So for us, that meant our reputation was on the line as well. Patrick Gonties is the FOH engineer for Ahmad Jamal — a jazz luminary who has played with icons like Parker, Gillespie and Holiday. Find out how he went from "I was not very hot to work with a new system," to "It was the first time I heard such good, precise sound in the Barbican Centre." **See the video at Bose.com/hearit**

What will you say when you hear it?



181 Sound INTERNATIONAL

■ Manning Monty Python's Mixes

LONDON, UK-In a summer full of positions. tours, one of the biggest arena shows stayed in one place. The venue was London's O2 Arena, and the show was the final (for now) reunion of the legendary comedy troupe Monty Python for 10 sold-out dates. Mixing every silly word were DiGiCo consoles at both the FOH and monitor

Sound designer Rory Madden and his crew tackled handling audio for the extravaganza. Madden's company, Sonalyst, also supplied all the sound equipment, including the three DiGiCo SD7s (two at FOH, and one at monitors sharing six SD Racks between them) on hand for mixing duties.

Dave Dixon, mixing the band, and Simon Fox, handling vocal mixes and sound effects, took up the FOH positions; Bill Birks manned the monitor desk. "We had two operators at FOH because there was a lot happening in the show," said associate sound designer Toby Chester, "although



Manning the Monty Python mix were (I-r): Dave Dixon, Rory Madden, Toby Chester and Simon Fox.

we still tried to keep everything very simple."

"We had over 60 channels of radio microphones," Madden noted, "so it would have been hard for one person to be across both areas quickly at the same time. Having two engineers working together at FOH gave us accuracy and full control of the production."

As well as the live shows, broadcast specialists RedTX delivered a live feed of the finale to televisions and cinemas around the world. The company's trucks were fed full MADI streams via DiGiCo's SD Racks to ensure that viewers got exactly the same audio as was happening on stage.

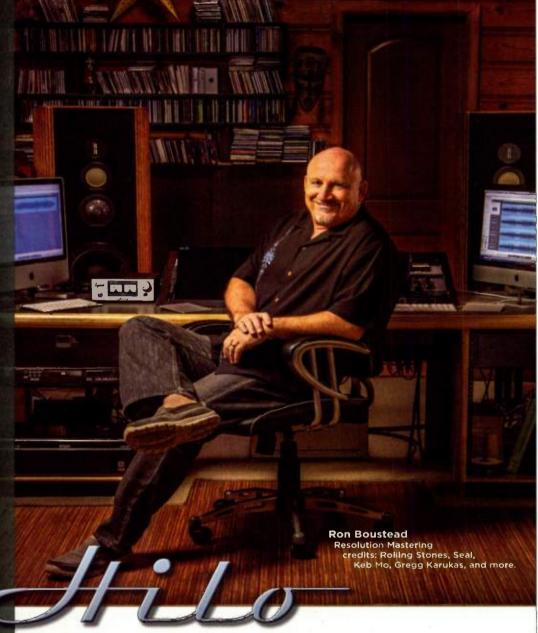
DiGiCo digico.org

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This is a fantastic piece of gear that any high end studio would benefit from using. I'm mightily impressed with how much versatility and sonic purity you've packed into this sexy little box. (and I'm a pretty jaded old studio rat)"



"Of course, since I am a 'mastering' engineer and I'm supposed to sweat the details, I appreciate gear that is uncolored, particularly in the realm of converters. If I want color, I'd rather add It on purpose. To summarize the findings of some pretty serious listening sessions, by some pretty serious engineers, the Lynx Hilo conversion in both directions was closer to the source than all others.

With twenty-five years of pro recording and mastering experience, Ron is very serious about his equipment choices. Before choosing Hilo, he put it through a comprehensive series of listening tests with other quality converters. Hilo was clearly ahead of the pack and is now his go-to converter. To hear more about Ron, his approach to mastering and his extensive converter evaluation process, go to the Lynx Studio YouTube channel.



converting the masters of sound



DPA Hears The Voice

AUSTRALIA—The Voice Australia has adopted DPA's d:facto vocal microphone following the recommendation of Australian rental company, JPJ Audio.

John Simpson, senior audio director of The Voice, says, "JPJ's Brad Adamson told me he had DPA's d:facto's and we were keen to try them on a couple of TV shows we were working on... I hadn't been happy with any capsules on the RF systems we were using."

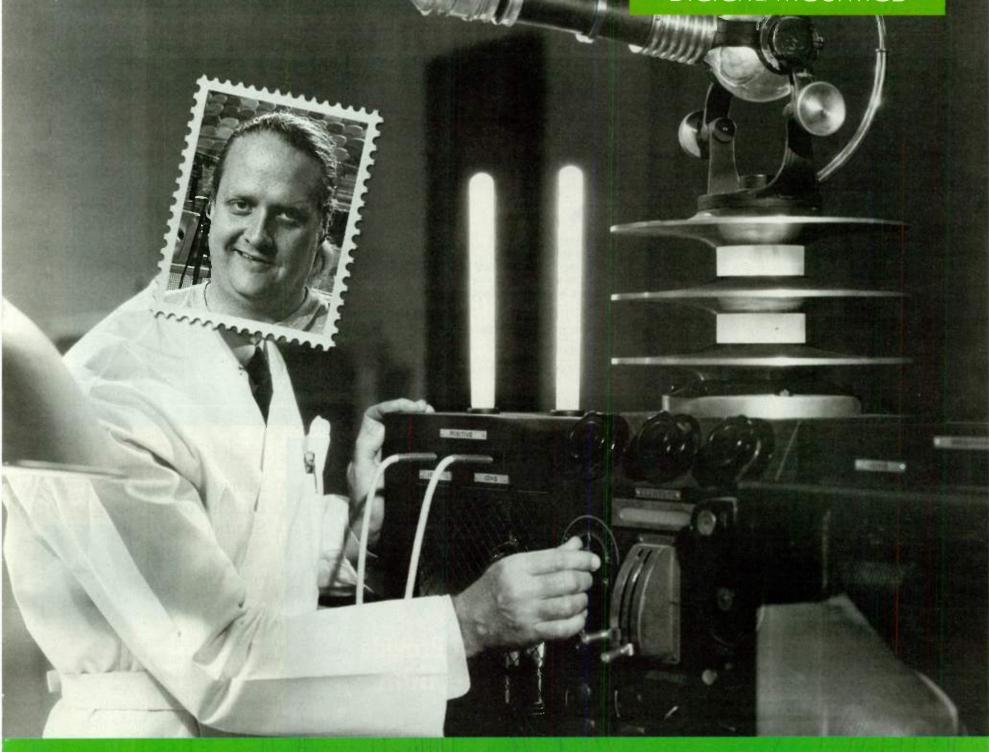
The result, he says, is that the show doesn't "have to process anywhere near as much as we used to and everything sounds better; vocalists and presenters, male or female. The d:factos make it much easier to sit voices in a mix." Simpson adds that the vocal coach for the program "thinks they are a significant step up from anything he has heard and is very impressed, as are the operators at monitors, FOH and broadcast."

dpamicrophones.com

BEFORE: 96 tracks at 48KHz with a HUGE rack and many peripherals. NOW: Digigrid technology recording 128 tracks of 96K (times 2 - record and backup) at FOH every night flawlessly to a small flyable rack. Amazing!"

Mixer/FOH/Ken "Pooch" Van Druten: Linkin Park, Kid Rock, Kiss

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DIGIGRIDAGO 128ch Optical MADI to SoundGrid Interface







The Value of Music Education is Incalculable

Chuck Surack, founder/president, Sweetwater, recently authored a guest post on the PSN Blog, looking at how music education changed his life. Here's an excerpt:

Today, quality music instruction is no longer the educational priority it once was, particularly when budget constraints force tough decisions. I fully understand the importance of spending within your means, but the practice of disproportionately cutting arts programs in order to maintain academic programs is mis-

guided, shortsighted, and counterproductive.

In recent years, numerous scientific and statistical research projects have shown that music students score higher on SAT tests, have higher attendance and graduation rates, are much less likely to engage in destructive forms of behavior, such as drugs and alcohol, and are less likely to be disruptive in the classroom.

It has been demonstrated that music education reinforces critical analysis skills, improves problem-solving skills and fosters superior working memory, inspires creativity and innovation, strengthens perseverance, supports better study habits and self-esteem, and develops interpersonal communication and collaboration skills—all of which translates to higher achievement in other academic areas, math, reading, and English, in particular.

For me, being in band throughout my middle and high school years gave me all these skills, and, additionally, taught me how to lead and to get along with others, plus the selfconfidence to seek out success in other ways, both in the classroom, where I got great grades, and outside of school, where I started several small and successful businesses while still a teenager. Today, I own several companies, with more than 1,000 employees, and none of that would have been possible if I hadn't learned to play a musical instrument.

For the full post and plenty of photos, visit prosoundnetwork.com/sept2014.



sweet tweet links



Pro Sound News brings you audio news every weekday on prosoundnetwork.com-you can find links to those stories on our Twitter feed (@prosoundnews) and Facebook page (facebook.com/ ProSoundNews)—but we also use social media to share links to inter-

esting mainstream audio news. Here's just a few of the stories we linked to last month. Get their links at prosoundnetwork.com/sept2014.

- Nine-hour police stand off at Calabasas recording studio ends peacefully.
- Dig this cool photo tour inside Prince's famed Paisley Park studio.
- The Zombies ("She's Not There") recall how a drunk studio engineer passed out at their very first session.
- Live sound vet Mike Allison founds Sound Haven Learning Center (@soundhaven1) in Lake Mills, WI.

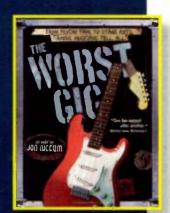


PHOTO FEST:YAMAHA MARKS FIRST SYNTH'S 40TH ANNIVERSARY

Yamaha marked the 40th anniversary of the introduction of its first synthesizer, the analog SY-1, with a special event at its offices in Burbank, CA on Friday, August 1. The event, which featured performances by top musicians, brought together an eclectic crowd and a variety of drool-inducing vintage gear..

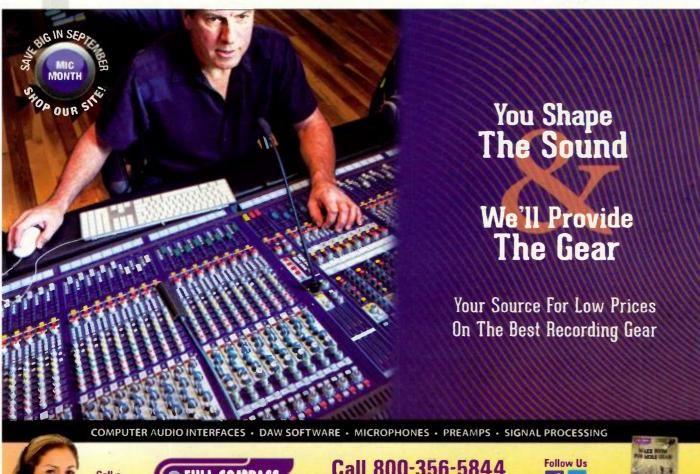
BOOK REVIEW: THE WORST GIG

Over the years, we've interviewed a lot of live sound engineers for PSN, and occasionally we'll ask them, "What was your best gig ever?" The answer is always disappointing; in fact, usually they can't even think of one. But ask an engineer "What



was your worst gig" and the reply gets even more frustrating, because every single one of them has a great story to tell about The Gig From Hell...and they'll only share it "off the record." Music journalist Jon Niccum had the same problem whenever he interviewed bands, but luckily he talked many of them into sharing their favorite disasters, and the results are all in The Worst Gig.

See these blog posts and more at prominetwork.com/sept2014



video vault

Florida Country Line's Treehouse

Studio Some time

ago, the Animal Planet series Treehouse Masters built



a treehouse that could double as a recording space for Bear Creek Studio outside of Seattle, WA. Treehouse expert Pete Nelson and his crew recently built another facility in the trees, this time for Brian Kelley of the chart-topping country act Florida Georgia Line. While the recording gear seen on the show is a relatively Spartan arrangement, there's definitely room to get more expansive with equipment after the cameras have left. Catch the clips at prosoundnetwork.com/sept2014.





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Immersion

(continued from page 1)

riously as storytellers."

The event was hosted by Tom Mc-Carthy and his post sound staff in several of the dub stages on the Sony Pictures lot in Culver City, CA. In addition to the Harrison, Dolby, Avid and Auro-3D technology installed throughout Sony's sound department, various vendors also showed off immersive sound solutions, including Audio Intervisual Design, DTS, Fairlight, GC Pro, IMAX, RSPE, Vintage King Audio and Yamaha Commercial Audio.

A panel on technology and workflow moderated by PSN's Frank Wells revealed that Harrison has partnered with Nuendo to develop an exchange format that takes the console's X, Y and Z information and imports it into the DAW for conforming and auditioning. "We're solving today's problems today, in the sense that DAWs don't yet have native 3D panning," said Harrison's Ben Loftis.

Fairlight, which debuted the Air-Pan hand-gesture panning tool for its 3DAW software at the event, is also working to streamline immersive sound workflows. "Part of the philosophy behind Fairlight's implementation is that you should only mix once. The spatialization data can then be utilized to produce mixes in DTS MDA, Auro or Dolby Atmos, or any of the fixed bus formats," said Fairlight's Tim Cuthbertson.

David Gould from Dolby Labs noted that a newer development has become popular with film mixers: "We added auto-elevation modes for the Dolby Atmos panner plug-in that autogenerates your Z [height] value based on X and Y." Panelists also noted that plug-ins specific to immersive sound are beginning to appear. Exponential Audio's PhoenixVerb Surround plug-in with 3DLink technology, for example, generates reverb for formats up to 14.1.

Theaters equipped for Dolby Atmos and Auro-3D playback are still rare, which means films typically run for only one week before being replaced by a new release. John Kellogg from DTS urged consideration of the costs to exhibitors of adding immersive sound. "What exhibitors really want is a value proposition," said Kellogg. "The largest chain in North America is investing \$600 million into 1,800 screens for seats. Seats, booze, food—they can upcharge for those."

Two all-star panels of re-recording and production mixers and sound supervisors offered their observations on the creative aspects of immersive sound.

Directors are starting to get ex-

perience with the new formats, observed Will Files: "It's as exciting for them as it is for us." But, he said, "You do have to think about how it folds down to the lesser formats."

Panelists were split over the efficacv of five behind-the-screen speakers. "I had 16 years with SDDS, but how many theaters were capable?" asked Russell, a former Sony mixer.

"But Atmos handles it better because of its scalability," argued Files,

who also enjoys the new proscenium zone created by Atmos just off the screen. "That's one of the most fun places to play. It connects the surrounds with the screen in a way that we've never had before."

Scott Gershin noted that these new systems "also sound really great in quiet movies. The ceiling is only one of the components." Ron Bartlett also pointed out, "All the surround speakers are full range. Just putting

your 7.1 in that format, you get a better sound." Marti Humphrey, an Auro-3D proponent, added, "Immersive is now second nature. I can't go back to something as simple as 5.1."

Wrapping up, Tom McCarthy reported, "We're working with Dolby on our first installation in a television environment. Our studio is completely committed to immersive formats." **Sony Pictures Post Production Services** sonypictures.com/studios/postproduction.php



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[22] Sound RECORDING IIII

NightBird Flies Underground At Sunset Marquis

BY STEVE HARVEY

WEST HOLLYWOOD, CA-"To be honest, I never planned on being in the studio business," says Jed Leiber, composer, producer, arranger, songwriter and owner of NightBird Recording Studios, which is located at the Sunset Marquis Hotel in West Hollywood, CA.

"I built this room to do my own work in," he says of Studio A, which opened in the early Nineties. Originally occupying a small space next to the laundry room in the hotel's basement parking garage, NightBird has since grown into a complex of rooms. The most recent expansion, Studios C and D. was constructed to accommodate American Idol.

Leiber went underground 20 years ago after a hotel guest complained about the noise coming from the room next door, where Leiber was working with guitarist Jeff Beck. with whom he has collaborated for many, many years. The hotel's general manager, Rod Gruendyke, showed Leiber a basement room, originally designed by renowned acoustician George Augspurger for New England Digital's Synclavier demos, where he could make as much noise as he liked. Realizing he had found a base for his burgeoning songwriting, film and television scoring career, Leiber



Jed Leiber in NightBird Studio B, a favorite of vocalists like Mary J. Blige, Cee Lo, Katy Perry and Christina Aguilera.

came to an arrangement with the hotel's owners and called in Augspurger and studio designer John Edwards to build NightBird's first room.

"I wanted to create something special for myself and other artists, as well as a valuable amenity for the hotel," he explains. "I really wanted it to be symbiotic and mutually beneficial." For example, "People can call upstairs and get room service. For somebody who needs it, we'll rent a

Studio B was added in 2003. "I wanted something warm and cozy, so it's all mahogany. This is a favorite room for many top vocalists like Mary J. Blige, Cee Lo, Katy Perry and Christina Aguilera," reports Leiber, adding that it's also "a killer writing room." The control room and tracking space are functionally swappable.

'The real catalyst for building the second studio was that one night we had to jam all of Aerosmith into Studio A drums, amps, guitars, everything," adds Michael Olson who began with NightBird in 2000, and spent 11 years at The Los Angeles Recording School, where he was associate director of education.

The latest expansion was driven by XIX Entertainment, the production company behind American Idol, whose offices are nearby. "We did a deal where they put the top 13 contestants up at the hotel," explains Olson. "They also needed to be able to do 15, 20 tracks in a weekend for iTunes, so they needed four studios simultaneously. We rushed to finish these rooms, but we got the job done."

The new construction went down to the wire, apparently. "I was wiping the floors with a mop an hour before they walked in," laughs Leiber.

Unlike Studio A, which houses an Avid Icon D-Control, and Studio B, which features a smaller D-Command ES, Studio C is console-less. A production room and adjoining large vocal iso room intended primarily for vocal sessions and writing, the studio is outfitted with a Pro Tools HD Native Thunderbolt system and a selection of outboard gear, including various 500 Series microphone preamps, a Universal Audio LA-2A, Empirical Labs Distressor EL8 and a Line 6 Pod XT Pro, in an Argosy console. Nearfield monitoring is via a JBL LSR28P 2.1 system with a Fur-(continued on page 29)

Marooned At Conway, Again

BY STEVE HARVEY

LOS ANGELES, CA-Obviously happy with the formula that gave rise to Overexposed, Maroon 5's 2012 hit album, the band signed up for more

of the same for V, its fifth studio full-length, which was released September 2. Swedish hit maker Max Martin is back as executive producer, the band has again embraced working with a bevy of outside writ-

Engineer Noah Passovoy at the Neve 88R inside Conway Record Studios

ers and producers, and longtime engineer Noah Passovoy was once more behind the Neve 88R console at again Conway Recording Studios in Hollywood.

"This is my fourth album working with the band," reports Passovoy, who first hooked up with Maroon 5 as the band was starting to write for its second album in 2007. The band was happy to return to Conway, he says: "It's probably their favorite studio in town; it's just a fantastic place to work."

Both the band's lead guitarist, James Valentine, and keyboard player Jesse Carmichael, back after a twoyear hiatus, have project studios, says Passovoy. "They do a lot of work at home and have gotten heavily into recording over the past few years; they've become quite good at using the studio. In order to make music today, you have to have a little bit of all those areas to draw from." As a result, "The demoing and recording

phases are all blurred together. For them, the writing is the recording. A lot of the parts end up on the final recording, but at the same time, there's writing in the studio."

Tracking got underway at Conway in February 2014 after a couple of writing sessions, wrapping up in June, with a few breaks for shows. Serban Ghenea, a multi-Grammywinner who has helped more than 100 singles and albums top the charts, mixed the new album. "He's amazing," says Passovoy. "As things were finished, they were sent to him to mix. For the most part, it was about focusing on a song and getting it done." Receiving finished mixes as tracking progressed offered valuable feedback: "It started to shape the sound of the record a little bit more. There were some overdubs and fixes; he was incredibly flexible with flying those in where necessary."

Singer Adam Levine has often favored a Shure SM7 mic in the past, but for this record, says Passovoy, "Most of the vocals were done with a [Neumann U] 67 into a Chandler

(continued on page 30)



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STUDIO showcase

Staking A Claim For Sonic Heritage In Southern Ground

BY STROTHER BULLINS

NASHVILLE, TN—If Music Row is largely selling out, Zac Brown isn't buying it. Or, more accurately, he is buying it, having purchased and heavily rehabilitated the studio now known as Southern Ground Nashville.

In 2012, Brown began the search for a studio space to record and produce records for his Southern Ground family of artists. Chief engineer Brandon Bell recalls, "Zac looked for space in Atlanta for a while, where he lives and calls home. Meanwhile, Matt Mangano Zac Brown Band bassist/Southern Ground Nashville Director] and I knew the mastering engineers that shared the 7,000-square-foot former Masterlink facility and presented the idea of buying it to Zac." After the offer was accepted, Brown and Mangano literally began a top-down overhaul.

Originally the Addison Avenue Presbyterian Church, constructed in 1903, the building is a churchturned-VFW Post-turned classic Music Row recording studio: Fred Foster's Monument Records' facility, first unveiled in 1968. As a studio, it changed hands two more times before becoming Southern Ground Nashville: in the mid-'70s as Chip Young's Young'un Sound and in the early '80s, as the Al Jolson, Jr.-owned Masterlink.

"It's been added to, taken away from, plastered over, and so on," explains Bell. "Zac and Matt found the rafters above the cloth ceiling in the tracking room-buried beneath insulation, dry wall, and so on-looked really cool. Above the studio, a lot of the original brickwork had never been plastered over, so they decided to pull the entire ceiling down fabric, insulation and all-to expose it, the beams, and feature the original ceilings with uplighting. They also removed much of the plaster on the walls to expose the original brick where possible."

Unique Koa flooring was installed, too. "We got a lot of wood from Taylor Guitars—'seconds' that they couldn't use for guitars, but that were still amazing. They had a complete Koa tree that had frozen at some point; it wasn't usable for making guitars, but it was perfectly repurposed for the flooring."

Overall, the former Masterlink tracking space gained aurally pleasing reverb time. "It livened the room a lot," confirms Bell. "It's really hard to beat this room for drums. Because all of this space has been opened up, it's an entirely new acoustic space."

Bell explains that Brown and Mangano were careful to not fix what was not broken. The emphasis was on restoration from the very beginning. "Initially, the bulk of the changes were cosmetic. They revealed a lot of the inherent beauty of the building and enhanced the historical appeal of the exterior façade, too; outside we pulled off a lot of the sprayed-on stucco, exposing the brick and adding copper paneling."

According to Bell, it was Jolson's ownership and specifically the work of engineer Chad Hailey that gave the former Masterlink "its first run

"The studio came with two Otari MTR-100 two-inch tape machines, an Ampex ATR-102 two-track, a Studer four-track, an old Otari two-track—which are all interesting pieces. The studio also had a great

vintage mic collection that we have

supplemented as needed."

A few upgrades include an Avid Pro Tools HDX rig (versions 10 and 11) with Apogee Symphony converters and 48 tracks of Endless Analog's CLASP Closed Loop Analog Signal Processing. "It's top notch," notes Bell of the CLASP rig. "So, we have 48 channels of tape alongside Pro

An unfinished room in the Masterlink facility gave Southern Ground

Tools, the best of both worlds."

Engineer/ZBB member Matt Mangano at Southern Ground's Neve V3 tracking console.

as a state-of-the-art recording facility," specifically in facility-wide wiring overhauls and equipment-based innovations. "Up until that point, it had been serviceable. Fred Foster himself said that it was never quite what he had hoped it would be. But Jolson made crucial renovations, added great tape machines and more, which brought it to 'cutting edge status' for its time. Chad Hailey was behind all this, too, making incredible technical improvements in wiring; still today, everything is very easy to disconnect, move and clean, and is so well-labeled and repaired."

The studio came equipped with a lot of great gear to which the Southern Ground guys significantly added. "The console is a 60-input Neve V3 (with VR master section and Flying Faders automation]," tells Bell.

an opportunity to build a separate mix room, featuring a 60-channel SSL 4000 G+ console paired with ATC SCM300 Main Monitors. "That room gave us an opportunity to dream," explains Bell. "We hired Steve Durr to design and oversee the room's build-out. Matt, Clay Cook and I went back and forth when selecting the right outboard gear. None of it was pretentious or esoteric—all staples that people have seen, used and preferred—that would be a great compliment to the console." These



newly-exposed brickwork from its origins as Addison Avenue Presbyterian

include EQs from API, GML, Maag and Retro; compressors from BAE, dbx, Empirical Labs, SPL and UA; outboard effects from Lexicon, Line 6, TC Electronic and Tech 21, extra converters from Crane Song, and three classic EMT 140 plate reverbs.

Several basement spaces were built out, too. "We've added two isolation chambers to isolate guitar amps as well as a small tiled chamber," adds Bell. "We also built an isolation booth for the new Leslie cabinet downstairs."

Though Southern Ground Nashville is primarily a studio for Brown and Co.'s big, happy family of recording artists, they want it to be more than that. Confirms Bell, "It's been quiet at first initially a 'friends-of-friends' client basis but we want to be open to the public, for the most part."

What's the best part about being Southern Ground, a new recording studio business that is 100-percent artist owned? The pressure of developing traditional studio income streams is reduced dramatically. "Sure, everyone likes to make money," postulates Bell, "but the priority is to make great music. Already this building has helped make a lot of great music. We just believe there's a lot more to be made here."

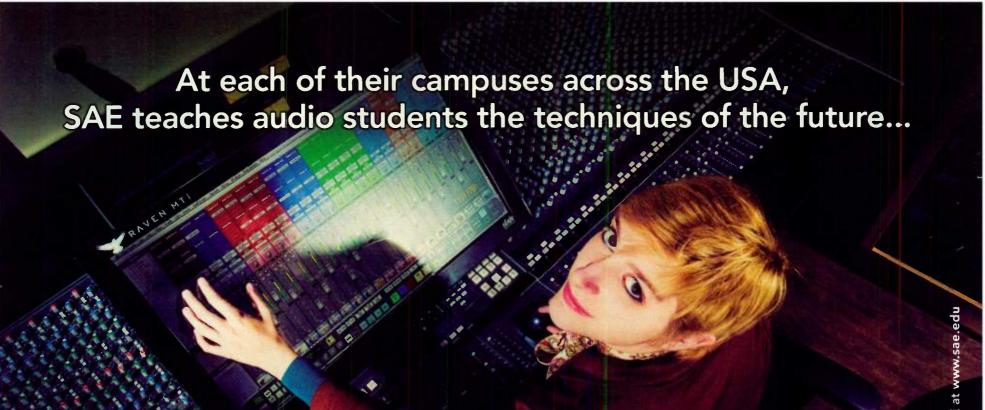
There's also the motivation to preserve crucial pieces of Music Row's illustrious recording studio history. "You know, there was a strong chance that this building was going to become a Mexican restaurant," explains Bell. "It hurts to drive down Music Row and see buildings that I worked in that are no longer studios. I understand moving forward, building condos and such, and how things come and go, but it's never good to lose your history and legacy."

Southern Ground Nashville southerngroundnashville.com

STUDIO: SOUTHERN GROUND NASHVILLE OWNER: ZAC BROWN, MATT MANGANO LOCATION: NASHVILLE, TN



There's more Catch a trailer for *The Grohl Sessions, Vol. 1*, shot at Southern Ground Nashville, at prosoundnetwork.com/sept2014.



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- Bill Smith, National Academic Director, SAE

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[26] tracks look at the recording scene



ARTIST: THE ROCKTRONIX ALBUM: MAGNIFICENT **OBSESSION** LABEL: BLUE CANOE **PERSONNEL:**

Produced by: Joseph Patrick Moore, Rush Anderson

Engineered by: Rush Anderson

Studios: Rush Hour Studios Mastered by: Ken Love (Five Points Mastering)

EQUIPMENT NOTES: Avid Pro Tools; Brent Averill 1272, Neve 1073, API 512, Wunder Audio preamps: Waves plug-ins; Shure 57, Audio-Technica ATM 25, Microtech Gefell, Avantone Ribbon CR-14, Audix D6, Neumann U87, D12, 421



ARTIST: BETH GRIFFITH ALBUM: HIGH HEELS LABEL: BGM RECORDINGS PERSONNEL:

Produced by: Randy Emata, Erik "Blu2Th" Griggs Engineered by: Randy

Emata Studios: Randy's Cave (North Hollywood, CA), Piano Man Entertainment (North Hollywood, CA) Mastered by: Bob Horn (Echo Bar Studios, North

Hollywood, CA) **EQUIPMENT NOTES:** Avid

Pro Tools Accel; Avalon 737SP: A-Design Pacifica mic preamp; Neumann M149 mic; Yamaha NS-10, KRK V8. Bryston LP-2 studio monitors



ARTIST: ACE FREHLEY **ALBUM: SPACE INVADER LABEL: EONE MUSIC**

PERSONNEL:

Produced by: Ace Frehley Engineered by: Mike Everett, Alex Salzman, Ronnie Mancuso, Mark Greene, Warren Huart, Larry Russell and Ace Frehley Assistant Engineer: Phil Allen Studios: The Creation Lab (Turlock, CA), The Hideout (Las Vegas, NV), Ace in the Hole Studios West (San Diego, CA), The Greene Room Studios (Los Angeles, CA), Spitfire Studio (Los Angeles, CA) Mastered by: Adam Ayan (Gateway Mastering & DVD, Portland, ME) **EQUIPMENT NOTES: Avid Pro Tools**



ARTIST: LINCOLN JESSER ALBUM: MODERN COLOR LABEL: INDIE-POP **PERSONNEL:**

Produced by: Lincoln Jesser Engineered by: Lincoln Jesser

Studios: Indie-Pop Studio (Los Angeles, CA)

Mastered by: Lincoln Jesser **EQUIPMENT NOTES:**

Apple MacBook Pro: Apple Logic; NI Audio Kontrol 1 interface; UA 710 Twin-Finity mic preamp; Neumann TLM 103 mic; Focal and Genelec studio monitors



ARTIST: GARY CALAMAR **ALBUM:**YOU ARE WHAT YOU LISTEN TO LABEL: SEDAN ZERO/ **ATLANTIC PERSONNEL:**

Produced by: John Would Engineered by: John Would **Studios: Stanley Recordings** (Echo Park, CA)

Mastered by: Scott Levitin **FOUIPMENT NOTES:**

Neotek Series II console; Avid Pro Tools; Yamaha NS-10 studio monitors



ARTIST: JAY NASH AND JOSH DAY **ALBUM: MEET THE** CONTENDERS **LABEL: NONE PERSONNEL:**

Produced by: Jay Nash and Josh Day

Engineered by: Seth Atkins Horan, Jay Nash, Josh Day Studios: Bluff Island Music Studio (Vermont), New Gnome (Los Angeles, CA) Mastered by: Gavin Lurssen (Lurssen Mastering, Los Angeles, CA)

EQUIPMENT NOTES: Avid Pro Tools; Universal Audio Apollo interface; Universal Audio LA 610, 710 tube recorder: Telefunken AR-51



ARTIST: THE MOJO GURUS ALBUM: WHO ASKED YA? LABEL: RED RIVER ENTERTAINMENT/RED **PERSONNEL:**

Produced by: The Mojo Gurus, Tommy Hendricksen Engineered by: Jody Gray Studios: Pro Star Recording Studio (St. Petersburg, FI) Mastered by: Stephen Marsh (Marsh Mastering, Hollywood, CA)

EQUIPMENT NOTES:

TASCAM M-2600 console; Avid Pro Tools; Telefunken Tub Mic; Adam, Yamaha NS-10 studio monitors



ARTIST: NEW ORLEANS **SUSPECTS ALBUM: OUROBOROS LABEL: LOUISIANA RED** HOT RECORDS PERSONNEL:

Produced by: Jeffrey T Watkins, Jake Eckert Engineered by: Jeffrey T. Watkins, Jake Eckert Assistant Engineer: Paul Agnostino

Studios: Rhythm Shack Studio (New Orleans, LA); Word of Mouth Studio (New Orleans, LA) Mastered by: Stephen Marsh (Marsh Mastering,

Hollywood, CA) **EQUIPMENT NOTES:**

Sountracs MRX console; Avid Pro Tools; Benchmark DAC-1 converter



ARTIST: LAND **OBSERVATIONS ALBUM: THE GRAND** TOUR

LABEL: MUTE ARTISTS LLC PERSONNEL:

Produced by: James Brooks Engineered by: Mark Bihler, James Brooks

Studios: Bridge and Tunnel Mobile (Bavaria, Germany) Mastered by: Bo Kondren (Calyx, Berlin, Germany) **EQUIPMENT NOTES:**

Studer 962 console; API 8200A, 8200 mix modules; Sennheiser HD 650 and HD 25 headphones; Event 20/20 bas studio monitors



ARTIST: COLD SPECKS ALBUM:

NEUROPLASTICITY LABEL: BROKEN HERTZ **RECORDS PERSONNEL:**

Produced by: Jim Anderson Engineered by: Howard Bilerman, Jack Clow Studios: Hotel2Tango (Montreal, Quebec), Revolution Recording (Toronto, Ontario) Mastered by: John Dent (Loud Mastering)

EQUIPMENT NOTES: Neotek Elite console; Studer A820 recorder; Otari JH16 16-track recorder; Avid Pro Tools HD: Adam S3A, Dynaudio BM6 studio monitors

notes

Mozza Tracks with Lynx

nother pair of 16VTs from

Trilogy's Samuels Rebounds

reliand to the later land muels, who worked with

Casino Bets on API

Nashville studio The Casino upgrading to API's (apiaul two API junchboxes six ompressor at the facil-

Vicari Adds Mojave Mics

MAA 200 sendence miss ranos recently employed

AES in LA

(continued from page 1)

end-user; a series of High Resolution Audio (HRA) panels and sessions ranging from content creation to playback devices; and expanded coverage of live sound, game audio and broadcast/streaming audio.

New to the 137th Convention is the Live Sound Expo. Following the model of the PSE, the LSE will take place on the exhibition floor October 10-12. The LSE stage will cover subject matter from fundamental theory and technologies, to techniques and applications, to case studies. "The Live Sound Expo stage," says Moses, "will host some of the best practitioners of the audio arts that our business has to offer. This is a chance to learn at the feet of the masters." The Live Sound Expo program was developed by editors from Pro Sound News and other NewBay titles. Industry journalist and engineer, Mark Frink, will play host throughout the LSE program, which is open to all registered attendees (including the Exhibits Plus badge, which is free with preregistration).

The convention is also about conceiving the future of pro audio. Bruce C. Olson, AES Standards Chair, notes that his committee will be consolidating existing audio networking standards as well as developing complimentary new ones. "The nature of audio technology is changing, driven by changes in consumer expectations and a trend towards IT-based infrastructures," explains Olson. "It will be increasingly important to assert the needs of professional audio practitioners in order to maintain the current expectations of professional quality, and to provide expansion capacity to handle new business opportunities and future expectations. The AES is probably the only organization that can address these fundamental engineering issues in a global professional audio marketplace."

AES standards have served us well and are arguably necessary, from the balanced analog audio interfaces that our industry was built upon to the development of the digital AES3, a precursor of the IEC 60958-3 (S/ PDIF) consumer digital audio interface, and AES10 (MADI) multichannel audio interface. "But technology doesn't stop evolving," notes Mark Yonge, AES Standards Manager. "Today, we are facing a future where in addition to traditional techniques, professional audio data will be recorded and transmitted using storage and streaming technologies adapted from the IT industry. Should this

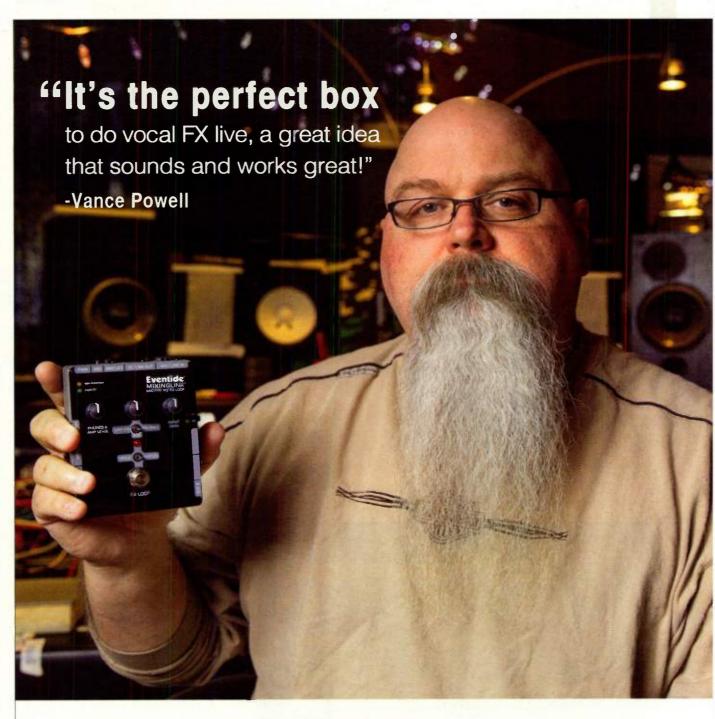
"There are more exhibitors and sponsors signing on for Los Angeles than exhibited last year in NYC; that's unprecedented for a West Coast AES Convention. Attendee pre-registration took off faster than last vear's 135th Convention as well."

Bob Moses, executive director, AES

make us anxious? No, but we should be cautious; 'studio quality' audio has quite different needs compared with commercial database operations, or email, or web browsing. Standards help to 'pin down' the technology so that equipment designers and systems engineers can implement it with unambiguous interoperability. And that helps us all."

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■ Maxing Out, Optimally



The GUI for the BBE Sound Sonic Maximizer—Optimized, one of four modules in the BBE Sonic Sweet Optimized plug-in bundle from Nomad Factory.

In his Continuing Adventures in Software, Rich Tozzoli tastes the sweet in suite.

he colorful BBE Sonic Sweet Optimized from Nomad Factory re-introduces four popular BBE plug-ins, but specifically for Avid AAX and Pro Tools 11 users. It supports all the expected formats: AU, AAX, RTAS (32-bit) AS and VST for both Mac and PC (\$149 purchase/\$69 upgrade at nomadfactory.com).

The first of the suite that I tried out was the red Sonic Maximizer. These are simple plug-ins to use, with all of them having In and Out level control "knobs" (+/- 12 dB), I/O meters, a master Power button and On/Protect (except for the Loudness Maximizer). There is a preset menu on each located just above the GUI, which drops down to reveal a variety of choices. There are only three process knobs on the Sonic Maximizer Lo Contour (0 dB to +15 dB) for phase compensated lows, Process (0 dB to +14 dB) for phase compensated highs, iSet frequency control (400 Hz to 1.4 kHz) and a BBE Process In/Out button.

I placed it on a Martin D18 acous-

tic, tracked with a single DPA 2011a through a Millennia HV-37. The sound was pleasing to begin with, but with a few tweaks, the Sonic Maximizer added a sense of harmonic air to the part. I pushed the iSet knob around, and found the upper range to be too dull, and the lower range to have a bit too much mid punch. I settled on 500 Hz, with the Lo Contour at around 2 o'clock and the Process at the same. Interestingly, I was concerned that the guitar was too bright and sharp, but when I put it in the track, it was an "oh s#)\$*" moment. It was perfect, punching through the mix with a nice sense of air and space. I was actually able to lower the acoustic a few dBs, and it was still heard clearly. Gotta love that one. It's one of those things where if you used an EQ to get this sound, you might have to worry about pushing the frequencies above the "norm." You are simply turning knobs, not seeing the effect graphically; it's all in the ears. I immediately saved a preset called RT Acoustic, which automatically resides in the 00-User Presets folder on the

(continued on page 57)



softwaretech



The State of the Software Synth

n the July issue, we looked at the general state of plug-ins. But what's happening specifically with virtual instruments?

First, they're a big deal-and second only to DAWs with respect to music software revenue. Consider Native Instruments, whose primary focus is, well, native instruments. Yes, they also make interfaces, DJ controllers and the Traktor DJ program, but you'd be hard-pressed to find a DAW that doesn't have Kontakt, Battery, Guitar Rig, Reaktor or some other NI product installed. And these days, all DAWs ship with at least some virtual instruments. and although many of the bundled drums is here to stay.

Ever-bigger libraries: Remember the shock when Peavey introduced a 64 Megabyte sampled piano? Or when Spectrasonics created the Trilogy sampled bass instrument with a (gasp) 3GB sample library? That would fit in the back pocket of many of today's libraries, including Spectrasonics' own Omnisphere. Orchestral libraries from East-West, VSL, Spitfire Audio, and others devour hard disk space, but this isn't just for show; the additional articulations and options obtainable through MIDI control and the VST3 spec allow for extremely expressive parts that

With the days of underperforming computers receding quickly, virtual instruments are becoming an ever-bigger part of digital recording.

instruments are basic, they can still be useful. Remember, a Minimoog had only three oscillators.

The speed bump for instruments was always CPU power (to run virtual instruments with decent latency) and RAM for sample-based instruments. However, with the days of underperforming computers receding quickly, virtual instruments are becoming an ever-bigger part of digital recording—so let's look at the top virtual instrument trends.

Drums: The array of third-party drum programs is dizzying: FXpansion BFD, Steven Slate Drums, Kontakt's various kits, Avid Strike, XLN Addictive Drums, Toontrack EZdrummer 2, Zildjian's stunning Digital Vault cymbals, and many others. Even bundled drums are getting serious-Logic Pro X's Drummer is a versatile and realistic drum part generator, Cakewalk Sonar comes with a full version of Addictive Drums, and Reason's Kong drum module can handle much more than just EDM. Given the trend toward drum replacement, the shrinking of studios capable of dealing with real drums, and styles of music that revolve around electronic instead of acoustic drums, the trend toward bettersounding and more "humanized"

in many contexts (assuming skilled musicians) are virtually indistinguishable from orchestral scores. And if 96 kHz/24-bit becomes more common, you can expect libraries to balloon even further.

More RAM, less disk streaming: When RAM was expensive, streaming from disk allowed using larger libraries that needed only enough RAM to store and play back attacks while a hard disk looked for where to start reading. But with computers having 16, 32 or even more gigabytes of RAM, it's becoming feasible to simply load your instruments into RAM. Another option is buying a solid-state drive and dedicating it to sample libraries, thus giving the twin advantages of external disk drive storage and fast, solid-state playback.

Innovation: Do we have enough Minimoog clones now? Good. Instruments like iZotope's Iris put the "virtual" in virtual instruments by melding elements that are more like a paint program with a somewhat traditional wavetable synthesizer. Steinberg's PadShop is another example of an instrument that strikes out in new directions, but also hints at another trend: special-purpose instruments. While

(continued on page 57)

29

Jed Leiber built NightBird room-by-room at the Sunset Marquis Hotel in West Hollywood, CA; the first facility was Studio A in the basement.

NightBird

(continued from page 22

man cue system handling foldback between rooms.

Studio D was built as a pre-production and writing room. "I wanted to make NightBird affordable," says Leiber. "Many people want to work here, but it can be expensive."

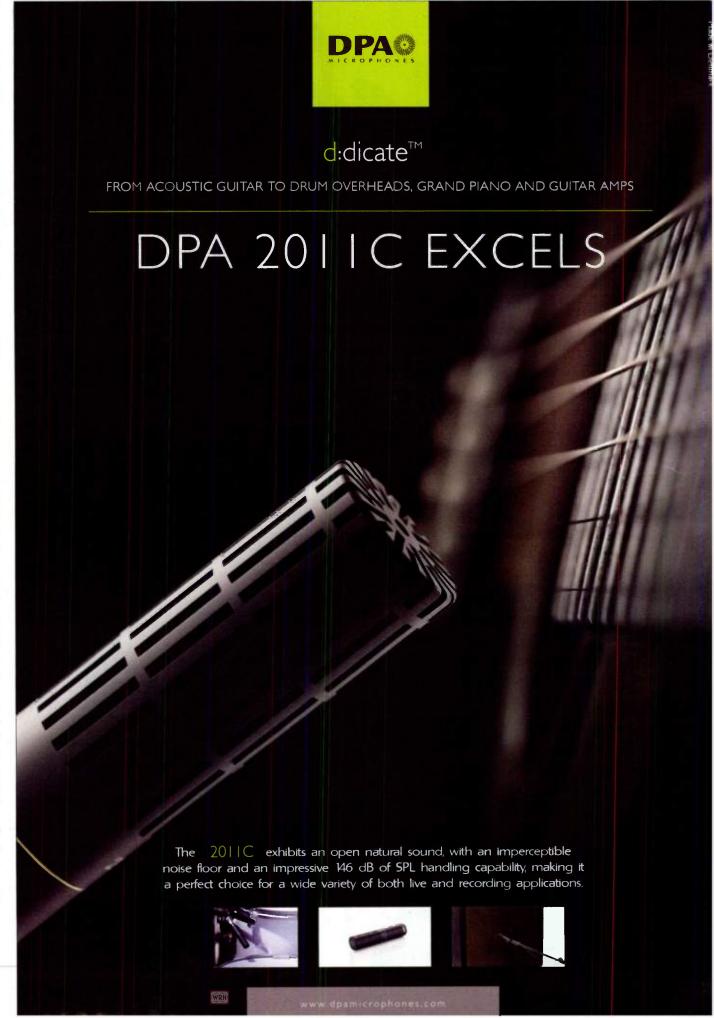
Owning a studio can be a daunting endeavor. NightBird could have paid for itself after two films, he says, but Leiber decided to take a break and get back to his songwriting. Now, with the easy availability of inexpensive, high-quality audio gear, "there has become less and less of a reason to pay the expense of a worldclass recording studio. Fortunately we still get the 'cover girls,' because they know the difference," he says, referring to NightBird's web site, where the enviably extensive client list includes numerous artists who have graced the covers of Rolling Stone and Billboard.

Making the most of his connections with some of those artists, Leiber has launched a video talk show, appropriately titled NightBird Underground. "I have a personal relationship with many of these artists that is completely different from your typical interview talk shows which often exploit the artists for sensational impact. With someone I am comfortable with, I can also just walk into the room and play with them. I did one show with Julian Lennon, and was flattered when he posted on his website that it was one of his favorite interviews."

"My ultimate goal is to build up a large enough social media platform so that artists don't have to sell a million records to support themselves doing what they love. If they could sell 10,000 and make enough to continue writing and playing music, that's my kind of business model."

Happily for NightBird's business model, there is no shortage of bookings. "What's nice is that we still get the A-list clients—Lil Wayne, Miley Cyrus, Aerosmith, Carrie Underwood and countless others; artists from every genre of music where people are still selling a lot of records, or making a lot of money from their live performances," he says. "Records have become somewhat of a loss leader, but an important one. To stay current, you still have to make a record."





nightbirdrecordingstudios.com

Passovoy

(continued from page 22)

TG2 preamp then an 1176, barely hitting, just getting the peaks. It's really simple."

Some vocals were tracked with the SM7. "Between the SM7 and the 67, those get you pretty much everything you need out of his voice. No EQ go-

"There's a much faster turnaround nowadays. I like it; you record it on Monday and it's out on Friday. You're making music for today, not in a year, so it keeps things moving."

Noah Passovov

ing in. It sounds like him; you don't have to do a whole lot to it on the back end," he says.

"With the vocals, I like to give the

mixer the most room, and not overprocess, but there are things that I'm willing to go to town with and print the sound that we want. Especially

with guitar tones—when we hit on something we like, I'm totally willing to commit to that."

Passovoy and Valentine like to do a fair amount of re-amping. "That way, James doesn't have to worry so much about the tone at the time. He just gets the part down, then we listen to what it's going to sound like and we can play around with it."

Bass player Mickey Madden's sound is more straightforward, he continues: "It's a mix between a DI (Avalon U5 DI into a Neve 1081 pre, a Lang PEQ-4, and an 1176 or a Distressor, depending on the track) and a cabinet, which is usually one of Mickey's [Ampeg] B15s. There are certainly some songs where he needed a harsher tone, so I really got into using a Distressor; I slammed that and got a really nice distortion out of it."

He likes to put up a lot of different mics on drums. "I have an old telephone that I can use as a mono overhead. If you want a telephone sound, you might as well record through a telephone!"

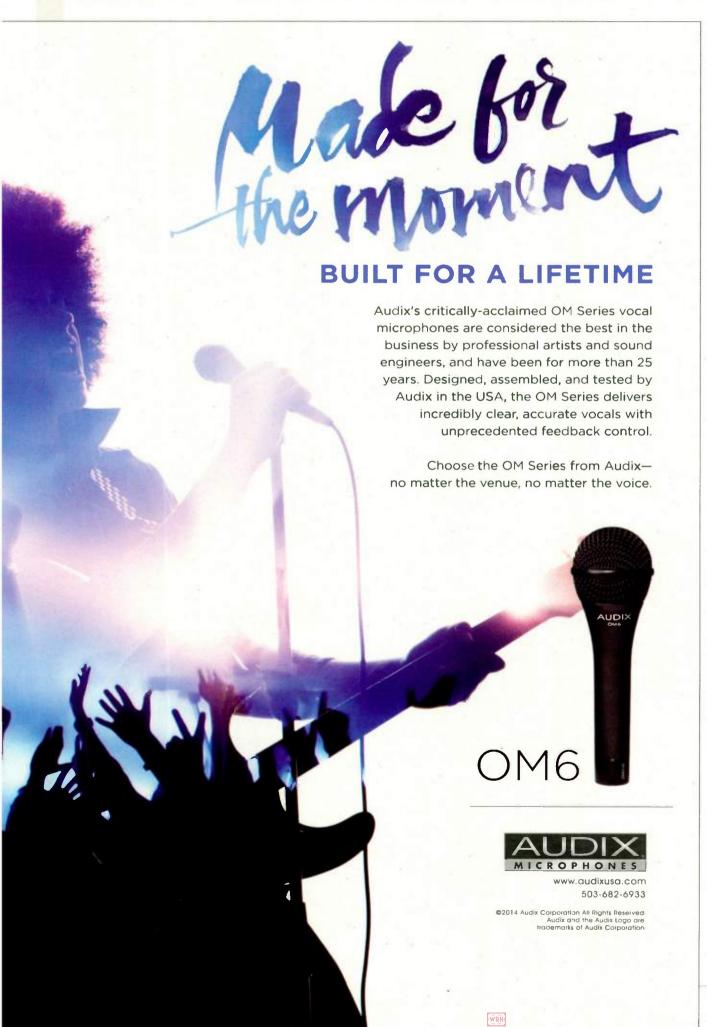
The room at Conway is great for drums, he continues: "Just putting up a pair of 87s, it sounds perfect. I have a mid-room mic that gets squashed within an inch of its life. It's right in the center of the room, so it became another piano sound, and I used it for percussion, as well."

For the main piano sound, he says, "We used a pair of C12s, Neve pres and a 33609, then a stereo Royer further away; we'd decide between those mics. Then that crushed room mic, which occasionally found its way on for a specific sound."

The rest of the keys went through DIs. "There were probably 12 synths in the control room. One of the techs built a switcher with 12 stereo inputs, and outputs at mic level. It has a big knob on the front and you just pick the synth. That goes to two mic pres; it's a brilliant, simple design," he says.

With so many platforms available to artists, the time from tracking to release feels like it's getting shorter. "It does seem to be going that way," Passovoy agrees. "There's a much faster turnaround nowadays. I like it; you record it on Monday and it's out on Friday. You're making music for today, not in a year, so it keeps things moving."

Conway Recording Studios conwayrecording.com



IIIIsound POST BROADCAST

briefs

Formosa Adds POP

SANTA MONICA, CA—Formosa Group (formosagroup.com), based at The Lot ir W. Hollywood, with additional locations in W. Hollywood, West LA and Burbank, is re-opening the Santa Mon ca-based facility formerly known as POP Sound (Pacific Ocean Post), which houses 10 mixing stages, eight voice-over booths and an ADR stage.

Avid Goes to Sin City

AUSTIN, TX—Director Robert
Rod-iguez and his team at
Troublemaker Studios embraced Avid
Everywhere (avid.com) to create the
new 3D feature film, Sin City: A Dame
to Kill For, networking multiple Pro
Tools | HDX systems on the mix stage
via Satellite Link, and using Media
Composer and ISIS shared storage for
picture editing.

SAGU Trains on Nuage

WAXAHACHIE, TX—Southwestern
Assemblies of God University (SAGU),
located in Waxahachie, TX, recently
added a 48-fader Yamaha (yamahaca.
com) Nuage advanced production
DAW system, purchased through
Audio Dawg of Irving, TX, in a production studio available for rental and an
academic learning lab for its Digital
Media Arts students.

Beatrice Joins Nutmeg

NEW YORK, NY—Emmy Award-winning sound designer and engineer Brian Beatrice, known for his short-form work for Nickelodeon, Food Network, USA Network, Syfy Channel and truTV, plus his commercials for Baron and Baron, Publicis, Anomaly and Consulate, has joined the creative team at Nutmeg Post (nutmegpost. com) in New York City.

aE|Media Adds SIOLM

MEW YORK, NY—aE|Media (audioengine.net), parent company of audioEngine|NYC, audioEngine|PHX, Broadcasters and KIND editorial, has added Shout It Out Loud Music to its roster, moving it into the John Storykdesigned Studio B at 817 Broadway with the addition of a live room and a fully integrated writing suite adjacent to its primary studio.

Dolby Atmos At Home And On The Go =

BY STEVE HARVEY

BURBANK, CA—Having introduced Dolby Atmos to mix stages and movie theater screens worldwide, Dolby Laboratories is now turning its attention to delivering the immersive sound format to home theaters—and, eventually, mobile devices. At a recent presentation in its Burbank offices, Dolby outlined the object-based format's capabilities and unveiled its solutions for the home.

Brett Crockett, the company's senior director, research sound technology and the man behind Dolby Atmos, reported that his team had gone back to basics to develop a home theater solution: "We had to understand how people hear, how people listen; investigate the science of sound. We needed to make the home Atmos system as engrossing as the cinema—and I think we've done it."

Each sound object in Dolby Atmos—and there can be up to 128 playing simultaneously—has its position in, and trajectory through, three-dimensional space described by accompanying metadata. In the movie theater, the Dolby Atmos processor, having been programmed with the



Dolby's Brett Crockett, introducing the company's Atmos format for home theaters.

number, location and capabilities of the installed speakers, outputs a custom mix on the fly specific to that environment. "That's why a 3,000-seat cinema with up to 64 channels of speakers gives a similar experience to a smaller presentation, like this cinema [at Dolby's Burbank office] with 35," said Crockett.

Dolby has positioned Atmos, which in cinemas plays back through speakers arrayed on the ceiling as well as the traditional behind-the-screen,

side and rear-surround speakers, as a creative tool for filmmakers. "It's not about channels and speakers anymore; it's about what sound you want where to help tell a story," Crockett said. The format adds verisimilitude to a soundtrack: "When I go outside, reality has height," he observed.

In the home, there are challenges to locating speakers on the ceiling, of course. To solve the problem, said Crockett, "We invented a new type (continued on page 32)

HIHI

Kyrsten Mate, Maker of Sounds

BY STEVE HARVEY

SEBASTOPOL, CA—Last year, Google and the company behind *Make* magazine and Maker Faire launched a sixweek virtual summer camp, hosted on Google+, aimed at teenagers—but open to older folk—who have an interest in what has become known as maker culture. This year's Maker Camp schedule included a week on the theme of DIY music, including an hour-long Google+ hangout, "Soundtrack of the Universe!" with Kyrsten Mate, a sound designer and sound effects editor at Skywalker Sound.

The choice of presenter was appropriate: Mate and her husband, Jon Sarriugarte, are hardcore makers. Sarriugarte, a metalworker, designs and builds furniture, lighting fixtures and other home accessories. Together, they have fabricated various mutant vehicles, including Golden Mean, a giant iron snail car; the Electrobite, inspired by the trilobite and built on an electric wheelchair; and the Serpent Twins, two train-like vehicles that first appeared at the Burning

Man festival.

Perhaps inspiring a new generation to investigate the role of the sound designer and sound effects editor as a potential career, Mate offered advice on getting into the business and went into great detail on the post-production audio process and the creation of sound effects. Her

"They're very long hours, so you have to really like this business to stay in and be excited for it."

Kyrsten Mate

resume includes some major box office successes, from Apocalypse Now through The Lord of the Rings: The Two Towers and Iron Man 2 to, most recently, Guardians of the Galaxy.

As she cautioned, "There's no easy, direct path to my job; I ended

up in it by accident." Having studied for a degree in broadcasting with an emphasis on audio production, she initially thought she would become a music recording engineer, but ended up creating sound effects for theater and radio. Then, her soon-to-be husband was offered a job at Skywalker.

"He couldn't take the job, but had just met me," and recommended her for the position, she recalled. She wasn't ready to get into a career right then, she said, but "I had the skills ready; it was my golden opportunity."

Luck also plays a role in the discovery of sounds, according to Mate. "Most of the best sounds are serendipitous. A lot of times, you go and record one thing and you think it's going to be super awesome and it isn't, but you end up with something else that you never expected. It's more about keeping your ears open all the time, because you never know what you're going to need in the future."

Mate is constantly alert to the potential of sounds around her, keeping a list in her head for the future. "I

(continued on page 52)

[32] soundPOST/BROADCAST

Atmos At Home

(continued from page 31)

of speaker technology: Dolby Atmosenabled speakers. They're made specifically to sound just like speakers on your ceiling, from speakers on the ground. It works by an upward-firing speaker-it has a transducer that reflects audio off your ceiling."

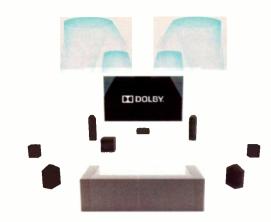
Ideally, the ceiling should be level; if you have a cathedral or sloping ceiling, you're out of luck. "Our documentation suggests that a ceiling height of seven to 14 feet is optimal for the Dolby Atmos-enabled speakers to work," said Craig Eggers, Dolby's director, content creation and playback, home theater ecosystem.

Simply bouncing sounds off the ceilings isn't enough, however, continued Crockett, since the head, ears and shoulders interact to modify sounds coming from above. "Dolby Atmos-enabled speakers impart that modification to the audio. That gives your brain the cues to think that it's coming from overhead."

These new speakers will typically incorporate a single driver (although some may house more) with a very carefully defined directivity pattern, he said. Manufacturers will also be making add-on speaker modules. The up-firing units should be positioned in the four corners, left and right front and rear, or just left and right front, giving rise to new nomenclature: 5.1.4, 7.1.4 and 9.1.2.

Various home theater equipment manufacturers have already announced the rollout of new Dolby Atmos receivers, including Denon, Integra, Marantz, Onkyo, Pioneer, Steinway Lyngdorf and Yamaha. As in the cinema, Dolby Atmos content will play back in a custom mix specific to the system. "You tell it how many speakers you have, where they're located and what their capabilities are," when you install the system, said Crockett. "Every Dolby Atmos-enabled receiver or pre-processor has an Atmos renderer, because the full Atmos mix comes into the home."

Through the use of a new technology, Spatial Coding (not to be confused with competing, similarlynamed codecs), Dolby Atmos content may be delivered at highly efficient data rates using Dolby Digital Plus, enabling distribution via over-the-top services, such as Netflix, and Blu-ray Disc. As Eggers explained, that also means that "Dolby Atmos content is 100 percent backwards compatible."



Dolby foresees Atmos 7.1.4 systems for home use.

On a legacy AVR, for example, providing it is 100 percent spec compliant, offers HDMI 1.4 or higher, and the user switches off the secondary audio function (which is used to mixin a director's commentary), Atmos content will correctly downmix for playback on a channel-based setup such as 5.1 or 7.1, said Eggers. Alternatively, "If your primary soundtrack is Dolby TrueHD [Dolby's lossless Blu-ray Disc format], and you have a channel-based system, it will play back TrueHD on your channel-based system." Dolby Atmos Blu-ray titles will reportedly begin appearing in the fall.

As for the potential for mobile playback, said Crockett, "The Dolby Atmos soundtrack has all the threedimensional audio object information that can be transmitted to a portable device via streaming, and can be sent

to the headphone renderer, which renders a three-dimensional representation over any pair of headphones. We've also developed technologies that more accurately play back the LFE or .1 soundtrack."

The headphone rendering software will typically run on the device's DSP chip. "For mobile, it's likely that it's Dolby Digital Plus," said Crockett. "That would render the objects from the Atmos mix, and then the new Atmos headphone renderer would spatialize it."

It could alternatively run as an app, "But it's more efficient in the DSP; top-level apps are more battery hungry." Dolby Atmos for mobile is scheduled for launch during the next year, he said.

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IIIIIsound TECHNOLOGY

innovations: the manufacturer's view

Innovation-Driven Evolution:

MACKIE'S SRM LOUDSPEAKER FAMILY

BY JOHN BOUDREAU

he year 2014 marks Mackie's 25th anniversary, so it's an appropriate time to look back at some of the events that inspired the company to create such market-making products as the original SRM450. It's also the year we've launched the completely reimagined SRM Series, including the all-new SRM450 and SRM350, as well as extending the line to include a range of professional-grade wood-box variants: the SRM550, SRM650 and the recentlylaunched SRM750 and SRM2850 (a dual 18-inch DSP-enhanced powered subwoofer).

When I joined Mackie in 2001, our sole loudspeaker offering was the SRM450 (launched in 1997) and a single subwoofer, the SRS1500. The first of their kind-turnkey, self-powered speakers—available, the SRM450 and SRS1500 pioneered what we called "Mackie Active," virtually creating the market for full, portable PA systems with integrated amps and electronics. During my first two years on the team, I was involved with the design and launch of the SRM450's little brother, the SRM350. Immediately afterward, we launched the very first wood boxes, the SA Series. These were bigger, more powerful configurations that incorporated our cornerstone technology of built-in electronics and amplification.

We were literally the only company occupying that market sector, and we had a very compelling story: that the average musician or smaller sound company no longer needed to haul around a rack of power amps, crossovers and graphic equalizers. Through our application of accessible, yet previously untapped technology, we made our customers' lives easier and more productive by changing the way they ran live sound. We removed the need for a professional sound guy-they could more easily wire the system and pull up a mix, and the speakers sounded great without anybody having to tweak crossovers, graphic EQs, limiters, etc. That's the Mackie magic, and it's what we gain inspiration from, even to this day.

The introduction of SRM was perfectly timed with—and perhaps

helped to fuel—the change in live performance from full bands to smaller groups playing with MIDI backup, spanning a wide range of users from singer/songwriter to the then-emerging electronic musician. And somewhere around the early 2000s, the Mackie SRM crossed over into the booming new DJ era. All DJs wanted was a rugged box they could plug a DI mixer into that sounded good when played loud. The SRM Series, in particular, perfectly fit that bill. And our larger configurations were well positioned to address the challenges of larger audiences, with the same easy-to-use technology at very Mackie price points.

As we began to lay the groundwork for this year's rollout of the totally redesigned (vet still ultra-portable) SRM450 and SRM350, along with the expansion of the SRM brand into larger-format, pro-grade allwood models, we set our sights on innovating on three key levels: max output, pro sound quality and ease of use. First, we wanted to deliver more power to improved drivers for higher volumes. We also wanted to incorporate EAW-designed acoustic correction (originally introduced in the HD Series in 2008) to the entire SRM line, which significantly enhances the overall sound quality of the loudspeakers. Lastly, we wanted to continue to deliver on the Mackie promise of professional tools at accessible prices by providing easy-to-use digital features like built-in automatic feedback destroyers and one-press speaker voicings suited to our customers' applications.

The original SRM450 delivered about 380 watts combined; this was by and large limited by the size of the amp module we could incorporate into the design. In those days, we didn't have the technology to physically accommodate a larger amp, nor to dissipate the heat inherent in a higher-powered design. To compensate for the demand for higher SPL, we incorporated sliding high pass filters. As the volume was raised, the circuitry would start rolling of the low end, which resulted in a decidedly mid- and high-frequency heavy sound.

To deliver modern-day power expectations, the all-new SRM350 and SRM450 have a totally redesigned,

1000 W platform, and everything in the wood box range has a 1600 W platform. These highly efficient Class-D designs are coupled to a switch mode power supply that, together, are greater than 90 percent efficient and which effectively eliminate the issue of thermal failure.

With higher power, you need drivers that can handle that power, or you're just making feature bullet points that don't deliver anything to the user. So, as Mackie has always done, we designed custom drivers to match our amps perfectly—a powered speaker can be fully optimized since it is a closed system. These new SRM models all feature new custom woofers and compression drivers.

In addition, every model in the SRM line now has a powerful DSP toolset. With the implementation of far more precise crossover filters than were available in the old analog domain, we are now able to effectively create an exceptionally smooth SRM signature sound across every SRM model. We've implemented FIR based acoustic correction algorithms to eliminate unwanted reflections as sound exits the horn and woofer, creating an incredibly smooth mid- and high-frequency response that never wears down the listener.

We've also taken some of that DSP and put it on the rear panel, making powerful features easy to use. With the push of a button, you can significantly change the character of the speaker voicing, dialing in a sound that's appropriate to the application you are using it in—whether it is PA, Monitor, DJ or Soloist (each with its own specific DSP-driven voicing).

In the spirit of offering our customers technology they can use, we've also incorporated some surprising features. Each SRM speaker offers a built-in automatic feedback eliminator; we are the only company to build that into our speakers. And while plenty of manufacturers are building simple analog mixers into their powered PA speakers, we've taken it a step further, using our deep experience in making mixing consoles to solve some of the real-world



Mackie's SRM450 and SRM350 head the completely reimagined SRM Series.

problems our users face Probably the coolest new feature is the inclusion of a Wide Z input, a first in the loudspeaker market. The idea is that somebody might want to plug in a DJ mixer, an iPad or smartphone, or even a microphone. They might want to plug a keyboard straight into it, or even an acoustic instrument. With Wide Z, whatever a user plugs in to any input, they don't have to worry about any of the technology. Whether it's a 50 ohm microphone, or 20 kohm mixer, wide Z is "Impedance agnostic." Basically, the user plugs in whatever they want, and turns it up until it is loud enough.

Despite all this new technology and performance, the only thing we didn't redesign in the SRM350 and SRM450 was the cabinet itself. After lots of market research and customer feedback, we realized the SRM Series cabinet design was as timeless as, say, the VW Beetle, and synonymous with flexibility and durability. So we left the cabinet design unchanged. Meanwhile, we designed the higher-end models to be heard and not seen, with black painted wood cabinets, all-black grills and tasteful branding. Again, it's the right packaging for each target customer, not innovating in product design for the sake of doing so.

In the end, what guides Mackie innovation—today every bit as much as back in 1989—is our mission to apply technology in truly usable designs, based on a first-hand, in-the-trenches understanding of musicians DJs, installers and production rental companies. We innovate not just for the sake of technology, but rather to make our users' lives easier and to help them sound better. And the rest is history!

mackie.com

John Boudreau serves as SVP, Mackie Product Development.

sound PRODUCTS IIII



ATC SCM20ASL PRO MONITORS

British loudspeaker manufacturer ATC has introduced two new reference nearfield monitors—the active SC-M20ASL Pro (V2) and passive SCM20PSL Pro. Both models feature ATC's drive units, hand-built in its UK facility. The new SH-25-76S 25mm/one-inch soft dome tweeter, the first to be designed and built by ATC, is

the result of six years of research and development by managing director Billy Woodman and R&D engineer Richard Newman.

The neodymium motor with heat-treated top plate reportedly provides extended frequency response (-6 dB @ 26 kHz) and low non-linear distortion. The geometry of the waveguide is designed for optimum dispersion and made from a precision-machined alloy. The bass/mid driver used in both loudspeakers is ATC's proprietary 150 mm/six-inch Super Linear device, constructed with a 75 mm/three-inch voice coil and a short-coil, long-gap topology.

BLUE MO-FI HEADPHONES

Blue Microphones has released its new Mo-Fi headphone, intended for both professional and personal use. Mo-Fi's built-in 240 mW amplifier is matched to premium 50mm drivers, aiming to deliver the performance of



custom-tuned, high-end studio monitors. Mo-Fi includes three amp settings—On, On+, and Off. When switched to On, Mo-Fi activates the amp, while On+ engages the amp's analog low-frequency enhancement circuit to intensify bass. Off puts Mo-Fi in passive mode, for connecting to high-output studio gear.



FOCUSRITE SCARLETT SOLO

Focusrite has announced a new addition to its Scarlett series of USB audio interfaces, the Scarlett Solo. Scarlett Solo offers

a dynamic range of 106 dB and features a 2-in/2-out USB interface, -125 dB EIN and -97 dB THD; a Focusrite Scarlett mic pre; High headroom instrument input: +14 dBu; 24-bit audio with sample rates up to 96 kHz; and direct, latency-free monitoring. Housed in a compact aluminum case, the Scarlet Solo is portable and is USB-powered, eliminating the need for a power supply.

SELLING OVER 60 MANUFACTURERS EXCEPTIONAL CUSTOMER SERVICE EXPERIENCED TECH SUPPORT Presonus Smaart V7 ALLEN& HEATH SOUNCE SO

IZOTOPE RX 4

iZotope has RX 4 and RX 4 Advanced, the latest editions of its audio repair and enhancement software. Intended for use fixing noisy, distorted or flawed audio, the new RX 4 is designed to be a companion to a DAW or NLE. New RX 4 features include Clip Gain, allowing users to adjust volume levels of vocals and instruments; a Dialogue Denoiser to reduce background noise; and RX Connect functionality,



intended to streamline the editing process with Pro Tools, Logic, and other popular software.

Additionally, the RX 4 Advanced edition includes a Leveler to automatically adjust volume of mixes in post production, and EQ Match to keep mixes sounding consistent throughout the post production process.

PRISM SADIE V6.1

Prism Sound has released Version 6.1 of SADiE, its recording and editing software. New to V. 6.1 is the WAV Master feature allows users to create WAV files for an entire album, using PQ marks to define the



start and end of the WAV file for each album track. Track Titles, Artist Name and other information is automatically incorporated into these files. As a further extension of its WAV Master feature, SADiE has also introduced a new high-quality Sample Rate conversion algorithm.

Prism Sound has also incorporated ISRC in BWF into SADiE's new WAV Master option. This feature is included as part of the Mastering Suite and Sound Suite packs. Created and standardized by the European Broadcasting Union, Broadcast WAV (BWF) is an extended WAV format that allows ISRC data to be embedded in the file. ISRC stands for International Standard Recording Code.

ROLAND MOBILE UA INTERFACE



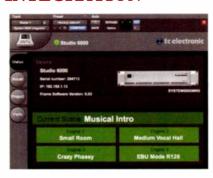
Roland has announced the Mobile UA, a compact USB audio interface that incorporates newly developed S1LKi sound technology. Sporting up to four channels of DSD and PCM audio playback in a small, bus-powered device, the Mobile UA reportedly provides low-latency operation for on-the-go music production, live

performance, and general listening. It offers native playback of DSD audio sampled at 2.8 MHz, and Roland's proprietary S1LKi audio engine also reproduces traditional PCM audio at rates of 44.1 kHz and above.

The Mobile UA features Roland's VS Streaming technology for low latency and stable operation, and provides up to four simultaneous channels of audio playback. Both USB audio streaming and DSP are processed on a single custom chip. ASIO and Core Audio drivers are available for compatibility with various Windows and Mac audio applications.

TC SYSTEM 6000 NLE INTEGRATION

TC Electronic has launched a System 6000 Integrator plug-in, allowing users to save and reload the complete settings of a System 6000 as part of most DAW or NLE projects. The System 6000 Integrator supports the AAX, RTAS, VST and Audio Unit formats, covering all major DAWs and NLEs. To use the plug-in, users will need an iLok account, but they can choose whether they want to store the



plug-in license on an iLok USB key or directly on their computer.

Through standard automation, users can automate preset changes during playback, allowing them to get more out of the four processing engines on the System 6000For instance, one engine may apply 8-channel reverb in one scene and DXP dynamics processing or UnWrap HD in the next.



There's more information on all the products featured at prosoundnetwork.com/sept2014.

[sound reinforcement] IIII sound PRC



SSL MADI-BRIDGE UPDATE

Solid State Logic will release new features for MADI-Bridge, the company's MADI-to-Dante IP Audio Network interface, during IBC 2014. Part of SSL's new Network I/O Range, MADI-Bridge is a broadcast-ready interface between MADI and Dante. The new features for the MADI-Bridge include bi-directional Sample Rate Conversion and a new 'Split Mode.'

MADI-Bridge provides 64 channels per Bridge at 48 kHz, or 32 channels at 96 kHz, redundant MADI, IP Network ports and PSU. In addition to builtin clock redundancy, the MADI-Bridge includes a pair of sync inputs for use as a self-redundant Dante Grand Master clock. The unit can synchronize to Video sync, tri-level or black and burst, Word clock, MADI or PTP Network sync. MADI-Bridge also features a front panel headphone socket (with rotary level control) and built-in headphone monitor routing, to replace traditional patch bay routing and fault-finding functionality with equivalents in the IP Audio domain.

dB TECH SUB H SERIES

Italian loudspeaker manufacturer dB Technologies recently upgraded its active subwoofer offerings with the new Sub H Series of 15-inch and 18-inch hybrid horn-loaded cabinets. The new design reportedly provides extended low-frequency range and high-performance output while reducing the cabinet weight and increasing power efficiency.



Compared to the previous Sub D Series, the new subwoofers actually use a smaller amplifier, providing better efficiency and power consumption while still achieving 133-134 dB maximum SPL output. Other upgrades include auto-range power supply for use worldwide; 56-bit DSP processing for crossover, EQ, limiter and delay management; Powercon link to connect with full-range cabinets; and mini-USB port to update system firmware and retrieve telemetry log files that provide service information on usage.

IBL PROFESSIONAL EON 206P PA

JBL Professional has introduced its EON 206P Portable PA system, which features a pair of 6.5 inch passive loudspeakers, each featuring a 6.5-inch woofer and a 1-inch neodymium black nylon dome tweeter, powered by a 160-watt power amp section (80-watts per channel). The EON 206P features a maximum SPL output of 113 dB, with a nominal coverage pattern of 100x80 degrees.



The EON 206P also has an integrated 6-channel mixer with: two balanced mic/line channels with XLR/quarter-inch combo jacks (CH1 and CH2); two stereo inputs (CH3 and CH4 is RCA and quarter-inch; CH5 and CH6 is a 1/8-inch mini jack). The mixer also features Stereo Monitor Out (quarter-inch left and right out) with volume control (for an external sub or stage monitors), master volume control, reverb on Channels 1 and 2, bass/treble control, and universal power (100-240V; 50/60 Hz).

PRESONUS STUDIOLIVE RM-SERIES **DIGITAL MIXERS**

PreSonus has introduced its StudioLive RM16AI and RM32AI 32x16x3 rack-mount Active Integration digital mixers, which are based on the StudioLive AI-series engine. UC Surface software for Mac, Windows, and iOS controls the mixers,



which are designed to be an interface for live mixing or a studio environment.

The 3U rack-mount RM16AI provides 16 locking XLR inputs with recallable XMAX Class A preamps, 8 XLR line outs, and 3 main outs (left, right, and mono/center); 32 internal channels and 25 buses; a 52x34 FireWire 800 recording interface; 96 kHz operation; and extensive signal processing. The 4U rack-mount RM32AI offers 32 inputs with recallable XMAX preamps and 16 line outputs but otherwise has the same features as the 16-input version. Both mixers offer individual +48V phantom power on all inputs; a +48V Meters button displays phantom-power assignment on the input meter grid.

GALAXY AUDIO STANDS

Galaxy Audio has added three new microphone stands and two new speaker stands to its catalogue, all available now for shipping. The new MST-18 and MST-25 are tripod mic stands that come complete with boom



arms, with the MST-25 featuring all-metal construction. The MST-R25 is a round base mic stand, intended for tight fit places on stage or in the studio.

Also, Galaxy has added two new speaker stands, the SST-35 and the SST-45. These two speaker stands are intended to provide durable and sturdy support to any speaker. The SST-45 features all-metal construction and will go up to 81 inches and the SST-35 extends to 78 inches.

AIRNETIX AIROCKS-PRO

AirNetix LLC. has introduced AiRocks-Pro, a new "multi-hop" wireless audio system designed for the pro-audio mobile production market. AiRocks is intended to provide an extremely large coverage area for powered speakers in large outdoor venues.

AiRocks is based around wireless audio. Each radio includes a digital 'transceiver' which acts as a relay point for the wireless signal. By using several AiRocks-Pro units, an audio signal can be "multi-hopped" over much longer distances than traditional wireless sys-



tems, since the FCC limits the amount of transmit power for each radio. AiRocks-Pro creates a cloud of high-quality audio that can completely blanket a venue. This gives an audio engineer the choice of deploying more speakers at lower volumes.

ALCLAIR CRANKMASTER 5000 IEMS

Alclair Audio has introduced its Crankmaster 5000 custom personal monitors, intended to emphasize low end for listeners via five drivers in a three-way crossover design. According to Alclair, the arrangement gives the monitors "a clean, distortion free low end with a smooth midrange and crisp highs." The CrankMaster 5000s were origi-



nally designed at the request of Christian rapper/producer Lecrae, president, co-owner and co-founder of the independent record label Reach Records. Alclair Audio is based in Osseo, MN, just outside of the twin cities.



find a system that will put the music on the audience and keep it off the ceiling", explained Clearwing CEO, Gregg Brunclik. Adaptive™ technology delivers infinitely customizable, venue specific coverage with such precision that the acoustical impact of the room can be virtually eliminated.

"It is the best I've ever heard the venue sound", said Bryan Baumgardner, operations and logistics for Clearwing.

Visit EAW.com for more information.



Event photo: Sara Bill Photography

[36] Sound REINFORCEMEN

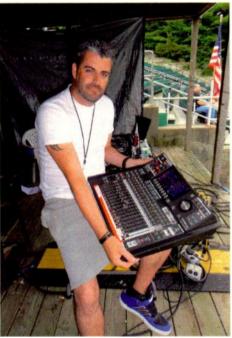
■ Back To The Retro Futura

BY CLIVE YOUNG

BROOKHAVEN, NY-This summer's Retro Futura Tour was out to revive that '80s vibe; aimed squarely at folks with a sweet-tooth for synthpop, the five-act package featured co-headliners Howard Jones and Tom Bailey of Thompson Twinswho hadn't performed his former band's music since 1987—along with opening sets from Katrina Leskanich of Katrina and the Waves, China Crisis and Midge Ure of Ultravox.

A tightly run ship, the tour picked up local production at each stop, with the openers' sets mixed by regional engineers. The coheadliners, however, were mixed on identical—and unusual—FOH/ monitor systems carried by the production and overseen by Sean Vincent, who's been Howard Jones' live engineer for the last six years.

In recent times, Jones has become a bona fide roadwarrior, constantly touring around the world. "Until three years ago, we were very traditional," said Vincent. "I would mix FOH on whatever board was given to me, and



FOH engineer Sean Vincent mixed both Tom Balley and Howard Jones through a 32-channel Roland V-System M-300 console.

we'd have a monitor engineer who would use whatever the venue had. Howard's set is very precise, however, and the problem we had all the time was that we couldn't get the band consistently happy with what they needed to hear in their in-ears."

The unlikely answer, it turned out, was to center Jones' production around Roland's V-Mixing System, an integrated series of digital consoles, personal mixers and recording gear that connect through specialized REAC Cat 5 digital snakes. The catch is that it's intended for installations—Roland's own website highlights its use for houses of worship, schools and boardrooms, but touring? Not a word.

"I've not bumped into anyone else using it live," Vincent admitted, "but they should because it's flexible and very robust. That system's been here four or five times, we've been to Japan with it, Australia, all over Europe; never goes wrong,

Aiming for a system that could handle front-of-house and monitors-and yet travel on commercial flights if necessary-Vincent centered FOH around a diminutive 32-channel Roland V-System M-300 console, which easily fit Jones and his backing musicians. Even with each of the musicians running separate Macs that variously used Apple Logic Pro (continued on page 42)

briefs

Bose Heads To The Theater

EDMONTON, CANADA—The Mayfield Dinner Theater in Edmonton, Alberta recently installed Bose (pro.bose. com) RoomMatch Progressive Directivity Array loudspeakers in its 400-seat theater, with three different arrays and two RMS215 subwoofers, all powered by four Bose PowerMatch PM8500N networked amplifiers.

iLive Gets Centered On Tour

LONDON, UK-Keyboardist Rick Wakeman recently toured his composition, Journey to the Centre of the Earth, for its 40th anniversary. FOH engineer Ian Barfoot used an Allen & Heath (allen-heath.com) iLive iDR10 MixRacks and an iLive-112 surface linked by a fiber optical link

QSC In NYC

NEW YORK, NY-Manhattan megapub Nevada Smith's recently moved to a new multi-million-dollar space with a massive OSC (gsc.com) audio installation throughout the venue. In the main bar alone, there are six powered K10 speakers mounted along the walls, and KSubs are hidden in the bar and tiled columns below the four

Meyer Journeys With Journey

SAN FRANCISCO, CA-VER Tour Sound provided Meyer Sound (meyersound. com) Leo and Lyon array systems for a summer Journey/Steve Miller Band tour. The main system featured dual hangs of Leo-Ms with four Lyon loudspeakers under each hang for down fill. Outfill hangs were 10 Lyon loudspeakers each, while four Mina loudspeakers and four JM-1Ps were used for front fill.

Hagar, Martin Get Historical

ST. LOUIS, MO—Sammy Hagar recently sold-out the Maryland Heights Verizon Wireless Amphitheatre on his "A Journey Through the History of Rock" tour. Ironman Sound Industries provided a Martin Audio (martinaudio.com) W8LCs for the main hang, W8LMs for outfill, W8LMDs for frontfill and WSX subs.

40 Years On, Deep Purple And Crew Reunite

BY STEVE HARVEY

COSTA MESA, CA-Deep Purple, part of the triumvirate of U.K. bandsalong with Led Zeppelin and Black Sabbath—that kickstarted hard rock and heavy metal in the early 1970s, recently completed the North American leg of a world tour promoting its 19th studio album, Now What?! Buoyed by critical and fan reaction to the new release, which was recorded in Nashville with legendary producer Bob Ezrin, the band-whose members have a reputation as dedicated road warriors-set off on the Now What?! tour in early 2013, also visiting Europe, Asia, Australia, New Zealand, Morocco and the UAE.

According to Rob Hodgkinson, who signed on as the band's monitor engineer 18 years ago following a year with Black Sabbath, Deep Purple don't tour as much as they used to. "This year we'll probably do about 15 weeks; it used to be double that," he reports.

For this latest leg, which included

shows in performing arts centers, casinos, county fairs and Hard Rock Live venues, the production brought along its own mixing consoles, monitor rig, backline, lighting and video equipment, using provided main loudspeakers. FOH engineer Tobi Hoff and Hodgkinson, who has also

worked with Paul McCartney, the Bournemouth Symphony Orchestra and the BBC's Later...with Jools Holland music show, among others, both elected to use Soundcraft Vil consoles, together with HK Audio monitor speakers, all provided by Germany's TDA Rental. German rental house Satis & Fi supplied the L-Acoustics side fills.

"All the equipment is provided by TDA Rental when we play Europe," explains Hoff, who worked for 10 years as TDA's system tech whenever (continued on page 46)



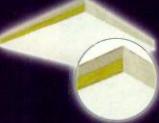
Eschewing in-ears, Ian Gillan and guitarist Steve Morse of Deep Purple hear themselves via HK Audio monitor speakers and L-Acoustics side fills.

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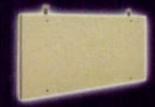
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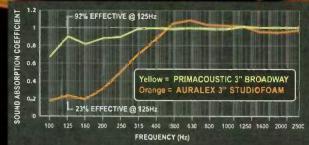
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LIVESOUND showcase III

Pragmatically Prismatic

BY KELLEIGH WELCH

NEW YORK, NY—Since the release of her fourth studio album, Prism, back in late 2013, pop diva Katy Perry has hit some significant landmarks in her career, tying Rihanna for the most number-one singles on Billboard's Pop Chart after the release of the album's third single, "Dark Horse," back in February. Charts-wise, this isn't Perry's biggest achievement to date, as her third studio album, Teenage Dream, is tied with Michael Jackson's Bad for the most number-one hits off a single album.

Accompanying the release of Prism, Perry embarked on an 11-month world tour, with the first leg starting in Belfast, Northern Ireland back in May, with the help of Lititz, PA-based Clair, which is supplying audio support for the tour.

Along for the tour is Perry's longtime FOH engineer, Peter Keppler, manning a DiGiCo SD5 console. "This is the first time we've used DiGiCo with Katy," explained Keppler. "Manny (Barajas, monitor engineer) and I got together and decided we both liked the DiGiCo a lot sonically. It's a really goodsounding desk and we went with the 5 versus the 7 because I think it's more reliable."

The SD5 also takes up less space, which for Perry's tour is pertinent, as the monitor position is under the stage, underlining the clean visual approach above, where nothing is on the deck at all, except for a five-piece band with drums and keyboards.

The SD5 also helps Keppler keep in touch with the other engineers on the tour. "You can send text messages on the SD5, which is very helpful," he said. "Everyone is on in-ears and I'm not, so for me to talk to them, I need a mic, which can be distracting during the show. It's easier to text them."

Keppler also uses a number of plug-ins, both built-in and added

to the console, giving him a variety of tools to work with during a concert. He uses Waves C6 multiband compressor, Vitamin and TrueVerb for the majority of the show, along with a few unorthodox effects such as a Stomps plug-in. "I'm a big Waves supporter," said Kepler. "It's the only thing we're using that completely separate from the SD5, but Waves integrates itconsole also has a lot of great features-dynamic EO, multiband compression, and some other really nice effects."

For each show, Perry sells between 15,000 and 20,000 tickets, requiring a sound system that can cover a huge crowd. "The tour has to be in at least a hockey arena or larger, especially due to the size of the stage. The depth of the stage is 155 feet front to back, and the main part of the stage has two ramps on either side leading to B Stage," explained Keppler.

To make sure the entire audience gets the same experience, Clair hangs the PA system in 11 zones, using a Clair i-5D line array system. "It's based on an older i-5 system, but incorporates all the components of a multibox system into one box," Keppler explained. A total of 16 i-5Ds hang per side for the main system, with a combination of 16 i-3s and numerous BT-218 subs for side hangs. The entire system is powered with Lab.gruppen amplifiers.

Much like her past tours, Perry's Prismatic Tour includes numerous costume and set changes, as well as constant movement around the stages, requiring Clair to provide a plethora of wireless mics for the singer and her performers. Perry uses a Sennheiser MD 5235 capsule with a SKM 5200 series wireless

in-ears, with the exception of a few monitors on the stage for the dancers. "On the entire stage, I don't think anyone is connected to a wire," said Keppler. The wireless does cause a bit of

a challenge though, especially when Perry moves to the B stage in front of the main speaker system. "She spends a lot of time on the B stage, 105 feet in front of the PA system,' he explained. "The microphones tend to respond differently when out in front of the source they are hooked up to. There's quite a bit of

delay added."

Speaking a few months into the tour, Keppler said that for the most part, soundcheck before the shows includes a quick walk through of the songs, usually without Perry. "The first dozen shows or so, she was involved, but now that we're 40-plus days into the show, she doesn't go to soundcheck often," Kepler said.

During the concert,

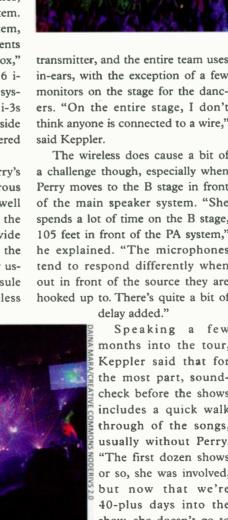
Keppler said Perry sticks to her set list, only changing up the order occasionally during the acoustic portion of the show. "With the amount of choreography and cues in the show, it really has to stick to the set list," he explained. "We definitely give the show a live feel though. For some of the songs, she's asked me specifically to keep it closer to the recording.'

Seen here floating above Chicago's United Center, Katy Perry and her backing vocalists each belt nightly into Sennheiser MD 5235 capsules on SKM 5200 series

Katy Perry's music director for the tour, Kris Pooley, worked closely with her beforehand, carefully specifying the pre-recorded music on an Aphex USB 500 rack. "For example, as part of the show, we have a boys choir sing the bridge of a song, so we recorded them in a studio before the tour," Pooley said. "I like to work with 500-series modules and I had been fishing around for something that would let me record and mix in one device."

Cole Gion, Pro Tools/playback engineer for the tour, manages all the pre-recorded material on site. "There's a lot of stuff that goes into these records," Gion explained. "We have up to 100 tracks sometimes, plus sound effects, and the band can't play all of that."

(continued on page 40)





Hidden behind the dramatic lighting is a sizable Clair PA system based self into the desk. The around the company's new i-5D boxes.

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LIVESOUND showcase IIII

Katy Perry

(continued from page 38)

Gion's 16 channels of playback pass through a collection of gear that include an Antelope Orion interface, various 500 series modules in a Radial Workhorse rack, a Radial SW8 backing track switcher and a JRAK rackmount adaptor for the company's DI boxes. "I've been using the SW8 and JRAK for over eight years," said Gion, "and they're really well-built, road-worthy, and the fact that they're modular makes it easy for me to fill the system. The show's completely reliant on them; they're the kind of playback system that runs the whole show."

Nonetheless, there's plenty of live music being made. "The band plays a lot," said Keppler. "Instead of using loops, sometimes we have the drummer trigger the same sounds from the drum kit. That creates more a live feel, but still retains the album sounds that Katy wants."

Keppler said he doesn't have a specific song that he enjoys mixing, but finds each of the songs enjoyable to work with during the tour. "And you're talking to a guy who came from David Bowie and Nine Inch Nails," he said. "I never saw myself

mixing a pop artist, but here I am, four years later. Go figure."

Clairglobal.com

DiGiCo Digico.biz

Radial Radialeng.com

VITALstats

Katy Perry

Clair (LINEZ PA)

FOH Engineer: Pete Keppler

Monitor Engineer: Manny Barajas

Crew Chief/Systems

Engineer: Ben Rothstein

Stage Tech: Hope Stuemke Monitor Tech: Matt Moser

RF/Com: Niall Slevin

Techs: Kory Lutes, Taylor Holden FOH Console: DiGiCo SD5

Monitor Console: Digico SD5

House Speakers:

Clair i-5D, i-3, i-dl, BT-218, Cohesion CP-218, Cohesion CP118 P-2

Monitor Speakers:

Clair 12AMs, SRM

Personal Monitors: Serinheiser SR 2050, AC 3200, A5000; Jerry Harvey JH7, JH13,

HFR

House Amplifiers:

Clair StakRak (Lab.gruppen)

Monitor Amplifiers: Clair StakRak (Lab.gruppen)

FOH Equipment/Plug-Ins:

Waves Soundgrid Extreme Server; Genelec 1031A monitors

Monitor Equipment/

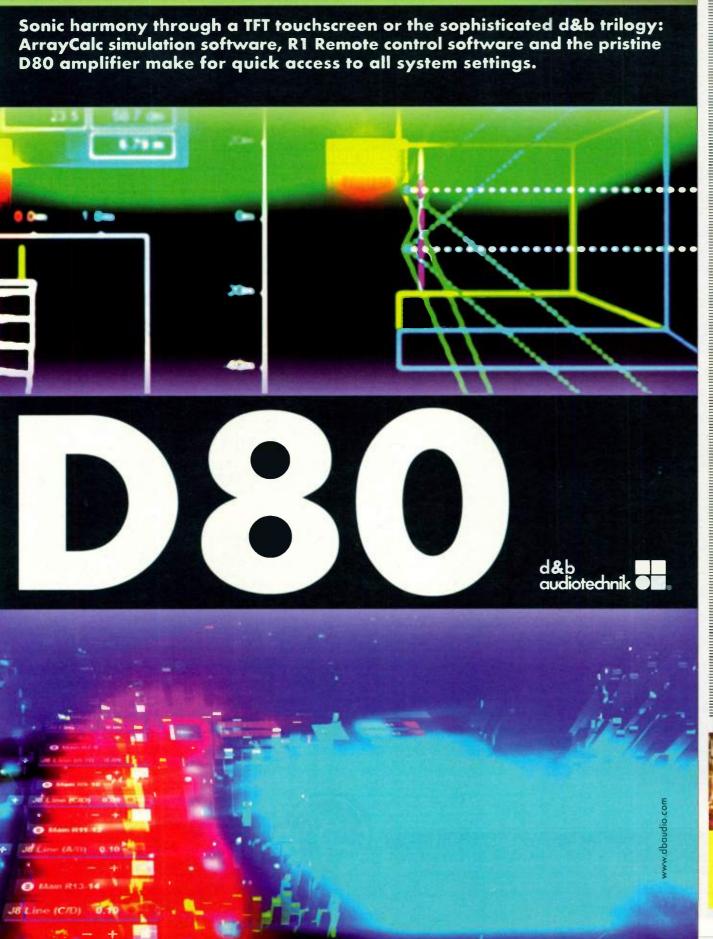
Plug-Ins: Fischer Amps ALC 161 rechargable batteries

Microphones:

Sennheiser EM 3732, SKM 5200-II, MD5235; AKG; DPA; Shure

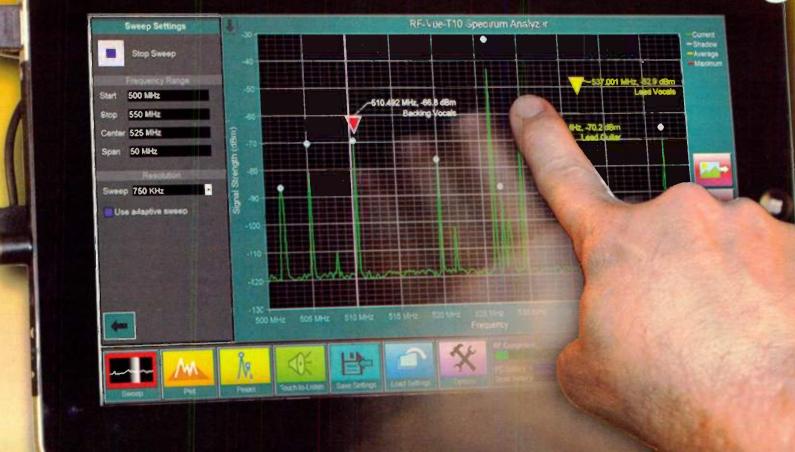


THERE'S MORE A Catch fan-shot video of Katy Perry performing "Dark Horse" at prosoundnetwork.com/sept2014.



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Retro Futura

(continued from page 36)

X MainStage 3, Ableton Live and more, they only added up to 24 inputs coming off the stage. As a bonus, "I've only got one live mic, which is Howard's Sennheiser ME 3 headset; everything else is line-level DI inputs," said Vincent. "Since they're all on in-ears with no wedges or sidefills, it's a very quiet stage, which means I can do a much cleaner house mix. I don't carry anything apart from that little desk; we use all the on-board effects—the reverbs are good, delays are good. It's got all the vintage Roland Dimension D stuff in there, and the EQ is lovely, really nice."

The musicians onstage, meanwhile, mixed themselves via Roland M48 personal mixers connected to the same stage boxes as the M-300. Using a single Cat 5 digital snake for power and audio, the M48 retains the musicians' last mix, so with the exception of tweaking, once a mix was dialed in at the start of the tour, it generally was ignored. All the performers were outfitted with ASC custom T1 Live in-ear monitors and live packs, designed with built-in ambient mics that allow users to dial in their desired amount of ambient stage volume.

It was Iones who convinced Bailey to come out on the road performing Thompson Twins tracks, and since Vincent mixed both acts, it was only fitting that he created a near clone of Jones' Roland rig for Bailey's band. "Tom's set is slightly more complicated; I've got 32 inputs on that. Tom's wearing exactly the same headset mic Howard uses, and then the drummer and two keyboard players have Shure 58s."

While the Roland system was easily adapted to Bailey's band, Vincent noted it's not for everyone: "It requires the artists to have at least a small amount of engineering ability to do their own mixes." Three years and countless shows later, he said there's only one remaining drawback. "I've had some snide looks from other engineers, because it's tiny," he laughed. "It doesn't look like you should be able to do this kind of thing with it, but you totally can."

The system sounded fine coming through the sizable L-Acoustics V-Dosc rig provided by regional audio company Eastern Stage Productions (Edgewood, NY) at the journey's third stop-an evening at the Pennysaver Amphitheatre on Long Island. If Retro Futura provided a fun trip back in time for the audience, it turned out that the tour did the same for Vincent as well, as he worked alongside the man who first inspired him to get into sound.

"Bizarrely, it's kind of Midge Ure's fault," he grinned. "Years ago when I was at school, there was a TV program in the UK called Tomorrow's World. It's not on anymore, but it was all about stuff that's going to come in the future and it was really exciting. Well, Midge did a special edition where it was all about all the latest recording technology, and he was showing off the first digital mixer that was affordable—the Yamaha DPM7, I think it was. I was probably about 14, saw all that cool stuff he was using and thought, 'Ah, I quite fancy doing that!""

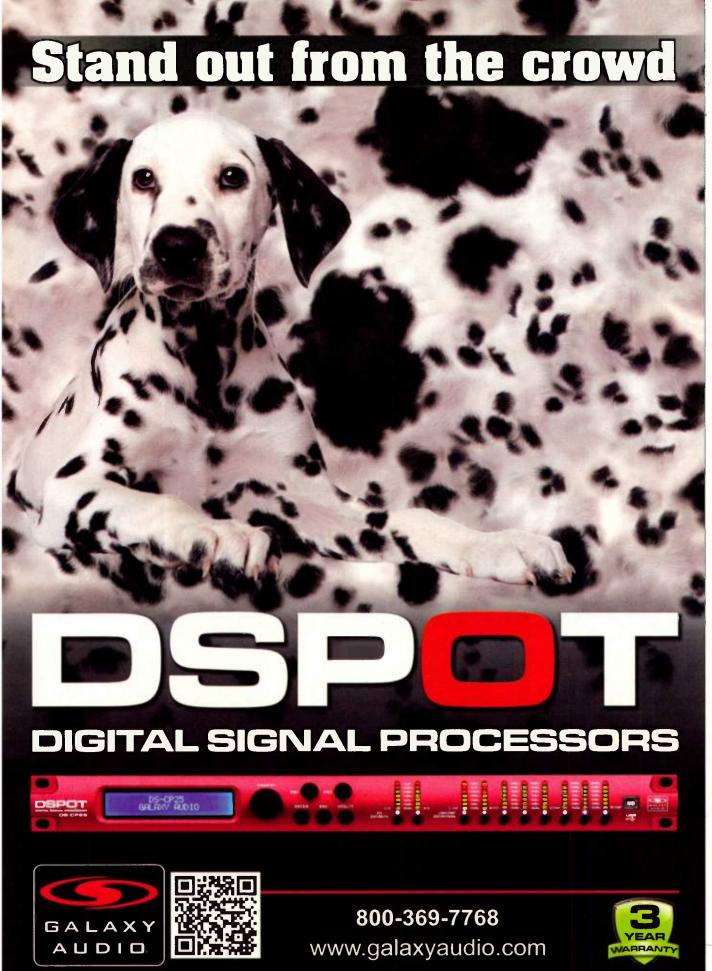
rolandsystemsgroup.com

ACS Custom acscustom.com

Sennheiser sennheiserusa.com



THERE'S MORE - See fanshot video of Tom Bailey rolling through Thompson Twins' "Lies' at prosoundnetwork.com/ sept2014.



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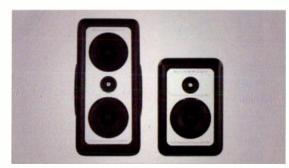
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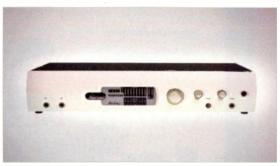
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Anya Heads To Summerfest

MILWAUKEE, WI-Every summer, 75-acre Henry Maier Festival Park, located on Lake Michigan's lakefront in Milwaukee, hosts Summerfestthe world's largest music festival. The 11-day event draws more than 900,000 music lovers who can experience 800-plus performances on 11 different stages.

Since 1995, Clearwing Productions, also located in Milwaukee, has coordinated the sound, lighting and staging for all of the stages. Primarilv an L-Acoustics house-which is the PA it provides for most of the larger Summerfest stages-Clearwing decided to change things up this year and use an Eastern Acoustic Works

(EAW) Anya system at the BMO Harris Pavilion.

The Pavilion, which opened in 2012, features 5,000 seats located under its wave-inspired roof, and lawn seating for another 5,000 in the area adjacent to the venue and outside of the roof line. This year, the Pavilion hosted an impressive ar-



Clearwing Productions used an EAW Anya system at the BMO Harris Pavilion during Milwaukee's Summerfest this year.

ray of performers including Bonnie Raitt, Cheap Trick, New Order, REO Speedwagon, Ray LaMontagne and Third Eye Blind.

"Since the Pavilion opened, it's been a challenge to find a system that will put the music on the audience and keep it off the ceiling," explains Bryan Baumgardner, operations and logistics for Clearwing. "Gregg (Brunclik, Clearwing CEO) and I looked and listened to the Anya system and thought it was the solution-and we were right. It is the best I've ever heard the venue sound."

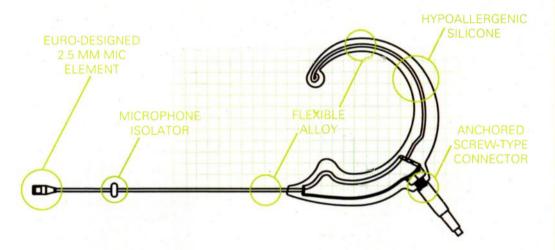
The main PA consisted of 22 Anva modules—seven per side for main coverage-with four per side covering the side seating. Low end was provided by a dozen EAW SB2001 subwoofers stacked six per side behind the barricades in front of the stage. Four EAW KF364NTs were spread across the lip of the stage for front fill.

EAW's Bernie Broderick was on site to assist with the setup and tuning of the system. He, along with the Clearwing team and members of IA-TSE Local 18, had the system up and running quickly. "The setup was really straightforward—slide in the pins, move the dollies-it was easy," notes Daniel Ackerman, IATSE Local 18. "It made the Pavilion sound less like a shed by keeping the sound clean and direct."

Gary Brunclik, freelance sound engineer also IATSE, has managed FOH at the Pavilion since it opened. Once again he was responsible for providing support for visiting sound engineers as well as mixing any acts that required it. "This was my first time using the Anya system," says Brunclik. The system used EAW's Adaptive technology that enables each module to assess and then match the three-dimensional per-

(continued on page 46)

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Deep Purple

(continued from page 36)

Deep Purple toured Europe before taking over the band's FOH position two years ago. "So I've been at front of house for a couple of hundred shows," he says.

The engineers share a single Vil input rack. "I'm going straight into the internal preamps on this-an analog split, basically," explains Hodgkinson, who favors Soundcraft but also uses the Yamaha PM5D: "You can find them everywhere, and they're bomb-proof."

"The Soundcraft Vil is really nice," agrees Hoff, also noting, "The last two or three tours, I used the Midas Pro series. We just did three weeks in Europe, smaller festivals, and I had a Pro2." In general, he comments, "There are no big cues, so I can live with a small number of faders."

Since the Orange County Fairground site is surrounded by residential areas, Hoff's challenge at Costa Mesa's Pacific Amphitheatre was the venue's 100 dB SPL limit. "Germany,

"This year we'll probably do about 15 weeks; it used to be double that."

Rob Hodgkinson

France, Switzerland, they all have restrictions, but normally it's an average over time. It's maybe 99 dBA over 30 minutes, which is legal in Germany. But here, it's unweighted. When the band was soundchecking, it was 100 dB unweighted, but 85 dBA. The bass guitar, without the PA on, was above the limit!"

The monitor mix requires just over 30 inputs, including effects re-



Deep Purple's monitor engineer for the last 18 years, Rob Hodgkinson uses a Soundcraft Vi1 console at stageside.

turns and a CD player for walk-on music, says Hodgkinson. "It's five mixes on stage, two of which are stereo keyboard. No in-ears. And there are no wedges, which means no problems with time domain issues."

When mixing on the Vil, "I don't use the snapshots; I just remember it all," he says, adding, "It's a very simple desk to use." Indeed, he reports, "We beta-tested the Soundcraft Vi6 back in 2007. It was only after three days that I realized there was a manual in the drawer. That says a lot about how easy a console is to use."

The Vil has plenty of DSP, including four Lexicon effects engines, he comments. "I put plenty of reverb on the drums, especially outdoors at shows like this. The hi-hat has plenty of reverb on it, and because of that, you don't need the hi-hat itself par-

In addition to keyboardist Don Airey's pair of HK Audio speakers, Ian Paice has a drum fill comprising two 18-inch HK subs topped by a pair of the German manufacturer's mid-high boxes. "There's a dirty great Lab.gruppen amp on it," says Hodgkinson. Now discontinued, HK Audio's double 12-inch with 2-inch compression driver "sounds really, really good for a drum fill," he says.

"This is the B system," continues Hodgkinson. "The other stays in Europe—we've got a Meyer 700-HP sub and two of the MJF-212s for drum fill, and two of those for keyboards, too."

The L-Acoustic dV-Dosc side fills are central to Hodgkinson's monitor mix. "I basically do a big headphone mix; it works really well. With the spread of the dVs, it means that in the keyboard and drum areas, I don't need to put guitar or vocals. They just catch the tail edge of the side fills. So all [Paice] has is drums, and occasionally a cue, and all [Airey] has is a little guitar for cues sometimes, a bit of drums and keyboards. So you don't have that horrible spill everywhere, and you tend to end up running it quieter because you're not fighting everything.'

On arena tours, he continues, "I fly the side fills-either dV-Dosc, V-Dosc or d&b J8s. If you fly them at the right height, then as you walk towards them, they start shooting over your head, so it doesn't get any louder, but it all meets up in the middle. You end up with an even spread across the stage. You also fill in the front area of the audience. It's the zen approach."

Soundcraft

HK Audio (distributed by Korg USA) hkaudio.us

L-Acoustics I-acoustics.com

Summerfest

(continued from page 44)

formance requirements of a venue. The integrated systems utilize a high-resolution array of discretely powered and processed acoustical devices along with EAW Resolution software to create optimized results at show speed - eliminating the need for physical reconfiguration and allowing system parameters to change in real time.

"During the day we had to keep the sound limited to a specific area," adds Brunclik. "At night we would

open it up and cover the berm. The fact that we could do this by merely modifying the software is remarkable; it is a phenomenal system that sounds great.'

Clearwing provided the DiGiCo SD5 digital console, equipped with a Waves Platinum Plugin bundle, at FOH. With the exception of some of the headliners traveling with their own consoles, the board carried the show. Brunclik adds, "I did very little EQ, set a high pass and low pass and was very happy with what came out of the box. I didn't use any outboard gear, just came straight out of the DiGiCo SD5 and into the DSP with nothing in between. It could

not have been simpler."

"There are so many things I like about this console," he explains. "It's powerful, simple to operate and provides easy access to everything - and I love the plugins. I used it on Third Eye Blind and .38 Special and it was

In addition to the main PA setup, Daniel Ackerman also managed monitor world, which featured an Avid Venue SC48 digital console and a number of d&b audiotechnik M4 stage wedges. L-Acoustics Arcs, flown two per side along with a pair of groundstacked SB18s delivered sidefill for the stage.

"The SC48 is very compact with

plenty of versatility," Ackerman points out. "Most of the bands use stage wedges, but if they come with an IEM system, we can easily get that patched in. I just let Gary know what I'm using and we are set."

"Part of providing excellence is constantly striving to do better than the year before," concludes Baumgardner. "The Anya system really made a difference this year. It was exciting to hear how the venue sounded with a different system."

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ITERSTAGE TOP 10 TOURS OF THE MONTH

ACT / STATISTICS

CREW

EQUIPMENT

1 PAUL MCCARTNEY |

Paul "Pab" Boothroyd (be); John "Grubby" Callis (me); Chris Nichols (se); Paul "Swanny" Swan (mse), Rich Thompson, Andrew Bongardt, Sean Baca, Jordan Turner, Ken Fiedler, Woody Woodard (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

2 JOURNEY / STEVE MILLER BAND VER TOUR SOUND / CLEARWING

Jim Yakabuski (he-Journey), Scott Boorey (he-Miller); Josh Swart (me-Journey), Jamie Carter (me-Miller); Greg Mahler (cc/se); Michael "Cochise" Hernandez (M Tech), Colin Harty (tech-Journey), Tom Martinez (tech-Journey); Brett Enzensperger (pm-Miller)

HC: DiGiCo SD5 (Journey); Midas Heritage 3000 (Miller); MC: Avid Venue Profile (Journey); Avid Venue D-Show with sidecar (Miller); HS: (24) Meyer Leo, (28) Lyon, (24) LFC-1100; MS: Meyer JM-1P; IEM: Sennheiser; WIRELESS MICS: Shure UHF-R; FOH EQUIPMENT: Waves Soundgrid Server, MGB with MacBook Pro (Journey); TC Electronic 2290, M4000; Yamaha SPX990; Drawmer; dbx; BSS; Teletronix LA-2A

3 JASON ALDEAN SPECTRUM SOUND

Chris Stephens (he); Evan Richner (me); Joseph Lloyd (pm); Jeremy Seawell (se); Ryan Stotts (mtech); Bob Campbell (tech)

HC: SSL Live; MC: SSL Live; HS: d&b audiotechnik (64) J8, (8) J12, (16) J Sub, (24) B2, (8) Q10; EM: Shure PSM 1000; Ultimate Ears UE-7, UE-11; HA: d&b audiotechnik D12; HARDWIRED MICS: Audio-Technica AE6100, AE2500, ATM350, ATM450, AT4050, AT4081, AE3000, AT4047/SV; Shure SM57; WIRELESS MICS: Audio-Technica Artist Elite 5000 series wireless with T6100, T1000 transmitters; FOH EQUIPMENT: Lake LM44; ATI DDA 212XLR; Waves Platinum Bundle; Crane Song Phoenix; SPL Transient Designer; Massey De:Esser, vt3; MONITOR EQUIPMENT: Massey L2007, vt3, De:Esser

4 MÖTLEY CRÜE | SOUND COMPANY Orris Henry (he); Adam Stuart (bme); Scott Diamond (me-Neil); Paul Jump (cc/se); Don Baker (ae), Bobby Taylor, Scott Megrath

HC: Avid Venue Profile; MC: DiGiCo SD7, SD10; HS: Clair i-5, CP-218, i-3; MS: Clair CM-22, SRM, CP-218, BT-218, BT-118; IEM: Shure PSM 1000; HA: Lab.gruppen; MA: Lab.gruppen; HARDWIRED MICS: Beyer M88 TG; Shure SM57, SM58, Beta181, Beta91a, Beta52, Beta91, SM81; Sennheiser E-815, E-904, MKH-416; AKG C-414; Audio-Technica AE3000, AE5400; Countryman Direct Box; Radial Direct Box; WIRELESS MICS: Shure UR4D handhelds and headset body pack; FOH EQUIPMENT: Waves Live, Crane Song Phoenix; Avid Eleven;

5 THE DAVE MATTHEWS BAND | PROMEDIA/ **ULTRASOUND**

Jeff Thomas (be); Ian Kuhn (me); Lonnie Quinn (ame): Joe Lawlor (re): Tom Lyon (s tech), Greg Botimer (m tech), Ryan Cornelius

HC: Avid Venue Profile; MC: Avid Venue Profile, SC-48; HS: Meyer Sound Leo, Milo, Mica, LFC-1100, HP-700, MSL-4, CQ-2, UPJ-1P; MS: Meyer Sound MIF-212A, Fonz Foot Wedge, Clark Synthesis TST; IEM: Sensaphonics 3D, 2XS; Shure PSM 1000; MA: Crest 7001; Lab gruppen fP2400; MICS: Neumann; Sennheiser; AKG; Shure; 8&K; DPA; Crown; Electro-Voice; Audio-Technica; Earthworks; Radial JD-7, JD-I, JD-I Duplex; FOH EQUIPMENT: Meyer Sound Galileo; Metric Halo Mobile i/o 2882; Avid Pro Tools 10 HD; Tascam CD Player; Apple Mac Pro; Rational Acoustics Smaart 7.3 MONITOR EQUIPMENT: Apple Mac Pro; Avid Pro Tools 10 HD; PWS GX-8, Helical RHCP; X-keys XK-16; WinRadio WR-G305e

6 BILLY JOEL | CLAIR

Brian Ruggles (he); Josh Weibel (me); Rich Schoenadel (cc/se); Lan Turner (m tech); Tom Ford, Jon Yochem (tech)

ue Profile; HS: Clair i-5, i-5b, i-3, P-2, BT-218, R-4 Series III; MS: Clair CM-22, SRM, ML-18, Cohesion HC: DiGiCo SD5: MC: Avid Ven eiser 2050; HA: Lab.gruppen; MA: Lab.gruppen; HARDWIRED MICS: Shure Beta52, SM91, Beta91, SM57, SM98, KSM32, SM58, KSM137; AKG C414; Sennheiser MD-421; Audio-Technica AT4050, AT4054; WIRELESS MICS: Shure UR Series; FOH EQUIPMENT: Lake LM44; Summit DCL-200; TC Electronic D-Two; Eventide Eclipse; Lexicon PCM-70; Tascam SS-CDR200; SSL bundle; MONITOR **EQUIPMENT:** Avid Venue Pro Pack

7 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 Cohension-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 200000: 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

8 QUEEN + ADAM LAMBERT | SOUND COMPANY

Robert Collins (he); Kerry Lewis (me-Queen); Gary Stokes (me-Lambert): David Coyle (cc/ se); Ken McDowell, Steve Hupkowicz, Ken

HC: DiGiCo SD7; MC: DiGiCo SD7, Midas Pro9; HS: Clair i-5, BT-218 Subs, P-2, i-3; MS: Clair SRM, 12AM; IEM: Sennheiser 2000 Series; Shure PSM 1000; HA: Lab.gruppen; MA: Lab.gruppen; HARDWIRED MICS: Shure Beta91a, Beta98AMP, KSM32; Audix Micro-D; AKG 414; Telefunken M80; DPA 4061; Radial J48 DI; Avalon U-5 Tube DI; WIRELESS MICS: Shure Axient, PSM 1000; FOH EQUIPMENT: TC Electronic M6000 with ICON remote, dbx 160L, Quantum II; Klark-Teknik DN360; Summit TLA-100; Lake LM44; MONITOR EQUIPMENT: TC Electronic Reverb 4000, D-Two; XTA DP324

9 MICHAEL BUBLE SOLOTECH

Craig Doubet (he); Matt Napier (me); Louis-Philippe Maziade (cc/se); Chuck Deziel, Philippe Pigeon (ae), Marc-Olivier Magnan

HC: Avid Venue Profile; MC: DiGiCo SD7; MS: Meyer Sound (32) Leo, (24) Mica, (16) LFC1000, (6) 700-HP, (12) M'elodie, (6) JM-1P, Galileo 616, Calisto; M5: Meyer Sound (10) MJF 212; IEM: Sennheiser 2000 series, G2, P6HW; HARDWIRED MICS: Neumann KMS104m KM 184; Shure KSM32, Beta 52, Beta 58; Sennheiser e 901; Audix i-5; DPA 4021, 4099; Schertler; Radial JDI, J48; WIRELESS MICS: Sennheiser SKM 5200. SKM 2000. SK 5212 with DPA 4099: FOH EQUIPMENT: BSS DPR-901 II; Lexicon 480L; Lexicon PCM92; Meyer Sound SIM-3; MONITOR EQUIPMENT: Aviom A-16R, A-16D PRO, AN-16, A-16II; WinRadio scanner

10 CHER | BLACK BOX

David Bracey (he); Jon Lewis (cher me); Horst Hartmann (bme); Ben Byford (cc); Ulf Oeckel (se): Simon Farell, Biörn Boernecke (techs)

HC: DiGiCo SD7; MC: (2) DiGiCo SD7; HS: L-Acoustics (28) K1, (16) K1SB, (66) K2, (16) SB28; MS: L-Acoustics: 2x3 Arcs sidefill, (6) HiQ; IEM: Sennheiser 2000 Series IEM; HA: L-Acoustics LA8; MA: L-Acoustics LA8; HARDWIRED MICS: Sennheiser 901, 902, e904, e905, MKH80, MK4; Audio-Technica ATM450; Shure SM57; Radial SW8, ProD8; WIRELESS MICS: Sennheiser SKM 5200 MKII; FOH EQUIPMENT: DIGICO SD7 onboard FX/Dynamics: TC Electronic M6000; Yamaha SPX2000; MONITOR EQUIPMENT: DIGICO SD7 onboard FX/Dynamics; TC Electronic M6000

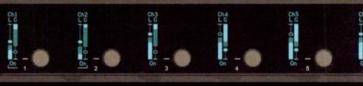
LEGEND: (he) house engineer. (ahe) ass't house engineer. (be) band's house engineer. (me) monitor engineer. (ame) ass't monitoring engineer. (bme) band's monitor engineer. (se) systems engineer. (ae) ass't engineer. (tech) technician. (cc) crew chief. HC: house console. MC: monitor console. HS: house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

Top 10 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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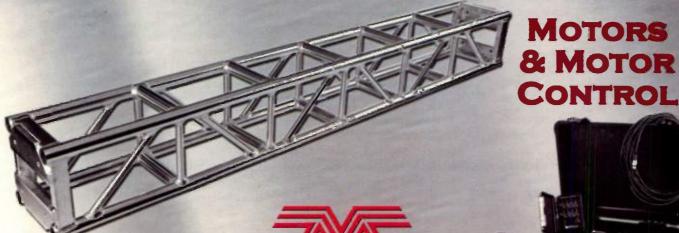
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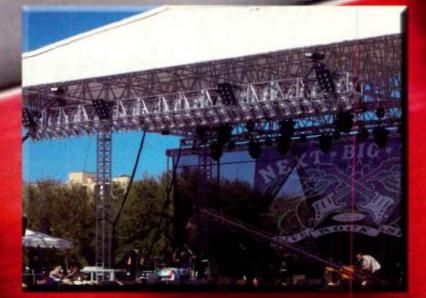


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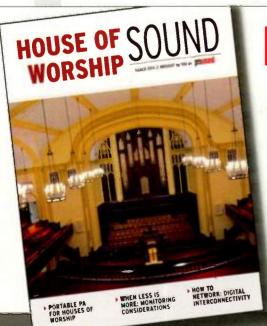


SOUND CHECK A SAMPLING OF REINFORCEMENT

ACT	SOUND CO	VENUE	CREW	EQUIPMENT
Amplify Fest	SOLID ROCK AUDIO Conway, AR	HOLLAND CHAPEL BAPTIST CHURCH Benton, AR	Mark Malone (he), John Petty (me)	HC: Avid Venue SC48, Yamaha CL5, M7CL; MC: Yamaha CL5, M7CL; HS: JBL VerTec VT4888; MS: Sennheiser G3; HA: Crown; MA: Crown
Benefit for People Helping People Food Pantry	ANDREWS AVS CENTER Harbor, NH	CENTER HARBOR CHRISTIAN CHURCH CENTER Harbor, NH	Ed Andrews (he, se)	HC: Allen & Heath; HS: Turbosound Floodlight, Flashlight, LMS 700; MS: Electro-Voice SXA 250; HA: Crown MA5000, MA3600, MA2400
Dumpstaphunk and The Rebirth Brass Band	RMB AUDIO Raleigh, NC	UNC MEMORIAL HALL Chapel Hill, NC	Wayne Sowder (me), Roger Dennis (se), Matt Johnson (tech)	HC: Avid Venue Profile; MC: Avid Venue Profile; HS: Martin Audio MLA Compact, DSX, MLA Mini; MS: Martin Audio LEI200, WT3, WS218X, WS18x; HA: Martin Audio; MA: Lab.gruppen
Festival Cubano 2014	PINK NOISE Chicago, IL	RIIS PARK Chicago, IL	Andres Reyes (he), Carlos Soria (me), Adolfo Estrada (se), Oscar "Rico" Villegas (Production Manager)	HC: Yamaha M7CL; MC: Yamaha M7CL; HS: dB Technologies DVA-T12, DVA-T8, DVA-530N; MS: dB Technologies DVX-DM15
Freedom Festival	BOULEVARD PRO Ridgefield Park, NJ	HORSE PARK OF NJ Allentown, NJ	Paul Danese (he), Anthony Cioffi (he), Larry Sharkey (me), Nick Cromwell (me)	HC: Yamaha CL5; MC: Yamaha CL5; HS: L-Acoustics Kara, SB18, 108P; MS: L-Acoustics 112P, SB15P, Sennheiser G3; HA: L-Acosutics LA-RAK
Low Country Jazz Festival	DB SOUND OF CHARLOTTE Charlotte, NC	NORTH CHARLESTON PERFORMING ARTS CENTER NORTH Charleston, SC	Matt Barker (he), Kenny Shouse (me), Dave Barker (se), Jamel Lee (tech)	HC: Yamaha PM5D; MC: Yamaha PM5D; HS: EAW KF730; SB1000; MS: Sennheiser G3, Nexo 45N12, Geo D; HA: Crown; MA: Crown
Mozingo Music University of Rock	OUTPUT UNLIMITED Alton, IL	SIX FLAGS OVER MID AMERICA Eureka, MO	Tracey Bodenbach (he), Dylan Goreham (be), Jake Mathenia (ae)	HC: Soundcraft GB4; HS: Community SLS 920, TLF218; MS: Electro-Voice SX300; HA: Crown MacroTechs; MA: QSC MX1500
Mutemath	LOGIC SYSTEMS St. Louis, MO	ROLLA BANDSHELL Rolla, MO	Ziggy Stull (he), Andrew Hardee (me)	HC: Avid Venue Profile; MC: Yamaha PM5D; HS: Electro- Voice X-Array; MS: Logic System LS152; HA: Electro-Voice P3000; MA: QSC PL236A
Procol Harum	UNDERGROUND SOUND PRODUCTIONS North Haven, CT	THE RIDGEFIELD PLAYHOUSE Ridgefield, CT	Chris DelVecchio (he), Geoff Curtis (be), Blake Joblin (me)	HC: Avid Venue Profile; MC: Avid Venue SC48; HS: d&b audiotechnik C7, C4, B2 sub, E8 fill; MS: d&b audiotechni Max12, Max15; HA: d&b audiotechnik D12, D6; MA: d&b audiotechnik D12
The Ravelers, City of Upland July 4th Fireworks Show	GATES SOUND Wildomar, CA	UPLAND HIGH SCHOOL FOOTBALL STADIUM Upland, CA	Doug Gates (he), Bob Huber (tech, Cameron Swenson (tech)	HC: Yamaha QL5; MC: Apple iPad, StageMix; HS: Electro- Voice QRX153, QRX218, SX300; MS: Electro-Voice SX300; HA: Electro-Voice P3000, CP4000; MA: Electro- Voice CP2200
Relapse	SIZE THIRTEEN MUSIC Jupiter, FL	SAILOR'S RETURN Stuart, FL	Daniel "The Mix Doctor" East (he, be), Jerry Ortiz (ae), Johnny Hayes (tech)	HC: Soundcraft Vi2; MC: Soundcraft Vi2; HS: QSC KLA Series; MS: Future Sonics, Sennheiser IEM 300 G3
Sandy Creek Band	ENTERTAINMENT SUPPORT SERVICES Omaha, NE	HICKMAN HAY DAYS OUTDOOR STREET DANCE Hickman, NE	Nick Svoboda (he, be, se)	HC: Soundcraft K1; MC: Crest XR-20M; HS: Grund Audio GAD GT-3026; MS: Shure PSM600; HA: QSC MX3000a, MX1500, Ashly FET 1501
Super Jam featuring Yo Gotti	IRONMAN SOUND INDUSTRIES St. Louis, MO	SCOTTRADE CENTER St. Louis, MO	Bob Horner (he), Maceo (be), Ian Goodman (me), Nate Golomski (se)	HC: Avid Venue SC48; MC: Yamaha PM5D; HS: Martin Audio W8LC, W8LM, WSX, X12; MS: Martin Audio LEI500 WS218X, WS18X; HA: Lab.gruppen PLM; MA: Crown MA
Third Day	SOLID ROCK AUDIO Conway, AR	HORTON FARMS Centerton, AR	Mark Malone (se), Lance Glpson (se)	HC: Yamaha PM5D; MC: Yamaha PM5D; HS: JBL VerTec 4888; MS: Sennheiser G3 IEM; HA: Crown Macrotech 9000i
USAT Montserratt	PARAGON SOUND Media, PA	MIAMI HILTON BLUE LAGOON BALLROOM Miami, FL	David Tulp (he)	HC: Allen & Heath; HS: Yamaha; HA: Yamaha

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

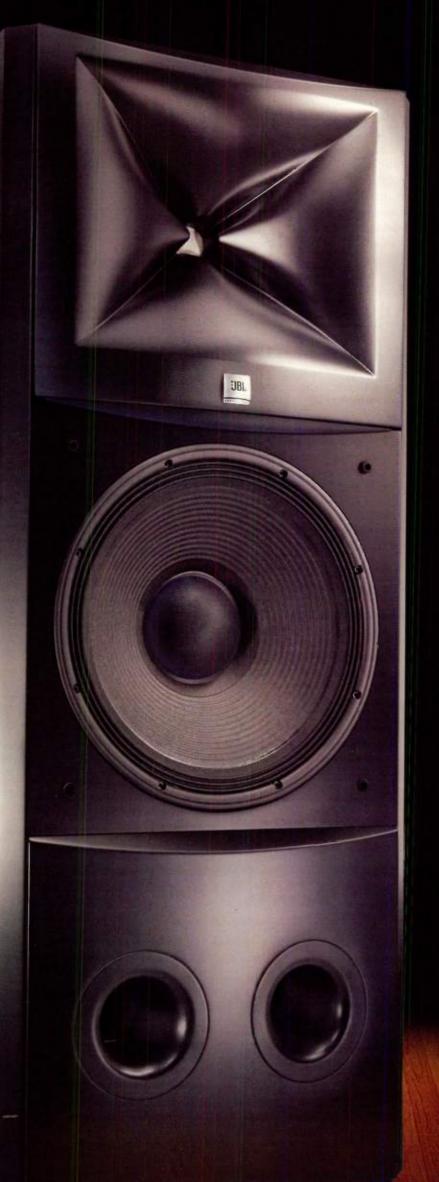
To be included in Soundcheck, fax, mail or email a current, typed list of acts, venues, personnel and equipment each following the above format. E-mail is strongly preferred. E-mail to kwelch@nbmedia.com, fax: (212) 378-0470, or send to: Soundcheck, Pro Sound News, 28 E 28th Street, 12th Floor, New York,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



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Hear the truth





(continued from page 31)

was at my bank; they had the craziest machine room ambience in the hallway. It sounded like I was in a spaceship. So I made a little note to myself to go back and record the ambience."

For Groot, the giant tree-like superhero in Guardians of the Galaxy, Mate took inspiration from an old recording she had made of adhesive tape being pulled off a file cabinet, making new recordings using a cardboard box instead. "The tape pulling off made a nice wooden-like quality that was resonant and larger sounding. Then I loaded it into my Pro Tools session here and found the best bits."

Mate layered several sounds for Groot, which she demonstrated to viewers: "I'm looking for texture, because he has little bits coming off him. Then I want a pop sound, because he blooms all of a sudden." To communicate his power, she added the sound of a fireball. Played together, "We have a little texture, it definitely has a wood sound, it has power at the end [and] it's got a bloom from the fireball."

Maker Camp participants attempted to stump Mate with their recordings of everyday objects. Correctly identifying a Slinky, she said, "I'm sure everybody who knows about sound knows about the springy, metallic uber-sound, the laser sound from Star Wars. Those are great for futuristic weapons, and especially if you make them silly. It's really fun for any oddball futuristic weapons, or weapons that aren't quite working right, that have a little humor to them.'

As Mate noted, she works alongside Ben Burtt, who created the Star Wars laser sounds, at Skywalker. "I work with the best sound designers in the world," she said, also naming Gary Rydstrom, Chris Boyes, Shannon Mills and Randy Thom. "They're all good at different things and they all inspire me."

One questioner asked Mate to name her favorite composer. "Sometimes the best composers I've worked with have given us space with the sound design," she commented. On K-19: The Widowmaker, for example, score composer Klaus Badelt "wanted to get my cut of all the [submarine] pings so he could compose the music around the rhythm and not get in the way, because it was a story point."

On Tron Legacy, "Daft Punk said there are places where [we] think our score should take a back seat because the [sound] effects are what's driving the [visual] effects here, and we drive the scene there. When you tradeoff with composers like that, it's super awesome; it gives both departments places to breathe and to play off each

Mate really likes her job, she said, but cautioned would-be sound designers: "They're very long hours, so you have to really like this business to stay in and be excited for it." Maker Camp

makercamp.com

Skywalker Sound



THERE'S MORE A Watch "Maker Camp: Soundtrack of the Universe!" at prosoundnetwork. com/sept2014.

UE

(continued from page 5)

standard soon (and is available now with a rush fee). A future is envisioned in which numerous regional customer contact centers can be established (with "serving every zip code" a stated concept) to further improve customer convenience and tighten the production timeframe. Says DePallens, "Our ability to serve them fast and serve them where they are is really crucial." **Ultimate Ears**



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THERE'S MORE . A walk-through of the IEM manufacturing process, including UE video, is available at prosoundnetwork.com/ sept2014

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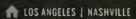
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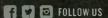


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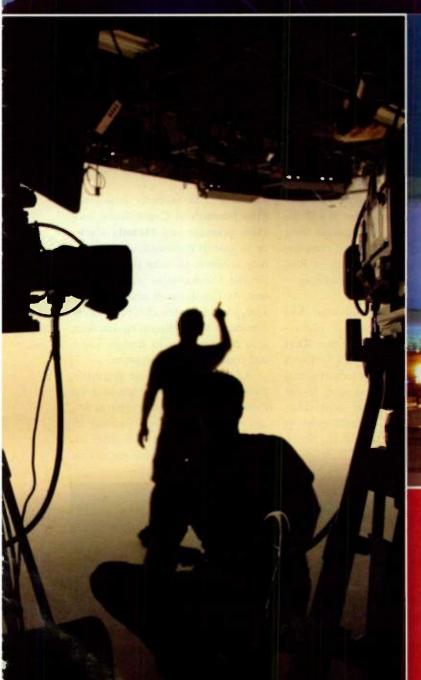
Conference: Oct. 9 - 12, 2014

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sound PEOPLE



(Left to Right) Christopher Spahr, Leonardo Romero, Shan Siebert, and Pedro Rocha

DPA Inc., the U.S. branch of DPA Microphones, has named Christopher Spahr, Pedro Rocha and Leonardo Romero as area sales managers for the Eastern U.S., Western U.S. and Southern U.S./Latin America, respectively. The company has also promoted Shan Siebert to General Manager of the Longmont, Colorado-based office.

Romero has more than 20 years experience in the U.S., Latin American and Middle Eastern markets. In addition to joining DPA, Inc. as area sales manager for Southern U.S., he will also oversee DPA Microphones' distributors in Canada and Latin America.

Spahr comes to DPA from RTW, where he oversaw U.S. sales and operations. Prior to that, he spent seven years as a market development manager and certified U.S. RF Expert for Sennheiser, in both the installed sound and professional channels.

A former film sound instructor with The Los Angeles Film School, Rocha joins DPA Microphones having served as an Avid Pro Tools marketing specialist and as a pro audio and musical instrument sales representative for a variety of retailers.

Building on his five-year tenure with the company, Siebert has been promoted to general manager from his role as service manager, which he has held since 2010. In this new position, he will oversee the day-to-day operations of the U.S. office, including distribution, technical assistance and loan facilitation.



Andy Lewis

Materion Electrofusion has named Andy Lewis as its Truextent global sales manager. In his new role, Lewis will be responsible for driving world-

wide sales for the entire Truextent product portfolio, including acoustic domes, cones and other acoustic membranes fabricated from beryllium, beryllium alloys and other advanced materials, as well as complete diaphragm assemblies. Lewis joined Materion from Sound Product Strategy, a consulting group focused on the consumer and professional audio/video markets, where he served as President. Prior to joining Sound in 2010, he worked in various sales, product management and product development roles for a variety of manufacturers, including Fishman Transducers, Russound, Bowers & Wilkins, EAW, Apogee Acoustics, and Audio-Technica. He holds a BSEE degree from Northeastern University and is listed as a co-inventor on three U.S. Patents.



Robert Taylor

Biamp Systems has appointed Robert Taylor to regional manager, Southeast Region of North America. In his new role, Taylor will be responsible for strategic sales and support

encompassing the entire Biamp product line for customers in the South-eastern United States. Taylor comes to Biamp with more than 15 years experience in pro AV design, sales, and installation services, most recently as a sales representative for Secom, an independent manufacturer representative firm serving the professional and commercial audio industries. Prior to that, he served as national sales manager at TOA Electronics.



Jim Fairweather

Sudbury, MA-based Revolabs has appointed Jim Fairweather to executive vice president of global sales. As the leader of Revolabs' global sales team, Fairweather will be

responsible for the worldwide management and recruitment of the sales organization as well as the growth and profitability of the entire portfo-

60SECONDS



Roscoe Anthony Renkus-Heinz

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

A: As President of Renkus-Heinz, I'm responsible for the performance of the corporation. That includes orchestrating our global direction across the breadth of all our vertical markets, overseeing our existing and upcoming legendary product lines, and of course,

managing our manufacturing operation here in California.

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

A: My resume includes 20-plus years in the audio industry, with management positions at JBL Pro, Tascam, SKB and Califone. I've been on teams that have developed and launched industry-changing technologies and products, and have helped to develop a wide range of award-winning marketing and sales programs. That background, as well as presidencies over four thriving corporations, has given me a unique and deep perspective on managing as well as driving the strategic direction for the future of Renkus-Heinz.

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

A: We are a de facto leader in digitally steerable array technologies, and we're very active in promoting those products, which offer a number of technological advantages over the competition. And over the next three months, we'll be introducing some products that are a mix of evolutionary and revolutionary. Stay tuned.

Q: What are your short and long term goals?

A: In the short term, to reconnect with the many great people I've worked with in the Pro Audio community, and to listen and learn from all of the Renkus-Heinz stakeholders, so that my contribution to the corporation can maximize the value proposition for our customers. In the longer term, I intend to lead the Renkus-Heinz team to a new generation of innovative products that will forge new ground and provide end users with the performance they demand.

Q: What is the greatest challenge that you face?

A: The accelerating new product development here at Renkus-Heinz. As the company continues to grow in sales around the globe, the need to stay ahead of the increasingly complex product demands requires focus and drive.

lio of Revolabs products. Previously, he served as vice president of world-wide sales for Hewlett Packard Visual Collaboration Business Unit; and vice president, Americas and U.S. sales at Polycom, PictureTel, and MCI WorldCom, and most recently vice president of worldwide channel sales for Vidyo. Fairweather holds a Bachelor of Science in accounting from Bentley University and has completed the Executive Management Program at the University of Michigan.



Kurt Howell

Focusrite has named industry veteran Kurt Howell RedNet's Eastern regional manager. In his new position, Howell, who is based in Nashville, Tennessee, will work closely

with prospective RedNet customers in conjunction with product specialist Ted White to continue to drive sales with Eastern U.S. dealers, contractors and reps. Howell brings to Focusrite a unique skill set, having worked for both manufacturers and retailers in the pro audio market sector. Prior to joining Focusrite, Kurt Howell was a

Digidesign HD product specialist and is an Avid Certified Pro Tools operator. Additionally, he helped establish Vintage King Nashville and most recently he was an account manager with Guitar Center Professional.

Meyer Sound recently appointed Mac Johnson to Constellation program manager and Melody Parker to associate acoustic engineer to help continue to meet the demands for the Constellation acoustic system. As Constellation program manager, Johnson drives all aspects of the company's Constellation efforts, from lead development to design, sales, and commissioning of systems.

As associate acoustic engineer, Parker provides project support for Constellation and Libra acoustic image systems. Parker was formerly an acoustical consultant at Charles M. Salter Associates and a music analyst for Pandora.



Mac Johnson and Melody Parker

soundreps

■ Audio-Technica recently presented Roseville, CA-based The Farm Technical Sales & Marketing with the A-T Presdient's Award for outstanding representation of the brand during the 2013/2014 fiscal year. The Farm represents Audio-Technica in the territories comprising Oregon, Washington, Idaho, Montana, Alaska, Northern CA, Northern Nevada and Hawaii.

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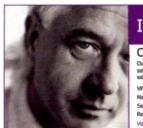


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TATK and AES: The Co-Chair Shares

MICHAEL MACDONALD, PRESIDENT, ATK AUDIOTEK

BY KELLEIGH WELCH

The Audio Engineering Society's 137th International Convention is almost upon us, but for the organizers behind the scenes, the next few weeks are dedicated to perfecting the weekend's packed schedule and honing in on the highlighted topics. Joining the planning efforts for this year's convention is Co-Chair Michael MacDonald, who outside of the AES, has led the live sound rental company, ATK Audiotek, as President for the past two years.

Working with AES 137 Co-Chair Valerie Tyler, MacDonald's goal for the convention is to provide an indepth look at the current and future direction the audio industry is taking, as well as a comprehensive resource for audio professionals.

"For recording, live sound, network audio, broadcast and streaming, high-resolution audio, you name it, we have put together an all-inclusive program that will feature the technical and practical aspects of audio, ultimately benefitting attendees, exhibitors, presenters and industry journalists alike," MacDonald said. "It's important to remember that audio is a specialty and the AES has always been the organization that has led the industry, set the standards and influenced how audio is implemented across every other marketand that's why I'm involved."

or be a technical director, but soon I was totally hooked on audio as a career and that has been the same for me for more than 40 years now."

At the start of his career, MacDonald worked as a freelance or staff engineer for a num-

ber of sound companies and bands, but after getting married, decided to enter into the marketing and sales side of the industry. "Ultimately, I obtained an executive management position and continued to do that at several leading pro-audio manufacturers. When I had the chance to get back into the production side of things at ATK, that's when I decided to make the jump," he explained.

For the past two years, MacDon-



Michael MacDonald

changing world."

That attitude continues into offering his time and commitment to the Society as well, where MacDonald said it's important for audio professionals to have a way to share their knowledge.

"I think the AES organization is critical to our industry and will be even more important in the future," MacDonald said. "With only a few universities focused on sound, AES provides a vital link to the huge

presence of audio professionals within the LA area, MacDonald said, the location is a perfect candidate to play host

"Los Angeles has so many active audio engineering communities, including recording, live sound, motion picture, post production, broadcast, and now gaming. A lot has changed in the area surrounding the Convention Center since the last AES show 12 years ago, and with the LA Live complex right next door, which includes the AES Convention host hotel and more than a dozen restaurants, attendees will find a vibrant, safe and entertaining place to spend the evening after the convention closes," said MacDonald.

Compared to other trade shows. the AES Convention is scaled down enough to allow exhibitors to meet and discuss more complex issues within the industry. The size also allows professionals of all statuses to collaborate together to strengthen the industry as a whole, said MacDonald. "It's one of the greatest networking events I have ever been to. From the Grammy-winning engineer to the student just starting out, the AES offers a platform that allows all of those attendees, regardless of stature in the industry, to meet, exchange ideas and learn from each other." This year's convention will include a stronger participation in the live sound field, he elaborated, along with a greater presence of organizations such as The Recording Academy, the Digital Entertainment Group, SBE, USITT, SMPTE and the DTV Audio Group. MacDonald's first goal regarding the 137th AES Convention is to continue to maintain the same high standards for technical content from past conventions, while also making the convention more accessible for students and first-time attendees.

"I think the program reflects a great balance between deep technical information and topics that people new to the industry can learn from and advance their knowledge base," he said. "I tell end-users all the time that if you want to meet sales and marketing folks, go to other trade shows. But if you crave talking with the engineers that design the products that you use, then you should be headed to AES in Los Angeles!"

Audio Engineering Society www.aes.org

ATK Audiotek

atkcorp.com

"It's one of the greatest networking events I have ever been to. From the Grammy-winning engineer to the student just starting out, the AES offers a platform that allows all of those attendees, regardless of stature in the industry, to meet, exchange ideas and learn from each other."

Michael MacDonald

Of course, chairing a prominent industry convention requires substantial commitment to the industry, and MacDonald's passion for audio made him a solid candidate for the position. At 13, he volunteered as an audio operator for a local cable TV channel, which introduced him to the world of audio in broadcasting.

"Most of the remote events we televised needed additional sound gear, but there was no one in town that had the right gear. I started buying equipment and providing the PA system in addition to mixing the television audio," said MacDonald. "I originally wanted to run a camera

ald has served as ATK's president, although he had worked within the company for five years prior. "During that time, I got to know the company and the people well. The company has grown to be one of the leading live sound providers and I feel privileged to be working here," MacDonald said.

MacDonald first got involved with the AES back in 1985, attending the annual U.S. Convention each year and contributing as papers chairperson in the past. "As the technology accelerates, I find that an organization like the AES helps me to remain current and relevant in a quickly wealth of knowledge that our members possess. Without the AES, there would be no mechanism for the industry to share the knowledge, or to advance the science of audio in the future."

That, in turn, is why the annual AES conventions are so vital for the industry, MacDonald added. "There are many other trade events out there, but only one has a singular focus on audio."

This year, the convention returns to Los Angeles, occupying the Los Angeles Convention Center from Thursday, October 9, 2014 to Sunday, October 12. With such a strong

Tozolli

(continued from page 28)

dropdown menu.

The purple BBE Mach 3 Bass, like the others, has the In and Out knobs, metering and On/ Protect switch. The knobs are Mach 3 Bass for up to 10 dB of processing, Freq Set (40 Hz to 300 Hz) and Response, which adjusts the center frequency (1 to 10). Like the others, there is the dropdown preset menu above the GUI. To test it, I loaded Guitars & Basses-Bass Walkin on my old 70 Fender P, which happened to be a picked part. The preset was Mach 3 Bass at +6.50, Freq Set at 197 Hz and Response up 4.69. The In and Out knobs were straight up with no gain. There was a subtle bit of presence added to the part, and not thickness, which I liked. I clicked on the On/Off button on the far right to compare and sure enough, it was working-and it wasn't a volume thing. What I really like about it is that the Mach 3 bass doesn't overwhelm the bass with mush; it's a tasty, subtle flavor that enhances what is already there. Sure, you can push it to mush, but it sounds best when used to flavor. So while I was at it, I placed it on the kick drum and got a little extra punch out of that.

The green Loudness Maximizer, which is a multi-band limiter, features the I/O knobs and metering, but has an Attenuation meter as well as knobs for Sensitivity (0 dB to +30 dB), Release (0 ms to 500 ms) and Enhancer (0 to

100%). I dropped it across my stereo master fader and loaded in the preset Mix & Mastering-Track Maximizer. Again, it just worked, plain and simple. The track was a bit bigger and wider, with no artificial sound or artifacts. The Enhancer function seems to widen the mix, and the Sensitivity can really make it pump, which can then be dialed in with the Release. Again, it's a few twists of a few knobs, and it's simply better. Like the other ones, I just add a light touch of it to enhance what was already there.

The blue Maximizer features four knobs, Lo Tune (40 Hz to 150 Hz), Lo Mix (0-10), Hi Tune (554 Hz to 5.60 kHz) and Hi Mix (0-10). Again, I tried this on an acoustic part with a lot of picked notes up the neck. What the Lo Tune and Lo Mix knobs helped me do is add bottom presence to the notes, almost to the point of mud. But once again, when placed in the track, it was right on point. If you want more clarity out of the part, simply set the Hi Tune anywhere above 2 kHz and push the Hi Mix up. It also worked great on vocals and percussion, adding that same type of presence, but without using EQ.

I forgot about how much I like the BBE products, as they can deliver that nice element of air, presence and punch to a mix. Note that Nomad Factory says the BBE Sonic Sweet Optimized is not compatible with previous versions of Sonic Sweet, since it was built from the ground up for Pro Tools 11 users. They will not replace the old ones, but will be added to the plug-ins folder as new plug-ins. No matter what, I'm glad to have them.

Anderton

(continued from page 28)

some instruments get bigger and more complex, others tend to focus on a specific function, like FM, virtual analog, or in the case of PadShop, evolving pads based on granular synthesis.

Power soak: Synths like U-He's Diva exploit the power in today's computers to the fullest and consume massive amounts of CPU power. The object is to create the purest sound possible by throwing a zillion calculations into the sound generating process; fortunately for those with older machines, synths that follow this philosophy also tend to offer options that trade off CPU consumption for slightly degraded sonic accuracy.

What's next? I hate to sound unimaginative, but all of the above trends have not come close to playing out, and will likely develop further. However, we may also see lower-cost, special-purpose instruments that are simpler, more plug-and-play and easier to use; after all, production throughput is increasingly important, and few people have the time to either create their own sounds or plow through 1,000 presets looking for that one needle in a haystack. Think about it: How many truly different Minimoog bass sounds have you heard in the over four decades since it was introduced? I rest my case.

Author/musician Craig Anderton has given seminars on technology and the arts in 38 states, 10 countries, and in three languages.

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Tone Step Down the Trail

BY JAQUES SONYIEUX

Lera Lynn's new album, The Avenues, produced by pedal steel virtuoso Joshua Grange (k.d. lang, Sheryl Crow, Beck), is rich with texture and emotion. Anchored by Lynn's spot-on vocal performances, which were recorded live with the basic tracks at Grange's LA-based studio, the record blends expert musicianship with sparse, thoughtful arrangements. With a band consisting of Lynn's longtime guitarist Ben Lewis and veterans Jebin Bruni (Fiona Apple, Aimee Mann), bassist Sebastian Steinberg (Fiona Apple, Jon Brion) and drummer Quinn (Tracy Chapman), The Avenues takes listeners on a journey through moody ballads and easygoing up-tempo tunes—each executed in an authentic and refreshingly understated style. Pro Sound News spoke to Lera following a recent sold-out New York City performance.

ON BEING INTENTIONAL:

When I was touring in 2012, opening for k.d. lang, I met Joshua Grange who produced my new record. He was playing pedal steel in k.d.'s band. I had already been recording some demos with my band from Athens at the time, and none of it was really sitting right with me. I spent some time talking with Josh, listening to records and just discussing the production approaches that we appreciated. And he really helped shape my record in a big way—he worked with all of my older, halfwritten songs, and helped pull it all together and really knew which songs would work best for the record. It is much more cohesive than my first record, which was recorded over several months time and built kind of piecemeal. This record was very intentional in terms of how we were

going to record it, who was going to play on it and how much time we had-which was not a lot. I think that this record has really shown me the path to greater potential. I have a much longer way to go, but this is one more step down the trail.

ON DRUMS AND PIANO:

On The Avenues, I think the drums are one of the more unique elements on the record. Some of the songs were in a 6/8 kind of shuffle, but I didn't want that to be repeated on the drums. So Quinn [drummer] was really creative in avoiding doing the obvious thing. Everything was tracked live-I really like to lock in with the drummer when I am playing, and Quinn and I played really well off of each other in that way. Also, the piano was also a big element on the record as well. Josh has a 100-year old baby grand that has a very long time. We chose not to tune it and this brought a really interesting sound to the record. Unfortunately we can't travel with it, but one of the next steps for the

live shows would be to add keys.



We actually tracked most of the vocals live with the band and did 15 songs in three days. I went into it thinking they would be scratch vocals, but then we listened back and said, "That's fine." We overdubbed some backing vocals and just moved on. For me, it is not about being pitch perfect; it is really about phrasing and how emotionally compelling the vocals sound. I think those things are best captured in a live setting when you are really listening to everyone else and just in the moment and not over-thinking it. I was playing guitar and singing at the same time as the band was also tracking.

ON SELF-CONTROL:

I think self-control is one of the hardest things to learn for musicians, but it makes the biggest difference. You have to start from zero to really feel it and have the full scale of emotion and feeling there. I saw Josh play with k.d. lang every day for a month, and whenever a lead guitar player who was fully capable of a notey solo just plays three notes, then you know you have really scored a quality musician.

ON TUNING INTO THE VIBE:

It is a lot of work and you are really trying to get in touch with one of the most ethereal parts of being a human-making music. I think it is incredibly important to have a relaxed but focused atmosphere. All the musicians were great in that way. I have to admit I was a little nervous working with them, because they play with

Lera Lynn recorded her new album, The Avenues, with producer Joshua Grange

the world's best singers and songwriters, but they were so nice and easy going, and as soon as we started playing, it all fell into place.

We were lucky to get to mix the record at Sheryl Crow's place. She has a beautiful API 1608 console and I got to run my vocal through her Fairchild-that was great. Josh likes to mix as he goes, so once we got to Sheryl's, it wasn't like we were starting from scratch. We ran everything through that API and changed a couple of things here and there, and voila! It was like magic.

ON A CINEMATIC MOMENT:

The very last song on the record is called "Sailor Song"-it's an older song that I never had the intention of recording or releasing. But after we had tracked everything, Josh recommended we try it. I said 'OK'. Ouinn had this suitcase that he modified with a snare in one side and this reverb spring-he's got all kinds of weird stuff like that. He was using a mallet for a bass drum sound. We all set up in the living room together and had the big sliding doors open in the studio, and the desert wind was blowing in and there was a mic set up near the piano near the door so it captured it all. We just did one take of that song all the way through and it was a pretty special moment—to see it all come together was pretty cinematic. Jacques Sonyieux is a devout explorer of recording studios and the artists that occasionally inhabit them. Please send any tips or feedback to Jacques at: jacquessonyieux@gmail.com.



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