Volume 37 No. 12

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AES67 Standard

Embraced By Industry

December 2015



NASHVILLE—Rising country star Thomas Rhett was mong the big names on hand at the 49th Annual CMA Awards, broadcast live from Nashville's Bridgestone Arena in early November. Rhett and rock act Fall Out Boy performed a mashup of their respective songs, "Crash and Burn" and "Uma Thurman," with Rhett singing through an Audio-Technica Artist Elite 5000 series UHF wireless system and AEW-T6100a handheld mic—one of more than 150 A-T mics used in the

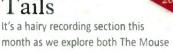
NEW YORK, NY-This year's AES Convention saw the AES67 standard for high-performance streaming audio-over-IP interoperability continue to mature, with news of a maintenance revision to AES67-2013, a live demonstration of nearly two dozen devices and a focused track of network audio events

BY STEVE HARVEY

The standard revision, designated AES67-2015, clarifies some of the interoperability requirements, based on general implementation and experience with the "plugfest" testing held in Germany in cooperation with the European Broadcast Union (EBU) in October, 2014. Those tests included 16 products from 10 different companies.

(continued on page 56)

Studio Tails



month as we explore both The Mouse House—the prog rock facility run by producer Rich Mouser-and The Rat Cave, personal studio of Fall Out Boy's Joe Tronman (pictured).



Recording Tech at AES: From Classic to Cutting-Edge

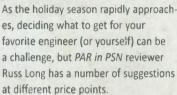
BY STROTHER BULLINS

NEW YORK, NY-Advancements in microprocessing technology allow for an increasing number of affordable digital recording tools to be created with each passing year. At the same time, the holidays tend to mark the arrivals of the latest consumer-and specifically, tabletbased-technologies suited for pro audio applications. Team those with the 139th AES Convention, and it's easy to get a glimpse of what might become the next mixing paradigms.

For example, Pro Tools Dock was demonstrated at AES-Avid's PT | Control iOS-associated, iPad Air 2-ready interface featuring soft keys and knobs, 16 and 8, respectively; two touch strips, horizontal and vertical; transport section; a jog wheel and more. Just days later, the new 12.9-inch (78

percent larger) Apple iPad Pro was announced to the world, delivering USB 3.0 bandwidth to four separate ports, along with other attractive features. The result was a one-two punch of Avid and Apple creating new approaches for recordists to adopt, in the process nudging power users closer to accepting tablets for work. While not aimed at all users, the allure of a touch-operated recording device based around what is essentially a snapped-off MacBook Pro (continued on page 24)

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STEPPING



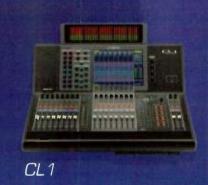


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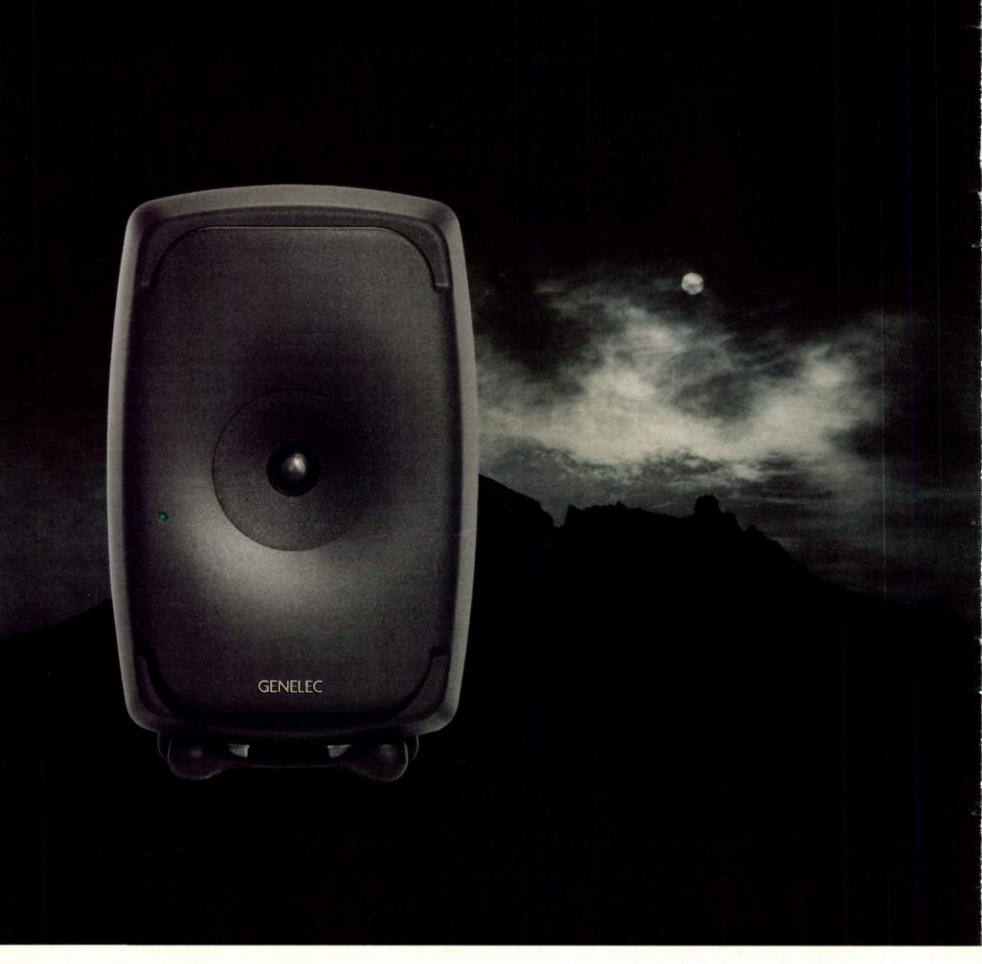
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139th AES Takes Manhattan

BY CLIVE YOUNG

NEW YORK, NY-The questions kept coming up over and over around the Jacob Javits Convention Center in New York City during Halloween weekend: Does the AES Convention seem a little more packed than usual? Maybe there's more exhibitors? How about more attendees? Well, it was both. This year's convention didn't just feel bigger—it was bigger.

While the annual AES Convention is always a four-day event, kicking off on a Thursday, the exhibition floor, packed with manufacturers presenting their latest and greatest products, doesn't open until the second day of the show. That, in turn, helped spur attendance, with the final convention total just shy of 18,500.

"Advance registration this year has been intriguing, to the point where we've been looking at the numbers every day to see if we'd set a record yet," said Bob Moses, AES executive director on the second day of the convention. "As of the close of Thursday night, we were at 17,081 so we bested 17,000." As a result, before the exhibit floor even openedwhich went on to draw walk-in attendees throughout the weekendthis year's pre-registration was higher than all of the registration combined



Attendees burst onto the exhibit floor each day of the AES Convention in New York.

for last year's Los Angeles convention (15,403).

"We're approaching record levels," confirmed Moses. "It's all up-exhibitor counts are up; they're taking smaller booths but there's more of them, and there's also more manufacturers participating as sponsors than ever before."

Day One of the AES Convention, packed as it was with workshops, panels and opening ceremonies, was low-key but insightful, but there's no denying it-every year, the convention kicks into high gear once the exhibition floor opens on Day

Two. The excitement level in the Javits ramped up fast on Friday as attendees burst on to the floor at 10 a.m., eager to see the latest gear, catch up with friends in the industry, make feature requests for their favorite piece of audio equipment or any (continued on page 19)

Shure CEO To Retire; **Names** Successor

NILES, II -- More than twenty years after he first joined Shure Incorporated, president and chief executive officer Santo (Sandy) La-Mantia will retire in July, 2016. Current executive vice president of Global Operations, Marketing and Sales, and COO Christine (Chris) Schyvinck will succeed him as president and CEO, as appointed by LaMantia and Mrs. Rose L. Shure, Chairman.

LaMantia joined Shure in November of 1995 as vice president of Engineering and was later appointed president and CEO in May of 1996. "My time at Shure has

(continued on page 56)

11111111

Andres Mayo, Outgoing **AES President**

BY STEVE HARVEY

NEW YORK, NY-This has been a very busy year for Andres Mayo, a multiaward-winning engineer with his own audio facility-Andres Mayo Mastering—in Argentina, and, for the last 12 months, AES president. Juggling the demands of the position with running his own business, often working into the early hours of the morning, Mayo was nevertheless able to successfully advance the goals of the AES this year.

Two achievements in particular are points of pride with Mayo. Firstly, he helped establish the Financial Planning Committee, comprising Bill Foster (Chair), David Josephson and Glenn Lorbecki. "This Committee has put a huge amount of time to analyze our current financial status, which is key to making wise decisions in the short- and mid-term future," he says.

Additionally, a study group coor-



Andres Mayo closed out his time as AES president, only to be elected to the NARAS **Producers & Engineers Wing Advisory**

dinated by mastering engineer Bob Katz and TC-TB Chairman David Bialik put together a Technical Document (AES TD1004.1.15-10, available for download) detailing recomYork convention," says Mayo.

As John Krivit prepared to take over as president at the end of the 139th AES Convention in New York,

Mayo's schedule was as busy as ever. During the convention, he moderated the Platinum Latin Producers & Engineers panel, presented 5.1 and 7.1 mixes in the PMC demo room, participated in the Recording Critiques sessions and judged the Recording Competition, even sponsoring the winner with a free mastering job.

"I have just been elected to become part of the NARAS Producers & Engineers Wing Advisory Council.

(continued on page 57)



Gardner is retiring from his post at Bernie Grundman Mastering in Hollywood, CA. er, who began his career at RCA Records before joining BGM in 1984, started out

eases; today his mastering credits include projects for the likes of Beck, Dr. Dre, Blink 182,

ng engineers Brian "Big Bass" Gardner, Paul Grundman, Chris Bellman, Mike Bozzi

nastering artists such as Creedence Clearwater Revival and Jefferson Airplane on viny

Cypress Hill, Destiny's Child, Eazy-E, Herb Alpert, Ice Cube, the Isley Brothers, No Doubt,

Prince, 50 Cent and Eminem, among others. On hand for the announcement were (I-r):

Patricia Sullivan, Bernie Grundman, Beno May (technical director) and Scott Sedillo.

mendations for loudness of audio streaming and network file playback for presentation during the New York convention. "That is a huge step towards setting a point of reference in a key issue like this. I am personally proud and thankful to the study group for delivering this Technical Document in time before the New

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Beating Those Bad Vibrations..... 20 At the AES Convention, this year's Platinum Producers panel featured moderator Errol Kolosine and producers Hank Shocklee, Joel Hamilton and Nick Sansano exploring detriments to the production process-and how to work around them.

SOUNDPOST/BROADCAST

Unique Opera Broadcast

The experimental opera Hopscotch was performed in 24 limousines carrying passengers, musicians and singers through Los Angeles, performing scenes that were broadcast live to a central Hub location where another audience watched the convergent results.

From New York, It's Late Night With AES 30 At the AES Convention, the Recording Academy Producers & Engineers Wing hosted its annual

Grammy SoundTable event, "After Hours: Mixing for Late Night New York," addressing the challenges of mixing for late night TV.

SOUNDTECHNOLOGY

Sound Innovations: Yamaha TF Series Digital Mixing Consoles....

When Yamaha set out to create the TF series, the company decided to take a different tack than it had in the past, opting to start at the beginning and take the standpoint of the user into account

Pro Audio Review

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SPECIAL REPORT

Special Report: AES Convention Wrap-Up . 1, 5, 14, 20, 27, 30, 36, 38 Nothing is as good as being there, but our in-depth coverage of this year's 139th AES Convention in New York City is the next best thing. From the biggest names to the biggest technological advances to the biggest product releases, it's all here.

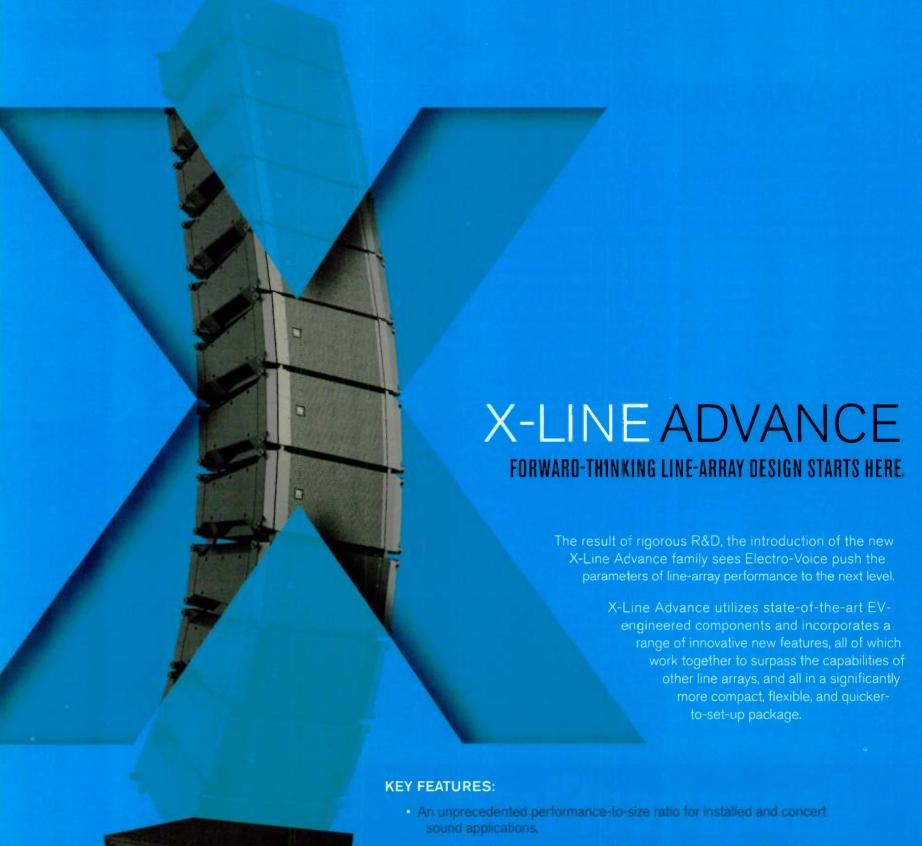
COLUMNS/REVIEWS

softwaretech 27 Craig Anderton hands out awards; everyone runs for cover.

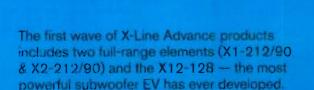
viewfromthetop. Blake Augsburger, Executive VP/President of HARMAN Professional Solutions, shares how his company has evolved from an audio component manufacturer to a sound systems manufacturer to a complete system solutions provider.

music etc. . . . Jaques Sonyieux talks with legendary music performer and executive Herb Alpert about reinventing standards, the need for honesty and authenticity in music and his latest album, Come Fly With Me.





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The Advocates of Connection

In PSN, we often boil the idea of "good sound" down to equipment specs, but that only tells part of the story, because pro audio is ultimately about communication. Sounds share ideas; they conjure emotions, resonate in ways that have nothing to do with acoustic treatments, ring inside us long after the sounds themselves have passed. That kind of connection—the experience of communication deeply felt-may be the most impressive spec of all, but there's no test equipment that can quantify it. All audio pros aspire to make that happen, though, and how could they not? Sound people are the advocates of connection.

I was reminded of that recently when I read about Van Taylor, Jr., owner of 310 Recording Studio, a small facility in Monroeville, PA. Open only a few years now, the studio was contacted by a local mental health group with autistic patients who wanted to experience what recording was like. While other studios in the region had turned them down, Taylor said ves and later recalled in the New Pittsburgh Courier, "After I quit my job to dedicate all of my time to building this business, I began to have doubts. [Before,] I worked and I made good money. Well, needless to say, I don't see a check every week anymore. Up until the day of this, I had wondered if I had moved a little too soon by quitting my job, but after

the first young lady, Kaylee, finished recording her song, she exited the vocal booth crying, saying it was always her dream to do this. I realized then that if I hadn't been a risk taker, this would have still been a dream to many. That day meant more to me than any money I could have earned."

While 310 Recording was able to connect with its community, there are always cases where facilities are not as welcome. Take Atlanta-based Street Execs Studio, which found itself at the center of controversy in November, as nearby residents blamed it for a spike in shootings, car break-ins and assaults in the area. Owner Charley Jabaley met with the local neighborhood association and told TV station WXIA afterwards, "We really want to be better neighbors. We're adding security. We brought in a new studio manager. We're going to get the noise down. We're changing our booking process with the artists so they don't overlap, so it's less people at one time."

Whether those changes will solve the problem remains to be seen, but they're more than a show of good will; they're indicative of listening, discussing and acknowledging others' views. That's communication in action the bond that builds community-and it's the exact opposite of what happened in Paris on November 13.

As I write this, it's only three days since a series of violent attacks there left 129 people dead and 352 wounded. Emotions are still raw as people around the globe mourn the lives that were taken, but it has struck particularly close to home in the concert sound community because the deadliest attack was on the Bataclan concert hall. There, gunmen killed 89 people at an Eagles Of Death Metal show, including the band's merchandise manager, Nick Alexander, and the venue's lighting director, Nathalie Jardin.

What happened in Paris sickens us as human beings, but I think for sound pros, it is even more incomprehensible because, again, the audio profession is about facilitating connection-and the attacks were the very antithesis of that. Violence is about many things, but communication is not one of them.

Doubtlessly, by the time you read this, more details will have emerged about what happened and the path forward for the world's leaders will have grown more complicated. In the wake of the tragedy, however, there is one thing audio pros can do to push back at the attackers' intended darkness, and that's to keep doing what you do best: Keep helping people connect, whether you mix, design, install, record, repair, instruct, manufacture or whatever your role is in pro audio. Keep facilitating communication. Keep laying those building blocks of community. Keep goingand don't stop.

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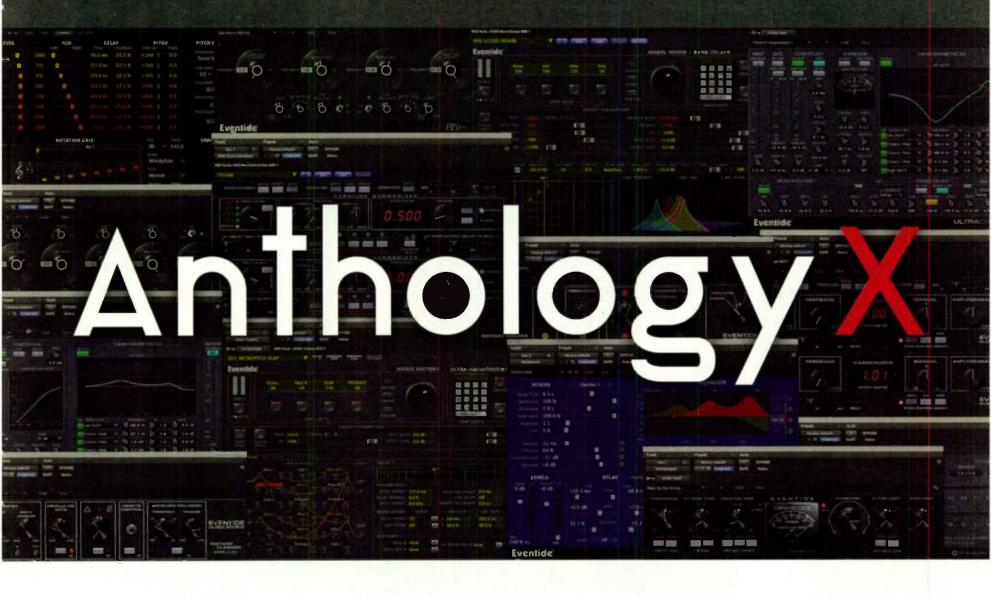
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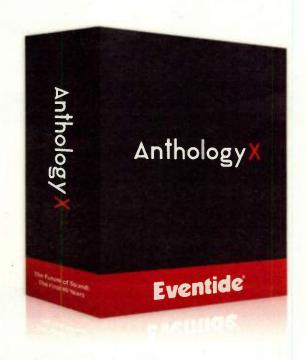


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Craca Captures White House

WASHINGTON, DC—On a recent trip to The White House, sound mixer Tom Craca recorded President Barack Obama, First Lady Michelle Obama and Second Lady Dr. Jill Biden using a Sound Devices 688 12-input field production mixer with 16-track recorder and MixAssist. Craca recorded in three rooms, with only five minutes between each scene.

"For the first interview with President Obama in the West Wing, I flew two Schoeps boom microphones and fed two Canon C300's analog audio via the HRS 10-pins and a Sony PMW-F5 AES audio feed via the XLR main outs, all from the 688," says Craca. "The program feed was sent to the client from the 688 via the aux outputs on TA3 connectors. Then, at

the last minute, the White House transcriptionist asked for a mic feed for her handheld re-

corder, which the 688 allowed for."

Craca was then tasked with booming the First Lady and Dr. Biden while miking four guests with lavs. "The transcriptionist again dropped

So re an an Jil pr W

Sound mixer Tom Craca recorded the President and First Lady Obama and Second Lady Dr. Jill Biden at a recent production in the White House.

her recorder in my bag, so I hit record

with five iso tracks enabled, and off we went. This time, the client had to be in another room, so I also sent the L/R mix tracks to a speaker placed in an adjacent room. I set the four wireless tracks to the left channel with MixAssist enabled, and fed the boom clean to the right channel." The last setup involved a brief sit down with the First Lady and Dr. Biden, which Craca captured using a pre-saved setup in the 688 user menu for his standard two-boom record setup.

MNA Expands

sounddevices.com

BOTHELL, WA—The Media Networking Alliance (MNA) has appointed new members to its Board and added Solid State Logic to the Alliance.

MNA confirmed the appointment of Rich Zwiebel, vice president, systems strategy, QSC Audio Products LLC as chairman, and Terry Holton, general manager, Yamaha R&D Centre as vice chairman. Marty Sacks, vice president of sales, support and marketing, The Telos Alliance is appointed as financial officer, and Bill Scott, vice president of engineering and technology at Bosch Communications Systems, and Andreas Hilmer, director marketing & communications at Lawo, are also appointed as members of the Board.

Commenting on SSL joining the ranks of the MNA's professional audio member companies, Zwiebel said, "We are excited about the array of very important companies that currently make up the MNA and the great people from these companies who give of their own time to commit to the vision of AES67 and the work of the MNA. It gives me great pleasure to warmly welcome a company of Solid State Logic's stature within the pro audio industry to our ranks. We are confidently looking forward to an exciting second year for the alliance, with the expectancy not only of growth but of an ever increasing rate of adoption." Media Networking Alliance medianetworkingalliance.com



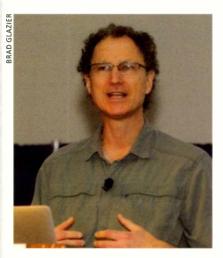


= AES Ceremonies Look Back, Ahead

BY CLIVE YOUNG

NEW YORK, NY-At the Opening Ceremonies of this year's AES Convention, held October 29-November 1 at the Jacob Javits Convention Center in New York City, the standing roomonly crowd was treated to a look back as the Audio Engineering Society honored the achievements of its members and industry pioneers. But those in attendance also received a considerable look ahead, as Keynote Speaker Michael Abrash, chief scientist of Oculus, the company behind the upcoming Oculus Rift virtual reality headset, discussed the implications of Virtual Reality for pro audio.

"The timing of giving this keynote couldn't be better because virtual re-



Michael Abrash, chief scientist of Oculus, wowed the crowd during his Keynote Address at the 139th AES Convention in New York, providing an in-depth discussion on how surround sound and virtual reality will interact in the near future.



Legendary mastering engineer Bob Ludwig (left) received the Gold Medal Award from outgoing president Andres Mayo at this year's AES Convention Opening Ceremonies.

ality is right on the cusp of taking off," he said. "Great consumer VR will be readily available next year, and audio is going to be a key part of its success. At the same time, VR is going to open up new areas of audio research and engineering. It's already giving new importance to previously esoteric areas.... While most people think about VR about being about visual use of a headset, I can't think of anything that could be more exciting for the future of audio than virtual reality.

"VR's unique power is the ability to do something no other medium has done-drive our perceptual systems, creating experiences that feel real. It may not be obvious as to why VR is so different from television or IMAX or computer games, but it is, in fact, something fundamentally new, rather than just more of the

The Keynote found Abrash using references as varied as YouTube videos highlighting the McGurk Effect—a perceptual trick underlining the connection between vision and hearing by pairing the audio of one spoken word with the visual of another word being spoken-and Morpheus' speech about the nature of reality in the sci-fi classic, The Matrix. Ultimately, he explained how the senses are used to reconstruct reality within our brains, as he focused on hearing and the complex challenges that audio still faces in virtual reality realms-issues that he expects to be cleared up within 20 years.

Abrash wasn't the only highlight of the ceremony, however. Kicking things off, the Audio Engineering Society honored this year's AES Award winners, highlighted by Bob Ludwig, who was awarded the Gold Medal Award,

(continued on page 57)

Instant AES Assessments

BY STROTHER BULLINS

NEW YORK, NY-There's no better way to understand an event than to poll those present. Alex, a music student from Germany, made his first trek beyond Europe when he went to the 139th AES Convention, held in New York City in late October. "There are so many different topics from all different areas of audio," Alex said of his first full day at the event, spent entirely in programs. "Sometimes [the topics] are less interesting than they sound, but most of the time, it's the opposite-they get deeper and more interesting than I thought they would be." Alex is now hooked and vowed to return to a nearby AES event as soon as possible. "Soon it will be in Berlin, and I will be there."

Onsite for the run of the Convention was Sarah, who teaches sound design and music composition for theater at a private research university in Pennsylvania. "I've been hitting up [programs] that pertain the most to what I'm teaching-a lot of spatial and immersive sound sessions that deal with 3D audio for virtual reality or in gaming environments," she explained. "I'm interested in teaching some of the principles of game audio design in a theatrical/live context, so I'm making connections between those two things."

Regarding highlights from the exhibition floor, she noted, "It was really cool to look at all the things Radial Engineering makes. It's all out there, so it's nice to get hands-on. I also made a connection with DPA Microphones. They are possibly going to come to my university and give a demonstration. There's a lot to see; I think I'm still processing it all!"

Finally, Michael from Fort Lauderdale, FL, attended multiple conventions throughout the '80s and '90s, and had returned once again: "I'm the head engineer at a performing arts center, and we're looking for the new product lines: microphones, networking things, maybe even a new console. We have a very high-quality hall, and we use a lot of the higher quality microphones that you'd normally never see in a club.'

AES aes.com

High-Res Audio Ready for Its Close-Up

ARLINGTON, VA-After slowly gaining notoriety in recent years, High-Res Audio (HRA) may be gaining traction in the minds of consumers; if so, that in turn could mean increased demand for HRA content. According to a new study from the Consumer Technology Association (CTA), more than half of recent audio technology consumers are interested in HRA and three-quarters researched audio products in physical stores.

The CTA study, Consumers Journey to Purchase: Audio, finds the audio category is constantly evolving with new features and products entering the market, including high-resolution equipment. The trade association, representing the \$285 billion U.S. consumer technology industry, was formerly the Consumer Electronics Association (CEA).

The study explores audio technology purchases in the need-based and desire-based categories. Consumers who buy for need are mainly focused on cost, everyday use and compatibility with mobile devices. Desirebased purchases prioritize the quality of product and brand over value, and compatibility with core audio-visual

Several key findings from the report shed light on the decision-making process for consumers purchasing audio products:

. Two-thirds of consumers' most recent audio purchases (68 percent) were planned, with 77 percent of consumers researching audio products at a physical store and 41 percent doing so online;

· By an immense margin, headphones are the most frequently purchased audio product (69 percent of consumer purchases), with portable speakers (nine percent) and sound bars (six percent) distant runners-up;

· Among the factors affecting consumer purchases, word of mouth (32 percent) is the most influential, followed by store displays (29 percent) and need/want and/or online reviews

More than 53 percent of consumers who purchased an audio product online or in-store in the past year are interested in HRA. Music enthusiasts and audiophiles-two subgroups of audio consumers looking for a "better" audio experience-are among the primary consumer targets for HRA. The study finds, however, that consumer interest in HRA can falter when equipment and software upgrades are needed. To combat this, manufacturers should consider marketing on a personal level and offering in-store demonstrations and promotions of high-resolution products. **Consumer Technology Association (CTA)** www.ce.org

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161 Sound INTERNATIONALIIII

Adamson Heads to Ibiza

IBIZA, BALEARIC ISLANDS-Ibiza has long drawn the party crowd from around the world, but that makes for a competitive atmosphere between clubs as a result. For the Ushuaia Club, that meant installing a new Adamson sound reinforcement system around its outdoor pool area was key.

The outdoor stage and pool area features a stage set back in a band shell at one end of the area with a large dance

floor as well as assorted seating areas around the pool and three levels of hotel rooms that have balconies facing the pool. When filled to capacity, the area can hold up to 10,000 guests. The resort owners were looking for a sound reinforcement system that would blanket the space, so France-based sound integrators SLS designed and installed the new Adamson PA with support from Adamson's European distributor, DV2.

The main line arrays are hung from the lip of the band shell to the left and right of the stage, providing maximum coverage of the audience area. Each array is made up of 12 Adamson E15s, while two more arrays made up of four \$10 line array enclosures, are hung under the main PA for outfill. Two delays, each pair mounted on poles located to the left and right of the pool, provide fill further out from the stage



Ibiza's Ushuaia Club has installed a new Adamson sound reinforcement system around its outdoor pool area.

to keep SPL uniform throughout. The first delays, made up of two arrays of four S10 enclosures, are located 50 meters from the stage. The second delay, located 74 meters from the stage, are each made up of four SpekTrix enclosures along with one SpekTrix Sub. The VIP area, located far stage left is covered by three Adamson S10 enclosures mounted to a pole 13 meters from the stage.

"After working in many club locations in the UK and on Ibiza, I can say that Adamson is a perfect fit because it combines the best of both worlds," explains Francois Guittiere, resident FOH engineer at Ushuaia. "It provides a dynamic and powerful sound like a Funktion One system with a super smooth performance on vocal tracks that I only knew from d&b systems before."

Adamson Systems Engineering adamsonsystems.com

d&b Bolsters The Bard In New Polish Theater

GDANSK, POLAND The Gdansk Shakespeare Theatre-the first drama theatre to be built in Poland in almost forty years-sports modern design and technology, not to mention a sizable d&b audiotechnik sound system.

Designed by Renatto Rizzi, an Italian architect and professor of the Academy of Fine Arts of Venice, the new venue is located on the site of a seventeenth century wooden playhouse known to have hosted fencing lessons, animal fights and theatrical performances from the early 1600s. The new theatre features an adaptable auditorium that permits various stage configurations: a proscenium arch, or, more typical of the era, inthe-round; and with the only retractable theatre roof in the world, the venue can also transform into a traditional open air environment.

d&b distributor and local specialist Konsbud Audio was responsible for providing a technical solution to support the flexibility of the theatre. "Our engineers paid special attention to two aspects," explained Piotr Jankiewicz, director of the Design and Integration Department at Konsbud. "First designing a mobile system to accommodate the various stage configurations, and second, to find a solution for the galleries that would ensure the audience on all three levels could comfortably hear the words of the actors, without putting too much emphasis on the sound reinforcement system."

d&b T10s, with V-Subs for the low end, comprise the main system, powered by D80 amplifiers. Explained Jankiewicz, "The T10 loudspeakers can work both in line source mode



In the newly built Gdańsk Shakespeare Theatre, a PA based around d&b audiotechnik T10s and V-Subs comprise the main system, powered by D80 amplifiers.

and in point source mode, so the same loudspeakers can provide, during one performance, a line array system, and at another, they can be used individually as point sources for the purpose of sound reinforcement in the auditorium. Furthermore, the system can be freely reconfigured and adjusted to fit the needs of a specific play or performance, or, if necessary, completely dismantled."

d&b audiotechnik dbaudio.com

A&H Attends Grand Prix

Grand Prix in Singapore was a crazy one, thanks to a spectator who jumped on to the track and walked against the flow of traffic before climbing over the barrier on the other side. Helping bring all the drama of both the race and the intruderwho was later arrested-to audiences onsite and at home was an Allen & Heath Qu-16 rackmount digital mixer used to provide live audio and broadcast feeds for the event.

The system, comprising the Qu-16 and Shure microphones, was supplied and managed by E&E, which was tasked with capturing all the live audio to provide media and local broadcast feeds. The Qu-16 sent mic signals from the drivers to the Formula One Management (FOM) systems, which in turn fed the Media Centre, where the international journalist community were waiting to report. The Media Centre also distributed audio to the arena loudspeaker

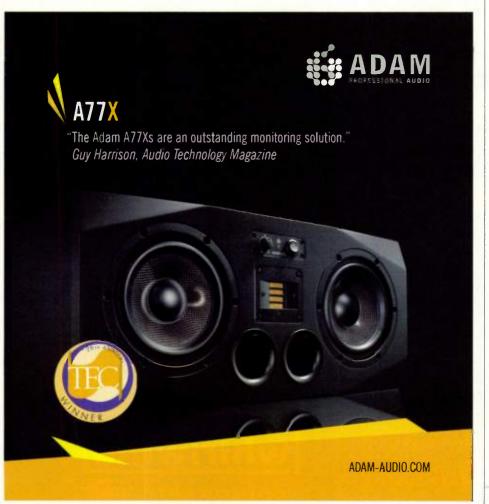


Aabel Yap, E&E systems application engineer, pit side with the Allen & Heath Qu 16.

system for the local audience.

The Qu-16 also managed audio for press conferences in the Media Centre and at the podium area, as well as the broadcast of the winning team's National Anthem

Allen & Heath allen-heath.com



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"The ease of install really allowed us to experiment with placement and with the quality of the treatments, we achieved the sonic balance we were looking for!"

~ Tommy Lee

Founding member - Mötley Crüe.



"Being able to fine-tune a room on site makes all the difference. The Impaler mounting system make the panels easy to install and let you make adjustments without trashing the surface. It works!"

~ David Rideau

Engineer/producer - Janet Jackson, Sting, TLC, George Duke and Jennifer Lopez.



"The Primacoustic is up and kicking butt at my new studio in Santa Monica. I love the way the control and tracking rooms sound now... and so does everyone that records here!"

~ Butch Walker

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

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



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

~ Daniel Adair

Drummer - Nickelback.



"We've got a mixture of bass traps, diffusion and clouds and the result was phenominal. It ended up costing less than 25% of the custom solution and it turned out very cool."

~ Keb' Mo'

Roots music legend

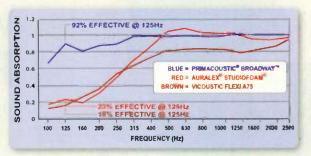


"Not only does my room sound amazing, it's also really beautiful!!!" ~ John Rzeznik
Performer/artist/producer - Goo Goo Dolls.

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

~ John Rzeznik

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Pro Sound News brings you audio news every weekday on prosoundnetwork.com, Twitter (@prosoundnews) and Facebook (facebook.com/ ProSoundNews)—but we also use social media to share links to interesting mainstream audio stories. Here's a few we recently shared; get their links at prosoundnetwork.com/dec2015.

- ▶ Website for @bobdylan's new 1965-66 boxset lets you mix "Like A Rolling Stone" stems.
- ▶ This could be cool: Brooklyn studio manager opens coffee shop aimed at audio pros.
- ▶ Profile of SF's Hyde Street Studios; hosted everyone from Green Day to Grateful Dead.
- ▶ Free recording studio set to open in Liverpool.
- ▶ Moline, IL's *Dispatch-Argus* newspaper profiles Cake, the cat of Attica Recording Studio.



getting social

Desk of the Day



Follow us on Facebook or Twitter? Then you've probably noticed our latest weekday feature, Desk of the Day-

which is exactly what you think it is. Each day, we post a reader-submitted photo of their studio or live sound mixer (preferably with the user in the shot). Getting to see gear in use, out in the real world, has proven a hit with our followers around the globe, so get in on the action and send us your photo at deskoftheday@nbmedia.com.

BLOGGINGS

AUDIO FOR PRESIDENT

ProSoundNetwork.com blogger Rob Tavaglione used his blog to announce his run for president as an independent. In this excerpt, he demonstrates his 'audio-cratic' political style:

I can no longer sit idly by as this nation's politics are domineered by outsiders, rogues, technocrats and ideologues. It is obviously clear what this great nation needs and I intend to provide it with my new third party as I humbly submit myself as a candidate for president of these United States.

My new audio-centric party, Americans Who Care About Nothing But Audio (in the great audio tradition of long and indecipherable acronyms) will lead this nation into the future by deciding all issues based solely on audio engineers' opinions, as producers won't even get a say anymore.

I will soundly defeat all opposing candidates in the debates with audio bullying and "sound shaming." My bravado will diminish Donald Trump as I proclaim that he either sit down "or I will rock this FOH with 120 dB+ of 40 Hz until that hair-thing jumps off your head like water droplets dancing in a hot skillet."

And so what if Hillary Clinton deleted e-mails? Do you people realize how many thousands of times I've erased worthy takes and icily said nothing but "one more time?"

BOB MOSES ON BOB MOSES

Between a rising debut album and near-incessant touring, Canadian dance music duo Bob Moses has made a name for itself, catching a lot of people's ears in the process, including those of another Bob Moses—the executive director of the Audio Engineering Society.



Find these blog posts at prosoundnetwork.com/dec2015

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Spinning in Canada

Dean Reid spent decades in construction, but didn't feel passionate about it. With that in mind, he quit his job of 20 years and jumped head-first into a brand-new career, founding one of his country's few remaining record pressing plants, Canada Boy Vinyl in Calgary, which in addition to offering plating, mastering, pressing, printing and packaging, has unique offerings like "The Dirtbag Special." Catch the clip at prosoundnetwork.com/dec2015.

AES Wrap-Up

(continued from page 5)

number of other pursuits. The AES Convention offers access to the movers and shakers of the audio industry like no other event—and the crowds started taking advantage of that as fast as possible.

And all that went according to plan, said convention co-chair Paul Gallo: "It's a great place to learn—to take your talents and grow and develop them as a successful person in the industry. Attending AES is a great career opportunity for many people, and I'm pleased to see that they're having more young people take a look at a career in such a growth industry."

At the same time, however, there were plenty of seasoned professionals, checking out gear and networking. Looking out across the show floor, Moses offered, "This show is about our community, and people get excited about what we do when we get together. When you come to the AES Convention, you experience a shared passion for audio; not everyone shares that, so we get together and geek out. Out there, people are hugging, high-fiving, and that's what it's all about—the mojo."

There was lots of excitement on the show floor, but that wasn't the only location, as the Convention served up plenty to take in, from allstar Platinum Producer, Engineer and Mastering Engineer panels, to Tech Tours that took attendees everywhere around town from the Empire State Building to behind the scenes at Late Night with Seth Meyers. Author Howard Massey and producer Tony Visconti (David Bowie) were among the panelists at The Great British Recording Studios panel, and producer Jack Douglas (Aerosmith, John Lennon, Alice Cooper) regaled the audience with wild tales of recording decadent rock legends. And for a taste of what the future might hold, From The Ether was an offsite event that brought together performers located in New York, Toronto, Montreal, California, Norway, Buenos Aires, Argentina and Ireland who performed together via internet, with all audio and video mixed locally at each site to create the experience of a complete orchestra.

With most of the recording industry having moved into smaller facilities and live sound professionals perpetually on the move by necessity, there's less interaction between professionals these days; online forums and social media help, but they are no replacement for experiencing and learning in person. "You have to be good at what you do," said "You may be good enough, but are you as good as you can get? Don't just be 'good enough.' AES is the place to make that happen for yourself."

Paul Gallo, AES Convention Co-Chair

Gallo. "That's why you have to come and learn from others. You may be to an AES convention and network good enough, but are you as good

as you can get? Don't just be 'good enough.' AES is the place to make that happen for yourself."

If you missed it, or were there and just couldn't get enough, sit tight until next year, when the AES Convention returns to the Los Angeles Convention Center, September 28 through October 1, 2016.

AES aes.org

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[20] SoundRECORDING IIII

The Mouse House That Roared

BY STEVE HARVEY

ALTADENA, CA-How do you get some of the best drum sounds on the West Coast? For Rich Mouser, it started with a lucky discovery.

About 15 years ago, Mouser got word that the owner of the building in which he was renting space was about to will it to the University of Southern California. After a fruitless search, he and his wife found a house for sale on a quiet dead-end street in nearby Altadena. Mouser walked into the living room, with its 35-foot cathedral ceiling, clapped his hands, and knew that he'd found the perfect spot for The Mouse House Studio.

The building was rundown and needed a lot of work. "First, I had to turn it back into a house, just to pass inspection," says Mouser. That done, he set about converting it into a recording studio. "I went to crazy lengths to soundproof. There are double walls everywhere, and there's really excellent separation between the live room and control

He initially intended to install his existing mixing console alongside an extensive collection of vintage gear



After turning an entire home into his Mouse House recording studio, Rich Mouser found its centerpiece: A 56-input Calrec UA8000 console, which he bought used for \$28,000.

amassed over the past 25 years, including classic pieces from Deltalab, EMT, Lexicon, Neve, Telefunken, Valley People and Urei. "Then my

friend Peter Reardon [Shadow Hills Industries founder] called and said he'd seen a board for sale in the Re-

The 56-input, 32-buss Calrec UA8000 analog desk was too good to pass up. "I got it for \$28,000. I

Beating Those Bad **Vibrations**

BY STEVE HARVEY

NEW YORK, NY-"Would you say there is an energy in the studio when you're working and recording? How do you recognize when that vibe is going the wrong way?" asked moderator Errol Kolosine during the "Platinum Producers-Bad Vibrations" panel at the recent 139th AES Convention.

Asked to define those vibrations, producer, engineer, musician and studio owner Joel Hamilton replied, "There's the physicality of the music and then there's the interaction between everybody making the music. That's the most easily polluted of the vibrations in the studio."

For example, "It's pretty easy to hear the kick drum over somebody bitching on the couch, if you've got big enough speakers. It's really difficult to then come back from that bitching and feel good about that









At the AES Convention, this year's Platinum Producers panel explored detriments to the production process and how panelists work around them. From left: moderator Errol Kolosine, Hank Shocklee, Joel Hamilton and Nick Sansano.

kick drum," said Hamilton, who is known for his work with artists such as Norah Jones and The Black Keys.

Hank Shocklee, co-founder of Public Enemy and the Bomb Squad production team, noted that where he works has to be conducive and have an atmosphere. "Music is very spiritual, so the first thing I do is reset the calibration of the room. The first thing I do is cleanse the room." Shocklee uses quartz crystals and selenite wands at his personal studio for that purpose, he said, or will burn incense or oils.

Location is important, but, noted Nick Sansano, an engineer and producer who worked with Public

Enemy and Sonic Youth and now teaches at NYU, "It could backfire; you set up expectations that are not attainable. You don't all of a sudden become a better drummer just because you're at Muscle Shoals."

He added, "These grand places with rich history for me, it usually gets in the way. It's not my history; it's somebody else's story, and I'm there to create a new story with our own original feelings and spirit and

Greene Street Recording, where Public Enemy worked, was crusty and dusty, according to Shocklee, and that suited everyone just fine: "You could go in there and be yourself." He recently visited a modern studio in Manhattan that was "pristine and correct. There were no handprints on anything. I didn't know whether I should make music or ask for a surgeon."

Kolosine, a former "label guy" who also teaches at NYU, admitted, "I've been the bad vibe in the room." He asked what advice the panelists had for dealing with business people.

"There really is no reason for any of them to come" to the studio, said Sansano. "It takes a bit of time to acclimate to the listening environment. To be there is of no use cre-

(continued on page 24)



"Musicians love the JDX in their IEM's.That's a great compliment when you realize just how demanding these guys are about theirsound

~ Kevin Madigan FOH - Lucinda Williams.



"The JDX captures my sound with previously unobtainable control and clarity, offering our soundman a direct injection of sonic rage!"

~ Kerry King

"With the JDX, I get consistent, coherent tone night after night and the guitarists love the sound in their in-ears. It simply rocks!"

~ Eddie Mapp FOH - Evanescence, Papa Roach,



"Town all the top speaker emulators and the JDX is the most natural sounding. Live, I send the feed to the house instead of mic'ing my cabs and I'm really happy with the results."

~ Michael Thompson Shania Twain, Celine Dion, Baby Face.



The Radial JDX captures the distortion from the bass amp without any loss of low end. And with such a loud band, it also helps eliminate spill.

~ Jon Burton



The JDX is nothing short of revolutionary! I can't believe the clarity and dynamics, yet it still retains the grind of my bass amp. It breathes:

~ Danny Miranda Queen, Blue Oyster Cult,



"Little did I know about the detail Radial adds to my overall sound until I tried the JDX. It's the little thing that makes a big difference.

~ Silenoz



"The JDX gives character without the worries of bleed and feedback. I was so surprised how close it sounded to a SM57, I had to double-check.

~ Jim Warren FOH - Radiohead, Arcade Fire, Nine Inch Nails



"With the Radial JDX, my guitar sound is much fuller and cleaner in my in-ear monitors and out front, our engineer loves to blend it with the amp mic for a consistently 'thick' sound."

~ Ben Ottewell



"I was looking to make the bass 'poke' through in my mix so l tried the JDX.It's a great alternative to mic'ing a dirty cab. I've been using it ever since."

~ Russ Giroux FOH - Chickenfoot



"The JDX is the simplest way to get a true, no bleed signal from my amp. I mix the JDX with a mic'd cab to get the best possible balance. Love it.

~ Dave Weiner Steve Vai Band.



GROUND EXTEND PO

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[22] STUDIOshowcaseIIII

Quick—To The Rat Cave

BY STROTHER BULLINS

Rock and roll recording is about community, ultimately. Ensembles playing, writing and/ or arranging together tend to thrive around the recording console. I won't compare it to a campfire, though the really old, great ones tend to run a bit warm. Nowadays though, the API Model 1608, a modern-day (cooler running) small studio analog mixer, is the analog hub many recording muicians are choosing. It's what Joe Trohman, guitarist and founding member of Fall Out Boy, recently installed in his own studio, the Rat Cave, in Los Angeles.

"Aesthetically, I always loved the A room at Electric Lady," says Trohman, as he begins discussing his favorite environments that might have influenced his own studio, as it has now produced both subjective and sales-based accolades of measure. "Butch Walker's old space was also on my mind when putting my spot together tons of warmth. I don't like how some studios have this bright, '80s clinical vibe. I wanted to avoid that."

He continues, describing the comfortable vibe of the Rat Cave. "I think what people seem to like about working in my space is that it's cozy, simple but powerful. It's incredibly relaxed and not a head-trip to work your way around. No frills, but you can do a great deal with what's there...the space is half stuck in the past and half running towards the future. That's kind of what we're all doing anyway, and I like to own that fact."

This all started upon Trohman's arrival in LA, when he felt a need for a home production spacesomething along the lines of albumquality capabilities. "I've always wanted a proper studio to work out of at home but never had the space until I moved to LA," Trohman said. "I used to work out of a second bedroom that barely did the trick. It was really hard to work with bands or artists on projects out of that dinky space. And I was incredibly limited on what I could really accomplish for myself and others."

"When I moved to LA and started building my studio in the house, I immediately put my thoughts towards spaces I've worked out of over the years for everything from the aesthetic to the gear to the treatment."

Trohman name-checks as inspirations his former stomping grounds, like Smart, Sunset Sound, Electric Lady, Ocean, The Pass, Gravity, Metrosonic and Ruby Red studios. "Smart, being the first proper studio I ever worked out of, was a big influence in general, just because it was my entrance into the recording world."



Fall Out Boy's Trohman with his API Model 1608 analog mixer, surrounded by lots of analog processing flavor. The band's latest was largely recorded at Trohman's place, affectionately called the Rat Cave.

On acoustics, Trohman worked with Chicago's Manny Sanchez, owner of IV Lab Studios. "We work on a lot of projects together. He has the experience of building and running a commercial space, so natuloved the low-end response. I have a pretty decent mic collection, but it's mainly your standard fare. One of my favorites are a pair of Josephson e22S mics, which are usually hitting the toms and guitar cabs."

fantastic."

The album went smoothly with producer Jake Sinclair. "The differences and similarities were mostly due to working with Jake Sinclair again, but this time as the main producer rather than the engineer. He brought this laidback, take-yourtime mentality to the sessions that actually helped us to fly through things so quickly, it was kind of ridiculous. It helped that we all knew what we were doing, too."

With an analog studio at its core, the Rat Cave does encourage out-ofthe-box creative processes. "I think a lot has to do with the fact that when [Fall Out Boy] started, we recorded things in an analog manner," Trohman recalls. "And I do I have an analog heart, even though I work in a digital world. We like warmth, harmonic distortion, things drenched in reverb, delay, etceteraall the things that feel and sound analog

"Our songs are built in different ways all of the time. Sometimes it starts 100-percent digitally in-thebox and moves to an analog setting and vice versa. Half of that depends on where we are in the world-at home versus the road. The other half depends on what we are feeling as far as inspiration goes. We use a hefty amount of both digital/analog aspects on our records."

The sound, its familiar 500 Series EQ, reliability experiences and its surface ultimately sold Trohman on the Model 1608. "It's an easy console to use and everything I track through it sounds great," he concludes. "I went to Vintage King

"The space is half stuck in the past and half running towards the future. That's kind of what we're all doing anyway, and I like to own that fact."

Joe Trohman, Fall Out Boy

rally, I wanted his input."

Gear-wise, the API is the Rat Cave's centerpiece for an array of world-class outboard. "Outside of the 1608, my outboard is all pretty standard stuff-LA2A, eight BAE 1084s, pair of Distressors and a Retro 176. It's all basic workhorse tools I've seen and used in virtually every studio I've been to, barring the 176, which I was introduced to through Jake Sinclair, who worked on the last couple of Fall Out Boy records. The ATCs are a no-brainer very flat and true at every level. The Dynaudios—I tried them while making The Damned Things' full length at Metrosonic in Brooklyn; I

Fall Out Boy's latest 11-song release, American Beauty American Psycho, was largely recorded at the Rat Cave. "A lot of the tracking, programming and overtdubs were done at my space. I would definitely like to do that again the next go around, maybe even do more of it there. It's really fun and relaxing to work there and the results were

with Manny Sanchez and we put our hands on a few consoles, but the API was sort of in the back of my mind. The fully loaded configuration was in response to my tendency to buy things with the least amount of options. I always regret it later on and spend more in the long run. I wanted to do it right from the get go."

STUDIO: RAT CAVE OWNER: JOE TROHMAN **LOCATION: LOS ANGELES, CA**

There's more > Joe Trohman posts about the Rat Cave and more at instagram.com/jtrohman.



Mouse House

(continued from page 20)

found the bill of sale—in 1987, they paid \$288,000 for it. I had to dump about \$10,000 into getting it going, and I've recently recapped it. I really dig the way it sounds. It reminds me of a cross between an API and a Neve, very musical. There were only 13 made. ABBA had one, and there was one at Abbey Road."

For a long time, the Calrec was paired with Mouser's MCI JH-24 two-inch 24-track, Tascam ATR-60 one-inch 16-track and Ampex ATR-102 half-inch stereo analog tape machines. "I was late in the game to Pro Tools," he confesses. "I fought it until I got called to do a mix for Weezer. I called around to rent a room with Pro Tools. It was going to eat up 75 percent of my budget, so I bought a Pro Tools rig."

He continues to use whichever format suits the project. "When you're tracking drums in Pro Tools. the levels are all set nice and then the snare drum pops into the red. You go to tape and none of that happens, and the high-end gets all smoothed out," he says.

Ideally suited to tracking drums, the 18-foot x 27-foot x 33-foot recording space enables Mouser to conjure up Bonham-esque or Hugh Padgham-like sounds. "I've taken so much from Padgham's playbook," he says.

He starts with room mics. "I'll have little Shure 545s pointing at the walls, or pointing up at the ceiling, cals or instruments. The facility also includes a large lounge and kitchen, while the upstairs rooms offer accommodation for anyone visiting for extended periods.

There are no main monitors at Mouse House, just a pair of Tannoy PBM-6.5 nearfields with a sub. "I've had them for a long time. I just got used to them, and I've learned to mix

"I was late in the game to Pro Tools. I fought it until I got called to do a mix for Weezer. I called around to rent a room with Pro Tools. It was going to eat up 75 percent of my budget, so I bought a Pro Tools rig."

Rich Mouser

with an old U 48 Neumann. Then I'll sneak in some close mics, and put an [EV] RE-20 on the beater side of the kick. I'll take the room mics and gate them, keying them off the close mics. I can get some really crazy stuff. It's fun."

For tight drum sounds, there is a smaller room that also houses a large collection of classic guitar amps. Beyond that is a small iso room for voso that it translates. I have more of them, so when I do a 5.1 project, I just pop a couple more out here."

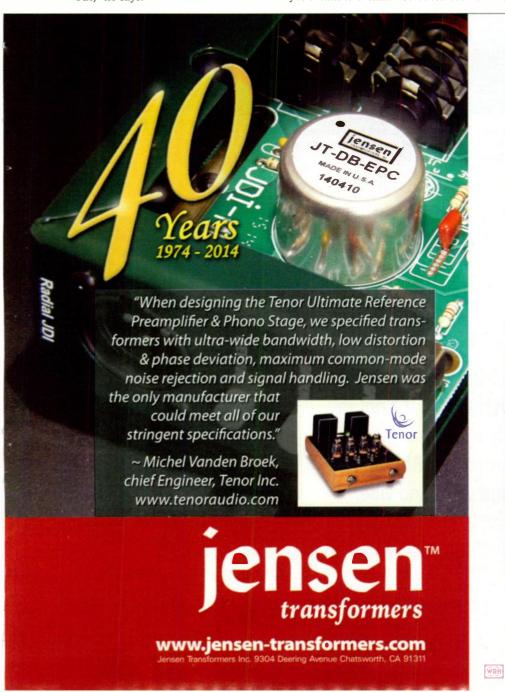
As an engineer, producer and mixer, Mouser is constantly bouncing between projects. He has developed a hybrid workflow, essentially zeroingout the console and his outboard processers and relying on his 48-channel Pro Tools | HDX system to recall sessions, set up headphone mixes, and drive the aux sends and effects inserts.

"I get my general sound on the board, then tweak it in Pro Tools: everything pretty much recalls deadon," he reports.

Mouser, who grew up listening to groups such as Yes, is known for his work with prog rock bands. He's worked on every album to date with Spock's Beard as well as its members' many related bands. The latest album by offshoot supergroup Transatlantic won Album of the Year at the thirdannual Progressive Music Awards in England. He also works in other genres, including jazz, country and mainstream rock, with clients including Robert Trujillo, Chris Cornell, Chris Vrenna/Tweaker, Corrosion of Conformity, Stanley Clarke and Hubert Laws.

Mouser has been playing guitar and recording since his teens, and recently came out from behind the board to take the stage with postgrunge band Oleander, opening for Three Doors Down and Chris Daughtry. He's been working with the band since 1997, and in 2013 was invited to join full-time. "I enjoy getting out," he says. "I want to play more."

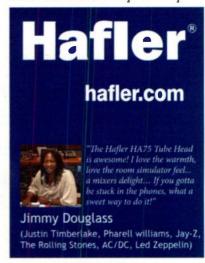
The Mouse House Studio themousehousestudio.com



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AES Recording

screen could become increasingly hard to argue against. Something as simple as larger dimensions and a multitouch GUI imbues the concept with "pro" appeal, and ultimately may make a plausible argument for choosing a \$1,000-plus loaded iPad Pro over a MacBook Air.

On the flip side, while iPads have gotten bigger, new "large" mixing consoles have gotten

smaller-which is only fitting, as many new large tracking spaces are also a "smaller large" compared to the legendary facilities of vestervear. While there might be fewer new, big studios around, they still enter the world quite large at the corporate and elite levels, in schools and universities, and in spaces owned by an increasingly enviable few individuals. Schools, in fact, are a uniquely beneficial sector of the large-format console manufacturers' total market; they serve an ever-increasingly sophisticated student body that is often well-versed with DAW-centric recording upon arriving on campus. Not surprisingly, however, those same students have likely never used or even seen "world-class" analog processing as is found in the places they ultimately want to work. Manufacturers and universities are teaming together to change that, in an appropriately collaborative effort to truly prepare graduates for all possible professional settings.



Solid State Logic's new Sigma Delta, an upgrade to its Sigma remote controlled analog summing system, was introduced at the 139th AES Convention.

A new tool seemingly intended for educational needs is Solid State Logic's new Sigma Delta, an upgrade to the Sigma remote controlled analogue summing system. Most simply explained, SSL's Delta-Control crossplatform (iOS, Mac or PC) Remote Control app makes the Sigma SuperAnalogue mix engine and monitor switcher fully remote-controllable

via software running on a range of networked devices. Thus, for example, students can refine their mixes before arriving to valuable time slots in an advanced mixing lab on their school's Duality console, for instance, gaining the kind of experience not available to just anyone with a DAW.

Elsewhere on this year's AES exhibition floor, analog tech-centric booths were where many attendees found their inspirational gear. Since vibe and hardto-measure factors like taste allow (or force) many technologies to coexist in pro audio, analog mixing consoles remain a popular hub of musician-centric recording environments. and glowing racks of Vu-metered, retro-futurist processors have become an evergreen element of many studios' aural décor.

Showcasing proaudio types' tendencies to fuse decades-

old circuitry with DAWs, AMS Neve showed its digitally-controlled analog Genesys Black recording console/DAW controller alongside the company's buzzed-about 139th AESdebuted product: the 100-percent analog BCM10/2 MK2, an accurate reproduction of the original early-'70s "sidecar" with music produc-

expanded features and more. people coming up right now, dipping their toes in analog-land for the first time, while others are rediscovering it," explained technical product specialist James Townend, remarking on the Genesys's genesis. Meanwhile, reveling in the sound of 1970s Neve evolution, chief of Analog Design Robin Porter breezed through a history of the brand's musical appeal-through

> mately define the gear, he pointed out. Beyond marquee products like mixers, at each AES Convention microphones and front-end gear retain a powerful allure amongst audio pros because an increasingly educated marketplace has learned the importance of input quality over post-tracking editing and digital manipulation.

> 8028 to 8078 desks-to show how

the BCM10 was co-opted for music

recording though it was a broadcast

console in its day. Creative users ulti-

tion-friendly updates, thoughtfully-

"There's a whole new generation of

Yes, anyone who cares now knows that good microphones, a high-quality pre-digital input path and a good-sounding environment are the foundations of superior tracks, yet it's ultimately the extremesbleeding-edge, low-cost tools and proven high-end technologies-that continue to dictate the future of music production and recording, as many professionals continue to work most comfortably somewhere in between the two points.

11111111



At the 139th AES Convention's Expo. AMS-Neve unveiled its BCM10/2 MK2, an accurate reproduction of the original early-'70s "sidecar" with music production-friendly updates.

Bad Vibes

(continued from page 20)

atively; to be there is to impede the process. To make creative commentary is usually incorrect because their perspective is all wrong, and it's usually detrimental."

"The thing that is [screwing] the business up now is the lack of connection that the presidents or the A&R people have with the artist," said Shocklee. Time was, everybody at the label had a vested interest in the music, he said. "They knew all the artists, they knew everything about it."

Now, he said, "Somebody just fills out the application and they get the job of A&R." For those people, a new piece of music "comes across like it's a Pop Tart; there's no connection. It's all about numbers and things that don't have anything to do with music.

That's why the business is in the state that it's in. Connection has to come back."

When working with experienced artists, said Sansano, "We put on a show when we know [business people are] coming." Ironically, as he pointed out, "While they're there to

going to play anything else. Let's get them out of this room so we can get on with our work."

If a label executive does visit the session, said Hamilton, "It feels best to me if it's pre- or post-session. You know you're just doing the razzledazzle."

"These grand places with rich history—for me, it usually gets in the way. It's not my history; it's somebody else's story, and I'm there to create a new story with our own original feelings and spirit and vibe."

remind us to be efficient, they're actually wasting their own money. We play this song, because it's the closest to being where we want it to be. We play it at this volume. And we're not

Hamilton also commented that he is sensitive to being pressured to be commercial, but would rather break new ground. "It's really difficult to be categorized so early in the creative process. I hope you have to make a name for what we're making, rather than running right up the path everybody has already beaten down."

Internal conflict amongst the band or between artist and manager can also harsh the mellow vibe in the room. as Sansano explained. "What saps the energy is that you have arguments that are trivial, and you try to bring perspective to them. I've had people stand up and leave the studio. That really slows you down," he laughed.

"You achieve this equilibrium in the room that's a dynamic between however many people you're working with, and that gets infected so quickly and easily," observed Hamilton. "I feel my energy shift depending on who I'm working with. You mold yourself into being the engineer who should be working with that artist. It's almost method acting; you get inside their brain and then make decisions that are correct for the spirit of their art."

Iron Mountain Preserves Fania Catalog

LOS ANGELES, CA-Music catalogs Latin music label Fania, acquired are among the most important assets in the modern music industry, and Codigo Music, owners of one of the most extensive collections of Latin American musical recordings, is no exception. With that in mind, the company has been working with storage and information management company Iron Mountain to catalogue, archive, digitize and preserve its library of historic and contemporary recordings.

Among Codigo's holdings is the

in 2008, which had been preserved across multiple recording media formats, all of which faced the possibility of deterioration and obsolescence. With that in mind, Iron Mountain sorted the recordings, categorizing and classifying them according to format and the condition they were in, while providing them with a proper storage environment. Now the two companies will work together to digitize and make the recordings available while keeping them secured and preserved

in Iron Mountain's storage locations.

"The Fania catalog is viewed as the Motown of Latin music," said Bruce McIntosh, Codigo Music senior VP & general manager. "Some of the artists that you will recognize [include] Tito Puente, Celia Cruz, Héctor Lavoe, Willie Colón, Rubén Blades, and of course the Fania All-Stars. This music is a big part of American culture; it's basically a cultural institution for Hispanics in the U.S. When we started with the purchase, we found many different formats, some of which were not in the best condition—everything from 1/4 inch masters to golden DVDs, to DAT tapes. For that reason, we knew we had to make a move fairly quickly to be able to maintain and actually save some of these tapes from deteriorating. Luckily, we've been able to restore a lot of these and bring them up to speed and up to newer technology. Iron Mountain was key in helping us set that process up so that we could have the categorization and the classification done on all the assets."

With modern distribution methods, the original catalog items don't leave Iron Mountain when the need for their contents arises. Instead, they're transferred onsite in the storage company's facility and sent out digitally while the original asset goes back to storage. That is fine with McIntosh, who remarked, "The quality of the studio work going on up there with Iron Mountain is top notch. It's been able to maximize our revenues as a company and also preserve part of the Latin cultural history here."

Iron Mountain currently stores nearly 27 million individual media elements (films, music recording, videos, etc.) for 1,200 customers in eight dedicated facilities around the world, digitizing one million assets and storing more than 50 petabytes

Iron Mountain Incorporated ironmountain.com

P&E Wing Names Steering Committee



Named to the P&E Wing's Steering Committee recently are (L-R: Back row): John Poppo, Bill Gibson, Eric Boulanger, Maureen Droney, Jeff Balding; (Front row): Scott Jacoby, David Frost, Ann Mincieli, Matt Hennessy, Salaam Remi. Not pictured: Peter Asher and Harvey Mason Ir.

SANTA MONICA, CA—The new 2015-2016 Steering Committee for the Recording Academy Producers & Engineers Wing has been announced.

As the leadership group of the P&E Wing, which researches and recommends solutions for technical, creative and economic issues facing music production professionals, the music engineers, producers and audio professionals of the committee will work to address issues confronting production professionals, with the goal of finding solutions and suggestions for the industry moving forward.

The P&E Wing 2015-2016 Steering Committee includes music industry professionals from across the United States, including Peter Asher, Jeff Balding, Eric Boulanger, David Frost, Bill Gibson, Matt Hennessy, Scott Jacoby, Harvey Mason, Jr., Ann Mincieli and

Salaam Remi.

Also serving as members of the Committee are John Poppo, chair of The Recording Academy Board of Trustees, and Neil Portnow, the Academy's president and CEO. Jacoby and Mason will serve as cochairs, leading the committee.

Maureen Droney, managing director of the P&E Wing, states, "With this group of accomplished individuals in place, we have a collective that encompasses the wideranging experience and diverse perspectives to set our agenda for the year, while prioritizing the initiatives that matter most to our members. This dedicated team will address these initiatives against the backdrop of the changing landscape of the recording industry."

The Recording Academy Producers & **Engineers Wing**

www.producersandengineers.com

Studio Arson Fire Causes \$1.25m In Damages

BY CLIVE YOUNG

MEMPHIS, TN-Kiva Recording Studio, located on Rayner Street in Memphis, was the site of an arson fire in the early morning of November 5. Firefighters were called to the scene just before 4 a.m. and had the flames out within half an hour, despite a fireman sustaining a minor injury. Nonetheless, the damage had been done. The two-story building suffered an estimated \$1.25 million in damages, the vast majority of it stemming from the contents of the

Once authorities got inside the charred building, they discovered that various musical items had been stolen-guitars, amplifiers and gold record awards-and areas had been vandalized with spray paint. The dead giveaway as to the cause, however, was the stench of gasoline.

It wasn't the first time police had come to the studio in recent months: in fact, authorities had been there 15 times this year alone, responding to reports of intruders, theft of a tour bus, alarms going off and graffitied death threats on the side of the building. One of the owners suspected he knew why the fire was started, telling local TV news WMC, "About four months ago, we were confronted at the front door. [There were]

four guys saving that the previous owner owed them a debt, and that we were going to make their debt whole by giving them free recording studio time.'

The studio has been a fixture of the Memphis music scene since the 1960s, changing hands numerous times over the years as it was alternately named Sounds of Memphis, Kiva and House of Blues. The current owner is production company Tattooed Millionaire Entertainment, which acquired the business in late 2014. Aiming to turn the building into an all-in-one production facility, the studio had undergone renovations in recent times, with the aim of being able to handle not only recording sessions but video production, documentary shoots

Over the decades, the facility has hosted many big names, including Solomon Burke, The Bar-Kays, Martha Reeves, Gloria Gaynor and Rufus Thomas, among others. During a stretch in the 1970s when it was known as Sounds of Memphis, the studio was an in-house production space for legendary country producer Mike Curb. In the 1980s, the facility underwent a major refurbishment and gained a Tom Hidleydesigned live room in the process.

[26] tracks look at the recording scene



ARTIST: DON HENLEY **ALBUM: CASS COUNTY** LABEL: CAPITOL **PERSONNEL:**

Produced by: Don Henley, Stan Lynch

Engineered by: Jeff Balding, Gordon Hammond, Hank Linderman, Chris Bell, Richard Davis, Billy Chapin, Tim Kimsey

Mix Engineer: Jeff Balding Studios: Luminous Sound, Red Oak Studio (Dallas, TX); Blackbird, Opolona, Allentown, Sound Emporium, House of Blues (Nashville, TN); Studio Live USA (Oviedo, FL)

Mastered by: Bob Ludwig at Gateway Mastering (Portland, ME)

EQUIPMENT NOTES:

(Studio Live USA) Amek Neve 56-channel console



ARTIST: X AMBASSADORS **ALBUM: VHS** LABEL: KIDINAKORNER/ **INTERSCOPE PERSONNEL:**

Produced by: Alex Da Kid Engineered by: X Ambassadors, Josh Mosser, Dan Reynolds

Mix Engineer: Manny Marroquin at Larrabee Studios, assisted by Chris Galland and Ike Schultz **Studios:** House of Blessings (New York, NY), EastWest, Westlake, Larrabee, Capitol, Songs (Los Angeles, CA) Mastered by: Joe LaPorta at Sterling Sound (New York, NY)

MASTERING EQUIPMENT NOTES: Sterling / Muth CM-2020 Mastering Transfer Console with CM-2040 Monitor Section; **Bowers & Wilkins Nautilus**

Pyramix



ARTIST: COLD FRONTS

ALBUM: FOREVER WHATEVER **LABEL: SIRE RECORDS PERSONNEL:**

Produced by: Kyle "Slick" Johnson

Engineered by: Kyle "Slick" Johnson

Studios: Fancy Time Studios (Philadelphia, PA) Mastered by: Joe Laporta at Sterling Sound (New York, NY)

EQUIPMENT NOTES:

Neotek Series 1e console; Avid Pro Tools 10; ADAM Audio A7, Yamaha NS10 studio monitors



ARTIST: ANNA BERGENDAHL ALBUM: SOMETHING TO BELIEVE IN LABEL: STRANGE CARGO/ **MANHATTAN**

PERSONNEL: Produced by: Tobias Fröberg, Larry Klein **Engineered by:** Tobias Fröberg, Larry Klein Mix Engineer: Tim Palmer **Studios:** Henson Studios (Hollywood, CA); 62 Studios (Austin, TX)

Mastered by: Bernie Grundman for Berne **Grundman Mastering EQUIPMENT NOTES:** Neve 1073 pres; SSL console; Avid Pro Tools; Analog Tape Machine; Genelec 1031



ARTIST: DICK ELIOT ALBUM: I'LL REMEMBER APRIL LABEL: ELI ARTS

PERSONNEL:

studio monitors

Produced by: Gary Tanin Engineered by: Dick Eliot, **Gary Tanin**

Mix Engineer: Gary Tanin Studios: Eli Arts Studios, Daystorm Music (Milwaukee, WI) Mastered by: Gary

Tanin at Daystorm Music (Milwaukee, WI)

EQUIPMENT NOTES: Avid Pro Tools, Custom Yamaha NS-10M with JBL SB-1 Subwoofer, Klipsch

Heresy, Auratone studio monitors



ARTIST: ALEKS GREY **ALBUM: SOULS LABEL: THE ALEKS GREY UNIVERSE PERSONNEL:**

Produced by: Aleksander Raftevold, Fredrik Halvorsen

Engineered by: Tony Draper, Eirik Andreassen, Fredrik Halvorsen

Mix Engineer: Fredrik Halvorsen Studios: Parr Street; LIPA

(Liverpool, UK) Mastered by: Sivert Hagtvet

EQUIPMENT NOTES: (Parr

Street) Neve VR60 console; Avalon 737; GML 8200; (LIPA) SSL AWS900 console; Sony C800 microphone; Neve 1073DPD pre; Avid Pro Tools; Apple Logic Pro



ARTIST: THE WOOD BROTHERS ALBUM: PARADISE LABEL: THIRTY TIGERS/ HONEY JAR RECORDS PERSONNEL:

Produced by: The Wood **Brothers** Engineered by: Collin Dupuis Mix Engineer: Ryan Freeland Studios: Easy Eye Sound (Nashville, TN) Mastered by: Andrew Mendelson at Georgetown Masters (Nashville, TN)

EQUIPMENT NOTES: Custom 1973 Altec 5300 console; Avid Pro Tools; Dynaudio BM 15A, Equator Audio Q15 studio monitors



ARTIST: BRIAN RITCHEY ALBUM: BORDEAUX LABEL: BARRELMAKER RECORDS PERSONNEL:

Produced by: Joe Martino

Engineered by: Joe Martino Studios: Ocean Way Nashville (Nashville, TN) Mastered by: Andrew Mendelson at Georgetown Masters (Nashville, TN) **EQUIPMENT NOTES: Neve**

VR96, Avid Icon console; Avid Pro Tools; Dynaudio BM 6A studio monitors



ARTIST: RUDY PARRIS ALBUM: MAKIN' MY WAY LABEL: WARRIOR RECORDS

Produced by: Jim Ervin **Engineered by:** Dave

PERSONNEL:

Dominguez Mix Engineer: Dave Dominguez, Jim Ervin Studios: Capitol Records, Studio B; Warrior Records (Hollywood, CA) Mastered by: Brian Gardner at Bernie

Grundman Mastering (Hollywood, CA) **EQUIPMENT NOTES:**

Neve 8068 console; Avid Pro Tools HDX; PMC QB1-A, Tannoy Ellipse iDP 10, Yamaha NS-10, Roland DS-90A, Avantone studio monitors; AKG 240 headphones



ARTIST: YOUNG GALAXY ALBUM: FALSEWORK LABEL: PAPER BAG **RECORDS PERSONNEL:**

Produced by: Dan Lissvik Engineered by: Stephen Ramsay, Matthew Shapiro, Dan Lissvik

Mastered by: Stuart Hawkes at Metropolis (London, UK)

EQUIPMENT NOTES:

(Studio/Atelje) Studer 369 console; Avid Pro Tools; Studer C37 recorder; Yamaha NS10 studio monitors

notes

Coast Mastering Launches

Blue Note Swings with Yamaha

Argosy Chats with Chad

DPA Snares African Sounds

The 139th AES Convention Anderton Awards

It was a cliff-hanger that had showgoers panicked but literally minutes before the show opened, all lawsuits concerning the catered food at last year's Anderton Awards ceremony were resolved (and to be fair, adult

cockroaches do contain 23.8 mg of Vitamin C, 9 mg of Vitamin A, and are 65 percent protein). So, the 245th annual Anderton Awards ceremony—like a direct-drive turntable—was ready to rumble! Celebrating its triumphant return to the Big Apple (with equal time to the Big Microsoft), the world's only pro-audio virtual awards show was once again ready to shower the winners with recognition—whether they wanted it or not.

Due to the restraining order from New York State, this year's ceremony was again held in the New Jersey Turnpike's world-famous Vince Lombardi Service Plaza. As a thriving hub of international commerce, particularly pharmaceutical goods from Colombia, it was the perfect backdrop for the convention's getdown-to-business vibe. Furthermore, this year's ceremony was streamed live and like most streaming events, it bd dzzfd slkss dks ewpu with prfect clar ity! (And big ups to Hillary Clinton for loaning us her server).

Now, please welcome celebrity presenter Shia ("Will Present for Food") LaBeouf—and pass the envelopes.

The Tiny Titan of Terrific Transmitting Award goes to Lectrosonics for its minuscule SSM wireless bodypack transmitter. It's so small, you can actually hide it in Justin Bieber's IO.

Dante picks up the Donald Trump HUGE & Ubiquitous Award for all the Dante interfaces, preamps, extenders, cheese graters and more. There's even a book, Dante's *Inferno*, about the traumatic experience of installing a Dante system in the tenth circle of Hell.

The "Never Solder with Shorts On" Award for DIY Excellence goes to Solid State Logic's 500-series module kit—a blank, pre-drilled circuit board with knobs, buttons and other accouterments so you can stuff it with parts and have your own 500-series module. Ring modulators, anyone?

The good news: Thunderbolt won the So Fast, It Goes Backwards in Time! Award for exceptional low-latency performance. The bad news: Thunderbolt also picked up the At



Least Half a Loaf is Better than None Award for being everywhere on the Mac—but MIA on Windows.

Eventide garnered the Gotta Check My Credit Card Balance Award for Anthology X, which has 17 virtualizations of Eventide's "hardware greatest hits" from the past 40 years. If you haven't used Eventide's hardware, you want this. If you have, you want it even more.

Shure's pricey (\$2,999) KSE1500 electrostatic earphone system/SHA900 portable listening amplifier combo picks up the Fits Right in with New York's \$27 Hamburgers Award. (Then again, given the music industry's sad state, for \$3,000, you could probably just hire a band to follow you around and play music.)

(continued on page 28)



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Anderton Awards

(continued from page 27)

The I Ching Memorial "Perseverance Furthers" Award goes to iZ Technology's RADAR, which is getting the last laugh as some people give up trying to keep up with the computer recording arms race.

Audio-Technica wins the Best

Way to Strike Up a Conversation with a TSA Agent Award for the USB2020i mic. It's hefty, cylindrical and if you forget to take the Lightning cable out of it and store it in your carry-on bag, expect a stimulating Q&A session with the Feds.

For the first time since the Roswell incident introduced alien technology reverse engineering that brought us the non-stick frying pan, Casio's XW-P1 keyboard, MIDI and Jimi Hendrix, the Reverse Engineering of Alien Technology Award is a tie! Zynaptiq won for Unmix Drums, which isolates drums so you can mix them higher or lower, while Audionamix's Trax Pro 2.5 earned its trophy by isolating an Aretha Franklin vocal from its track. (In a related development, no one has ever seen anyone from Zynaptiq eat

food or go to the bathroom. Just savin.')

The South Park "Blame Canada" Award goes to Radial Engineering because it introduced so many useful little metal boxes, from Bluetooth receivers to Ethernet extenders to tube headphone amps, that it caused the recent Great Canadian Sheet Metal Shortage.

Gig Gloves picked up-literally-the O. J. Simpson Memorial "If It Doesn't Fit, You Must Acquit!" Award. The padded, non-stick palms and backside knuckle protection make these gloves a must-have accessory for fashionista and practical

Sadly, thus ends another Anderton Awards. We hope you relished the fine dining, classy entertainment and companionship of brilliant audio professionals available if you didn't attend the awards-but if you did attend, we're sure you appreciated the opium and cheese sandwiches, as well the stunning entertainment from Just Plain Limp, the Limp Bizkit tribute band voted as Waldwick, New Jersey's 376th Best Ever Bar Band. See you next year!

Belmont Connects

NASHVILLE, TN-Belmont University, home of the Mike Curb College of Entertainment and Music Business. recently moved the college into its brand-new home-the R. Milton and Denice Johnson Center—where much of the facility was connected via Focusrite RedNet interfaces.

A total of 25 RedNet devices-two RedNet 1 interfaces, five RedNet 2 interfaces, three RedNet 3 Digital I/O interfaces, four RedNet 4 Mic preamp/ line & D.I. interfaces, seven RedNet 5 32-channel Pro Tools | HD/Dante Network Bridge interfaces and four RedNet 6 MADI Bridge interfaces connect production rooms, recording spaces, classrooms, theaters and other spaces. The gear was sourced through the Nashville office of Vintage King. **Focusrite**

Focusrite.com



spaces inside the new home to the Mike Curb College of Entertainment and Music Business at Belmont University in Nashville, TN.

ether CON® the new range of data connectors for CAT5e and CAT6A

















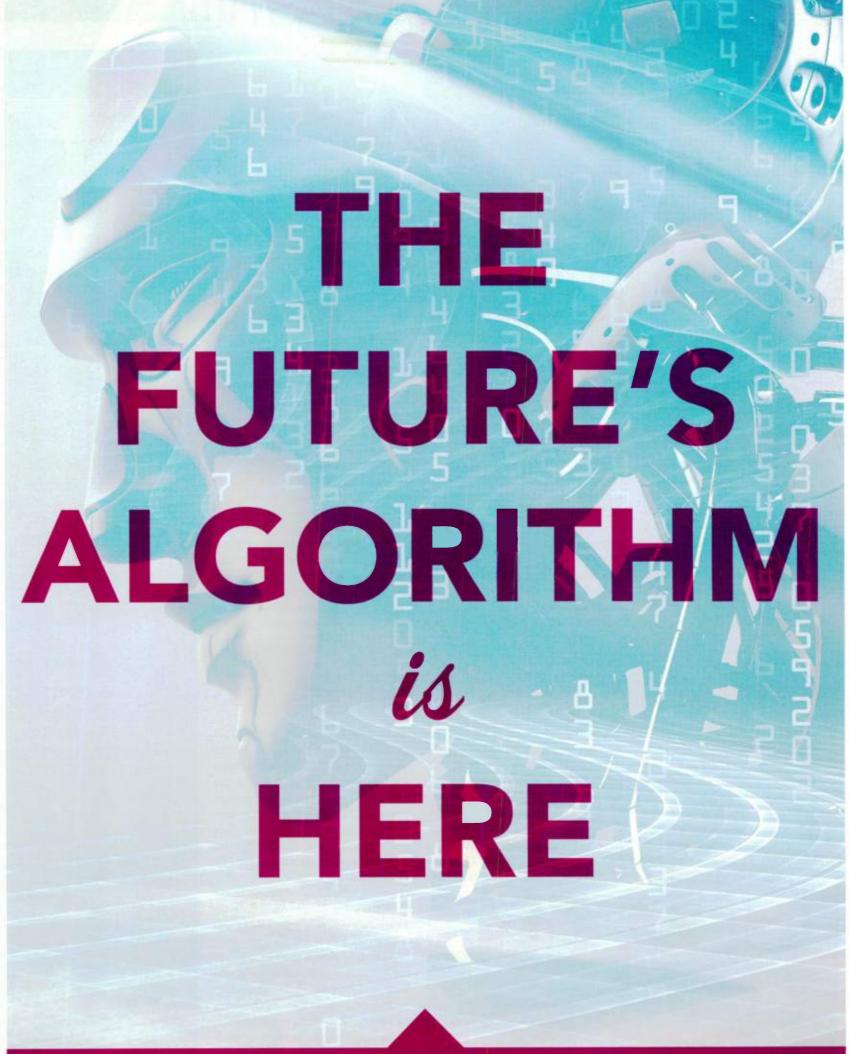




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soundPOST | BROADCASTIIII

≡ Unique Opera **Broadcast** From 24 Limos

BY STEVE HARVEY

LOS ANGELES, CA-"Opera is inherently an adventure," according to Yuval Sharon, artistic director of experimental opera company The Industry. "Part of the adventure is offering audiences new ways of listening, looking and feeling."

The Industry's latest production, Hopscotch, described as "a mobile opera for 24 cars" and presented every weekend throughout much of November, is certainly an adventure. The story, told in 36 chapters, or scenes, is presented inside 24 limousines and at various stops along three different routes that wind through and around the downtown Los Angeles area.

The ambitious production's logistics are mind-boggling: 128 perform-



Hopscotch is a unique opera with individual performers broadcasting live from 24 mobile limousines to a Central Hub.

ers, backed by a 94-person production team, presented 90 minutes of work by six writers and six composers three times daily in 24 precisely scheduled and sequenced vehicles. Audience members—four per car—on each separate route experienced eight chapters, presented out of sequence, performed by singers, musicians and actors traveling along with them. Set pieces at locations along the way, indoors and outdoors, featured larger ensembles, including dancers. Ten additional chapters were made available as short animated features online.

"Each audience member is ex-

periencing the story in a completely unique way, in a random set of chapters," said Sharon. "What they experience is the city going by and this music as a way to augment our experience of Los Angeles."

One route set off with a motorcyclist buzzing around the limo as it drove through the city, the rider interacting with an actor in the car. At one stop, audience members transferred to a parked Airstream trailer, where two singers and two musicians delivered another chapter. Some in-car chapters lasted only a few minutes (continued on page 32)

From New York, It's Late Night With AES

BY STEVE HARVEY

NEW YORK, NY-The late night network television talk shows have gone through some changes in recent years, introducing a new generation of hosts that-hopefully, for TV executives—appeal to a younger audience. With musical performances taking an even greater role in some of these

shows, the Recording Academy presented a Grammy SoundTable at the recent 139th AES Convention that focused on the men behind the music mixing consoles.

As the audience discovered at "After Hours-Mixing for Late Night New York," moderated by bass player and Late Show with David Letterman alumnus Will Lee, the faces behind

the host desks may have changed, but the faces behind the mixing desks have not. At CBS, Harvey Goldberg, a Grammy-winning engineer, mixer and producer, joined Letterman in 1998 and remains in place for new host Stephen Colbert. Josiah Gluck, a music producer and engineer, is in his 24th year as co-music mixer-with Jay Vicari-at NBC's Saturday Night Live. Laurence Manchester, music mixer for NBC's The Tonight Show Starring Jimmy Fallon, is now approaching sev-

The three mixers work in different environments with differing workflows and diverse audio equipment, yet there is commonality, as Goldberg explained: "Recording music on television is not always the best environment acoustically. Television setups are always much, much smaller than

faces everywhere. "It's every possible scenario that you would not want to have as a recording engineer," he noted. "You start to develop what I call (continued on page 57)

en years on the production.

they appear. You have musicians sitting much closer together than you would normally want them." There are also hard, reflective sur-

briefs

SiriusXM Adds SSLs

WASHINGTON, DC-Satellite broadcaster SiriusXM recently upgraded its studios in New York and Washington, DC, installing two SSL (solidstatelogic soles to manage the turnaround of projects through the facilities, which produce special recording sessions and live music broadcast events for

WBUR On-Air With Genelec

NATICK, MA-WBUR in Boston, MA recently acquired a pair of full-spectrum three-way 8351A SAM Smart Active Monitors from Genelec (genelecusa.com) for installation in the station's Studio 3, where they have WBUR's three other studios.

Calrec Goes to College

HAYWARD, CA-Chabot Co'lege, an accredited community college in Hayward, CA, has installed a Calrec (calrec.com) Summa audic console in the TV studio at its med a center, where broadcasting students can now train using the same desk as the local CBS affiliate, KPIX CBS Channel 5. KPIX audio engineer Khash Naraghi also works part-time at Chabot

NHK Fields U.S. Lawo Truck

JAPAN-Japanese broadcaster NHK has launched a new OB truck designed to capture major U.S. sports events for its viewers back home. Reportedly it is the first RAVENNAbased truck in the U.S. Utilizing Lawo's (lawo.com) newest dual-fader mc256xt mixing console, the truck will also serve as a test bed for 22.2 surround mixing and monitoring; NHK and Lawo have been collaborating on 3D audio tools.



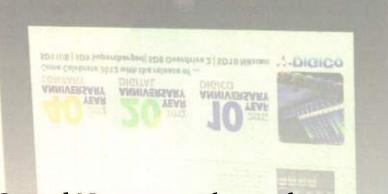
The Recording Academy Producers & Engineers Wing hosted its annual Grammy SoundTable event, "After Hours: Mixing for Late Night New York," which addressed the challenges, logistics and technical expertise of mixing for late night TV. Shown from left: Bob Moses, AES executive director; Harvey Goldberg (Late Show with David Letterman, The Late Show with Stephen Colbert); Grammy Award-winning bassist/singer Will Lee (moderator); Josiah Gluck (Saturday Night Live); Maureen Droney, managing director P&E Wing; and Lawrence Manchester (The Tonight Show Starring Jimmy Fallon).

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Hopscotch

(continued from page 30)

before the audience was ushered to an outdoor performance, returning to the route in a different limo with different performers.

Meanwhile, at the Central Hub, a temporary structure built in the parking lot of the Southern California In-

stitute of Architecture in downtown L.A., 24 TV screens in a circular array showed live audio and video streaming from each of the in-car performances. To capture the audio in the cars, on rooftops and at other locations in order to broadcast it to the Central Hub. The Industry turned to Sennheiser, with whom the company had worked on its award-winning production of Invisible Cities (PSN, November 2013), "an invisible opera for wireless headphones," at L.A.'s Union Station.

Key audio technology for this asphalt opera included Sennheiser's new AVX digital wireless microphone system as well as the company's wellestablished 2000 series equipment. Lavalier mics hidden inside 10 of the limos were connected to an AVX wireless belt pack transmitter. That signal hopped to a receiver in each car that was plugged into a smartphone, where it was combined with

the camera image and sent to the Central Hub via carrier signal using the Livestream broadcast application. Each of the three routes was within a five-mile radius of the Hub.

The 24 separate broadcast streams were fed into an HDMI matrix at the Hub for distribution to the installed display screens. Audio from each stream was routed into Sennheiser's guidePORT system—which is more typically associated with museum applications-for broadcast to 24 individual wireless channels. Audience members milling around at the Hub (where admission was free) could select a channel on their wireless guide-PORT receiver corresponding to a display and listen on Momentum 2 headphones to the performances in real time. At the end of the day, the limos delivered audience members and performers to the Central Hub for a grand finale live performance.

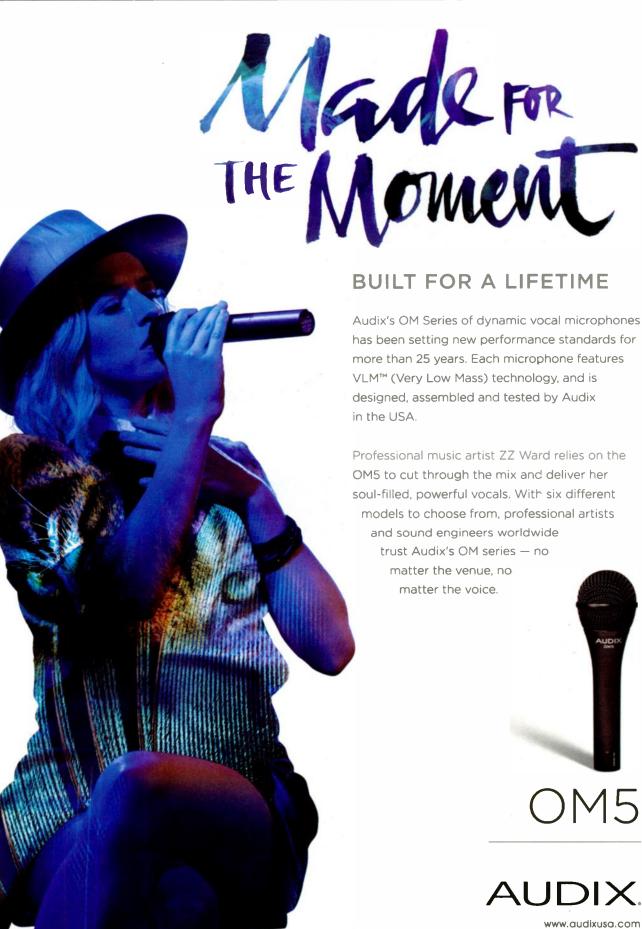
One limousine on each of the three routes was installed with Sennheiser 2000 series multi-channel rack units. comprising six channels of EM 2050 receivers and four channels of SR 2050 IEM wireless transmitters. Sennheiser A 1031 U passive, omnidirectional antennas were mounted to the roof of each limo. These systems enabled bi-directional communication between the vehicles and production staff as well as performers, such as the motorcyclist. On one route, Sennheiser 2000 series and G3 Series wireless equipment interconnected three downtown L.A. rooftops, where performers interacted over distances of up to a quarter of a mile.

According to Dave Missall, manager of customer development and application engineering at Sennheiser, "Yuval wanted to be able to have performers interacting with audience members inside and outside each car across various parts of the city. We opted to go with the Sennheiser 2000 wireless series because the transmitter has 100 mW of output, giving us the ability to boost output power to get the coverage we needed."

In July, 2014, Sennheiser launched its Momentum campaign, designed to raise awareness of the product range. "Hopscotch is part of our Momentum campaign," said Achim Gleissner, head of commercial management, broadcast and media at Sennheiser. "We inspire people, we inspire artists, to go the next step, to push the limits, push the boundaries. And we are there to help out and make it happen."

Sennheiser www.sennheiser.com

THERE'S MORE > Catch a trailer for Hopscotch at prosoundnetwork.com/dec2015



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IIIIsoundTECHNOLOGY

innovations: the manufacturer's view

Going With The TouchFlow:

YAMAHA TF SERIES DIGITAL MIXING CONSOLES

BY JOHN SCHAUER

hen Yamaha set out to create the TF series, the company decided to take a different tack than we had in the past. Although we pioneered affordable digital mixing in the mid-1980s, several competitors recently released models that offer higher-end features in a price class that was unreachable just a few years ago. But for us, adding technology just for the sake of the spec sheet made little sense.

When reimagining the digital mixer, we decided to start at the beginning and take the standpoint of the user into account. The goal: to take advantage of our accumulated knowledge about mixing and incorporate the latest developments in control to make the technology more accessible to people whose first job might not be audio. The overarching concept of the TF consoles—TouchFlow operation—provides intuitive set up and use, allowing for better sound faster.

We imagined that one type of user might own a PA system, but he or she is the drummer, guitarist or some other player in the band, so audio needs are often considered to be secondary to that of the music and the performance. Another potential customer we focused on was the house-of-worship volunteer tasked with audio duties. To help these kinds of sound operators, we decided to improve on the digital mixing concept and make it easier than ever to get good sound quickly.

The first challenge centered on setting input channel gain. Novice users are often confused when using this parameter, so we came up with a completely new visual design. Gain-Finder utilizes a five-segment meter with slower ballistics that conveys the look of a guitar tuner and is much faster to adjust. A peak reading meter is also displayed for users who prefer a more traditional display.

We also paid a lot of attention to the EQ section. The TF series offers 4-band, fully parametric EQ and HPF on all the inputs and outputs. Customers commented that because there are a lot of intimidating controls and too many chances for mistakes and bad sound, they are often reluctant to make changes or adjust-



ments. Even with the multi-touch screen that allows for pinching and sweeping, we knew the process could be made simpler, so we developed the 1-Knob EQ for this type of user. Quite simply, it adds or subtracts from all four EQ filters—all with a single control.

A second, more complex function, one knob Vocal EQ, dynamically creates a generic vocal EQ setting with the twist of a knob that first adds a HPF, then gradually reduces the lower midrange and adds some boost to the high frequencies, creating great starting points for almost all kinds of vocal microphones. Of course, these features are defeatable if the user desires, so more experienced engineers can disable them at any time and then make and save their own settings.

And, the EQ screen also allows users to superimpose a piano keyboard if they are more familiar with musical notation, which is a great feature for teaching or for the more musical operator. A Real Time Analyzer is also available as a visual aid on this screen.

Moreover, Yamaha completely redesigned the idea of adding presets into the console. Previously, presets usually consisted of hastily developed generic settings that led most users to dismiss their effectiveness. To combat this, we reached out to microphone manufacturers directly

to make QuickPro Presets that not only use specific models from Audio Technica, Sennheiser and Shure, but also specific applications, as well. For example, a user can now choose a Shure SM57 to be used on a snare drum. Detailed descriptions are available with each preset to describe how they were created.

Our engineering team provided users with a proper EQ curve and set the input gain at a conservative level. They also added a compressor, when needed, making it easy to dial in a great starting point. Even phantom power is applied. We took great care to make sure the user can trust these presets. Pro engineers who have tried these settings (and generally don't like presets anyhow) gave them a thumbs up for saving time and for delivering great sound. More presets are planned, which can easily be added to the console via a USB thumb drive.

By adding output presets as well, we were able to address problems that often occur in performance spaces and our engineers realized that they always had to make some minor adjustments in most every venue. These presets are available for various room sizes and are easy to select and insert on the outputs. Further, there are output presets for in-ear monitors with loudness contours and multiband compression available for Shure models, with more to come.

To add even more ease-of-use functionality, Yamaha developed proprietary apps. The ability to control the whole console wirelessly is addressed with TF StageMix for iPad, allowing remote control freedom throughout the whole mixing environment, using almost the same user interface that is on the TF itself. Further, the MonitorMix app allows individual control of aux busses for personal control of mixes onstage. Up to 10 instances of this application can be used simultaneously.

Uncompressed 24-bit/48kHz recording can be done two ways—first, in a simple stereo format with the USB connection on the top of the console directly to a USB hard drive, or via multitrack. Steinberg's Cubase AI ships with the console and accommodates up to 16 track recording or the user can upgrade the software, allowing for the recording of up to 34 tracks with a DAW.

Yamaha's goal when designing the TF was to make it easy for novice mixers to get up to speed on a digital console, but also to provide plenty of depth for more seasoned users. Based on reaction in the field to date, our instincts and execution are on target.

John Schauer is product manager, MI Pro Audio, Yamaha Corp. of America

Yamaha TF Series http://usa.yamaha.com/products/live_ sound/mivers/



= Lauten Audio Eden LT-386 and Neat Microphones

A big, warm and expensive mic to warm your winter and a trio of budget Bees to remind you of summer—it's been an interesting and varied month around Catalyst Recording.

LAUTEN AUDIO EDEN LT-386 LARGE DIAPHRAGM MULTIPATTERN TUBE CONDENSER

I've had the opportunity to review Lauten Audio mics twice previously and have always been impressed by what seems to be the company's definitive operation principle: "warmth, not harshness." From the super-large diaphragm tube Oceanus to the FET Clarion, founder Brian Loudenslager always maintains refined clarity in the upper registers with fullness and extension down low. Lauten's new flagship LT-386 (\$4,000 list but around \$2,500 street) appears to continue that trend without divergence and only minimal compromise.

Eden starts with Lauten's dual-diaphragm, 31mm gold-sputtered capsule, offers tube amplification via an aged pentode EF806 and outputs via a proprietary transformer. All voicing and sensitivity switches are on the mic's body. The semi-permanent (removable with tools, but storable in the

mount) shockmount is integral and large, adding to the mic's unusual 8.5 pound heft. Ceramic paint and nickel finishes are applied in the USA, completing a classic, inspiring package. See the complete specs here: http://bit.ly/1M8jV7I.

Eden's high-pass filters require further discussion as they offer particular utility. The "Kick" setting offers a very steep curve with very low placement, around 40 Hz and -18 dB/oct, preventing actual rumble while allowing deep fundamentals to pass. Conversely the "Vocal" setting is placed much higher (approximately 160 Hz) with a gentler slope (which sounds like -12 dB/oct to my ears) for a tailored bottom on vocals and instruments alike.

Its voicing switches are where Eden separates itself from the rest of the "very expensive, tube-driven LDC" pack. Forward/Neutral/Gentle voicings are switchable—they are not acoustic filtering, mind you, but represent three unique circuits and the differences are indeed pivotal.

I always weave review opportunities into actual sessions, so by neces-



'Lauten Audio has employed all its definitive characteristics into its most flexible, refined and versatile mic to date.' Pictured, the Eden LT-386.

sity, I started out with male vocals. In cardioid with no HPF, the immediate impression was strong: This mic has notable bottom—extended, clean, and round bottom. Unfiltered, it was a bit boomy and too resonant for my needs; I tried the kick drum HPF setting and, sure enough, it helped, but it wasn't until we tried the Vocal

just the ticket to tame harsh consonants. Other times, we stuck with the Kick filter and carefully worked proximity effect with all three voicings. The combinations seemed too numerous at first, but power users can get a handle on the Eden's best uses rather quickly; they may soon ask the vocalist to do the switching for them (perhaps a worthwhile reason for not mounting the appropriate switches on the power supply).

Drum tracking provided a wealth of information. First of all, heed Lauten's warnings about this mic's size and need for a proper stand, as counterweighting is not optional and you'll still find many limitations to placement. Close snare placement is likely not possible and tom toms aren't easy either (although the tone was great), while inside kick would work only for single-

headed apps. I placed the Eden outside the kick and found Thor's hammer: all the bottom end you could ever ask for, tunable to taste between the filters and voicings for massive thump. During this test, I noticed that Eden's shockmount was slightly sagging and wasn't entirely physically isolating the mic; upon lean-

Its voicing switches are where Eden separates itself from the rest of the "very expensive, tube-driven LDC" pack.

setting that I heard appropriate musicality and proper balance with the top end. And that top end is just what you'd expect from Lauten Audio: clean, smooth, uncolored/not hyped and not at all harsh or "cheap." This was all in Forward voicing mode.

In my next session, also with a male singer, we tried more voicing/ filter combinations and found numerous usable options. My favorite was the Vocal filter with Neutral voicing, but sometimes Gentle was

ing the Eden forward into isolated suspension, I got tighter response, less ringing and less deep resonance. Drum-room placement revealed a crisp yet pleasant and mannered top end, ample tom toms and very natural kick reproduction (again, tunable to taste and I personally favored Gentle/Vocal for a smooth and filtered drum ambience that "completes" the close-miked drum sound with nothing more than a little compression needed). A pair of these on overheads



would likely make my heart stop!

Here's a brief web clip I cut with drummer Frank Hoffman and the Eden, which captured the whole kit, placed about four feet in front of the kit at about tom height, aimed a little downward and then some outside kick, too: http://bit.ly/1M8kq1B.

I tried out Eden briefly on instruments, but my learning curve was already met. Whether guitar, percussion, piano or guitar/bass amps, the complex sonic signature remained. Eden presents you with a full-bandwidth "all-the-way-down-to-yourshins" picture; you filter and voice it to where you want it to be. So it's all there, but you might just have to scoop out a little low-mid to taste. I didn't get to try the Eden with horns, orchestral instruments or a choir, but this ain't my first rodeo and I can tell you with confidence that I would almost kill for pair of Edens on the those apps.

For picky guitarists who request "what it sounds like when I'm playing," simply place the Eden on-axis about a foot way from a guitar cab speaker (not close miked), select Gentle and Vocal settings and a solid state mic amp with little or no compression. Even the snootiest virtuoso will admit their solos can't sound much more natural.

I looked hard and long before I could find any flaw with the Eden. Its shockmount was the only one. And, sure enough, my very early review unit was simply assembled with specific tension bands in the wrong position; units are properly assembled now, so I can say that this LDC is the finest, most versatile one I have ever used.

It appears to me that Lauten Audio has employed all its definitive characteristics into its most flexible, refined and versatile mic to date. I simply can't imagine the Eden doing a poor job of anything. I would expect it to excel at any and all sources with proper use of its patterns, filters and voicings. This is not hyperbole; it's that good.

NEAT KING BEE, WORKER BEE AND BEECASTER STUDIO MICROPHONES

Newcomer Neat Microphones (with principal players from Blue and Gibson Pro Audio) has launched a line of very affordable mics that are demanding attention due to their low prices, bold bee-inspired yellowblack color schemes and some highly unusual design features. The \$349 King Bee is a cardioid-only, 34 mm gold-sputtered diaphragm condenser with Class A discrete electronics, transformer at output and no pads or switches. It comes with a mandatory screwed-in shock mount and a unique pop filter—the latter, a perforated plastic cap lined with a layer of mesh, snapping directly onto the face of the semi-globe head basket. The \$199 Worker Bee is simply a smaller version of the King with the same features, but a 25 mm diaphragm in a smaller form factor.

The \$349 Beecaster stereo USB model is the most unique of the Neat bunch. It provides a quartet of 25 mm capsules arranged in an x array. Four polar patterns are available: mono, standard stereo, wide stereo and focused stereo. The only connections are USB (plug and play, no drivers needed) and an eighth-inch stereo headphone jack; the Beecaster can be selected as an output device by your computer and no latency monitoring is provided. The Beecaster is mounted on a heavy desktop base with articulating boom and a rotating swivel that provides substantial placement options.

Connected to a Millennia-Media STT-1 mic amp (my standard bearer for quality and flexibility), I was surprised to find a somewhat dark, thick tonal signature with a baritone vocalist paired to the King Bee. I tried numerous preamp settings (tube, solid state and transformer) but found a lot of low-mid chestiness (almost a little growly), minimal sibilance, muted mouth-noises and a rather likable warm 'n husky kind of thing. I couldn't track flat though, as I filtered out lots of low stuff (as I wished the King Bee had a high-pass filter) and shelf-boosted some top-end.

Tests with tenors, altos and instruments found the same results... the King Bee was pretty cool if you like a darker signature and have some EQ filters at hand to clean it up and clarify. However, on a drum kit, I found the qualities of the King Bee amplified into problems; those lows and low-mids were a bit too much and downright distorted with outside kick, snare and toms. I did get some useful tones on drum room where a

little dark and dirty is quite okay, but the King's very sculpted mids and peaky top-end weren't complimentary colored in this case (where a ribbon mic or beefy condenser, in comparison, would likely do the trick). My Taylor acoustic guitar sounded pretty cool after some substantial EQ work.

I tried the Worker Bee alongside the King Bee and found the little one to be more to my liking. The two sound quite similar, except the Worker doesn't have the extended bottom (or the muddiness). It has more sibilance, more clarity and more top end. The tone on vocals, guitars and instruments was generally clearer, more musical and required less EQ. I received good results when close-miking guitar amps; it's not as well suited for powerful metal tones, but not bad for clean and brownish stuff. The Worker Bee took loud levels and sometimes sounded a little better with the windscreen on, which thickened up the bottom end.

Despite being much more useful with acoustic instruments, guitars and backup vocals, the results with drums weren't so good. Too much distortion, harsh off-axis response, not enough SPL handling and too much non-linearity through the mids and top proved to be problematic. Unfortunately, the all-plastic shock mount gave out on me, but it remained usable for upright apps, like vox. Listen to the webclip with two Neat Bees on acoustic guitar here: http://bit.ly/1kOlj6c.

I tried out the Beecaster with some acoustic guitar and vocals, but just couldn't achieve a pure enough tone. Sure, it was super-convenient to connect and the stereo patterns are marvelous (wide stereo is quite wide and a bit hollow, but it sounds really cool on two persons/sound sources), but the top end wasn't present enough and the noise floor is quite loud. The heavy base, swivel and boom are absolutely fantastic, offering a wide range of steady movement and stability, perfect for desktop use.

I can be a picky guy, so I enlisted my webcasting friends at Plaza Midwood Community Radio (pmcradio. org), who indeed got more satisfaction from the Beecaster than I did. They concurred on the wide stereo pattern, found the mute (cough) button useful, loved that firm swivel/boom as much as I did, didn't like the cool-looking pop filter (it's kind of flimsy), claimed to get good results on both guitars and vocals (when re-



The unmistakable stylings of newcomer brand Neat Microphones; left to right, King Bee, Beecaster and Worker Bee models sit atop their stylized packaging.

cording music) and didn't mind the noise floor! As usual, mileage will vary.

All in all, I liked the Worker the most for its reasonable versatility, especially when coupled with the frequency-smoothing, transient-reducing pop filter. My mixed feelings about the King left me neutral, as I could find interesting things to do with it, but novices may have trouble without a comprehensive front-end toolkit. I absolutely loved the Beescaster except for its noise floor—a

deal-breaker for me, if not for everyone.

I don't believe this line from Neat will satisfy the most discriminating pros, as the units' uneven frequency response, distortion and design quirks preclude that (e.g., the shockmounts are secure but saggy, the clutches fail, and the pop filters, albeit clever, don't hold together). But for newbies, they should be considered for their very low prices, useful tones on quiet sources and a general fun factor in use.





= AES NYC Product Picks

his year's 139th AES Convention at the Javits Center in New York brought with it some beautiful fall-like weather outside and a lot of gear, fun and friends inside. Here are a few of the goodies I took notice of while walking the exhibit floor.

Soundtoys Version 5

The gang over at Soundtoys always has a fun booth, and this time around, they were showing Version 5 software, which includes all 18 pieces in their collection. Aside from the classics, it features Primal Tap, Little AlterBoy, Radiator and more importantly, the new Effects Rack. With it, you can drag-and-drop your own Soundtoys custom effects chain and even lock them all to a master tempo. Talk about endless creative possibilities! It's all in there.

Grace Design m108

This one really caught my eye (check it out as it's pictured here). The m108 is eight channels of Grace pre-amplification in a sleek, black, single 1 RU chassis. It's loaded with I/O as well, including two Hi Z inputs on the front, a headphone out, full high-contrast LED display, 192 kHz ADC outputs via S/PDIF, AES, ADAT, USB Class 2, RJ 45 Ethernet port, optional slot for



Grace Design now brings 8 channels of pristine pre-amplification down to 1U and an amazingly affordable price.

Dante AoIP control, MIDI I/O, Word Clock out and plenty of gain (-8 to 74 dB). The Grace gang also noted that desktop software control will also be on its way. I'll do a full review of this unit when it's available, reportedly within the next few months.

Eventide Anthology X

Eventide showed its Anthology X collection featuring 17 mixing, mastering and multi-effects plug-ins covering the company's legendary 40-year history. It's loaded with goodies such as the H949, Instant Phaser and Instant Flanger, Omnipressor, H3000 Factory and Band Delays, UltraReverb and much more. It will run on AAX Native, VST and AU formats.

iZotope Ozone 7

iZotope was showing the latest version of its mastering software, Ozone 7, which is broken out into Ozone 7 and Ozone 7 Advanced. Ozone runs as either a stand-alone app or in your DAW, and the Advanced version has four new "vintage" modules and 10 additional component plug-ins for direct access to the modules. Another nice feature is the ability to listen to what codecs do to your masters with the new Codec Preview feature.

Earthworks Product Line Updates

Earthworks was at the show celebrating its 20th year with an updated lineup, in which the QTC and Measurement Series mics are now 2 dB quieter (from 22 dB SPL to 20) and the SR20, SR30, SR40 and SR40V went from 22 dB SPL to 16 dB, running 6 dB quieter. Good news for those seeking that Earthworks quality with a lower noise level.

Soyuz SU-017

This is a cool, small batch, handmade, large-diaphragm tube condenser with gold-sputtered, hand-tuned one-inch diaphragm, swappable capsules (optional omni and figure 8) and a hefty weight. I have used this in the studio personally and it's quite special. It was interesting to hear more about how these are made in Russia and understand the care and tolerances that go into producing each one.

API 535LA

The 535LA is part of API's classic 500 Series modules, a plug-and-play Line Amplifier modeled after the con-

sole-based 323 booster cards. It can both amplify and attenuate and features a polarity switch, -20 dB Input Pad, Calibrated Level Mode, variable Output Gain (6-45 dB) and three Output ratios. It features discrete 2510 and 2520 Op-Amps to deliver that classic API tone.

BY RICH TOZZOLI Rich Tozzoli is an award-winning, Grammy-nominated producer, eng meer and composer for programming such as FOX NFL, Pawn Stars, Duck Dynasty and Oprah & Deepak Cho-

Audionamix ADX Trax Pro

This was an interesting product I stumbled across. ADX Trax Pro lets you raise or lower the level of a vocal or solo instrument in a mono or stereo mix, without the multitrack. Of course, I was skeptical of that claim-but sure enough, it works! It now also allows MIDI imported as a Pitch Guide and it has multiple bit depth and sample rate compatibility.

Shure MV88 and MV51

I was surprised to see a few cool new "little" products at the Shure booth. Their new line of MOTIV Digital Microphones and recording solutions are very cool and modern, yet retro in their simplicity. My two favorites were the MV88 Documenter, which is an iOS stereo digital mic, and the Performer MV51, which is a digital Large Diaphragm Condenser. The MV88 will plug right into the Lightning input of your iPad or iPhone and record into Shure's cool Motiv app. The MV51 plugs into either the Lighting port or USB input of your device, and is a full cardioid 20 Hz - 20 kHz mic with its own headphone output. Very smart, indeed.

Line 6 Helix

I certainly didn't expect to stumble across this at the AES Show, but boy, am I glad I did. Talk about a big step up from the old Pods! Line 6's Helix is in a sharp-looking, sturdy, black metal chassis and features 45 amp, 30 cabinet, 16 mic and 70 effect emulations. There's 12 Capacitive-Sensing foot switches, a full LCD display, up to four discrete stereo paths and up to three expression pedals, extensive AES/EBU, S/PDIF, Variax and analog I/O and ultra low noise algorithms. Most importantly, it sounds great; I was able to play it, getting a true sense that this is a powerful, modern tool. It's a dream come true for a guv like me that needs a ton of sounds for my TV work, and I can't wait to get my hands on one. It also is available in the Helix Rack form, too.



Rich tries out the Line 6 Helix on the exhibit floor at AES.

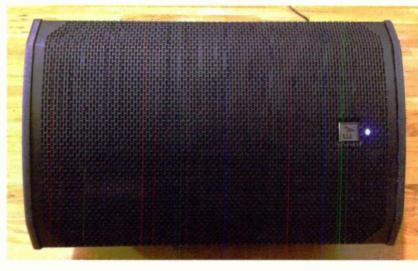
(continued on page 39)

Electro-Voice EKX Series Powered Loudspeakers

I've relied upon an Electro-Voice portable PA (PPA) for the past few years as my "workhorse" system-two E-V ZLX-12P powered cabinets serving as main monitors, stage wedges and all purposes in between. To me, E-V has proven itself as a reliable source of sound reinforcement for a wide variety of pro-grade applications. The EKX Series-E-V's mid-level PPAoffers powerful-yet-efficient performance, unique and valuable DSP features as well as road-worthy construction at an amazingly good value. For this review, I received a pair of EKX-15P 15-inch two-way powered loudspeakers (\$799 each, street) and a pair of EXK-18SP 18-inch powered subwoofers (\$899 each, street), comprising a flexible PPA rig capable of handling everything between a small club environment and many outdoors live sound and EDM events, not to mention uses within installed settings-houses-of-worship (HOWs), theaters and various municipal venue environments.

Like all EKX Series components, this E-V review rig features QuickSmartDSP functionality, accessed via a one-knob interface and accompanying LCD screen for simplw setup. I must stress that E-V's range-wide PPA systems make setup incredibly easy and flexible for nearnovice and needy professional users alike; the EKX Series resides comfortably price-wise where it can serve most any user or application within this range incredibly well.

The EKX-15P features a 1,500W Class D power amp providing 134 dB maximum SPL. Meanwhile, the well-matched EKX-18SP features a 1,300W Class D power amp providing 134 dB maximum SPL; the EKX sub notably provides Cardioid Control Technology, which steers its delivery to the audience with a 35 dB reduction on stage with multiple subs (as in at least a pair) deployed (see more about this E-V technology on the company website). Together, this rig creates what can best be described as a sculpted, waste-free sonic impact in use; the EKX Series is a modern tool in that it is efficient and seems to require less corrective EQ before input. The EKX-15P works incredibly well as a powerful stage monitor, serving its application along the lines of a world-class touring stage wedge; its dimensions are wellconceived for the perfect coverage angle when positioned on its side, which (surprisingly) isn't always the case with competing @1,000W powered two-way competitors. For installed applications, this EKX rig





will shine; the full-range cabinet is

easily outfitted with eyebolts for fly-

providing 134 dB maximum SPL. Left: EKX provides comprehensive L/O: 2 Mic/Line XLR/TRS combo inputs each with input level control and an XLR output plus stereo unbalanced RCA inputs, summed

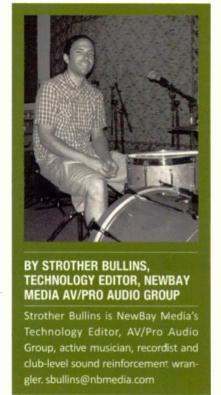
Above: The EKX-15P features

a 1.500W Class D power amp

ing—simply replace its M10 screws from its suspension points and fly.

For those that have used previous E-V powered PPA products, the EKX's DSP features are largely the same in application, thus easy to use; as well, EV newbies should be able to intuitively—and easily—dial in the

best settings for most applications. Input-wise, the EKX is rather com-



prehensive, providing two Mic/Line XLR/TRS combo inputs each with input level control and an XLR output with a mix of both input signals. Channel 1 also features stereo unbalanced RCA inputs, summed mono, which can be used simultaneously with Channel 1's XLR/TRS input. I must note I really appreciate the ZLX Series' eighth-inch TRS aux input, but the EKX's RCA inputs largely serve the same needs, (continued on page 39)

Achieve Perfect Clarity and other recording studio applications. They reduce outside noise, providing a quiet and comfortable recording atmosphere within. Available sizes include portable mini-booths, standard rooms or custom designed rooms. Optional cam-lock design makes for easy assembly and USA www.eckelusa.com | email: sales@eckelusa.com | tel: 617.491.3221 CANADA www.eckel.ca | email: eckel@eckel.ca | tel: 613.543.2967 | 1.800.563.3574

= 2015 Holiday Gift Guide

s the holiday season rapidly approaches, deciding what to get for your favorite engineer (or yourself) can be a challenge. I can attest that these products are prime options. All listed prices are what you'd expect to pay at a retailer.

Ultimate Ears UE 4 Pro and the UE 900 S

Producers, engineers and musicians share the goal of accurate monitoring and most have a monitoring situation in their workspace that they feel translates well into the real world. Unfortunately, recreating an accurate monitoring environment when working on the go is often prohibitive. I'm a longtime user and huge fan of the Ultimate Ears UE RM IEM (in-ear monitor). While well worth it, the \$1,000 price tag makes these IEMs a stretch for many potential users. The UE 4 Pro and the UE 900 S (both \$399) are more affordable options that provide near-UE RM performance at less than half the price. The UE 4 Pro looks and feels almost identical to the UE RM and it sounds wonderful. Since the two-armature UE 4 Pro is a custom-fit IEM, it requires an audiologist to create an ear mold, meaning they can only have one user. The UE 900 utilizes a four-armature design and, while they aren't custom molded, they include a full complement of tips (five sizes of rubber tips and three sizes of Comply foam tips), so a perfect fit isn't a problem and they can have multiple users. I've been a regular user of both the UE 4 Pro and the UE 900 S over the past several months and they both deliver exceptional audio with deep, rich yet unexaggerated lows, smooth highs and remarkable clarity. If you want to have IEMs that can share multiple users, I recommend the wonderful UE 900 S; otherwise, the UE 4 Pro is the optimum option.

RocknStompn Model RS-4 Sequential Power Strip

RocknStompn's Model RS-4 (\$299) is a single power strip that powers up a musician's rig or a project studio in a predetermined sequence and then reverses the sequence when powering down. One of the first things a young engineer learns regarding amps is "last on, first off." Now there is a power strip that incorporates this automatically into its power-up, power-down process. AC power sequencers are commonplace in broadcast studios and high-end AV systems but now an affordable version of the same technology can be incorporated into a pedal board or bedroom studio. The RS-4 utilizes two 16-position rotary switches to set the on/off time delay between its four sockets from 0 to 15 seconds. This means the delay between the first and last socket can be up to 45-seconds. A rugged stomp box button at one end of the strip triggers the on and off sequences. Rated at 15-amps, the RS-4 includes four robust Nema 5-15R duplex AC outlets with onboard power conditioning, surge protection, over voltage/current protection and EMI/RFI noise filtering.

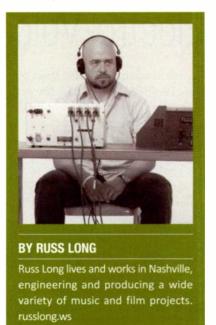
sE Electronics guitaRF

Engineer extraordinaire Jonathan Pines introduced me to the sE guitaRF (\$199) at the 2015 NAMM Show. This brilliant device—a reflection filter,



The sE guitaRF reflection filter/stand employed on kick drum.

isolator and double mic stand-can potentially solve a host of problems. I was surprised at the increase in sonic control gained by using the stand; also, when space is an issue (as it is in my room) having a small footprint stand simultaneously hold a condenser or ribbon mic along with a dynamic mic is a godsend. I've been successfully using the stand with an SM 57 and a Mesanovic Model 2 (currently in review-stay tuned) and it's worked wonderfully. Without the need of cumbersome baffles or acoustic blankets, the guitaRF can be utilized to reduce unwanted stage noise and room reflections or simply to gain more sonic control while recording guitars.

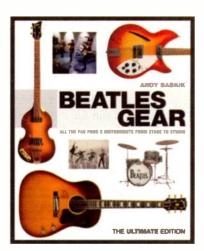


Awesome Auralex Acoustic Accessories

As a longtime Auralex fanatic, I've found that in addition to its exceptional room acoustic products, it has several affordable products that make great gifts. The HoverMat (\$280) is a 6-foot by 4-foot drum rug that, in addition to offering the benefits of a drum rug, also improves the sound of the drums. Manufactured from Auralex's SheetBlok Sound Barrier, the HoverMat decouples the drum kit from a stage, riser or studio floor, resulting in a tighter, more defined and focused sound. The ISO-Tone Turntable Isolation Platform (\$80) decouples a turntable from the tabletop, reducing acoustic feedback thus creating a cleaner, more accurate sound. It's the easiest and most economical way I've found to improve turntable performance. Decoupling guitar and bass cabinets provides the same level of sonic improvement and the GRAMMA (\$70), BabyGRAMMA (\$50) and GreatGRAMMA (\$100) are the perfect solution. I've incorporated the GRAMMA series into my workflow and have been thrilled with the improvement I've heard in the low and low-mid frequencies of my recordings.

Good Books by Beinhorn and Babiuk

The holiday season is the perfect time to sit down with a good book and there are a couple of recent releases that simply can't be missed. Producer extraordinaire Michael Beinhorn's book Unlocking Creativity: A Producer's Guide to Making Music and Art (\$24.99) gives deep insight into understanding the creative process of record creation. Having worked with a broad spectrum of artists including Korn, Herbie Hancock, Red Hot Chili Peppers, Soundgarden, Ozzy Osbourne, and Marilyn Manson, Beinhorn has not only become a master of the record making process but has also become an expert in human nature. Going beyond traditional music making books that focus on microphone and signal path selection and mixing techniques, the concepts in this book can easily be applied to creative



Michael Beinhorn's Unlocking Creativity: A Producer's Guide to Making Music and Art.

occupations outside the music industry, and best yet, it's an interesting and engulfing read.

After its release at the turn of the century, Andy Babiuk's Beatles Gear became a bible to Beatles fans wanting to get the scoop about the gear the band used on stage and in the studio throughout their career. Beatles Gear: The Ultimate Edition (\$60), the updated version of the book-twice the size of the original—was released in November of this year. The book guides the reader through the gear the band used throughout its career. With a forward by author Mark Lewisohn (who penned the essential The Complete Beatles Recording Sessions: The Official Story of the Abbey Road Years 1962-1970), the book is a fantastic read, Beatles fan or not.



Electro-Voice

(continued from page 37)

just in a more "pro" form factor, as coffee-shop or DIY bands needing to, for example, play prerecorded music in breaks or play along with MI-based prerecorded audio would lean toward the lighter, easier-totransport ZLX Series anyway.

DSP features abound in the EKX-15P, especially useful in four crossover presets for use with subwoofers, with even custom settings for use specifically with both EKX subwoofers and the E-V ELX118P subwoofer, too. Music, Live, Speech and Club Modes plus Tripod, Monitor, Wall and Suspend settings under the Location menu create distinct frequency response curves that truly serve their intended applications.

If it seems I can't say much along derogatory lines about the EKX Series, it's because this rig is exactly the kind of PPA rig I prefer to use: built like road gear, simple to use like MI/ consumer gear, and it sounds fantastic, seeming to color source material in the most flattering way possible.

Tozzoli

(continued from page 36)

SoundRadix Drum Leveler

This I had heard about via word of mouth, so I walked on by to check it out. What a cool product! Drum Leveler is an easy-to-use drum leveling tool with transparent beat detection to find a target level (with dual threshold levels) on the drums; users can then either amplify or attenuate the sounds. Applied on a chosen dynamic and spectral range, it leaves the other elements untouched. It will work in mono, stereo, dual mono and M/S operation modes.

International Music Software Trade Association: A Cool Organization

The IMSTA was on hand, promoting an important big-picture, ethical message. They are trying to change the mindset of those who use pirated software through awareness and education. Remember, if people don't pay for all this great software we use, those companies won't make the products for us anymore.

That said, the cabinets are relatively heavy-53.9 lbs. and 72.4 lbs. for the EKX-15P and EKX-18SP, respectively. These are generally not tools for the one-person sound reinforcement business, but pro-worthy and worth the heft if weight isn't a consideration. Unlike the ZLX's partially composite enclosure, the EKX's 15mm wood enclosures simply aren't lightweight; however I've

found, especially in PPA, that both weight and cabinet thickness translate to power and overall more predictable frequency and overall sonic performance. In other words, the more you're willing to schlep, the more you'll get sonically at the gig.

I would enthusiastically recommend the EKX Series to anyone shopping for a medium-to-large club powered PA as well as to houses-ofworship, theaters, and other multiuser environments. Electro-Voice has proven itself as a top player in the portable PA marketplace, and the EKX gives a pro-grade performance that should please audiences and raise eyebrows of its users. Most importantly, I've found E-V to be ultimately reliable, abuse-resistant and ready for most every sound reinforcement job.

POINT-AND-SHOOT MIXING





With TouchMix you don't need to be an experienced sound engineer to sound like one.

In the hands of an experienced photographer, a modern DSLR camera can create stunning images in any number of shooting conditions. But see the presets for portraits, landscapes, close-ups and more? The camera is pre-programmed by experienced professionals so that anyone can get a quality image in just about any condition. Just point and shoot. The camera knows what it needs to do to give you a great shot.

Same with TouchMix. It's one of the most advanced digital mixers ever made, with features that rival consoles costing thousands more. But its real genius is how the Presets, Wizards and Simple Modes put all that power to work easily and seamlessly to deliver you an amazing mix that will have everyone convinced that you are a professional sound engineer. How? Just like the DSLR, our own team of pony-tailed professionals* put everything they learned over decades of mixing live sound into TouchMix so that whether you're a pro or not, you'll get great results quickly, easily, and on your very first gig. No other mixer can make this claim and that's why we say that TouchMix is Simply Genius.

TouchMix Series

Compact Digital Mixers TouchMix 8 I TouchMix 16



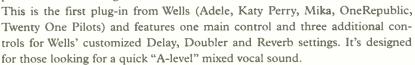
*Our research indicates that professional sound engineers have, per capita, more ponytails than any other profession. We're still investigating the cause of this phenomenon.



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Waves Audio Greg Wells VoiceCentric Plug-in

Waves Audio is now shipping its Greg Wells VoiceCentric plug-in, part of the Waves Signature Series.



Various members of PSN's review staff received demos of Greg Wells Voice-Centric at the recent AES Convention, which largely impressed this discriminating crew.

Avid Pro Tools | Dock

Avid has introduced Pro Tools | Dock, a portable studio control surface that will be available in early 2016. Working together with an iPad running the free Pro Tools | Control app, Pro Tools | Dock is powered by the Avid MediaCentral Platform and is based on the touchscreen workflows of the



Pro Tools | S6 and the hybrid touchscreen/hardware control of the Avid Artist Control surface. Users can navigate large projects and access any track on the iPad touchscreen. Users can work with their favorite EUCON-enabled DAWs and video editing tools-including Pro Tools, Media Composer, Logic Pro X, Cubase, and Premiere Pro-then switch to any other EUCON-compatible audio and video software, in sequence or in parallel, in seconds.

Ocean Way Audio HR4, HR2 Nearfield **Monitors**

Ocean Way Audio (OWA) unveiled two new near-field monitors at AES-the HR4 and the HR2. Based on its HR2 speaker, the HR4 is a two-way, selfpowered monitor featuring a frequency range of 45 Hz to over 20 kHz with an SPL of 115 dB; as such, no subwoofer is required, opines OWA. However, a companion self-powered sub, the S12A, is available for high SPL use, feasibly pushing levels beyond 118 dB with frequency response down to 30 Hz, based

Solid State Logic Beta 500 Series Module Development Kit

SSL has unveiled Beta, a unique 500 Series module hardware development kit for industrious "DIY" audio electronics enthusiasts, available directly from the company's online store (store.solidstatelogic.com). Beta comes with a self-illuminating Perspex front panel and a collection of SSL components, including five log,



antilog and linear pots (including center detent versions) with SSL's signature knob caps, a selection of two- and four-pole switches and dual color status LEDs. The components mount within the front panel in a fixed configuration but are assignable to any function. The panel and controls attach to a blue solderable breadboard with standard 500 Series-compatible edge connector and resettable fuses. Additional components, such as potentiometers with alternative laws and tapers, can be purchased direct from SSL.

on published specs.

The HR2 is their most affordable model, reportedly adapted from the hi-fi speaker designs of Bruce Marien, OWA director of engineering. In a unique trapezoidal cabinet, the powered HR2 boasts specs of 38 Hz - 22 kHz and maximum SPL of 110 dB.

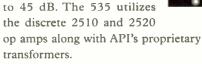


API 535-LA 500 Series Line Amplifier

Modeled after API's console-based 325 booster cards, the 535-LA can both amplify and attenuate I/O signals anywhere necessary—inputs from keyboards, audio playback devices, from mic preamps or audio processing devices lacking level control and so forth. API intended the 535-LA to provide warmth to digital signals such as DAW outputs, and it features an LED clip indicator.

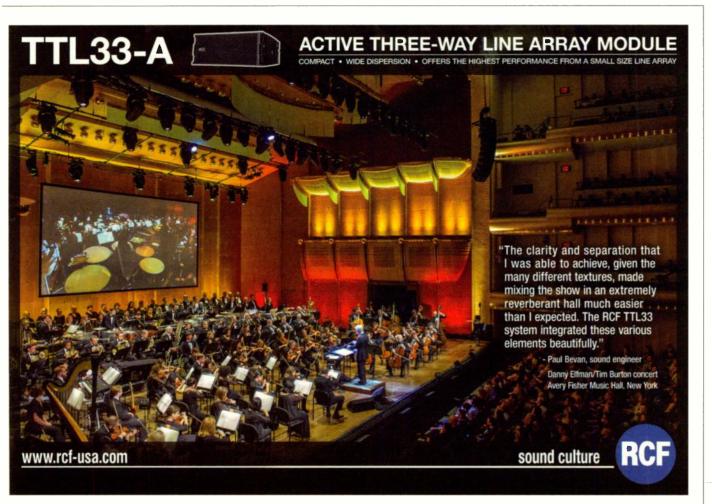
The 535-LA also includes a balanced input, polarity switch, 20dB pad for incoming signal attenuation and a three-position tog-

> gle switch, which allows for different output gain levels from the transformer. Output gain range is from 6 dB to 45 dB. The 535 utilizes the discrete 2510 and 2520



Genelec 1236 SAM **Main Monitor** System

Genelec has unveiled its new 1236 Smart Active Monitoring (SAM) Main Monitor System. The 1236 and its individually calibrated 3U-high Remote Amplifier Module RAM-XL comprise a large format, flushmounted main monitoring system based on the proprietary double-18-inch bass driver design of Genelec's 1036. Features include a 17 Hz. to 26 kHz frequency response, 130 dB maximum SPL at 1 meter, and Class D amplification providing 2 x 1000 W, 800 W, and 400 W of shortterm power into woofers, midrange and tweeter channels, respectively.



IIIIsoundPRODUCTS [41]

Neutrik 10-Pin XLR Connector

Neutrik USA has introduced its 10-pin XLR line, designed for transmitting both data and power. Fitting in the same form factor as other XLR connectors, Neutrik's 10-pin XLR can transmit four twisted pairs of data at



Cat 5e performance plus up to 16 A of power @ 50 V, using two large, dedicated power pins. The cable connectors for the new 10-pin XLR line are based on Neutrik's latest-generation XX series. The chassis connectors are derived from Neutrik's DLX family, offering industry-standard D-size housings, RF protection and shielding via the DLX connectors' duplex ground contact design.

Radial Engineering **McBoost FET Signal** Booster

Built in Canada, the McBoost is a fully discrete, Class-A dual FET signal booster for low-output dynamic and ribbon microphones. It features all-steel construction with bookends that create protective zones around the switches and controls. Inside, the McBoost features hand-matched transistors, delivering up to 25 dB of boost via a fully variable front-panel level control. Also included is a three-position high-pass filter, three-position impedance selector and standard 48V phantom power operation.

EAW Anna Mid-Size Array

Anna is a loudspeaker intended for mid-sized applications in touring, regional sound and permanent install. The box's compact footprint and light weight allows use as a stand-alone PA or interlocked, side-by-side with columns of Anya modules-EAW's large format



Adaptive Performance system-for use as supplemental fill or outfill. Both Anya and Anna integrate with the Otto Adaptive subwoofer.

Each Anna module includes 14 customized transducers: eight HF compression drivers, four 5-inch MF cone transducers and dual highpower 10-inch LF cone transducers. Anna enclosures also have 14 builtin amplifier and processing channels plus Resolution 2 software for individual acoustic cell processing. Anna modules are sold in groups of 24 or 12 enclosures with power and data distribution, dollies, covers, flybars and cabling included.

Lectrosonics HHa Transmitter

The HHa Digital Hybrid Wireless handheld transmitter features a tun-



ing range of 75 MHz or three standard Lectrosonics blocks, selectable RF power of 50 or 100 mW. IR sync for quick setup, and a USB port for firmware updates

in the field. A companion to the new Venue 2 wide bandwidth high-performance modular receiver system, the HHa offers frequency response of 40 Hz - 20 kHz +/- 1 dB, 105 dB (A) signal-to-noise. The patented Digital Hybrid Wireless process delivers compander-free audio and uses an analog FM carrier to transmit a specially encoded signal for digital audio quality while remaining spectrum efficient. HHa's standard capsule mount accepts industry-standard dynamic, electret and condenser microphone elements.

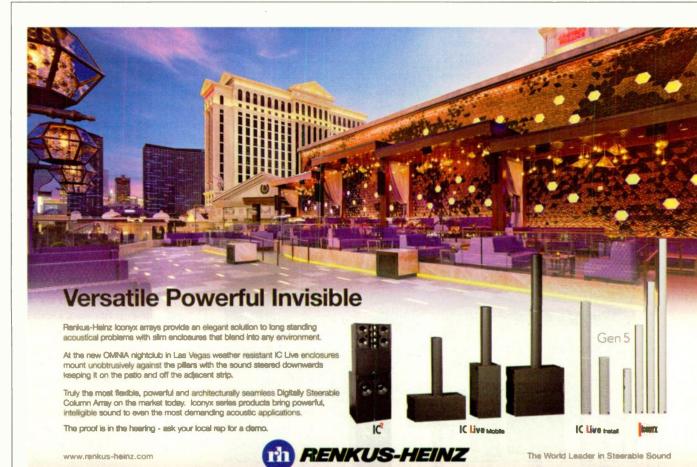


Yamaha RIVAGE PM10 Digital Mixing System

The new flagship RIVAGE PM10—inheriting integral elements from Yamaha's PM Series Consoles—includes proprietary features such as the Hybrid Mic Pre with Rupert Neve Designs (RND) Silk and Transformer emulation. The PM10 system is comprised of the CS-R10 control surface, DSP-R10 DSP engine, RPio622 I/O rack, three types of RY cards, and two types of HY cards. A total of 45 plug-ins are available for creative processing, most notably from third-party manufacturers including TC Electronic and Eventide. Collaboration with RND has resulted in the Rupert EQ 773, Rupert Comp 754, Rupert EQ 810, and Rupert Comp 830, all VCM models of Rupert Neve-designed outboard devices from the '70s and '80s.

There's more information on all the products featured at prosoundnetwork.com/dec2015.





[42] SOUNDREINFORCEMENTIIII

■ Meyer Takes a Show of Han

WUHAN, CHINA—Featuring a theater that changes shape and water-based feats, The Han Show in Wuhan, China is an unusual production, supported by a massive Meyer Sound system of 359 self-powered loudspeakers all processed, distributed, and matrixed by the largest D-Mitri digital audio platform assembled to date, comprising 53 frames.

Designed by Vikram Kirby of California's Thinkwell Group, the system is inordinately complex because the loudspeaker configurations must adapt to a dual-mode auditorium. During the performance, the upper seating area drops down and the lower seating area splits and rotates to the sides to reveal a vast pool for the water-based elements of the show. Because the entire seating layout changes, the show requires two completely separate sound systems under one roof.

"What was critically important for this project was to have a single supplier that could help us scale from very small to huge, and I don't know of any high-quality manufacturer other than Meyer Sound with such product breadth," explains Kirby. "We



Featuring audience seating that dramatically changes position during performances. China's The Han Show requires two completely separate sound systems, resulting in more than 350 Meyer Sound loudspeakers housed under one roof.

scale all the way from line array hangs to tiny MM-4XPs for front fills, with a need for every size in betweenplus special-purpose speakers like the beam-steering CAL column array loudspeaker and the directional SB-2 parabolic wide-range sound beam."

Used for surrounds and localized upstage sources, The Han Show's

nine CAL loudspeakers are the largest deployment of CAL to date in an entertainment application. "The CALs work wonderfully as lateral surrounds," reports Kirby. "You get a uniformity of coverage across a wide seating area that you can't get from point source boxes. The CALs deliver (continued on page 47)

Jackson's Tour an Unbreakable Hit

BY STEVE HARVEY

LOS ANGELES, CA-Janet Jackson is back on the road after a four-year hiatus, jumping straight into the Top-10 fall 2015 concert tours, according to ticket marketplace StubHub's sales figures. The initial North American leg of the tour began in Canada on August 31 and ended in Hawaii on November 12, but the second leg

kicks off in January, with more dates in the U.S. and Canada, plus Europe, currently scheduled through June.

Jackson's seventh tour since her

Rhythm Nation headlining debut in 1990 is in support of her new album, Unbreakable, which has put her into the record books with its debut at No. 1 on the Billboard 200. Among women artists, Jackson now ranks third in chart topping album releases, behind

Janet Jackson's current Unbreakable tour marks the second time that Kyle Hamilton, seen here with his DiGiCo SD7, has tackled FOH duties for the artist.

Barbra Streisand and Madonna. She also claims another record: Alongside Streisand and Bruce Springsteen, Jackson is one of only three artists to top the album charts in each decade since the 1980s

Simplicity is the watchword for this tour's audio engineers: Kyle Hamilton at FOH, monitor engineer Iim Roach and system tech Andre "Dre" St. Pierre. "I keep it simple," states Hamilton. "I see people make their situation convoluted for job security. My security is in my mix-you push my faders up and it's there.'

He elaborates, "My goal is to mix to make it sound like the record with a live feel. That particular method has kept me working for the last 22 years; I've had a great run." Hamilton's resume includes working with Pharrell Williams, Rihanna, Demi Lovato, Prince, Toni Braxton and Nicki Minaj, to name but a few from an impressive list of artists.

"It's not by accident; I put in the work," he says. "I walk away at night and go study. We're six weeks into this run, and I'm five years in with her as a client, but I'm never happy. (continued on page 51)

briefs

Vaught Ventures With FBT

NASHVILLE, TN—Country artist Phil Vaught plays 200-plus nights a year, and has been touring with StageMaxX 12ma monitor wedges from FBT (fbtusa.com). Kent Laabs, president of Soundworks Systems, Inc. in Stevens Point, WI, originally suggested the wedges to Vaught.

Bose Has Good Day

SACRAMENTO, CA-Morning shows seem to come and go, but Sacramento's local CBS affiliate KOVR recently marked the 20th anniversary of Good Day Sacramento, broadcasting live at the California State Railroad Museum with interviews and live music in front of a studio audience. Ensuring the crowd caught every moment, pro audio vendor Associated Sound deployed a Bose (pro.bose.com) F1 Model 812 flexible array loudspeaker and F1

NYC Food Fest Gets Dynamic

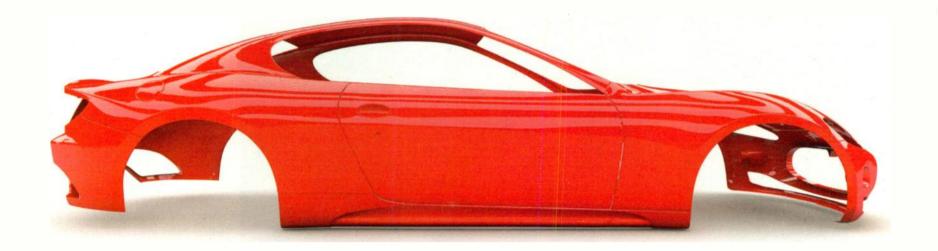
NEW YORK, NY-Providing audio for this year's edition of the annual New York City Wine and Food Festival, held in October, Orangeburg, NY-based Dynamic Productions USA fielded D.A.S. (dasaudio.com) Aero 40A and Aero 20A line array enclosures, along with LX-218CA powered subwoofers from D.A.S. Audio's Aero Series 2 product line.

QSC Bows **AV-IT White**

Paper

COSTA MESA, CA-QSC (qsc.com) has released a new white paper (http:// bit.ly/1MQI5AQ) analyzing what AV professionals can do to build relationships with IT pros. Built on industry surveys and statistical evidence, it explores IT buyers' conceptions of AV integrators and suggests what audiovisual professionals can do to strengthen communication in order to do business that is mutually beneficial.

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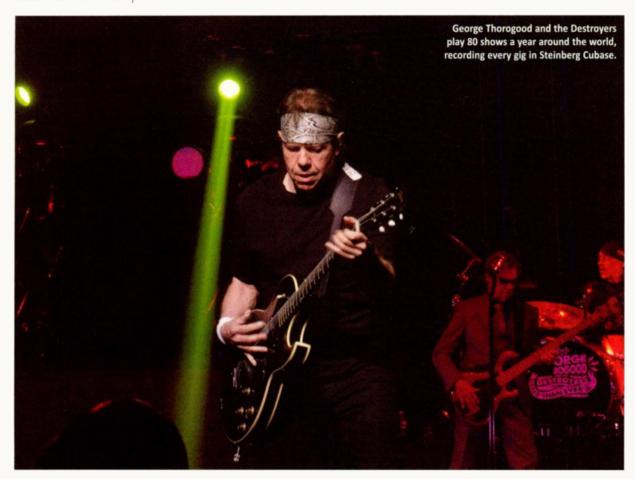
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[44] LIVESOUNDshowcase!

Not Just Good; Thorogood

BY CLIVE YOUNG

NEW YORK, NY—George Thorogood is many things—a guitar slinger, band leader and the man who wrote "Bad To The Bone," the go-to track for every Eighties action movie soundtrack—but above all, he is an entertainer. Despite all the tough-guy songs about rough livin' and hard drinkin', he's not above shuffling, preening, cracking jokes or anything else it takes to grab your attention and keep it for the rest of the show.



act that he and his band, the Destroyers, have honed over 40-plus years, still playing 80 shows annually around the world with a passel of gear from Hendersonville, TNbased 242 Concepts in tow. Along for the ride each time is the tried and true road crew of production manager/FOH engineer Jeff Pitt,

It's a well-oiled, time-tested a 16-year veteran of Thorogood tours; monitor and recording engineer Shawn Berman (12 years); and system engineer/alignment specialist Nick Abrahamson (6 years). That kind of longevity is standard throughout the rest of the crew, too. "It's a family operation," Berman explained. "George knows your family, he knows your kids' names,

sends birthday presents-still kind of an old-school approach."

In keeping with the rough-andready vibe of the original records, Pitt mixes the shows to match. "We keep it fairly raw in nature," he said. As a result, while there are Midas Pro2 digital consoles at both FOH and monitorworld, Pitt approaches his house mix as if he's working on an analog desk. "I keep a basic start file, but I'm an analog

and wanting to take our package everywhere, I came back to digital three years ago, and ended up on the Midas Pro series deskswhich have been great. I've been extremely pleased with the sonic quality, ease of operation and customer support, and the reliability has been stellar. We have had extremely minute issues, but nothing show-stopping-which we had in other formats-so it's been a very stable device for us at both ends of the snake."

Touring in four-week blocks. some North American runs find the act carrying PA, while for others, the production uses local stacks and racks, just bringing along subs and front fills to supplement as needed. "We always find those are typically the weakest link in a house rig," said Abrahamson. "You can usually make the top boxes work for you and cover what you need to, but front fills are always the thing for us, because our shows are typically standing shows where folks are heavy drinking and having a good time—so we want to make sure they can hear what they came to see." Helping prevent angry audiences on this year's shows were Clair CP218 subs and P2 front fills.

Over at stageside, Berman puts together monitor mixes heard through 10 JBL VP7212MDP wedges and a variety of Sennheiser G3 IEM systems and Shure PSHW6 hardwired IEM units, all with custom Future Sonics molds. Because he's so interactive with the audience, Thorogood skips wearing in-ears, but the rest of the band made the transition a dozen years ago. The result was that they had more mobility onstage as they were no longer locked down to wedges; transport costs dropped due to carrying fewer wedges and smaller guitar amps; and the band's career prospects got a booster shot, too. "There had been a lot of premature hearing damage



"Our shows are typically standing shows where folks are heavy drinking and having a good time—so we want to make sure they can hear what they came to see."

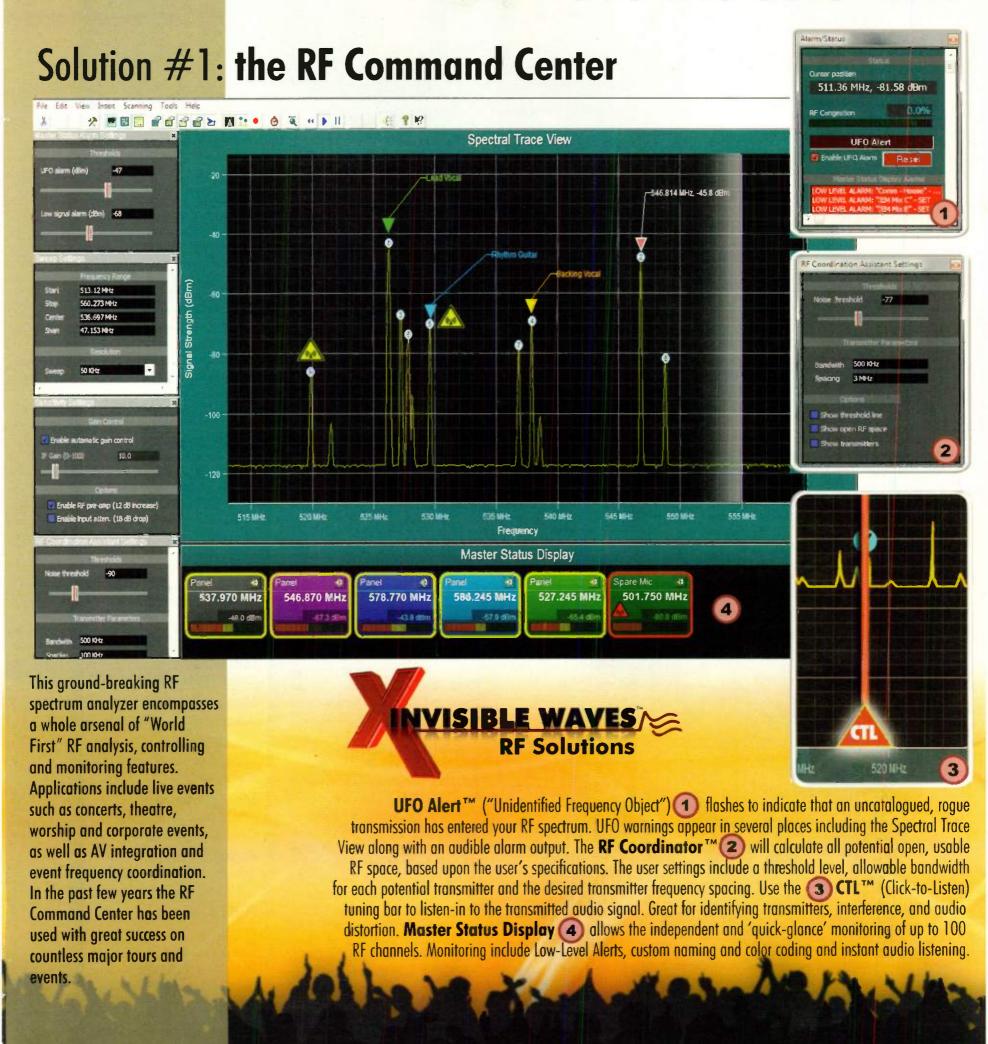
Nick Abrahamson

guy from inception," he said. "I've been on every digital console in the last 10 years, even went back to the Midas XL-4 for several years because I was frustrated with digital formats, but with the way we tour

over the years, so we had certain players that we just had to do this for," said Berman. "That was a big choice, as an operation, to make this concession, but it means they (continued on page 46)

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[46] LIVESOUNDshowcaseIIII

Thorogood

(continued from page 44)

can do this another 10-15 years. It makes a difference."

While Berman handles the monitor rig, he also records every show, not only for archival purposes ("in case some kind of magic happens"), but also for release. "I've done stuff for ESPN, I've recorded George and Elvin Bishop for an Elvin Bishop album on the road, we sent something for one of Buddy Guy's things...there's a lot," said Berman. All of that is captured in Steinberg Cubase, a DAW choice that was already in place when he joined the crew-and that was fine with him: "I'd used it for years in my studio, so I was excited when I found out that's what they had. I really like the logical way that Steinberg products work; Nuendo and Cubase basically work



Seen here at New York City's Beacon Theatre are (I-r): production manager/FOH engineer Jeff Pitt; system engineer/alignment specialist Nick Abrahamson; and monitor and recording engineer Shawn Berman.

the same, and the customer service is great. I've never told them

who I work for or what I do; when I have an issue, I contact them through email, get the immediate response that 'we'll get back to you in 24 hours'—and they always do. They've gotten me through every single problem every time."

Despite recording every show, the band's miking doesn't get esoteric; instead, it tends to match the music-road-ready and you know what you're gonna get. Vocals are captured with wireless Sennheiser E865s; guitars are nabbed alternately with Shure KSM32s, a SM 57 and a Royer R121 ribbon mic; the bass runs into a Radial IDI; the saxophone is heard via a Sennheiser EW572 wireless system with an E908 instrument mic; and the drums are surrounded by a plethora of Shures and Audio-Technica ATM 23HEs.

While the days of crazy touring like the band's famed 50/50 Tour of 1981, where it played 50 states in 50 days-have long passed, some things just don't change. "George has what he calls The Dirty Dozen: 12 songs that he has to play," laughed Pitt. "'Move It On Over' is in there, 'Night Time,' 'I Drink Alone,' 'Who Do You Love,' and of course, 'Bad To The Bone.' And if he doesn't play 'One Bourbon, One Scotch, One Beer,' people are going to be pretty upset!" It keeps the audience happy and out of trouble-and that's not bad at all.

242 Concepts 242concepts.com

Steinberg Steinberg.net

Midas Midasconsoles.com

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VITALstats

George Thorogood and the Destroyers

242 Concepts (Hendersonville, TN)

Production Manager/ **FOH Engineer:** Jeff Pitt

Monitor/Recording Engineer: Shawn Berman

Systems Engineer/ Alignment Specialist: Nick Abrahamson

FOH Console:

Midas Pro2 with Midas DI 251

Monitor Console: Midas Pro2 with Midas DL251

House Speakers:

Supplemental Clair Global CP218 subs. P2 front fills

Monitor Speakers:

(10) JBL VP7212MDP wedges: Clair Global R-4III sidefills

Personal Monitors:

Shure PSHW6: Sennheiser G3: PWS IAS software; Future Sonics

FOH Equipment/ Plug-Ins:

Rational Acoustics Smaart; Lake LM44; TASCAM SSCDR200; Steinberg Cubase; Klark-Teknik DN9650

Microphones:

Shure SM 91, Beta 52, SM 57, Beta 56, SM 81, KSM32; Sennheiser, E865 wireless, EW572 wireless, E908; Radial JDI DI; Royer R121; Audio-Technica ATM 25HE

Welcome To The Velodrome

PLOVDIV, BULGARIA—Cycling is an old sport, but current-day velodromes are just as modern as any other kind of arena. Take the new Kolodruma Velodrome in Bulgaria.

The audio systems for Kolodruma Velodrome were designed and installed by ProAudio Ltd. under Stanislav Petrov, managing director.

For the main arena, ProAudio Ltd. designed a distributed system using Community R Series loudspeakers. The system consists of 10 R Series R2-94s, four R2-77s, 18 R1-64s, 36 R1-94s, 20 R.5-99s and 22 I215LVS subwoofers. Said Petrov, "Importantly, the extensive range also provides the choice of power levels and coverage patterns required

for a system accurately tailored to the venue. Our measurements, with NTi test equipment, showed a very even SPL from 100 to 103 dB and STI from 0.57 to 0.69 (room empty) across the venue."

Each Community loudspeaker is powered by a single QSC CX amp channel, controlled via a QSC

Q-Sys DSP. Audio sources for the systems are Audio-Technica mics and TASCAM combination media players/recorders. ProAudio Ltd. also designed and installed the velodrome's separate TOA VX-2000 based voice evacuation system

Community Professional Loudspeakers Communitypro.com



A sizable installation of Community R Series loudspeakers fill the 7,500-seat Kolodruma Velodrome in Bulgaria

The Han Show

(continued from page 42)

a more complete sound-mapping effect, particularly when moving offcenter."

Comprising 16 different Meyer Sound loudspeaker models including MICA, MINA, and M'elodie line array loudspeakers, the massive system is configured as 29 separate subsystems, with each requiring its own dedicated signal matrixing and processing. Managing this is the D-Mitri digital audio platform, controlled by CueConsole user interfaces at two FOH positions and monitors, with the entire system networked across a fiber optic ring. Layout of the network infrastructure was handled by Colbert Davis, associate sound designer, working in collaboration with Extreme Networks.

Loudspeaker drive and array optimization are handled by a Galileo Callisto loudspeaker management system with eight Galileo Callisto 616 array processors and a Galileo loudspeaker management system with two Galileo 408 processors. The Meyer Sound systems were provided by Shanghai Broad Future Electro Technology Co., Ltd. and installed by Beijing-based AoTeWei.

"This is undoubtedly the most challenging project I've undertaken," said Kirby. "It's not just left, right, subs and back surrounds; the whole theatre is ringed with loudspeakers. And when you add all the changes that come from a reconfigured auditorium, you have a whole different order of complexity."

Meyer Sound Laboratories, Inc. www.meyersound.com



CenterSTAGE TOP 10 TOURS OF THE MONTH

ACT / STATISTICS

CREW

EQUIPMENT

1 TAYLOR SWIFT EIGHTH DAY SOUND

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

HC: DiGiCo SD7; MC: (2) DiGiCo SD7; HS: d&b audiotechnik J and V series with array processing; IEM: Ultimate Ears; Sensaphonics; Shure PSM 1000; Albatross Audio PH9B; HA: d&b audiotechnik D80; HARDWIRED MKCS: Shure Beta 91/52; Telefunken M80SH; Audio-Technica ATM450; DPA 4099; AKG 414; Sennheiser 935; Radial J48, Tonebone PZ-Pre, JX2, JR1M, Hot Shot DM1; **WIRELESS MICS**: Sennheiser 90C0 Series with 9235 capsules, 5000 Series with 5235 capsules; **FOH EQUIPMENT**: Waves SD7 Pro Show Bundle; Rupert Neve Designs MBP and Portico II Channel; SPL TD4; Bricasti M7; Lexicon PCM 92; Elysia Nvelope; TK Audio BC1; MONITOR EQUIPMENT: Waves SD7 Pro Show Bundle; Rupert Neve Designs Portico II Channel; SPL TD4; Lexicon PCM 70, PCM 92; Eventide Eclipse; Bricasti M7; TC Electronic M-One XL; dbx 160x; UBK Fatso Jr.

2 LUKE BRYAN | CLAIR GLOBAL

Pete Healey (be/pm); Ed Janiszewski (me); Frank Sgambellone (se); Tyson Clark (mse); Eddie "Flash" Valencia, Rachael "Hope" Stuemke (techs)

HC: Midas XL-4; Avid Venue Profile; MC: DiGiCo SD7; HS: Clair i-5D, i-5, i-DL, CO-8, CP-218; MS: Clair CP-218; IEM: Shure PSM 1000 IEM; HA: Clair StakRak; Lab.gruppen PLM 20000; HARDWIRED MICS: Shure; Audio-Technica; Countryman; Radial DI; WIRELESS MICS: Shure; FOH EQUIPMENT: Empirical Labs Distressor: Aphex 622; Urie LA-4; dbx; Summit DCL-200: TC Electronic 2290, D-Two, M5000, M3000: Eventide. H3500, Yamaha SPX 990; Waves C6, SSL Bundle, Vocal Rider plug-ins; MONITOR EQUIPMENT: Waves Mercury/SSL plug-ins

3 MARC ANTHONY | VER **TOUR SOUND**

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

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

4 PHISH | CLAIR GLOBAL

Garry Brown (be); Mark "Bruno" Bradley (me); Randy Weinholtz (se); Tim Shaner (m tech); Kevin Leas, Dave Wiseman (techs)

HC: Midas XL8: MC: Yamaha PM5D/DSP5D; HS: Clair i-5, i-5b, i-3, Cohesion CP-218, CO-8; MS: Clair 12am, MD-18: HA: Clair StakRak w/ Lab.gruppen PLM 20000Q; MA: Clair Lab.gruppen 8-mix monitor racks

5 JUAN GABRIEL | 3G **PRODUCTIONS**

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

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

6 THE DAVE MATTHEWS BAND | PRO MEDIA/ ULTRASOUND

Jeff Thomas (be); Ian Kuhn (me); Lonnie Quinn (ame); Joe Lawlor (re); Tom Lyon (s tech), Greg Botimer (m tech); Sean McAdam HC: Avid Venue Profile; MC: Avid Venue Profile, SC-48; HS: Meyer Sound Leo, Mica, LFC-1100, HP-700, CQ-2; MS: Meyer Sound MJF-212A, Clark Synthesis TST; MA: Lab.gruppen fp-2400 IEM: Sensaphonics 3D, 2X; Shure PSM 1000, PSM 900; MICS: Neumann; Sennheiser; AKG; Shure; B&K; DPA; Crown; Electro-Voice; Audio-Technica; Earthworks; Radial JDI, JD7, 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 7.5; Lectrosonics TM400; MONITOR EQUIPMENT: Apple Mac Pro; Avid Pro Tools 10 HD; PWS GX-8

7 SHANIA TWAIN | VER **TOUR SOUND**

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

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

8 MADONNA | EIGHTH DAY SOUND

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

HC: DIGICO SD7; MC: DIGICO SD7; HS: d&b Audiotechnik J8, J12, J Sub, J Infra, V12; MS: d&b Audiotechnik V8, V Sub, M4; IEM: Sennheiser; HA: d&b Audiotechnik D80; MA: d&b Audiotechnik D80; HARDWIRED MICS: Audio Technica AT4081; Sennheiser; Shure; Milab: WIRELESS MICS: Sennheiser: FOH EQUIPMENT: Waves: MONITOR EQUIPMENT: RME

9 RUSH | CLAIR GLOBAL

Brad Madix (he); Brent Carpenter (me); Anson Moore (se); Corey Harris (mse)

HC: Avid Venue Profile; MC: Avid Venue Profile; HS: Clair i-5, i-5B, Cohesion CP-218, Cohesion CO-8; MS: Clair Cohesion CP-218; IEM: Shure PSM 1000, PSM 600-HW; HA: Lab.gruppen PLM20000Q; HARDWIRED MICS: AKG 414/ULS; Audio-Technica AE2500, AE3000, AE6100, AT4050, AT4060, AT897, ATM23, ATM35, ATM350, ATM450; Neumann KM184; Shure Beta 91, Beta 98, SM57, SM58, SM91; Telefunken M81; Radial PZ-DI, ProD8 FOH EQUIPMENT: Crane Song Phoenix; Digidesign Eleven; Eventide Anthology II

10 5 SECONDS OF SUMMER | EIGHTH DAY SOUND

Ted Kujawski (he); John Delf (be); Ben Booker (me); Trevor Waite (se); Aaron Tucker (tech)

HC: Soundcraft Vi3000; MC: DiGiCo SD10; HS: d&b audiotechnik J8, J12, B2, Q10; IEM: Sennheiser; HA: d&b Audiotechnik D80; FOH **EQUIPMENT:** UAD Reeltime Rack

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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Janet Jackson

(continued from page 42)

A mix is never final—this is what it is for today."

The Unbreakable Tour's lighting and visual elements dictate that no side seats are sold beyond the stage lip, so the audio production, provided by VER Tour Sound, includes just two speaker hangs per side. "The P.A. spec is 16 d&b audiotechnik J8s over four J12s on the mains with 12 J12s over four J8s on the sides. We have eight flown J-SUBs per side," says St. Pierre. "That's the full system. In the morning, I come in and draw the room with ArravCalc [d&b's simulation software] and scale the rig to meet what the room requires, to keep it in balance for the artist and the engineer."

Then Hamilton, who typically records the show in two formats, listens to playback through the system. "I do a two-mix to my Tascam SS-R200s, and multitrack," Hamilton reports. "Most of the time, I use Logic, but if I need something quick, input-for-input, across the board, [Waves] Tracks Live is great to use."

There are five band members on this tour: drums, bass, guitar, keys and a DI, and three background vocalists. Jackson alternates between a head-worn Sennheiser HSP4 with 5000 Series wireless and a Neumann KK105 on a 5000 Series handheld. "The drums are all Lewitt microphones," Roach reports. "The background vocals are Heil RC35 capsules on Shure wireless. All the talkback microphones are Heil PR35s. And there are Sennheiser shotguns for audience."

Roach, who has toured with Maxwell, Guns N' Roses, Jill Scott, Brian McKnight, Joe Cocker and Kevsha Cole, among others, generates 44 outputs from the show's 109 inputs on his SD7. He has been using DiGiCo desks since 2010, after initially using a D5 in 2007. "The sound quality is stellar, and it's the most flexible console I've ever used. On a show like this, that changed and evolved over the course of 10 weeks of rehearsals, it was great to be able to change the console around every other day to meet the new configurations."

He's happy with using just the onboard DiGiCo DSP: "I have nothing outside the desk. I usually carry some outboard reverbs, but on this tour, I didn't feel they were necessary."

All of the musicians are on Sennheiser 2000 Series ears, with some small d&b sidefills for the nine dancers. On the upstage riser, the drummer, keyboard player and DJ



Jim Roach provides monitor mixes for the production via Sennheiser 2000 Series ears for the musicians, and small d&b audiotechnik sidefills for the nine dancers.

are all using Albatros Audio headphone amplifiers: "It's probably the best-sounding headphone amp I have ever heard," says Roach.

Many of the show's production elements are automated. "We're sending timecode to lights and video and for automation for the moving trusses," says Roach. "Neither of us has timecode into our desks; we're all manual."

Hundreds of tracks may have gone into the final mix of a lanet lackson record, Hamilton comments, and reproducing that on stage is a challenge. "Pro Tools is the sixth band member. If you break it down to a five-piece band, it sounds empty if you don't have all the elements there. The meat of everything comes from our band; the sweetness comes from Pro Tools."

As he notes, "I have a high-powered desk-the SD7-and the desk itself sounds great; what I'm getting from the band sounds great; our Pro Tools is incredible; and the stems are

strip for Jackson's handheld mic with a second for her headset, a third 737 for bass guitar, and a VT-747sp stereo unit for keybass. "The SD7 mic pre sounds amazing, but why not take it up a notch?" he says.

Returning to the theme of simplicity, Hamilton says, "I just add the stuff that makes the mix cohesive for the environment that we're in." For example, there is little need for reverbs. "Reverbs are for when you're in a sterile environment, to create atmosphere and ambience. We already have that."

St. Pierre, too, keeps things simple, applying processing to the entire array rather than taking a more granular approach. "Once in a while, you get into a situation where you're limited by trim height or there are some extenuating circumstances and there's really no other option. But for the most part, I don't do any gain shading, and nothing individually in the array. I treat it as an entire source instead of trying to split it up," he says.

"I keep it simple. I see people make their situation convoluted for job security. My security is in my mix—you push my faders up and it's there."

Kyle Hamilton, FOH engineer, Janet Jackson

all amazing, because we take time to go through all of that meticulouslyso I don't need to add extra [processingl."

Hamilton is using Antelope Audio's Isochrone Trinity/10M clock combination to marry playback with the musicians. "I make those worlds merge. They're in pretty much every mastering studio-why not have those clocking my desk?"

The only other outboard gear at FOH is a rack of Avalon Design processors, a VT-737sp tube channel

"I do most of my system EQing in the R1 control software," he adds, noting that the racked Lake LM44 rarely gets used. "It's really just there for if Kyle were to want to do something, and the days when we don't have our P.A.—which is rare—so we have some system processing EQ to be able to deal with everything.

For Hamilton, the biggest challenge is the audience. "When we're cruising, we stay within 98 to 100 dB. That's where the show feels right

to me. We have peaks where we may hit 105, but consistently the audience floats around 107, 108, and I'm not going to fight the audience. It's a nice, solid, punchy, in-your-face mix,"

Clearly, everyone is enjoying this tour. "She gives you 200 percent, day in and day out," says Hamilton. "She's in a great space; she's having fun. And we're having a great time." **VER Tour Sound** verrents.com

DiGiCo digico.biz

Sennheiser sennheisreusa.com

> THERE'S MORE > For a brief fanshot video of "Rhythm Nation," visit prosoundnetwork.com/ dec2015

VITALstats

Janet Jackson

VER Tour Sound (Nashville, TN)

FOH Engineer:

Kyle Hamilton

Monitor Engineer:

Jim Roach

Crew Chief/Systems

Engineer:

Andre "Dre" St. Pierre

Monitor Tech/RF:

Erick Ruiz

Kyle Fletcher, Colin Hardy

FOH Console:

DiGiCo SD7

Monitor Console:

DiGiCo SD7

House Speakers:

d&b audiotechnik J Series Mains and Sides, J Infra/J Sub, V Series Front Fill

Monitor Speakers:

d&b audiotechnik M, V, C Series

Personal Monitors:

Sennheiser SR 2050; Albatros Audio

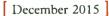
FOH Equipment/

Plug-Ins:

Avalon VT-737sp, VT-747sp; Lake

Microphones:

Lewitt; Royer; Radial; DPA; Heil Sound; Sennheiser; Shure



soundPEOPL



Joyce Bente has been named president and CEO of Riedel North America. Joining the company with nearly 30 years of experience in the broadcast indus-

try, she most recently served as the director of sales for broadcast rental company Bexel, where she consistently exceeded annual budgeted sales revenues and profits.



Italian Speaker Imports has brought on Mick LoMauro as its new national product specialist. The company, which has been growing since its inception in September, 2014, is

the exclusive U.S. distributor of FBT. Immersed in Pro Audio since his teens, LoMauro has been a department manager, product specialist and national sales manager for such companies as Guitar Center, Crest Audio and Loud Technologies.



Scott Pizzo

L-Acoustics has named Scott Pizzo as regional sales manager, Northeast, for North America. Pizzo holds a Bachelor of Music Performance from the University of Lowell,

with an emphasis in Sound Recording Technology. With 15 years of experience in the sound reinforcement industry, he has also held positions with HARMAN and Eastern Acoustic Works, where he most recently managed North American sales.

LOUD Technologies has named Jon Rundle as its Mackie product man-



Jon Rundle

ager, promoted to the position after nearly a decade within the Mackie organization. He will be directly involved in all aspects of product development,

research and market analysis to help in delivering products, and will interface with the company's engineering team, as well as continue to work directly with customers and end users.



Jake Young

HHB Communications Ltd. has appointed Jake Young as marketing manager for HHB and audio post subsidiary Scrub. Young has a press and marketing background, hav-

ing worked on NewBay Media magazines Audio Media and TVBEurope and more recently as digital marketer at Miloco Studios. He will work within the HHB sales team to create and deliver HHB's marketing and communication strategy.



Oscar Alberto Gamas Gonzalez

Adamson Systems Engineering has appointed Oscar Alberto Gamas Gonzalez to the position of regional operations manager in Mexico. Gonzalez, who has headed up Sonotribe, an

audio consultant business in Mexico, and has regularly taught training classes for Rational Acoustics Smaart software in the region, will be responsible for growing Adamson's presence in Mexico, as well as providing support to the company's current client base.

soundREPS

- Shure has named Gardner, KS-based Livella Brand Group as its sales representative to dealers and systems integrators in Nebraska, Iowa, Missouri, Kansas, and Southern Illinois.
- WSDG-Walters-Storyk Design Group has appointed international representatives Lluís Moreno (Spain); Giulio Curà (Italy); Jesus Cardoso (Mexico City); and Federico Petrone (Buenos Aires).
- Powersoft has appointed its independent regional representative in Canada, CM Tech Group, which in turn is comprised of BG Media Solutions, MM Technologie and Connect West Marketing, based out of Toronto, Montreal and Vancouver respectively.

60SECONDS



KARL WINKLER

Lectrosonics

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

A: Vice president of Sales & Service at Lectrosonics, overseeing all sales and service activities for the company, including the field sales team, in-house sales, sales support, shipping and customer service. It's a team of about 40 people altogether. The sales team itself reports directly to me, and fortunately,

I've also got two great managers, Brenda Lyles and Cindy Blake, overseeing the customer support and service departments.

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

A: I've been fortunate to have been given a variety of opportunities and responsibilities over the years, including in the US Air Force Band, as a crew supervisor; at Sennheiser, as a brand manager and director of marketing communications; and at Lectrosonics, as director of business development. I would say that managing a larger team like this certainly comes with some specific challenges, but I'm really enjoying the job so far and look forward to the opportunity to help further shape the company in the years to come.

Q: What new marketing initiatives are we likely to see from the company? A: We're planning to continue moving further along with the efforts started many years ago to reach into new markets with products we have been developing in the past couple of years. We have a global reach now, which wasn't the case a few years ago, and we intend to continue expanding into Europe and Latin America in particular. We've had tremendous success in the Pacific Rim in the past couple of years, so we plan to keep growing there as

well. There are plenty of challenges, but we've got the best team we've ever had from our engineering crew, our sales staff, the marketing department, and the dealers and distributors, so I'm really excited about the possibilities.

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

A: I would say that the short term goal is to get the sales team focused as much as possible on reaching new markets with the new products we've just introduced this fall. Longer term, I want to continue working closely with the engineering team to develop products that will see us through the next transition in the RF spectrum. In the past couple of years, we have already come up with some of the best products in our history, reaching new target markets in the process. The longer term goal is to keep up this kind of energy in development as we face the tough challenges ahead.

Q: What is the greatest challenge that you face?

A: The loss of RF spectrum is the big challenge all wireless microphone companies are facing in the next 3-4 years. Lectrosonics has got some fantastic core technologies, so now comes the work of putting them in play with competitive products that have the features and modern user interfaces that customers will need when the time comes. Form factors will change; setup and operation of these systems will be different as well. There will be the challenge of educating users not only to the problems ahead, but how to solve these problems with the tools at hand.



David Vincent

David Vincent has joined Meyer Sound as a technical support specialist to bolster support for the growing customer base in Canada and the Northeast US. Vincent previous-

ly served as audio project manager and PA technician at Solotech for 10 years. He will be tasked with helping customers with system design support, on-site system demonstration, system commissioning, and after-sale technician training.

Strassberg Associates has been merged into Dale Pro Audio; Steve Strassberg and Joel Guilbert of Strassberg Associates, will join Dale in two newly created posts-VP/general manager and technology development manager, respectively. Strassberg brings 24 years of experience as the owner of Strassberg Associates, a direct sales consulting firm for Dolby, Linear Acoustic and TC Electronic. Guilbert was part of Strassberg Associates for the last 13 years; in his new role, he will oversee product support and integration, and help find opportunities to blend emerging technologies with client applications.



Steve Strassberg



Joel Guilbert



Balance Engineer/RecordingProducer













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Engineering Evolution

BLAKE AUGSBURGER, EXECUTIVE VP/PRESIDENT, HARMAN PROFESSIONAL SOLUTIONS

BY SILAS LYNCH

Blake Augsburger joined the pro audio industry in 2000, when HARMAN acquired Crown Audio, "and recruited me to lead the business and turn it around," he recalls. "In 2006, I was appointed to lead the HARMAN Professional Solutions division. Since then, I've added new businesses to the portfolio and taken on additional roles within HARMAN, such as joining the executive committee and becoming Country Manager for the Americas."

Augsburger began his career as an electrical engineer, graduating from Texas Tech University and working in the defense industry for Maxwell Technologies, a company largely focused on energy storage and power delivery solutions. "I migrated into program management and business unit management at Maxwell, and then joined Hubbell Electronics as vice president/GM of the High Voltage Test SBU in the United States, Switzerland and the UK. My engineering background has been important because that's what we do here at HARMAN Professional Solutionsengineer innovative, differentiated technology solutions-and the international experience has been important, because globalization has been a huge determining force in our business and economy in recent decades."

A lot has changed at HARMAN in the last 15 years, offers Augsburger. "We have evolved from an audio component manufacturer to a sound systems manufacturer to a complete system solutions provider—including audio, lighting, video and controlwith a global, customer-centric organization. Our most recent major change was aimed at centralizing internal functions, like R&D, to take advantage of our scale, and organizing our customer-facing functions around the markets they serve to make it easier for them and allow us to really focus on solutions and customer needs."

Three Strategic Business Units (SBUs)-Enterprise, Entertainment and Product-comprise the company structure at HARMAN. In addition, a shared services group supports the SBUs with Finance, IT, HR and Marketing Communications, Each SBU and shared service function is led by experienced leaders, explains Augsburger in detail. "The Entertainment and Enterprise SBUs are broken down into Customer Solutions Units (CSUs). The CSUs are dedicated teams with a simple, yet powerful, mandate: Provide customers in vertical markets with greater market expertise and market-specialized solutions. Our CSUs are empowered have joined the organization, with the resources required to deliver on that mandate."

"The Entertainment SBU, led by Bryan Bradley, is made up of two CSUs: Retail, led by Scott Robbins, and Touring & Cinema, led by Brian Divine," continues Augsburger. "Our Enterprise SBU, led by Kevin Morrison, is made up of three CSUs: Hospitality, led by David McKinney; Large Venues, led by Jaime Albors; and Corporate, Education and Government, led by Kevin Bowyer."

Augsburger feels that HARMAN Professional Solutions' customer-centric organizational model will make it much easier for customers to do business with him and his colleagues. "There will be a single point of access and accountability with specialized teams, technologies and programs for each vertical market," he offers. "And, because they're customerand we've become a \$1 billion business," he offers with pride. "It's only natural that our culture would evolve in this time, but I think restruc-

turing into a customer-centric organization is a formalization of a longstanding cultural commitment that was common to HARMAN and all of the acquired brands."

Most notable, a booming touring industry has helped growth at HARMAN. "In the first half of 2015 alone. North America concert sales hit a record of 18.8 million tickets, up 23 percent from 2013," offers Augsburger. "Thankfully, we've had the right array of products with JBL VTX V25 II and Crown I-Tech HD to serve the growth and capitalize on the opportunity."

Elsewhere, growth opportunities abound, most notably in the installed

"Addressing the convergence of AV and IT in installed systems has led to better connectivity, broader interoperability and more inclusive solutions."

Blake Augsburger, Executive VP/President of HARMAN Professional Solutions.

centric versus brand- or technologycentric teams, they will have a better understanding of the customer usecase today and clearer insights as to where markets are headed tomorrow. At the same time, we don't intend to miss a beat on product innovation. Our new Product SBU, led by Mark Ureda, combines our expert technical talent and deep R&D investments across the organization to deliver groundbreaking technologies, products and, most importantly, customer solutions."

In his time leading HARMAN Professional Solutions, Augsburger and his team have grown the business considerably. "With the acquisitions of Selenium, Martin Professional, Duran Audio, AMX, SM Pro Audio and SVSI, 3,600 new people

audio systems market. "Addressing the convergence of AV and IT in installed systems has led to better connectivity, broader interoperability and more inclusive solutions," tells Augsburger. "With this convergence, software and firmware innovations have enabled companies like ours to develop integrated systems tailored to specific verticals, such as education, hospitality and others. Aligning our organization to customer markets enables us to provide technology expertise coupled with deeper market expertise."

While Augsburger notes that retail is a challenging yet dynamic marketplace, he also suggests it continues to have strong potential over the next few years. "I joined the board of NAMM in 2014 and doing so



provided me with the opportunity to work with retailers of all sizes in all North American markets," he explains. "Meeting and listening to the people who run these businesses gives me confidence that there is considerable room for growth in MI. HARMAN Professional Solutions' goal is to address the opportunity with a higher rate of new products that work better together, are more affordable and are easier to operate."

In dealing with competitors, Augsburger explains that no other firm can provide the range of services that HARMAN Professional Solutions does for its customer base. "I respect our competitors," begins Augsburger on the subject. "Our industry attracts great people. But when I look at the array of talent within our ranks, I am very encouraged. We have phenomenal engineers, managers and sales teams. Our new organization is the stage on which this talent will shine, and we will continue to grow as a result."

In the near future, Augsburger says that HARMAN will unveil powerful native systems to "reset the rules of systems integration, tour sound and broadcast," providing "a massive efficiency boost" to audio pros. "What we're working toward today is responding to our customers' interests in natively integrated configuration, monitoring and control functionality. The scale of our global organization equips us to now provide a linear progression of good-better-best solutions, from small fixedanalog solutions to medium-scale digital solutions to enterprise-grade, open-architecture solutions. I expect you will see a lot more new products from HARMAN Professional Solutions in each category in the weeks and months ahead."

HARMAN Professional Solutions HARMANpro.com





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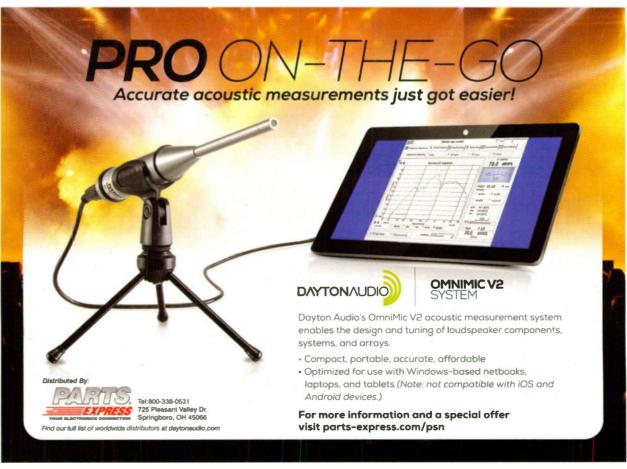




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■ RF Mic Pioneer Passes

BY MICHAEL BALDERSTON, TV **TECHNOLOGY**

WASHINGTON, DC-Neil M. Smith, founder of Smith and Fisher engineering consulting firm, passed away October 24 at the age of 81.

Smith began his career in broadcast engineering as recording engineer at Edgewood Studios in Washington D.C., which was founded by Charles Osgood, later known for The Osgood Files. Smith also briefly worked at the NAB before becoming an engineer at broadcast consulting firm Kear and Kennedy. While there, Smith helped oversee the installation of the Alford Antenna on the Empire State

Building and antenna work on the John Hancock Building in Chicago. Founding the engineering consulting firm that would later become Smith and Fisher, he later earned an Emmy Award for technical innovation for his work with ABC TV. He also helped develop and implement wireless microphones and antenna pattern measurement using helicopters, and served as a member of the George Washington University faculty.

AES67

(continued from page 1)

The fact that AES67-2015 includes minor updated references (to RFC 7273 and clarifications in 6.3, 8.1, and 8.5) is a good sign, according to technical chairman Kevin Gross of the Media Networking Alliance (MNA), which was established to promote awareness and uptake of AES67, "The limited scope of these revisions is testimony to the robust and stable nature of AES67 as originally published and successfully implemented by numerous audio manufacturers. As proven in the plugfest testing, AES67 functional compatibility performs as described and these revisions further complement that functionality."

At the New York AES Convention, the MNA demonstrated working interoperability between devices from different manufacturers employing Dante, Livewire, Q-LAN and RAVENNA protocols.

This year's AES Convention program also featured a Network Audio track that leaned heavily on the implementation and use of AES67, while also encompassing sessions on AVB/TSN and Audinate's Dante protocol. The events stressed the ease of set-up, ease of use and scalability of AES67. As noted at one panel discussion by Patrick Killianey, Yamaha's "network guy," working on the education side, AES67 is "the O negative of audio networking." Phil Wagner of Focusrite Novation, which introduced its new Dante-enabled RedNet AM2 stereo headphone amp and line

output interface at the show, offered his own metaphor: "AES67 represents the dawn of the XLR connector for digital audio."

"You don't need any special network equipment. Any of the currently existing managed switches are able to support AES67," added Andreas Hildebrand of ALC NetworX, RAVEN-NA's gatekeeper. In contrast, AVB requires specific switches, he said.

While a \$50 switch might not be expected to be up to the task of supporting 24-hour operation, said Killianey, a mid-grade small-to-medium business switch will work just fine. "You can get a 10-port switch for \$175, so they're not ridiculously expensive," he reported.

Ethan Wetzell of Bosch Communications was bullish about the opportunities offered by AES67, which he described as a connectivity onramp. "We're reaching a point in the industry where connectivity and integration of devices is just becoming the law of the land. Everybody wants to tie more things together in more diverse ways and be able to deploy those things in a really flexible way. As a manufacturer, we need to be able to adopt methods that allow these systems to come together, regardless of what is being added and what is already in place."

Unlike older networking protocols, such as CobraNet, that were proprietary and subject to changes in the business that could adversely affect their continued development and support, AES67 is different. "When you have an open standard like this, you're not counting on one company," said

QSC Audio's Rich Zweibel, speaking from experience as co-founder of the company behind CobraNet. "If somebody has to change or a company loses interest, it keeps advancing."

For users, AES67 also offers an open-ended and future-proof solution, "The key promise of AES67 is that I'm not locked into a solution that's frozen in time. I've got the ability to evolve as my needs evolve," said Wetzell.

Wagner agreed, noting that broadcast clients have allegiances to companies for various reasons. "They like a certain console, a certain router. Where AES67 is going to really help all this is that they can retain those alliances with those particular brands. Now, as they get more into networking-broadcast is committed to a video-over-IP future, and audio-over-IP is going to go along with that-all the different endpoints, control rooms and machine rooms need to be able to interoperate."

Hildebrand also shared that a new technical recommendation was recently published by the Video Services Forum, which promotes the interoperability of video networking. In a paper detailing the separation of an SDI stream into IP video and audio, he said, "They are describing AES67 as the way to transport the audio data. That's a clear indicator that AES67 is a great benefit for the industry."

Addressing any audio professional concerned about being replaced by IT guys, Wetzell said, "You can teach IT in an hour. But you can't teach an IT guy how to mix. That's art."

Sandy's successor," commented Schyvinck. Over the years, Sandy and I have worked closely to drive the vision for the Company's growth, and I'm confident that we've already built a strong foundation that will see us far into the future. I'm delighted that Sandy will be here for the next nine months, helping me transition into this new role. Shure has long established its position in the marketplace as an innovator focused on unmatched quality and reliability. With our talented team

briefs

Yorkville Takes On Dynaudio In NA

TORONTO, CANADA—Yorkville Sound (Yorkville.com) has become the exclusive North American distributor for the Dynaudio Pro line of studio monitors. Founded in 1977 in Skanderborg, Denmark, Dynaudio's monitors are now used in major stugear distributed by Yorkville includes tube processing from Applied Research & Technology (ART), micro-Electronics and Yorkville's own line of YSM Series studio monitors.

Biamp Preps For 40th Year

BEAVERTON, OR-Marking its 40th anniversary, Biamp Systems has rebranded its logo with a new, modern look. Founded in Portland, OR, in 1976, the company initially provided mixers, EQs and crossovers to MI stores across the JS. Today, four decades later, the company is a provider of networked audio processing and distribution platforms deployed in over 100 countries, used for commercial installations such performing arts venues, transportation hubs, healthcare facilities, and

Qwire Raises Funding

NEW YORK, NY -Qwire (qwire.com), a cloud platform for managing, scoring and licensing music to picture, has raised \$2.5 million in its initial funding round, with participation from a group of private investors. Qwire tive editorial continuity, streamlining music licensing, enabling pictureintegrated spotting and auditioning, Following trial runs on shows including Parenthood, About A Boy and Galavamt, ABC Studios is utilizing Qwire on a slate of TV series.

Shure

(continued from page 5)

been not only a privilege, but a dream come true, combining my truest passions: music and engineering," said LaMantia. "It has been an honor to serve at the helm of a company that sets the bar for integrity, quality, innovation, and cooperation. Today, Shure enjoys outstanding growth, and now with a solid transition in place, the timing is right for me to step aside and spend more time with my family. Having someone with Chris' skills, experience, and natural leadership ready to take the reins, has made my decision all the easier."

Schyvinck joined Shure in 1989 and led the Operations Division before being named to lead Global Marketing and Sales in 2006. More recently, she was promoted to executive vice president of Global Operations, Marketing, and Sales and chief operating officer.

"It is an honor to be named

of Associates around the world, I'm confident we will continue to bring this vision to life, and move the company forward. I'm humbled to step into this new role, excited by the challenge, and thankful to the Shure Board of Directors for its support."

"Sandy and I selected Chris as a possible successor almost 15 years ago," said Mrs. Shure. "It is very rewarding to see our long-range plan for her come to fruition."

Shure Incorporated shure.com

Late Night

'defensive mixing.'

"Normally in a recording studio, you're going for the highest fidelity possible. You use mic that capture the entire sound of an instrument. Mics I would normally use in the studio do not work in this environment. You want to find mics that are far more directional. Then you have to try and get them to sound as if they're highfidelity."

There is not much space for the guest and house bands at 30 Rock's famed Studio 8H, either, according to Gluck. "I remember working with Taylor Swift. The drums were on a riser, and Taylor is tall. So I had a snare drum being played about five feet right behind her head. What do you do? You do the best you can."

He continued, "An SM58 on a wire is great in those situations. You can get it hi-fi enough. It has tremendous rejection, and it works great with monitors; you have to play very nice with PA and monitors."

Two floors below in Studio 6B, Manchester has the luxury of working in a remodeled facility purpose-built for great acoustics. "Jimmy wanted the studio to sound fantastic. There's a Meyer Sound Constellation system, which is installed throughout to give some variability to the ambience of the space. It can be tuned in zones, for the audience, the monologue position and the band on stage. That's controlled by the front of house mixer. What I get is a nice-sounding audience, a band that's happy on stage and a best shot at an imperfect scenario to work with."

There is another challenge common to all three shows, as Manchester noted: "You don't have a lot of time. It forces you to make decisions, and to come in with a game plan,

> "You start to develop what I call 'defensive mixing." Harvey Goldberg

with just enough time to maneuver an alternative if something is not working. Experience is what you rely on in lieu of ample time to pull it together."

Audio gear varies from studio to studio. Goldberg has a 128-input SSL C200 digital music console. "I have roughly 48 channels for the house band and another 48 for the guest

band," he reported. "We mix in stereo. I'm not sure how much of the audience is listening in 5.1. And I'm not a firm believer that you can take a 5.1 mix and fold it down to work in stereo."

Goldberg records to both Radar and Pro Tools. "Over the years, I've found Radar to be slightly more stable. But Radar doesn't do as many different things as Pro Tools."

Gluck, mixing on a 144-input Lawo mc66, records to a 192-track Pro Tools rig with a redundant Fairlight system, including Pyxis for the video track. The show is live, of course, but during sketch rehearsals, he will record stereo mixes of the music and production: "I send that to our MD and he can work with the artist and they can rehearse to that."

He added, "We always mix in surround. We make it as comfortable as possible in stereo and then we'll put some select elements out a bit. We're a proscenium show; you're basically experiencing it at home as if you were in the audience."

For Fallon, which is prerecorded, Manchester uses a similar Pro Tools set-up, integrated via MADI into the Digidesign console. "It allows great integration with picture and the ability to do post production work as well," he said.

"At the end of the day, it's one mix that goes out the door. There are inherent compromises in that directive. It has to work everywhere, and that's a challenge. But our show is mixed in 5.1 and I do a lot of listening to the downmix," said Manchester.

Avid Avid.com

Lawo

Lawo.com

Mever Sound Laboratories Meyersound.com

Opening Ceremonies

(continued from page 14)

an annual award given in recognition of outstanding achievements, sustained over a period of years, in the field of Audio Engineering.

The Fellowship Award was presented to four members who had rendered conspicuous service, made valuable contributions to the advancement in, or dissemination of, knowledge of audio engineering; winners included William F. Hanley, Jr., David Moulton, Agnieszka Roginska and Ulrike K. Schwarz.

A trio of Citation Awards were

"Great consumer VR will be readily available next year, and audio is going to be a key part of its success."

Michael Abrash

aes.org

given in recognition of services or accomplishments that did not fit into any of the other categories; recipients included Linda Gedemer, Cesar Lamschtein and Howard Sherman.

The Board of Governors Award was presented to no less than eight individuals for outstanding contributions to the AES. They included Michael Kelly, Bozena Kostek, Peter Mapp, Valeria Palomino, Jeff M. Smith, Jorge Urbano, Wieslaw Woszczyk and Umberto Zanghieri.

AES Journal editor-in-chief Bozena Kostek presented the winners of this year's AES Paper Awards. Niels Elkjær Iversen, Arnold Knott and Michael A. E. Andersen of the Technical University of Denmark were awarded the Convention Student Paper Award, while Bjørn Kolbrek of the Norwegian University of Science and Technology received the Best Peer-Reviewed Paper Award

Andres Mayo

I take this with great pride and responsibility," adds Mayo, a two-time Grammy-winning audio engineer and producer with over 20 years of experience. He has more than 2,000 titles to his credit on a wide variety of release formats.

Education and networking are the two main pillars of the AES, Mayo believes. "Everything I have done, every single day during my term, has been related directly or indirectly to one of those two areas, or both. From mentoring a student to judging in the Recording Competition and from helping to create a local section to actively procuring 'joint ventures'-cochaired activities—with similar organizations, such as SMPTE, it all leads

"When you come from a distant region such as Latin America, not so much geographically as conceptually speaking, you learn to use that background to your benefit, thinking of new ways to overcome problems."

to new and rich networking possibilities for our membership."

When he took the reins of the AES last year, Mayo observed that, as the first Latin American to hold the position of president, he was experienced with handling crisis. A year later, he says, "No time is crisis-free in this industry, especially in the last 15 years. We had many tough decisions to make, and I am proud to say that I would make

them again if needed. When you come from a distant region such as Latin America, not so much geographically as conceptually speaking, you learn to use that background to your benefit, thinking of new ways to overcome problems. And, more than anything, it helped me to smile, because there are truly much more dramatic situations out there than our difficulties."

Membership is any society's life-

blood, so how has the AES fared? "I don't think we had especially strong growth in a single country this year," emphasizes Mayo, who personally spread the word of the AES to more than a dozen countries this year, including Argentina, Brazil, Chile, Perú, Uruguay, Costa Rica, México, Poland (for the European AES Convention) and the United States, "But I know the numbers are increasing and there is bigger interest in the Society's activities."

Membership might increase in a given country, but it needs to be sustained, he also notes. "We had that situation in many countries in Latin America, but steady growth only happens after a number of years of consistently showing the industry that there is a very good reason to join the AES." **Audio Engineering Society**

www.aes.org

[58] MUSICetc.IIII

E Come Fly With Herb

BY JAQUES SONYIEUX

Herb Alpert's rich musical life speaks volumes of his passion. As founder of the Tijuana Brass and the 'A' half of A&M Records, Alpert's career has been a labor of love, and his trumpet has never been far from his side. On his new album, Come Fly With Me, Alpert, who is 80 years old, invites listeners to take a journey with him through several new original songs as well as re-worked jazz and rock standards including "Something," "Take the A Train," "Danny Boy" and others. In the process, we are swept into Alpert's gifted trumpet playing and interpretation of melody. Pro Sound News caught up with the trumpet player-turned record executive-turned trumpet player again, only to learn that his career never stands still and that he hasn't lost his touch.

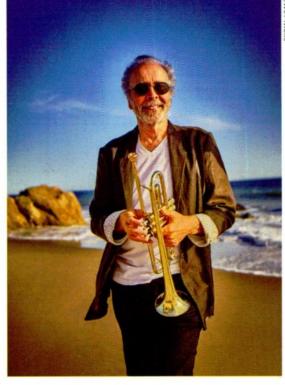
ON REPURPOSING STANDARDS:

Music is one of my major passions in life. I'm up here [picks up a trumpet and plays a scale] practicing every morning and thinking about music. When I find music that is fun for me to play, I feel like it might be fun for a certain amount of people to listen to. So I just collect songs that I like to play. One of my pursuits is to find a standard song that brings back memories to people, and play it in a way that it hasn't been heard before. On this record, the one that is really unusual is "Take the A Train;" this song has always been played in 4/4 time and I did it in 3/4 time. I

am always conscious of being faithful to the writers though; Stan Getz was a dear friend of mine, and he said, 'If you can't improve on a melody, don't fool around with it.'

ON 'TRANSPORTING MUSIC':

On Come Fly With Me, I got the idea of having a specific destination so I added a steel drum player and it kind of transported you to the Caribbean, which I thought was a nice little touch. The first record that started A&M was "The Lonely Bull" in 1962: out of the box, it was a big hit. While the record was in the top 10, I got a letter from a lady in Germany who thanked me



Herb Alpert is still cutting tracks at 80, with the release of Come Fly With Me.

for sending her on a vicarious trip to Tijuana. I chuckled when I got the letter. I thought to myself, "Wow - that music was so visual to her that it was transporting." That's the type of music I really want to make: music that takes you someplace as opposed to elevator music, which is not memorable.

ON ORIGINS OF TIJUANA BRASS:

The audio industry has changed so dramatically since I started. Believe it or not, when I started recording, I had a Webcore wire recorder. That was before tape. If you wanted to edit, you did it with a soldering iron! Then I started using mono Ampex machines. When I heard Les Paul layering his guitar on 'How High the Moon' in the late '50s, I started doing that with the trumpet, going from machine to machine. I started layering this sound that intrigued me, and that was the genesis of the Tijuana Brass sound.

ON HIS GREAT FRIEND:

The trumpet has been pretty darn good to me over the years. When I was eight years old, there was a music appreciation class in my elementary school and I discovered the trumpet. I was super shy as a kid, and when I finally found out how to make a sound out of the horn, it was speaking for me. Through the years, it has been a great friend of mine, and in 1969, it turned against me. I was going through a divorce and having some emotional problems and I couldn't play it. Then I worked it out; a great teacher in New York, Carmine Caruso, taught me the physics of playing a horn and here I am at 80, playing better than I ever have, and

doing it with less effort. Once you become a musician and a professional, it is a neverending process and there is always more to learn. Dizzy [Gillespie] used to say, 'The closer I get, the farther it looks.' I love that quote, because that is the truth. You never quite get to where you want to go and that is the beauty of it.

ON "SOMETHING":

I am a melody guy-when the melody is strong, it always resonates with me. I always loved George Harrison's "Something," and I always felt it was one of The Beatles' strongest songs. One day, Michael Shapiro was playing a slow groove, and I just played it against the drum and it felt good. Then we added the bass and just left it like that. It was very transparent and open. I think that whole cut feels very

real and honest-it is not trying too hard to be a hit recording.

ON HONESTY AND AUTHENTICITY:

There's a quality that is very important for musicians and artists to understand. Something happens that is not quite perfect, but it is real, honest and authentic. I think the great artists-Miles Davis, John Coltrane, Stan Getz, Thelonius Monk-didn't care whether you liked their music or not, but their songs had to fit their sense of musicality before they put their stamp of approval on it. One of

"Billie Holliday, well, she had things you could complain about. But man, her music touched you. And that is the only measure." Herb Alpert

the things that distracts a lot of artists is that they look for perfection. Is it in tune, or out of tune? Am I perfectly in time? Then when you think of the great artists like Billie Holliday, well, she had things you could complain about. But man, her music touched you. And that is the only measure. 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: jacquessonvieux@gmail.com.



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- Multiband Limiting
- High Efficiency Lightweight Class-D Power Modules
- Passive Cooling Scheme (No Loud Fans Required)
- Designed for Front-of-House or Monitor Applications
- Integrated Two Channel Mini Mixer
- XLR Microphone, 1/4-inch and RCA Line Inputs
- Made in Canada

