



AES NY SHOW DAILY

MAXIMUM AUDIO

SERVING THE 143RD AES CONVENTION • OCTOBER 18-21, 2017 JACOB K. JAVITS CONVENTION CENTER, NEW YORK, NY

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The Star Wars Project: Like Being in a Galaxy Far, Far Away

By Strother Bullins

Yesterday morning, a packed special event—"Bearing Witness: The Music of *Star Wars*, Archiving Art and Technology"—featured *Star Wars* on page 36

AES NY 2017: Firing on All Cylinders

By Clive Young

The 143rd AES Convention may have passed the halfway point, but you'd swear it's just getting started. If you've noticed that the aisle of the exhibition floor is jammed and the panel you wanted to see was standing-room only, well, that attests to the convention's popularity. It seems like there's more people here than usual, because there are.

"We had a tremendous first day at AES NY 2017; our registration team says it's the largest first day of activity they've seen in a decade," said Bob Moses, AES Executive Director on the second morning of the Convention. "That pattern is carrying over as we begin Day Two. The technical sessions are packed with enthusiastic attendees, and we've also set *AES 2017* on page 38

RF Spectrum Panel: 'Scan Early and Often'

By Steve Harvey

The successful completion of the FCC's Incentive Auction earlier this year set the countdown clock ticking for wireless mic operators, who must vacate the 600 MHz band by July 2020. But as a panel *RF Spectrum* on page 38

480MHz

490MHz

500MHz

510MHz

520MHz

530MHz

540MHz

550MHz



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Clive's Live Picks

By Clive Young

The AES Convention has passed the half-way mark, but when it comes to live sound, that means it's been saving the best for last. There are still tons of PA demos going on in the demo rooms, consoles to check out on the exhibition floor and educational opportunities to take advantage of, so go check 'em out.

LIVE SOUND EXPO

At the top of your To-Do list should be a visit (or visits) to the Live Sound Expo on Stage 1 inside the exhibition floor. Hosting workshops all Friday, it's aimed at both new and veteran sound pros looking to expand their knowledge or get a quick brush-up as it covers topics like Choosing the Right Vocal Mic, Noise Prediction for Outdoor Events, Digital Versus Analog Wireless on the Stage, Point Source Optimization and more.

SOUND REINFORCEMENT TRACK

Held almost entirely in room 1E09, the remaining Sound Reinforcement Track offerings on Friday and Saturday are a veritable How-To of crucial topics, ranging from Microphone Dressing for Theater and Sound System Design for Public Address & Intelligibility to Live Sound Subwoofer System Design and a primer on the proper approaches to AC Power, Grounding and Shielding.

A COOKBOOK APPROACH TO SYSTEM OPTIMIZATION

There's no such thing as a free lunch... unless you have the good sense to check out veteran live sound educator Bob McCarthy's Lunchtime Keynote Friday at 12:30 p.m. in 1E15/16, where he'll cover system optimization, sharing the recipes for speaker aiming, crossover combination, splay angle setting, front fill spacing and more.

Correction

The story announcing Yamaha's demos of the new NEXO GEO M10 SR System contained an inaccurate spec. The M10 enclosure has been named such for its single 10-inch neodymium LF driver, paired with a 1.4-inch HF titanium diaphragm HF driver, erroneously reported as a quarter-inch HF titanium diaphragm HF driver in yesterday's *Daily*.

In Heyser Lecture, Jones Counsels 'Paying Attention'

By Steve Harvey

Leslie Ann Jones, a recording and mixing engineer for over 35 years and currently director of music recording and scoring with Skywalker Sound, nearly turned down the invitation to speak at this year's Richard C. Heyser Memorial Lecture. "I haven't written any great papers; haven't invented any technology; heck, I haven't even had a top 10 record," she said.

But Jones reconsidered, and she had plenty to talk about. "If there's one theme for all my work and all I might have done to stand here, it would be paying attention," she said.

Jones observed that she got into the business the old-fashioned way: "I was born into it." Her father was bandleader and music satirist Spike Jones; her mother was singer Helen Grayco.

"My mother had such style. She had the ability to sing the same song night after night and make it a memorable performance. That was my first recollection of paying attention."

Initially attempting a career as a musician, Jones later had an opportunity to take up engineering. She co-founded a PA company, set up a recording studio in her basement then, in 1975, was hired as a production engineer at ABC Studios in Hollywood. It was there she began to pay attention to gender, she said, which would have both positive and negative consequences in her career.

Jones had many personal firsts at ABC, she



Leslie Ann Jones

related, including being kicked off a session (Barry White's, after his wife discovered there was a woman in the control room), erasing a take and her first engineering credit, on a John Mayall album.

She later relocated to work at Automatt Studios in San Francisco, where she spent many years before returning to Hollywood and a gig at Capitol

Studios. There, she won her first Grammy, for her work on the soundtrack album of George Clooney's *Good Night, and Good Luck*. She subsequently moved back to the Bay Area to work at Skywalker, running the studios and winning three more Grammy Awards.

Skywalker is a magical place, she said. "Everybody is so good at their craft it makes us all want to do better. We're there to help you make the best recording possible."

Upcoming Events

AES@NAMM

Pro Sound Symposium: Live & Studio
Anaheim, CA
January 25-28, 2018

145TH AES CONVENTION

New York, NY
Co-locating with NAB
October 17-20, 2018



AES EDUCATIONAL FOUNDATION ANNOUNCES MARY LEA SIMPSON MEMORIAL SCHOLARSHIP

The AES Educational Foundation has announced the Mary Lea Simpson Memorial Scholarship, its first undergraduate scholarship for a student entering senior year in a North American college or university audio engineering/recording arts program. Endowed by Mary Lea Simpson's family—father and mother Dr. Zachary W Simpson and Starr Simpson and brother George B Simpson—the scholarship will be administered by the Audio Engineering Society Educational Foundation.

ShowNews

Making Music and Making Money? What a Concept!

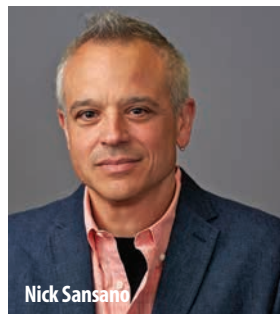
By Strother Bullins

Thursday afternoon, in an important Special Event, “Producing Across Generations: New Challenges, New Solutions,” a panel led by New York University’s Nick Sansano, Director of Production Studies/Co-Director of Musicianship, and featuring audio pros (including George Massenburg), addressed the elephant in the room—or, as the AES explained it in event promotional materials, “...music professionals continued to make records for a living. How are they doing it? How are they getting paid? ... How can we expect to see any income from streaming royalties when artists aren’t even getting any?”

So, what has changed in the industry that requires new approaches to finding work? “Lack of funding is at the top of the list on the negative side, and advances in production/recording technology leads the positives,” offered Sansano in a pre-event interview for the *AES Daily*. “In fact, without the tech advancing and, in turn, driving down costs, we might have been dead in the water. The DIY aesthetic has kept the song production

business and art form alive. To elaborate on the lack of funding, I see this hurting artist development, incubation, etc., on the artistic side, and the inability to provide for sustainable wages on the business side. Combined, they result in many projects, artists, songs, recording sessions and mixes never reaching their full potential.

“I think pop music has been hurt the most because it has lost the most commercial value when compared to, say, film, video games, TV, multimedia works, theater, etc.,” added Sansano. “Having said that, programmatic or supportive forms of music—that for games, film and TV, theater, to name a few—has not been as negatively impacted as pop music production. The positive aspects of technological change have affected all media. We have infinitely stronger and more affordable software and hardware available. Music has DAWs and photography has Adobe products, etc., many of which are now on a subscrip-



tion model, bringing up front costs down and keeping it open ended in regard to updates and modifications.”

It’s arguable that producing music today has been “democratized,” or the investment necessary for entry into music production has largely eradicated—especially for pop music production. How does this cre-

ate new or different challenges in succeeding as a traditional music engineer?

“With internet access, everything has been democratized,” Sansano said. “Literally anyone can record a song and then release that song to a global audience at the touch of a button—no gate keeper. Of course, no gate-keeper means no standards of quality, artistic merit, commercial merit or order. There is a great deal of ambient noise out there in the democratic ether of the web, but few intelligible voices. Therefore the challenge comes in the way of marketing, branding, identity, and all that supports the ‘why me’ narrative.”

AES AGOTTVS Group Updates Prelim Recommendations

The Audio Engineering Society’s Audio Guidelines for Over-the-Top Television and Video Streaming (AGOTTVS) technical group has released an update to its preliminary recommendations published in October 2016. The guidelines are focused on managing the loudness and loudness range of program and interstitial content distributed over-the-top (OTT) and by online video distributors (OVD) to maintain and improve the sonic integrity and listening experience across multiple devices.

The AGOTTVS technical group was formed in early 2016 to study the many issues related to audio loudness variations in distributed video content. The 50-member group, a study group of the AES Technical Council Technical Committees TC-BOD (Broadcast and Online Delivery), announced the publication of its preliminary loudness guidelines in October 2016 at the Los Angeles AES Con-

vention (published as a Technical Document by the AES Technical Council). The recommendations addressed the fundamental issues of audio loudness in on-line television and video content delivery, from creation through distribution to the consumer experience.

With the release of the “Preliminary Loudness Guidelines” in 2016 the AGOTTVS group raised awareness of more forthcoming, comprehensive and ongoing work and invited all interested parties to join the effort. The group subsequently increased in membership and continued its work, drafting the enhanced OTT and OVD “Loudness Guidelines” that are documented in this October 2017 release.

The group intends to continue to update its recommendations considering the transitional nature of media consumption. Future work will likely involve objective and subjective tests of DRC and loudness profiles to ascer-

tain how metadata might be leveraged to more appropriately tailor content to devices and different listening scenarios.

The AGOTTVS group comprises volunteer members with expertise and/or interest in the creation, distribution and emission of professional audio. AGOTTVS membership is open to all stakeholders with a material interest in its work, regardless of AES membership status. Group participants include representatives of Amazon, Apple, BBC, CBS, Dolby, DTS, DTV Audio Group, Fox, Fraunhofer, Google, NBC Universal, Netflix, NHK, PBS, Starz and Qualcomm.

The 2017 AGOTTVS guideline document, also published as a Technical Document by the AES Technical Council, can be downloaded from the AES website at http://www.aes.org/technical/documents/AESTD1006_1_17_10.pdf



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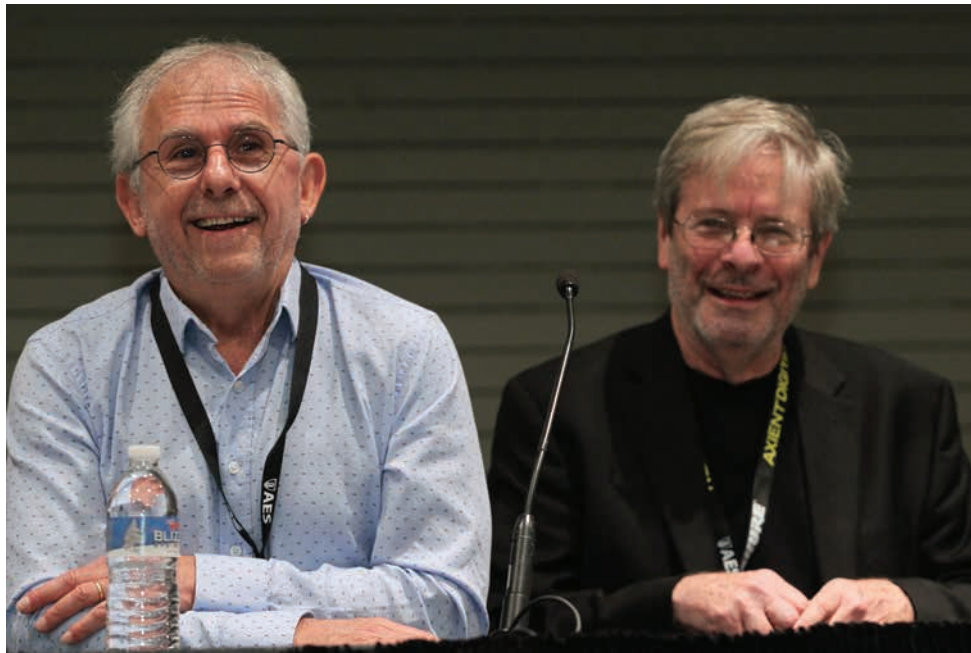
Avid Issues Upgraded EUCON Software

BOOTH 503 Avid is introducing a new version of EUCON software. Powered by MediaCentral, the industry's most open, tightly integrated, and efficient platform designed for media, the latest version of EUCON software delivers several new features and workflow enhancements, giving musicians and professional mixers using Avid control surfaces and Pro Tools or third-party applications greater control and faster workflows.

As an open software protocol, EUCON enables tight integration between Avid control surfaces and Pro Tools, Avid plug-ins, Avid Alliance Partner plug-ins, and third-party digital audio workstations (DAWs). It gives musicians and professional mixers full hands-on control of a variety of EUCON-enabled Avid and third-party DAWs, delivering the tactile control needed to create great sounding mixes faster, and the ability to switch between different DAW sessions in a matter of seconds.

EUCON 3.7 delivers new integrated features and workflow enhancements between Pro Tools software and Pro Tools | S6, Pro Tools | S3, Pro Tools | Dock, Pro Tools | Control and Artist Series.

Now until December 31, 2017, Industry users can save over 25 percent when purchasing Pro Tools | Dock and Artist Mix together. For more details visit <http://www.avid.com/special-offers>.



One of Thursday's more popular sessions brought together the METAlliance members to discuss "Where We've Been, Where We're At, and Where We're Going." Established in 2005 by globally-recognized, award-winning audio engineers and producers Chuck Ainlay, Ed Cherney, Frank Filipetti, George Massenburg, Elliot Scheiner, Al Schmitt, and the late Phil Ramone, the METAlliance fosters relationships between producers, engineers and manufacturers in order to ensure the highest standards of audio production. As announced at AES New York 2017, the METAlliance, in conjunction with Hal Leonard, has begun publishing the collective knowledge amassed by these A-list producers and engineers under the METAlliance Academy brand. The product line includes AV tutorial courses, print and ebooks, Power Learning Digital Print versions of these books, and in-person workshop events. Shown here during the Thursday morning session are Elliot Scheiner (left) and George Massenburg.

New I-Mon System at CB Electronics

BOOTH 214 CB Electronics is showcasing its new 7.1.4 immersive audio monitoring system, based on its existing A-Mon monitoring system but with a number of inputs and outputs reassigned. The combination of the I-Mon and TMC-1 forms a standalone Dolby Atmos-capable system for the smaller studio.

The I-Mon may be used with any format from stereo to 7.1.4.2. the I-Mon includes PFL, Talk back and Listen back.

Steve's Broadcast/Streaming Picks

By Steve Harvey

Immersive sound mixer Tom Ammermann will discuss and illustrate the production philosophies, strategies and workflows behind two spatial audio Blu-ray releases in "Kraftwerk and Booka Shade—The Challenge to Create Electro Pop Music in Immersive/3D Audio Formats Like Dolby Atmos" (Rm 1E06 [PMC Room], 3:15 p.m.).

The DTV Audio Group's AES Forum focus will be "Television Audio in the Streaming Age: Mobile Takes the Forefront and the Spectrum Crunch Arrives" (Rm 1E15/16, 3:15 p.m.). A

who's-who of broadcast audio professionals will debate the convergence of streaming technology, social media and IP infrastructure; challenges of loudness and DRC management in mobile listening; and the wireless spectrum crunch in the wake of the 600 MHz band auction.

The latest installment of a popular panel, "Music Mixing, Part 4" (Rm 1E12, 4:15 p.m.), will feature award-winning expert practitioners—Jim Anderson, Anderson Audio NY/ NYU; Michelle Desachy, Estudio19; George Massenburg, McGill University; Ronald Prent, Wisseloord Studios and chair Richard King,

McGill University—offering observations on topics including different ways to approach a mix, how to improve an existing mix and how to best interpret and address comments from clients. Ample time is promised for audience questions.

The Broadcast and Streaming Media track offers a special event, "The Audio Crew of *The Late Show with Stephen Colbert*" (Rm 1E14, 5:00 p.m.), that presents "a day in the life" of the unsung heroes working at The Ed Sullivan Theater to deliver one of late-night's most-watched talk shows.

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Ian Hultquist

*(Musical Director / Film Composer -
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Matthew Weiner

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Claudio Cueni

*Engineer / Producer
(Stanley Clarke, Tupac,
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On Wednesday, October 18, 2017, the Empire State Building was lit in honor of the Audio Engineering Society and its 143rd Convention.

Bedrock Features SM50 Stipa Meter

BOOTH 218 Among the featured products in the Bedrock Audio showcase: the SM50 Stipa Meter, which has become the industry standard for measuring the Speech Transmission Index. The Bedrock SM50 STIPA meter is the device that many have been waiting for: finally a STIPA meter that is accurate, reliable and affordable at the same time. Designed from scratch by the very team that invented STIPA, the SM50 was responsible for the development of the Speech Transmission Index for the last few decades.

The SM50, with its full-color touch screen, is easy to use and understand even to first-time users of the Speech Transmission Index. The casual STI user will not have to deal with impossible key combinations, complex calibra-



Bedrock Audio's SM50 Stipa Meter

tion procedures and other discomforts that people have come to expect from STI measuring tools. To the contrary: the SM50 is intuitive and almost plug-and-play. At the same time, even seasoned STI experts will find every feature they ever wanted.

Lectrosonics Launches Duet Digital Wireless Monitor System

BOOTH 927 At AES 2017, Lectrosonics is showing the Duet digital wireless monitor (IEM) system. The new system consists of the M2T half-rack transmitter and M2R diversity belt pack receiver, and uses digital modulation for transmission and can accept analog or digital

inputs. The 24-bit digital audio stream guarantees high resolution sound quality with wide dynamic range, low noise floor, and rock-solid stereo image. The Duet system is designed and developed with professional touring, installation, theater, filmmaking and broadcast customers in mind.

The M2T half-rack transmitter houses two independent stereo transmitters allowing for up to four stereo or mono transmissions in a single rack space. The system includes a Flex List mode, where a number of names and frequencies can be stored in the receiver. This way, the monitor engineer can quickly find and listen to any of the performers' mixes on the stage. The Duet is available now.

ShowNews

Friday/Saturday Technical Tours

FRIDAY, OCTOBER 20

10 a.m.-1 p.m. (Off-Site)

TT04: NYU AR/VR Lab. Washington Square Campus

The Music Technology program at NYU Steinhardt will host a tour of its facilities. Visitors will experience music produced specifically for 3D listening environments, binaural research and demonstrations.

2 p.m.-4:30 p.m. (Off-Site)

TT05: Harbor Picture Company Studios

The Harbor Picture Company is a world-class post production facility nestled in the SoHo neighborhood of Manhattan. It's audio production offerings include the only Hollywood-

sized theatrical mix stage in New York. Harbor staff will be available to showcase the facility and share their process and results for some recent projects.

SATURDAY, OCTOBER 21

9 a.m.-1 p.m. (Off-Site)

TT06: Ambiophonics Institute

Ambiophonics is loudspeaker-based binaural reproduction of two channel audio. Come to learn and experience audio in 2D, 3D, and VR in the latest Ambiophonic way.

Lunch is provided. Two-hour tour (with transportation to the uptown Port Authority Terminal for any who want to stay longer).



Two of the fanatics at Lectrosonics, Kelly Fair and Karl Winkler, with the new Duet Digital Wireless Monitor System



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Yamaha Updates V4.1 CL/QL Consoles

BOOTH 624 Yamaha Professional Audio is introducing updates in V4.1 for CL and QL Digital Audio Consoles and EQ presets for Ultimate Ears in-ear monitors.

New Dante functionality includes support for the AES67 interoperability that allows communication with Ravenna, Q-LAN, Livewire, and other audio networks for significantly improved system expandability. The Dante Device Lock feature that prevents unwanted changes to Dante settings is also supported.

The number of supported Shure Wireless Receivers has also increased. Version 4.0 provided support for the ULXD4D and ULXD4Q. Version 4.1 additionally supports non-Dante devices including the AXT400, QLXD4, and ULXD4. Control and monitoring are supported for all devices, plus transmitter gain control for the AXT400.

In other news, in order to offer the best possible monitoring experience, Yamaha has teamed up with Ultimate Ears Pro to develop EQ presets that would deliver the full sonic potential of Yamaha consoles and Ultimate Ears Pro in-ear monitors so that artists have the monitor detail and clarity they need to deliver a superior performance.

Neutrik Features XIRIUM PRO Cable Replacement System

BOOTH 529 Neutrik is showing its upgraded XIRIUM PRO Wireless Cable Replacement System. Foremost among XIRIUM PRO's new features is the Xirium App Version 3.0. This software offers an Advanced Mode that provides additional control and settings options. Version 3 also includes a new Temperature Monitor that displays the temperature—Low, Good, High—of the base stations utilized in a XIRIUM PRO system.

XIRIUM PRO's antenna options have also been upgraded. There are now two directional antenna options for use exclusively with XIRIUM PRO receivers. Secondly, the upgraded package also has provisions for a variety of remote mount antenna options.

Central to XIRIUM PRO's robust performance attributes is Neutrik's DiWA (Digital Wireless Audio), which provides compression-free, FCC license-free, wireless transmission of audio within the 5 GHz band.



Neutrik's XIRIUM PRO Cable Replacement System



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50 Series Mics in Audio-Technica Spotlights

BOOTH 422 Audio-Technica is showcasing its flagship 50 Series line of studio microphones at AES New York 2017. The series currently consists of the recently introduced AT5047 Cardioid Condenser Microphone, which joined the AT5045 Cardioid Condenser Instrument Microphone and the AT5040 Cardioid Condenser Microphone in the series.

The 50 Series' groundbreaking use of new technology and attention to detail makes this high-quality series of microphones truly elite. For instance, A-T engineers developed a four-part rectangular element for the AT5047 and

AT5040, the pinnacle of the company's recent breakthroughs in sound-capture technology. Four exquisitely matched ultra-thin diaphragms function together (with outputs proprietarily summed) as Audio-Technica's largest-ever element, providing combined surface area twice that of a standard one-inch circular diaphragm. Additionally, the AT5045 features the



Models from Audio-Technica's 50 Series

largest single diaphragm surface area A-T ever manufactured. Finally, every 50 Series microphone is hand assembled and individually inspected for 100 percent quality control. Each studio microphone is enclosed in an elegant housing of aluminum and brass with high-quality finish for durability and low reflectivity.

ShowNews

Friday/Saturday Product Development Track Events

FRIDAY, OCTOBER 20TH

9 a.m.-10:30 a.m. (1E14)

PD06: Modern Hybrid Audio Coding

Presenter: Jürgen Herre, International Audio Laboratories Erlangen - Erlangen, Germany; Fraunhofer IIS - Erlangen, Germany

During the past one and a half decades, recent audio coding schemes have significantly overcome traditional limits for compression efficiency by adopting techniques for semi-parametric (hybrid) coding of audio signals. By doing so, full-bandwidth stereo reproduction can today be achieved even at very low bitrates, such as 12kbit/s. The keys to this breakthrough achievement were two types of semi-parametric coding extensions: First, methods for bandwidth extension (BWE) allow full reproduced audio bandwidth even at low rates. Second, methods for parametric stereo (or multichannel) coding enable good reproduction of spatial sound under similar circumstances. The workshop will present the current state of development in these active areas, describe relevant technology and illustrate its performance by sound examples.



Jürgen Herre

10:45 a.m.-12:15 p.m. (1E14)

PD07: Agile Audio Product Development

Presenter: Paul Beckmann, DSP Concepts, Inc.—Santa Clara, CA

The days of designing everything from scratch are gone. Products are now too complicated and development times are too short to go it alone. This session focuses on recent advances in design tools for audio product developers.



Paul Beckmann

1:30 p.m.-3 p.m. (1E14)

PD08: Reusing and Prototyping to Accelerate Innovation in Audio Signal Processing

Presenter: Gabriele Bunkheila, MathWorks—Cambridge, UK

This session will focus on different techniques to integrate existing code and IP into early simulations of algorithms and system designs, ranging from embeddable code to cloud-based services. You will also be exposed to quick prototyping workflows, including methods for running in real-time and validating ideas on live real-world signals.



Gabriele Bunkheila

3:15 p.m.-4:45 p.m. (1E14)

PD09: Front End Audio Processing for Voice Enabled Products

PPaul Beckmann, DSP Concepts, Inc.—Santa Clara, CA

This session focuses on the front end audio

processing needed by a device to properly interface to a cloud based ASR engine. We cover beamforming, echo cancellation, direction of arrival estimation, and noise reduction. We show how the algorithms must be designed to work in concert for far field voice pickup and the difficult to achieve “barge in” feature.

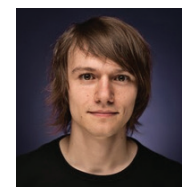
SATURDAY, OCTOBER 21ST

9 a.m.-10:30 a.m. (1E14)

PD10: Is the Anechoic Chamber Obsolete?

Presenter: Christian Bellmann, Klippel GmbH - Dresden, Germany

Anechoic rooms have been considered as an expensive but optimum way for assessing loudspeakers under free field conditions. This tutorial discusses the physical limitations of the room and gives practical advice how to avoid systematic measurement errors. In the second part alternative techniques are discussed that allow to provide measurement results under simulated free field conditions.



Christian Bellmann

10:45 a.m.-12:15 p.m. (1E14)

PD11: 3D FIR-Based Beam Shaping—Revolution or Evolution

Presenter: Stefan Fiestal

This session discusses backgrounds and trends of FIR-based coverage optimization.



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Waves Offers Brauer Motion Plug-In

BOOTH 640 Waves Audio is exhibiting its Brauer Motion plug-in. This circular stereo auto-panner designed with GRAMMY winning mix engineer Michael Brauer (Coldplay) allows users to create an unprecedented world of movement inside their mixes.

Brauer Motion takes Michael's mastery of the sound spectrum and lets users control the movement of sounds unlike anything else in their toolkit. It works especially well on rhythmic tracks such as percussion and acoustic guitar; on swelling pads and organs; or whenever a mixer wants to pull the listener in with subtle or drastic panning movement.



The user interface for Waves' Brauer Motion plug-in

This super-creative plug-in comes with four different panning modes to direct the motion of the sound; four different trigger modes for a variety of on/off options; two panners with full control; a dynamics section; pre-delay, motion filter, and precise control over the speed, width and depth.

Calrec Features Summa Audio Console

BOOTH 631 Calrec Audio is showcasing its new Summa Audio Console at AES New York.

The elegant Summa console is designed for broadcast professionals who need to produce creative and engrossing broadcast audio easily, but may not require as many resources as Calrec's larger consoles. Control is via a 17-inch multi-touch screen inspired by familiar tablet technology, with a straightforward interface that allows use of established finger gestures to navigate the system.



Calrec's Summa Audio Console

Summa's considered control simplifies even complex workflow tasks, such as creating mix-minus feeds. Bluefin2 technology gives Summa a pool of 180 or 128 channel processing paths, eight groups, four mains, 16 auxes, and 32 tracks.

In addition to demoing products at AES New York, Calrec is participating in the Broadcast Audio Expo sessions. The sessions will cover audio applications for radio and TV studios, outside broadcasts and streaming broadcast over portable devices.



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ShowNews

Broadcast & Streaming Events

FRIDAY, OCTOBER 20

10:45 a.m.-12:15 p.m. (1E08)

B09: Advances in Microphone Cable Technology

Presenter: Steve Lampen, Belden—San Francisco, CA

This presentation outlines two new analog microphone cables from Belden.

1:30 p.m.-3 p.m.

B10 - Podcast Production

Moderator: Rob Byers, NPR - Washington, D.C.

Learn about their creative techniques, technical workflows, and strategies for working in this burgeoning industry.

3 p.m.-4:30 p.m.

B11: Metadata for Radio and Streaming: The Digital Dashboard

Moderator: Glynn Walden, CBS Radio Consultant—Marlton, NJ

This panel will discuss how the digital dashboard contributes rich textural support for audio for analog/HD radio delivered over-the-air or via a hybrid radio and streaming services.

5 p.m.-6:30 p.m.

B12: The Audio Crew of *The Late Show with Stephen Colbert*... A Special Broadcast Event

Come and hear, even join in the conversation, about "a day in the life" of these unsung heroes in this rare opportunity as they are always on the job. Fascinating backgrounds and expertise come together in this truly stellar, award winning, audio team with a legacy of amazing music to create the sound of *The Late Show with Stephen Colbert*.

SATURDAY, OCTOBER 21

3 p.m.-5 p.m. (1E13)

B13: What's This? Doctor Who with Spatial Audio!

Presenter: Chris Pike, BBC R&D—Salford, Greater Manchester, UK; University of York—Heslington, York, UK

BBC lead engineer Chris Pike takes us into the magic that happens in post to transform a normally recorded episode into a magnitude enhanced experience. Chris will highlight the tools, the process, and how BBC maintains compatibility with existing workflows.

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- Unbalanced line outputs for controlling a stereo monitor system
- 2 power modes - from USB bus power or included external DC supply
- Five year transferable warranty / Made in the USA



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Genelec Sets Strategic Alliance With Nashville Facility

BOOTH 322 Genelec has formalized a strategic alliance with Nashville's Addiction Sound Studios and its management. Under the terms of the agreement, Addiction Sound Studios (the private studio of legendary Journey keyboardist/songwriter/multi-platinum artist Jonathan Cain and famed multi-platinum, multiple *Billboard* #1-charting producer/mixer/engineer/multi-instrumentalist David Kalmusky) will become a showcase venue for Genelec, where members of the Nashville music community can now audition a wide selection of Genelec Active Monitors in a controlled studio environment.

"This relationship with Addiction Sound Studios has been an evolving one and will now provide end users and clients of our local Nashville dealers the ability to evaluate and listen to our monitors—with their own reference CDs or line-in program material if they choose—in order that they get the most accurate sonic picture when making a purchasing decision," says Genelec Inc. Territory Manager John Whitcore.

As part of the new relationship, Addiction Sound Studios has recently acquired several pairs of Genelec Active Monitors, including 8351 Three-way Smart Active Monitors (part



Genelec Inc's Territory Manager John Whitcore (left) and Eastern Territory Sales Manager Paul Stewart in Addiction Sound Studios' Control Room A at a recent Genelec event held during the 2017 Summer NAMM Show.

of the recently introduced "The Ones" series); 8350A Smart Active Monitors; and 1238A Three-way Smart Active Monitors.

L-Acoustics Launches First Avnu-certified Systems

AES SPONSOR L-Acoustics is launching the LA12X amplified controller, its first product to receive Avnu certification, with the LA4X soon to receive certification. A member of the Avnu Alliance since 2015, L-Acoustics has committed its development resources to open-standard AVB technology, which streamlines network infrastructure by combining audio signal transmission with system control and monitoring.

The Avnu-certified LA12X and LA4X amplified controllers include built-in AVB bridge functionality, reducing the need for additional costly networking equipment and facilitating setup and interoperability of systems. Together, they are the first Avnu-certified amplified controllers to be launched with both Bridge and Listener technology. To accompany the LA12X and LA4X, LA Network Manager software is also updated with an AVB controller, which eases connection with other systems and integrates seamlessly via an easy and natural user interface.



L-Acoustics' LA4X and LA12X Avnu-certified amplified controllers shown with a laptop running LA Network Manager)

Hal Leonard Issues 'Audio Production Basics with Pro Tools | First'

BOOTH 448 Newly released from Hal Leonard Books, *Audio Production Basics with Pro Tools | First* teaches the basics of composing, recording, editing, mixing, and processing audio using the freely available Pro Tools | First software. Designed for the digital audio novice, this first-of-its-kind volume is an ideal launch pad for aspiring audio engineers, new media professionals, and anyone else seeking better results in their audio endeavors.

Audio Production Basics covers all the bases within the context of a Pro Tools user interface, from basic computer and digital audio workstation concepts to audio and MIDI recording techniques to procedures for selecting and navigating fundamentals of mixing and signal processing and beyond. This book serves as a resource for both Pro Tools | First users and those employing commercial versions of Pro Tools software.



THE RECORDING ACADEMY PRODUCERS & ENGINEERS WING, AES SPONSOR The Recording Academy Producers & Engineers Wing has announced its 2017-2018 Steering Committee. The newly seated Committee consists of a diverse array of music engineers, producers, and audio professionals who, building upon the significant legacy established by prior Steering Committees, will work to address key issues confronting music production and promote meaningful solutions to help move the industry forward. The P&E Wing continues to advocate for excellence in sound recording, audio technologies, and education in the recording arts, along with recognition and rights for music creators overall. The 2017-2018 Steering Committee is chaired by GRAMMY winners Ed Cherney and Ann Mincieli, and includes the following music industry professionals from across the United States: (from left, back row) John Poppo, Manny Marroquin, Ivan Barias, Jeff Balding, Matt Hennessy, David Chesky; (front row) Ken 'Duro' Ifill, Ann Mincieli, Ed Cherney, Maureen Droney, Emily Lazar. Not pictured: Greg 'Stryke' Chin. Photo courtesy of the Recording Academy. (c) 2017. 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.



DiGiCo Expands S-Series With S31

BOOTH 631 When the DiGiCo S21 was unveiled to the public two years ago, it broke the mold for small format consoles with two multitouch touchscreens, 21 faders and bundles of I/O.



DiGiCo's S31 console

Now, DiGiCo has gone one step further with this year's introduction of the S31, the latest console in the S-Series, which opens even more doors, allows for increased functionality and accessibility, and still sports a highly attractive sticker price.

The new S31 is the bigger version of the S21. Its expanded work-surface offers 10 additional faders for more control and an additional 10-inch multi-touch screen for faster access and more visual feedback. It is ideally suited to applications where more instant control and feedback are critical to the operator.

The S31 still offers the same flexibility as the S21, with 24 Mic inputs and 12 Line outputs on the rear of the console for straightforward audio connection. There are also two DMI ports as standard, as well as a UB MADI interface for DAW recording.

Klippel Offers QC Stand-alone Software

BOOTH 445 Klippel has released the latest software version QC5 of the QC System for measurement with universal audio interfaces (sound cards). The new version is fully compatible with previous versions.

The Klippel Production Analyzer (PA) is the recommended standard hardware for performing tests on audio devices with the Klippel QC software. This measurement device is dedicated to reliable operation in a production environment and is part of the QC Basic or QC Standard set. For testing passive devices (transducers), the Production Analyzer is required as it provides voltage and current sensors for accurate measurement of electrical parameters (impedance, T/S parameters, large signal parameters).

However, some testing applications, such as purely acoustical or line level tests, do not require the specific features of the PA. A compact USB audio interface may be preferable, especially for mobile testing applications such as installed speaker diagnostics, measurement in car interior, on-site quality check of rental equipment and many others.

The QC 5 Stand-alone Software may be purchased and operated independently from the PA hardware; only a USB license dongle is required. Virtually any audio device that provides an ASIO or Windows Direct Sound driver may be used as measurement interface.



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Dave Isaac Streamlines Personal Setup With Focusrite

BOOTH 366 Three-time GRAMMY Award-winning producer/mix engineer Dave Isaac has led a dream career in the worlds of R&B, jazz and beyond, working with the likes of Bruno Mars, David Sanborn, Marcus Miller, Prince, EDM artist Little Sis Nora (Ekberg) and many others. His personal setup has evolved in recent years, as he has found a useful hub in the Red 8Pre 64-In / 64-Out Thunderbolt 2 and Pro Tools HD compatible audio interface from Focusrite.

“Not too long ago, I basically upgraded my whole setup from scratch,” he notes. “I was looking forward to a simplified network infrastructure, and Red 8Pre was definitely the right interface for my setup. I can get frustrated with different pieces of gear and different software windows, when they don’t all seem to be speaking to each other. But getting the Red 8Pre as the hub has made that a non-issue. Now I can focus on the music.

“The Red 8Pre has allowed me the flexibility to do whatever I need as far as inputs and outputs, all with one Red 8Pre unit. When we



GRAMMY Award-winning producer/mix engineer Dave Isaac, pictured with the Focusrite Red 8Pre 64-In/64-Out Thunderbolt 2 and Pro Tools HD compatible audio interface.

first set it up, I was up and running in a matter of minutes. Having this flexibility has, without a doubt, saved me both time and money. The range of options in connectivity is insane. If by some chance I want to move into more than 64 channel outs in the future, it’s really as simple as adding one additional Dante piece that won’t take up too much rack real estate. I love the thought of that!”

Shure Unveils Super 55 Pitch Black Deluxe Vocal Mic

BOOTH 514 Shure’s Super 55 Pitch Black Edition is a modern take on the classic Super 55’s look and performance. Featuring a matte black die-cast case, black foam and smooth frequency response for natural vocal reproduction, and comes with an integrated swivel stand mount base and microphone bag, it is perfect for any performance on-stage or screen.

The Model 55 Unidyne is the epitome of classic microphone design just as much today as it was more than 75 years ago when it debuted. The Super 55 Pitch Black Edition’s eye-catching black-on-black design is a twist on the original and adds a sleek style to any production. The rigorously-tested supercardioid microphone cartridge rejects unwanted noise and prevents feedback. The shock-mounted cartridge and tough, die-cast case reduces handling noise and protects it from damage.

Fairview Baptist Upgrades With Allen & Heath

BOOTH 740 Fairview Baptist Church, a rapidly growing church in Corryton, TN, recently upgraded its audio with three Allen & Heath dLive Digital Mixing Systems and an integrated ME Personal Monitoring System.

Emmaus Media & Design of Harrisburg, PA, installed the Allen & Heath systems and trained Fairview Baptist’s tech crew. A dLive S Class S7000 Surface, DM48 MixRack and DX32 Expander provides FOH mixing in the church sanctuary. A dLive C Class C3500 Surface and CDM48 MixRack serve its Student Center. And, a C3500 Surface with CDM32 MixRack mixes live streaming and audio for video in the church’s broadcast booth.

“We had exceeded the space on the old mixer, we had audio quality problems and routing issues that consistently came up,” explains Fairview Baptist Media and Technical Director Jeremy Cummings. “Also, we wanted to upgrade the audio experience for



Brandon Harold and Mike Appel Mix FOH for Fairview Baptist on the Allen & Heath dLive S7000

live streaming to allow people from all over to not just watch our services but to be immersed in our church’s worship gatherings.” After

evaluating several mixer options, Cummings says, “the dLive blew the others away!”

PMC's 'Masters of Audio' Seminars

DEMO ROOM 1E06 PMC is hosting its 'Masters of Audio Seminars' (an exclusive partnership with the AES) in Demo Room 1E06, which will have a full 9.1 monitor setup based on the company's IB2-XBD-A monitor system supplemented with IB1S-AIII for the surround channels and reference twotwo.6 models for the height channels. The Award-winning MB3S-XBD-A monitors, launched earlier this year at NAMM, will also be on display.

FRIDAY, OCTOBER 20

9 a.m.-11 a.m.

"This is a MIX, this is a MASTER" session by Ian Corbett

11 a.m.-Noon

EC09, "Recording Critiques" moderated by Ian Corbett

Noon-1 p.m.

"Mixing Like a Producer" by Chris Tabron

1:30 p.m.-3 p.m.

GA12 "Resident Evil 7" by Akiyuki Morimoto, Ken Usami

3:15 p.m.-4:15 p.m.

SA09 "Kraftwerk and Booka Shade" by Tom Ammermann

4:30 p.m.-5:30 p.m.

SA10 "Native Immersive Recordings" by Daniel Shores

SATURDAY, OCTOBER 21

10:45 a.m.-11:45 a.m.


SA13 "3D Ambeo and Live Recordings" by Jim Anderson & Ulrike Schwartz

1:15 p.m.-2:45 p.m.

SA15 "Afternoon Listening Session in 9.1" by Paul Geluso

3 p.m.-4 p.m.

SA14 "Capturing Height" by David Bowles, Paul Geluso and Sungyoung Kim



SAMAR AUDIO DESIGNS, BOOTH 362 The new VL373 is the latest addition to the acclaimed Samar Audio Design MF65-VL37 family. The mission statement for the VL373 was to create a "true to life" stereo image, a goal achieved by placing two ribbon elements in very close proximity to each other effectively minimizing any phase distortion up to very high frequencies. The VL373 is essentially two VL37 microphones in one chassis—a genuinely high-performance stereo ribbon microphone ready to capture your finest performances. Another unique feature of the VL373 is a special swivel mechanism that allows the user to change the angle of stereo spread.

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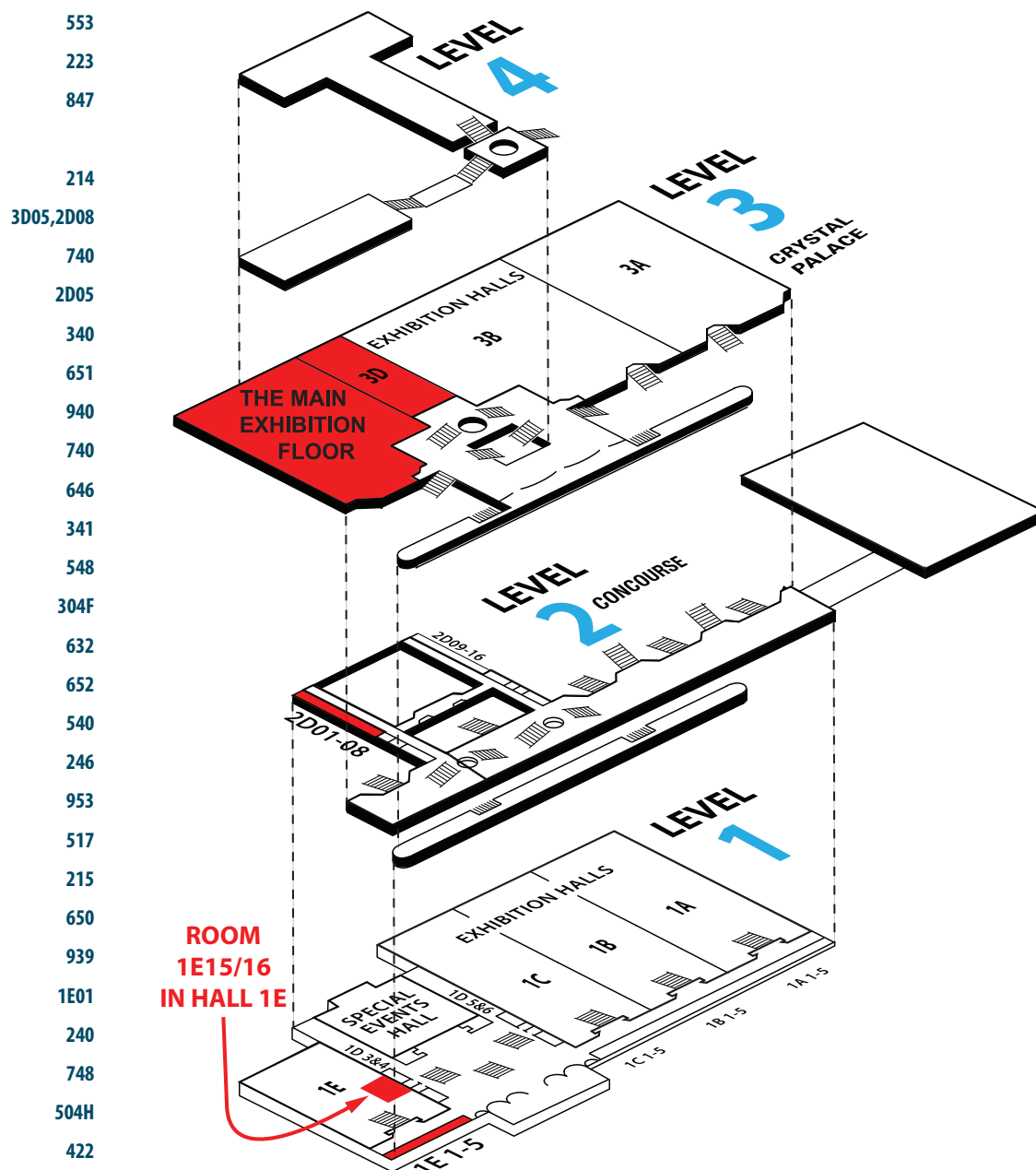
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For more information visit **AES booth 529 | NAB NY booth N271**

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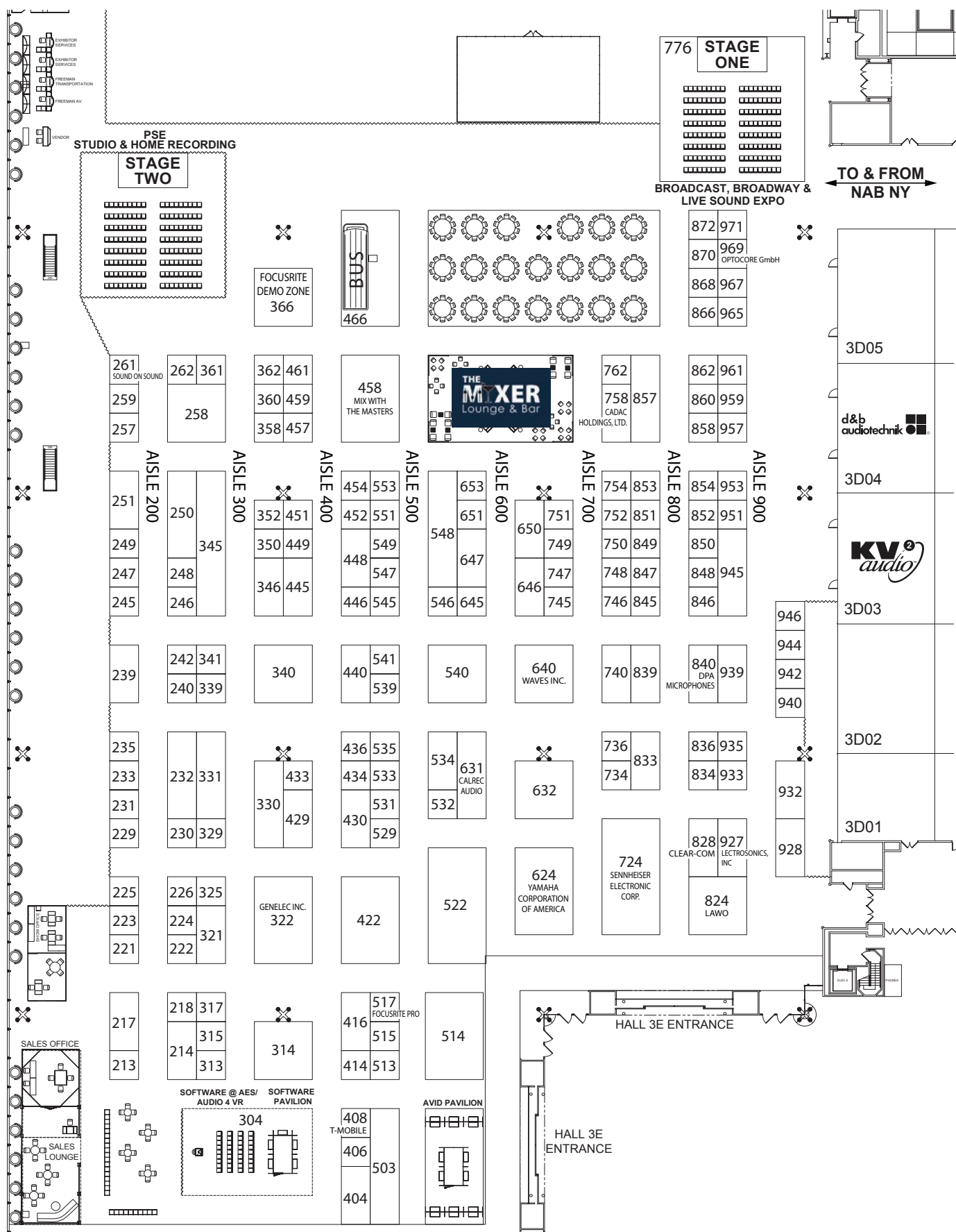
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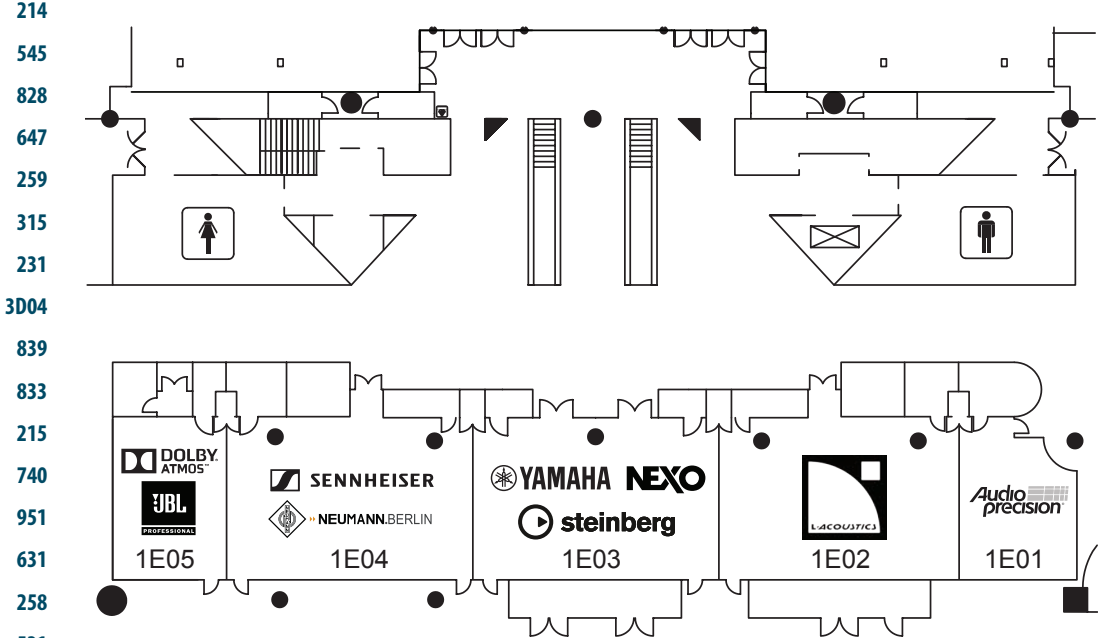


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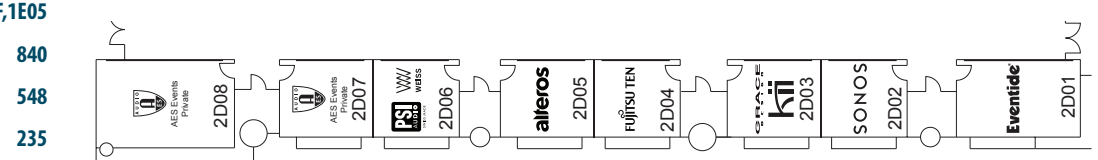
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Yamaha Updates TF Series Digital Mixers Firmware

BOOTH 624 Yamaha is showing V3.5 firmware update for the company's TF Series Digital Mixers at AES 2017 at AES 2017. The TF Series offers ease of operation and an advanced touchpanel based TouchFlow Operation interface, popular for a wide variety of applications.

Firmware update v3.5 will significantly expand the utility of the Yamaha TF Series

with the addition of the acclaimed Dugan Speech System automixing capability. Developed in cooperation with Dan Dugan Sound Design Inc., the update includes the original, innovative automatic microphone-mixing algorithm that helps professional audio engineers cue multiple live mics in situations with unpredictable dialogue. This capability is also included in the Yamaha QL Series and more

recently, the CL Series consoles.

The Dugan automixer can be applied to up to eight channels in the TF Series, automatically raising the gain of microphone inputs that are active, while lowering the gain of inactive microphone inputs, and adjusting each to create a consistent overall mix level.

Yamaha TF firmware update v3.5 is a free update via download.

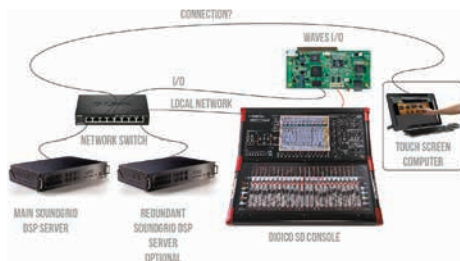
DiGiCo, Waves in New Integration Method

BOOTH 631 DiGiCo and Waves are collaborating on a new method of integration that will allow users to maximize the potential for additional new features on both the Waves and SD platforms.

DiGiCo SD consoles will be able to integrate with a Waves Multi-Rack system, which is running on an external PC, while maintaining the high level of integration both companies' clients have come to rely on.

This integration will continue to use the low latency Waves I/O interface built into SD consoles for audio routing and will also include the existing standard session, snapshot and plug-in control for advance, faster and smooth show control and automation. The integration will allow the use of Waves latest and most advanced plug-ins to expand the engineer's sonic options.

Further enhanced control implementation is being planned.



Per Dave Reitzas, Genelec 1032C 'Feels Like Home'

BOOTH 322 Noted live and studio engineer David Reitzas, a multi-GRAMMY and Emmy Award winner whose credits include such acts as The Weeknd, Josh Groban, Whitney Houston, Madonna, Seal, Stevie Wonder, Guns N' Roses and most notably a longtime association with legendary artist Barbra Streisand as her engineer of choice for both live and studio work, is among the first to test out the new Genelec 1032C Studio Monitor.

"I've been a longtime user of Genelec monitors, and there is a consistency of sound quality across the whole product line," Reitzas says. "When you love a speaker it's because you get great results and they translate well, and your familiarity with that speaker helps you make all those important decisions when it comes to recording and mixing. So the new 1032C feels like home to me, and it's made all the better with the addition of the Smart Active Monitoring system."



Dave Reitzas with the Genelec 1032C Smart Active Studio Monitor

Lawo, New Audio Technology Team on LIME Solution

BOOTH 824 Lawo is launching LIME, a comprehensive solution for mixing and monitoring 3D immersive productions on mc² consoles. The product was developed in close cooperation with New Audio Technology, developer of immersive audio solutions for industrial, professional and end user applications.

The Lawo Immersive Mixing Engine (LIME) provides integrated control with Lawo's mc² series consoles and is capable of producing all relevant 3D/Immersive audio mixes used by formats like Dolby Atmos

(7.1.2 and 5.1.4 bed), MPEG-H, AURO-3D, DTS:X, NHK 22.2, IMAX 6.0 and 12.0, Sennheiser AMBEO 3D Audio for loudspeaker systems. Furthermore, it is ready for MPEG-H's TV Audio System, included in ATSC 3.0, designed for personal audio and broadcast applications. In addition, LIME includes an advanced headphone monitoring solution for 3D and surround productions, featuring New Audio Technology's market-leading binaural speaker virtualization Headphone Surround 3D. Music and film produc-



Lawo's LIME Immersive Mixing Engine for mc²

tions like *Kraftwerk 3D*, *Expendables I-III*, *Frankenstein* and *Mr. & Mrs. Smith* have already utilized this feature.

TASCAM US-1x2 Enables Pro-Quality Mobile Recording

BOOTH 928 As the newest member of TASCAM's US series of USB 2.0 recording interfaces, the US-1x2 delivers high-quality, 24-bit, 96 kHz desktop recording at an amazingly low price point. An excellent



TASCAM's US-1x2 USB 2.0 recording interface

choice for singer/songwriters, podcasters, and small home studios, the compact US-1x2 interface is highly portable and can be USB bus-powered for mobile operation with a Mac or Windows laptop. A secondary 5 VDC mini-USB power input is provided for iOS devices and for standalone operation in practice sessions.

The US-1x2 can record from virtually any source thanks to its selection of inputs. The unit's XLR microphone input employs TASCAM's high-end Ultra-HDDA mic preamp, which uses discrete components and features an impressive -125 dBu EIN rating and 101 dB signal-to-noise ratio, meaning the noise level is so low it's almost inaudible.

The US-1x2 is class compliant for macOS and is compatible with Windows PCs using an easily installed ASIO driver.

Waves eMotion LV1 Embraces Dugan Automixing

BOOTH 833 Waves now offers the industry-standard Dugan Speech System as part of the eMotion LV1 live mixing console. Developed by Waves in conjunction with Dan Dugan, the new automixing feature incorporates Dugan's proprietary voice-activated process and automatically controls the



Screen shot of Dan Dugan's Speech System as part of the Waves eMotion LV1 live console

gains of multiple microphones in real time while reducing feedback, studio noise and comb filtering from adjacent microphones.

The Dugan algorithm maintains a consistent system gain, even when multiple speakers are talking simultaneously, and provides perfectly matched crossfades without any compression or noise gating artifacts. Automixing is integrated into the input channel strips of the LV1, so no patching is required.



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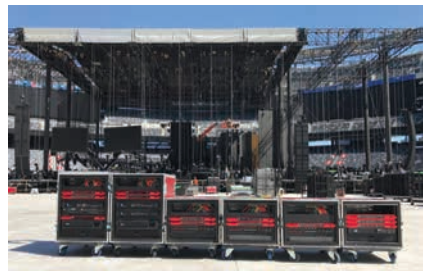


Focusrite, Firehouse Serve Up Sound for 2017 IIFA

BOOTH 366 The annual International Indian Film Academy Awards (IIFA) ceremonies are stadium-filling multimedia and live entertainment extravaganzas. The IIFA 2017 took place at the New Jersey/New York MetLife Stadium and Redhook, NY-based Firehouse Productions provided audio support with a drive system powered by RedNet Dante-networked audio interfaces from Focusrite. The event provided a critical test that the network aced, according to Firehouse's Luis Espinal, systems tech on the project. "This is it. It proved the point. The connectivity and how everything came up together—it was truly mind-blowing," Espinal says enthusiastically.

Firehouse Productions provided all sound gear for the stadium and all communications for IIFA 2017. Firehouse senior audio tech Simon Welch and senior RF/PL technician Vinny Siniscal led the team of 12 "Firemen" onsite. "The most exciting part of the event was the ability to use our newly designed routing and network solution, built of Focusrite RedNet Products," says Espinal. "We had a

total of 18 RedNet devices operational on site. They functioned as the drive system, for routing I/O between locations throughout the stadium and for interfacing with the TV truck. We used RedNet D16R 16-channel AES3 I/O, RedNet A16R 16-channel analog I/O and RedNet A8R eight-channel analog I/O units to drive the PA through a large Dante network. We also used Focusrite's RedNet AM2 stereo audio monitoring unit as a Dante listening device, so we could move on with the production part of the show and still follow line checks without the need to be next to guest mixers.



Firehouse Productions' RedNet-based drive system racks on site at MetLife Stadium for IIFA 2017.

Metering Tools in Focus at RTW

BOOTH 504G Once again exhibiting at the Avid Partner Pavilion, RTW is showing the MM3 MusicMeter, a highly compact, easy-to-use product, that gives users the ability to implement loudness metering into music-based applications with flexibility and superior accuracy. The Masterclass PlugIns Series, which includes its Loudness and Mastering Tools, will also be on display. These plug-ins provide RTW hardware meters as software. Loudness Tools features metering and loudness displays for mono, stereo, multichannel and surround applications, while Mastering Tools consists of extensive analysis and display functions for mastering, metering and loudness measurements. A range of other RTW products also is featured at the booth.

Hear Launches Hear Back PRO Virtual Mixer

BOOTH 845 Hear Technologies is launching the Hear Back PRO Virtual Mixer.

It boasts all the features of the Hear Back PRO Mixer in a small card format.

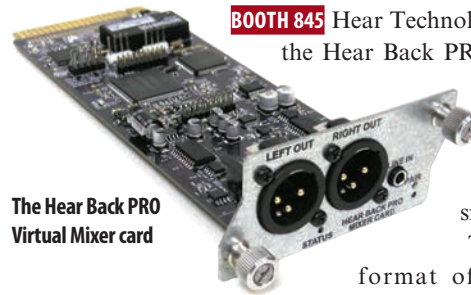
The small card format of the new Hear Back PRO Virtual Mixer allows it to fit into the Hear Back PRO Hub.

The Hub can be populated with up to four Virtual Mixer cards, and an unlimited number of Hubs can be connected together for larger systems.

Controlling the Virtual Mixer is easy using the new Hear Back PRO iOS app on any iOS device or even another Hear Back PRO Mixer. This key feature is ideal for controlling wireless in-ear monitor or standard stage monitor mixes. The app also allows the user to easily drag and drop which iOS devices and Hear Back PRO mixers control each Virtual Mixer.

The Pairing button (and LED indicator) makes it easy to configure which iOS device or Hear Back PRO Mixer(s) will be controlling each Virtual Mixer.

The new Hear Back PRO Virtual Mixer can be used to mix 16 or 32 channels of audio for your wireless in-ear or standard stage monitor rig.



The Hear Back PRO Virtual Mixer card

New Dynaudio Pro Subwoofers For Studio Monitors

BOOTH 440 At AES New York 2017 Dynaudio Pro is launching the 9S and the 18S subwoofers, its first new subs optimized for studio monitors in 10 years. Long-throw 9.5-inch woofers that are designed to be equally efficient for stereo and surround, handling the frequency range from 18 Hz to 175 Hz, are at the heart

of these new subs. The 9S features one woofer and the 18S has two in a push-push opposing design with a woofer on each side.

Powered by a high-end 300-watt Class D amplifier, the 9S long-throw driver delivers low-end extension and SPL performance that



Dynaudio Pro's 9S subwoofer

outperform the BM 9S II that it replaces, while preserving detail and precision. The 18S is powered by a 500-watt amplifier and also comes with a powerful DSP engine and built-in presets for Dynaudio Pro studio monitors, as well as time-alignment functionality and a three-band EQ. The new subwoofers come with dou-

ble front baffles, adjustable low-pass filters (50 Hz-150 Hz) and SAT output with defeatable high-pass filter, signal-sensing, auto-power circuit and the ability to daisy chain more units, having the first instance control the overall volume for all of the subs.



DPA's d:vice MMA-A digital audio interface

DPA Features d:vice MMA-A DAI

BOOTH 840 DPA Microphones' d:vice MMA-A Digital Audio Interface, featured in the company's AES 2017 exhibit, provides musicians with studio quality sound on the go.

The d:vice MMA-A Digital Audio Interface is a high-quality, two-channel microphone preamp and A/D converter offering mono, dual and stereo capabilities. As part of the newest firmware update, the app for the d:vice boasts a new summing feature. When two microphones are connected, it is now possible to sum the two channels so that each of the mics' audio signals is sent equally to output 1 and output 2. Users are now able

to set individual gain for each mic and still have a single summed mono output. This is especially useful to ensure controlled output to mono platforms, including, but not limited to, Facebook Live.

"With the d:vice, users can record and stream clear and professional audio with any DPA miniature microphone," says Christopher Spahr, VP of Sales and Marketing, DPA Microphones, Inc.

DPA also is showcasing its range of d:dicate Recording, d:vote Instrument, d:facto Handheld, d:fine headset and d:screet Miniature Microphones.

P&E Wing, Sponsors Collaborate on High-Profile Nashville Events

As Producers & Engineers Wing sustaining partners, Iron Mountain Incorporated Entertainment Services and Harman Professional provide sponsorship of events and initiatives, including the annual P&E Wing GRAMMY Week Celebration and regional professional development events. They also serve as members of the P&E Wing Manufacturer Council, a group of pro audio-related companies that function as a think tank to address industry issues, including technical best practices, new technology development, recording asset preservation, and overall music creator rights. Recently, the P&E Wing hosted two high-profile events with these partners in Nashville.

The first event, on Thursday, July 13, put the P&E Wing and Iron Mountain at Third Man Records during the Summer NAMM Show. Dubbed "A Preservation Celebration," the evening recognized Nashville's longtime commitment to excellence in audio and the archiving and preservation of recorded music and film.

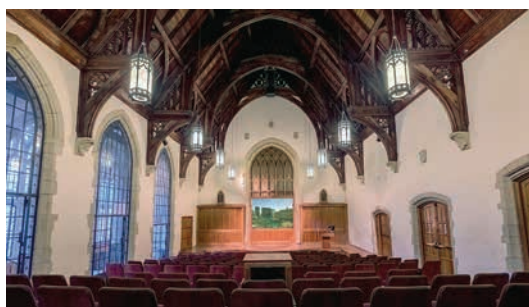
On Friday, August 11, the P&E Wing joined with Harman Professional for an exclusive event titled "From Mic to Mix" at Nashville's famed Sound Stage Studios. An eclectic roster of Music City's recording professionals gathered for a cocktail reception and recording and mixing demonstration with GRAMMY-winning engineer Ryan Hewitt, featuring a live performance by international rock trio Elle Macho. The evening highlighted the latest recording products and technologies from Harman Professional brands AKG, dbx, JBL and Lexicon, including the debut of the highly anticipated JBL 7-Series powered master reference monitors.

"Thanks to the generous support of our partners Iron Mountain and Harman, we continue to promote initiatives and long-term objectives that speak to the importance of recording professionals and the work that they do," says Maureen Droney, Recording Academy Managing Director, Producers & Engineers Wing.

L-Acoustics Matriculates to Yale U.

AES SPONSOR America's third-oldest college, Yale University is perhaps as noted for its Gothic-flavored architecture as for its history and academic achievements. So, when updating the AV systems in several of Yale's existing spaces, as well as one of its newest ones, systems integrator North American Theatrix (NAT) turned to L-Acoustics knowing that its products would deliver superior audio fidelity while discreetly blending into each room's décor.

"We're a preferred vendor for Yale and have worked on their AV systems in the past, so when they asked us to find the best sound solution we could for these spaces, we naturally went with L-Acoustics," says Pat Nelson, Chief Operating Officer of NAT, which is also an L-Acoustics Certified Provider for Install (CPI). "Theater and auditorium spaces are one of our specialties, so



Yale's Sudler Recital Hall, home to a new L-Acoustics Kiva/SB15m array

product lines like Kiva and XT were sonically and visually ideal for Yale's orchestra rehearsal room and a recital hall. But we were also dealing with a wider range of environments that included a lecture hall and a dining room, and we were pleased to find that those same systems were very well suited for addressing the school's needs in those disparate spaces as well."

Hurwitz Is In La La Land with Prism Sound Lyra 2

BOOTH 300 Award-winning film composer Justin Hurwitz has invested in a Prism Sound Lyra 2 for his private studio and is using it as the audio interface between his preamps and his digital audio workstation.

Based in Los Angeles, Justin Hurwitz is the acclaimed composer of this year's massive movie hit *La La Land*, which won in all seven categories for which it was nominated at the 74th Golden Globe Awards. The film also received 11 nominations at the 70th British Academy Film Awards, winning five, and received 14 nominations at the 89th Academy Awards, winning six. Among these Oscars were two for Hurwitz—for Best Original Score and Best Original Song ("City of Stars").

Hurwitz, who also scored the Oscar-winning movie *Whiplash*, chose a Prism Sound Lyra 2 interface after taking advice from various sound engineers whose opinion he trusted.

Based on the company's award-winning and critically-acclaimed Orpheus interface, Prism Sound's Lyra allows music recording professionals to access the power and sophistication



Justin Hurwitz

of the Orpheus audio path and clock circuitry, but in a smaller package and at an improved price point.

"I heard that Prism Sound made great interfaces with the highest quality A/D conversion," he says. "I wanted really high quality A/D conversion for the one or two channels that I'm recording right now, so this unit was the perfect solution. It is now set up and an important part of my recording chain."

Waves Offers Dugan Automixer + Dugan speech Plug-In Bundle

BOOTH 640 Waves Audio is offering its Dugan Automixer + Dugan Speech plug-in bundle. With Waves' Dugan Automixer and Dugan Speech, mixing multiple microphones can be easy; the two plugins allow for auto-mixing several mics in real time (one for the eMotion LV1 mixer, one for other live consoles via MultiRack).

Dugan Speech and Dugan Automixer are the definitive solution for broadcast news panels, radio and TV talk shows, houses of prayer, motion picture dialog recording, discussion panels and any other situation involving numerous microphones and participants.

In this high-value package, users get the Dugan Speech plug-in for integrated use inside the eMotion LV1 mixing console, and the Dugan Automixer plug-in for use with other major consoles via the MultiRack plugin host. Developed with pro audio inventor Dan Dugan, both Dugan plug-ins are powered by

his patented voice-activated process.

The Dugan plug-ins save users the need to manually ride faders while trying to keep up with several people talking. They can auto-mix up to 64 channels simultaneously and make perfectly matched crossfades, without compression or noise gates that would cause unwanted artifacts.



The user interface for Waves' Dugan Automixer



A full set of JamRacks studio furniture made of carbonized moso bamboo

JamRacks Shows Bamboo Studio Furniture Options

BOOTH 215 Jersey City-based JamRack Studio Furniture manufactures 100 percent solid bamboo music studio furniture (using carbonized moso bamboo and natural light bamboo) with a variety of designs including solid wood 19-inch pro audio racks, mixing and mastering desks and complete music production workstations. For producers, engineers and artists recording at home, JamRacks offers the ideal solution for recording, mixing and mastering needs.

All JamRacks bamboo studio furniture comes flat packed in heavy duty boxes and is high-quality solid wood studio Furniture for home and commercial studios. Once assembled these racks and even the large desks are so strong they can be carried across the room fully loaded and they will not break apart.

The assembly hardware used is quarter-inch-20 bolts that go into threaded steel dowels, so all JamRacks studio furniture can be taken apart and put back together over and over and over again and It will still be as strong as the day you bought It. All of the corners and edges are rounded over and are very soft to the touch with no sharp or square edges.

Visit the jamracks.com online store to view the different pro audio racks and studio desk configurations available.

NTI Adds Audio Recordings to NoiseScout

BOOTH 854 Through a browser to the NoiseScout unattended noise monitoring web portal you can now listen to quality live audio samples from a remote location. This audio feature helps you to identify what may be causing sound level alarm conditions without you having to physically visit the location.

NTi Audio is constantly striving to add worthwhile features to the NoiseScout system. Audio recordings is the latest addition. The system itself consists of an XL2 Sound Level Meter with microphone, a Net-Box that transmits the level data via 3G, LAN, WLAN modem and the NoiseScout servers, which store the recorded measurement data. Using the NoiseScout web portal, the data, including audio, can be viewed at any time and stored locally.

If an alarm is triggered, 10-second WAV files are made available for immediate download in the browser. Also, at any time, you can listen to live audio for 10 seconds.

When a sound level is exceeded over a specified measurement time interval, NoiseScout searches for the three periods with the highest sound pressure level within that time interval and stores the audio recordings of those three periods on the server.

OwnSurround Showcases ID Audio

BOOTH 961 Finland's OwnSurround has created ID Audio, a new dimension of sound bringing user-tailored, multi-dimensional, spatial audio experiences to anyone, anywhere.

IDA creates a high-quality personal audio profile using an innovative simulation approach. Instead of highly uncomfortable, time consuming, and expensive measurements, all it takes now is a simple 3D scan of a listener's head and ears to create a custom audio profile.

For years, the only way to determine your unique acoustic profile (HRTF), was to take physical measurements in an anechoic chamber. That meant placing small microphones inside your ears-not a very comfortable feeling-and remaining completely still inside the chamber for long periods of time.

IDA makes things fast and simple by 3D scans. The hard work is in the computing, and that's taken care of by cloud computers-where the simulation environment is completely anechoic and the 3D model completely still. The scans are perfectly safe and the result is an extremely high-quality personalized acoustic profile.



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Unimed Massager Takes Away the Pain

BOOTH 652 (AOA MEDICAL) The Unimed Massager is a state-of-the-art TENS unit device designed to give users hours of relief and relaxation. Completely safe and easy to use in the privacy of your own space, the Unimed Massager is ideal for those aches and pains we accumulate from daily activities like sports, driving, housework and even extended periods of sitting.

You may have heard the saying “sitting is the new smoking.” The modern lifestyle really does lead us to over-sit. Driving to and from work, sitting in your office chair all day, then coming home

and sitting in front of the television—sound familiar? In this way, many of our muscles go unused while others are over-stretched, causing your posture to slip and body aches and pains to begin.

The Unimed Massager is the ideal TENS unit to counteract this problem; it is lightweight and easily portable, and has a large LCD screen for easy selection of the type and strength of massage you need. Additionally, a rechargeable lithium ion battery, together with Unimed’s range of compatible accessories, makes the Unimed massager ideal for hours of safe relaxation.

Krotos Reformer Unleashes Voice-Designed Sound Effects

BOOTH 504A Krotos develops innovative technologies that fundamentally change the way sound effects are created. Krotos’ Dehumaniser wowed Hollywood and the video game industry by making it possible for actors to perform other-worldly creature growls in blockbusters like *Avengers: Age of Ultron*, *The Jungle Book*, *Far Cry 4*, *Doom*, and many more. Now, with the launch of Reformer, Krotos makes it possible to actually design sound effects with your voice or any other live audio input.

Unleashed from the constraints of the mouse and keyboard, Reformer allows sound artists to sculpt effects in real-time. Imagine using your voice to design a dramatic explosion in an action movie. Artists can go beyond using the voice, and use any audio input to design a sound effect. For example, the engine revs of a street racer can be re-formed into ferocious black panther snarls.

Reformer is now available as a plug-in for



Krotos’s Reformer VST/AU/AAX plug-in with free Black Leopard Sound Library

the Avid Pro Tools digital audio workstation and other popular sound editorial environments. Visit www.krotosaudio.com to download Reformer and the Black Leopard sound effects library for free, and purchase additional sound effects libraries.

Better Testing at NWAA Labs

BOOTH 857 Led by former NASA scientist Ron Sauro, NWAA Labs is an independent laboratory providing uniform loudspeaker testing and material testing to the audio, acoustics, and construction industries. NWAA Labs has the unique ability to do MACH Testing of speakers and diffusers at a high resolution and extended low frequency testing of acoustical materials to meet or exceed ISO and ASTM standards.

Based just southwest of Seattle, Washington, the laboratory facilities include the two largest reverberation chambers in the world used for transmission loss and absorption testing and a huge, free field, speaker and diffuser measurement facility. The largest reverberation chamber is 738 cubic meters in size and can accurately measure frequencies down to 25 Hz. It is also the second quietest room in the world with a background level of -15 dBA. This room is used for absorption coefficient, transmission loss and sound power testing. Our second reverberation room is 667 cubic meters in size and is the source room for transmission loss measurements. As a source room it provides a broadband noise source of 142 dB from 31 Hz to 16 kHz. Its location offers clients easy access for cost-effective shipping via ground, air or sea.

PCB Launches University Laboratory Programs

BOOTH 645 PCB Piezotronics is launching its University Laboratory Programs for academic facilities. These programs are said to provide cost savings for Acoustics, Civil Engineering, Mechanical Engineering and Physics curricula that incorporate hands-on student labs. Each program bundles sensors and accessories, laboratory experiments, classroom lecture, and technical posters for use in academic classrooms and laboratories.

With a history of providing discounted sensors to the academic community, PCB expands its commitment with four new Laboratory Programs that help both seasoned and first-time instructors provide comprehensive educational programs for their engineering classes. Students will have hands-on experience with state-of-the-art sensors used by today’s Research and Development facilities throughout the world.

Each Laboratory Program includes: *Discipline-specific kits with the most commonly used sensors (acoustics, vibration, force) and accessories; *Instructor’s Guide of laboratory experiments with step-by-step instructions; *Technical poster for display in laboratories; *a classroom lecture by a PCB expert.

PCB Piezotronics says additional engineering and technical disciplines will be added in the near future.

Connect

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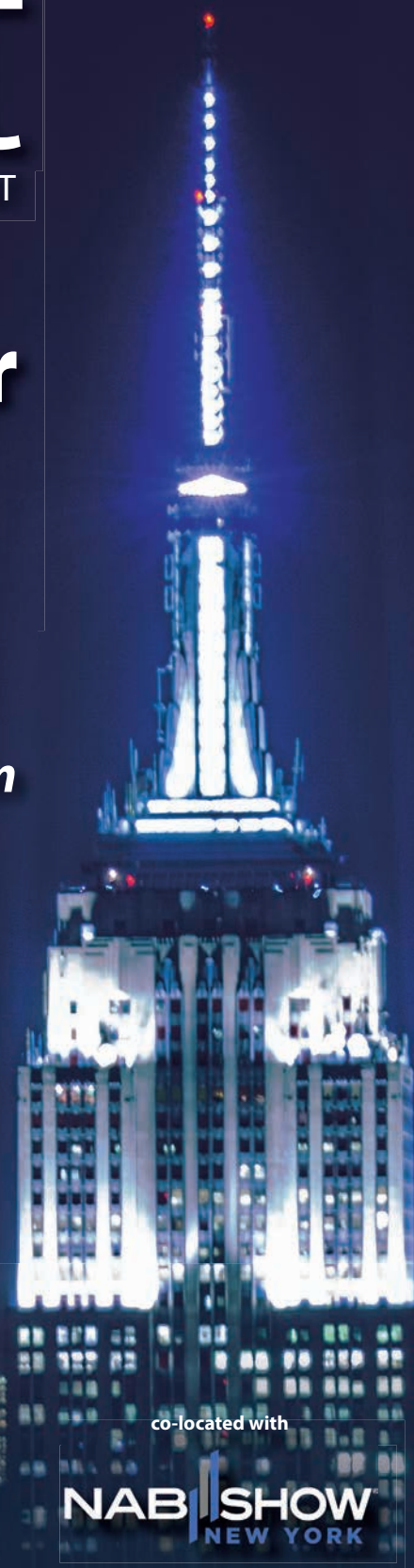
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A-T Offers Content Creation Microphone Solutions

BOOTH 422 Audio-Technica is offering a range of microphones favored by podcasters, social media and YouTube personalities, journalists and interviewers, livestreamers, voiceover artists, musicians and more.

The lightweight, feature-rich AT8024 is suited for video production, in-field interviews, product demos—wherever capturing high-quality audio for video is the task at hand. Selectable cardioid mono and internally matrixed mid-side stereo modes provide the flexibility to focus the recording on a single sound source or to widen the field for outstanding sonic realism, while selectable filters and pads extend its flexibility.

The AT2020USBi is suited for tasks including podcasting, remote streaming into IOS devices and voiceover use. Modeled after the critically acclaimed AT2020, this digital output mic features an A/D converter with up to 24-bit/96 kHz sampling, both use USB and Lightning connector cables and an integrated gain control.

From the same family, the AT2020USB+ is suited for podcasting, home studio recording, streaming and voiceover use. Equipped with a



Clockwise from top left, the Audio-Technica content production microphones: BP40 large-diaphragm dynamic, AT2020USBi cardioid condenser, System 10 Camera-Mount Wireless and AT8024 stereo/mono camera-mount.

USB output, the AT2020USB+ adds a built-in headphone jack with volume control that allows direct, delay-free monitoring, with a mix control that blends microphone and pre-recorded audio.

The System 10 Camera-mount Wireless is suited for video production, electronic news gathering (ENG) and every mobile application in between. System 10 digital wireless mics provide multi-layer diversity performance assurance, with instantaneous channel selection, sync and setup in the license-free, TV-interference-free 2.4 GHz band.

The BP40 large-diaphragm dynamic microphone is suited for podcasting, streaming and broadcast. The advanced-design mic includes a multi-stage internal windscreen, and offers rich, natural condenser-like sound.

The final highlight is the AT2005USB, suited for voice-over-IP, podcasting and, as it features both a USB output and an XLR analog output, it can be used from stage to studio to field recording

and VoIP applications.


Berklee To Renovate, Re-open Power Station Studio

BOOTH 459 Mayor Bill de Blasio and Berklee College of Music have announced Berklee is coming to New York City and will make a home in the historic Power Station studios (most recently called Avatar Studios).


The world-renowned studio—where artists like Bruce Springsteen, Paul Simon, Herbie Hancock, Tony Bennett, Lady Gaga, David Bowie, Madonna, Pat Metheny, Bob Dylan, the cast of Hamilton, and many others recorded iconic albums—was in danger of shutting down. Now, with the support of the Mayor's Office of Media and Entertainment (MOME) and the Economic Development Corporation (EDC), as well as the vision of Berklee Trustee Pete Muller, Berklee will renovate the 53rd Street facility and transform it into BerkleeNYC, a state-of-the-art recording and video production facility for the city's music, theater, television, and film industries.

BerkleeNYC, with funds from MOME and the EDC, will host both free and tuition-based educational programs, performances, and resources for local musicians and will also feature a virtual reality/augmented reality studio.

Berklee plans to continue operating the studio commercially as the re-christened Power Station at BerkleeNYC, restoring the name established by original owner, visionary studio designer Tony Bongiovi. Preserving and modernizing the facility, the last recording studio in New York that is able to accommodate a full orchestra or live Broadway cast album recording, ensures that top artists can continue to record in New York, and allows Berklee to expand its vision of nurturing the world's most promising musicians while engaging in meaningful community outreach.

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Halo Upmix Leads Nugen Audio Showcase



Nugen Audio's Halo Upmix

BOOTH 504 Nugen Audio is showing a new version of its Halo Upmix 3D Immersive Extension and launching an update for Loudness Toolkit 2, version 2.7 at AES New York 2017.

This latest upgrade of the Halo Upmix 3D Immersive Extension will allow second and third order Ambisonic output and support for AmbiX and FuMa formats.

Additionally, the Halo Upmix 3D Immersive Extension update will also include both 7.1.4 and 5.1.4 channel configurations to facilitate production in Auro-3D formats--a three-dimensional audio standard used across several industries, including cinema, gaming and automotive applications.

The new version of Nugen's industry standard Loudness Toolkit, version 2.7, Loudness Toolkit 2, includes the VisLM-H meter, LM-Correct quick-fix tool and ISL true peak limiter. This update makes Loudness Toolkit an even more powerful workflow companion for NLE and DAW users. Loudness Toolkit 2 also features industry-leading DynApt dynamic adaptation technology available as an extension for LM-Correct, enabling streamlined LRA targeting. New features include a unique power-compensated true peak safe dither algorithm for the ISL True Peak limiter.

Earthworks Sets Rebates on Select Vocal Mics

BOOTH 416 Earthworks is offering limited-time instant rebates on vocal microphones. The promotions will be effective on select products through October 31, 2017, and available at participating dealers throughout the U.S.

Instant Rebate on Vocal Microphones: \$100 off instantly on SR20; \$100 off instantly on WL40V; \$150 off instantly on SR40V.

"As we prepare to debut the first ever studio vocal microphone in the Earthworks lineup at the AES Show in New York, we take this time to celebrate vocalists with a limited time opportunity to get incredible savings on select vocal microphones during the month of October," says Earthworks Marketing Director Megan Clifford. "We are pleased to offer our first ever instant rebate options this year, to introduce Earthworks vocal microphones to a new audience of vocalists."

Avid Unveils VR Innovations for Pro Tools

BOOTH 503 Avid is issuing a new version of Pro Tools® that empowers users to take on virtual reality (VR) projects with Facebook 360 Spatial Workstation. Debuting at AES New York 2017, the new version includes updates to the integrated Dolby Atmos workflows and is more powerful than ever for users at all levels, giving Pro Tools | First, Pro Tools, and Pro Tools | HD users new features and improvements that accelerate workflows and expand their creative toolsets.

Audio professionals working on virtual reality projects can now produce immersive, full-sphere, surround sound content from start to finish in Pro Tools | HD. Users can easily edit and mix audio in a 3D space with support for first-, second- and third-order Ambisonics formats across Pro Tools | HD tracks and busses, and then output and deliver to the required formats for playback. Pro Tools | HD also includes Facebook 360 Spatial Workstation for enhanced VR functionality. Also included in this version of Pro Tools | HD are enhancements to the Dolby Atmos workflows enabling users to quickly and easily mix and deliver immersive experiences for theaters and homes.

Musicians and composers using Pro Tools can now create faster with enhanced MIDI functionality, work smarter with MIDI input display, and quickly find tracks with the new Scroll to Track feature.

Core Sound Launches OctoMic

BOOTH 315 Core Sound is introducing OctoMic, described by the company as the world's first 2nd-order ambisonic microphone. OctoMic is the ideal microphone for recording Virtual Reality (VR) projects, including cinema, video games, music and ambience. In post-production, OctoMic allows users to define arbitrarily complex microphone configurations and to dynamically track sound sources in space. During playback, it allows for dynamic head-tracking and an unlimited number of playback speaker configurations.

OctoMic is the followup to Core Sound's 1st-order ambisonic microphone, TetraMic. It offers significant improvements over 1st-order ambisonic microphones that are particularly attractive for cinema, gaming, music and ambience. Like TetraMic, OctoMic's frequency response is exceedingly flat and extended. Its bass response extends below 30 Hz and its treble response above 18.5 kHz. Its dynamic range extends from the very quiet of a fine recording studio to the roar of a jet engine at close range. TetraMic's self-noise specification is excellent, but OctoMic improves on it by 3dB.

MIME Selects API Legacy AXS For Studio A

BOOTH 540 A 32-channel AXS console was recently commissioned in Studio A at Made In Memphis Entertainment (MIME). The new music venture opened its doors this past April, and serves not only as a studio, but also a music label, production company, and publishing group.

MIME's CEO is legendary Stax Records songwriter David Porter, who aims to revitalize the Memphis music scene by incorporating the creative principles that drove the city's golden era of music in the '60s and '70s. The business is off to a strong start, with state of the art stu-



Made in Memphis Entertainment (MIME) has commissioned API's 32-channel Legacy AXS console for its Studio A

dios and a dedicated team.

Says MIME Chief Engineer Kerry Kernan: "The AXS has been a fantastic addition to our studio and has been a joy to track and mix on. I really like the way the AXS has remained truly analog, yet the automation features can still integrate well with the modern DAW workflow. We are still discovering all of its capabilities."

"The legendary API sound combined with the AXS's feature set made for an unbeatable combination for Studio A," Porter adds. "We couldn't be happier with our new console."

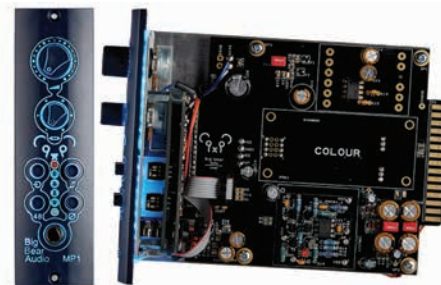


IN REPOSE At AES New York 2017, Grammy winning producers/engineers Elliot Scheiner (left) and Ed Cherney relax in luxury motorcoach VIP Green Room at Booth 466, presented by The Mill Cayman, Ltd.

Big Bear Features MP1 Mic Pre

BOOTH 250 Big Bear Audio is featuring its entry level product, the MP1 discrete Class A mic, line and instrument amplifier for 500 series. The MP1 is not a clone. It has been designed from scratch to provide producer, engineers and songwriters with an intuitive and creative microphone and instrument amplifier.

The MPI combines a discrete electronically balanced mic with the DIYRE Colour format. This means the MP1 can be used as a studio reference amplifier as well as adding any additional Colour module to transform the unit into a vast range of creative and useful tones.



Big Bear Audio's MP1 mic pre

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Antelope Spotlights Orion32 HD Audio Interface

BOOTH 632 Antelope Audio has announced the latest addition to its acclaimed Orion series of audio interfaces: Orion32 HD. Delivering 64 channels of stunning audio quality via HDX or USB3, the Orion32 HD is compatible with any DAW on the market, making it an excellent choice for users of both Pro Tools and Native systems.

Further, it also delivers Antelope Audio's superior clocking technology and powerful Field Programmable Gate Array (FPGA) realtime effects modeling capabilities that have made Antelope Audio interfaces stand apart from the competition.

"Antelope Audio is committed to raising possibilities and breaking down boundaries with our interfaces," says Marcel James, Director of U.S. Sales for Antelope Audio.



Antelope Audio's Orion32 HD 64-channel HDX and USB3 audio interface

"By bringing the potent combination of pristine conversion and our versatile FPGA sound-shaping tools to both HDX and Native systems, we are opening yet another chapter in our interface innovations. Studios can now easily switch between Pro Tools HD Sessions and Natives DAW's to accommodate the modern laptop producer in a flash."

'A Streamlined World' Foreseen in New Hal Leonard Entry

BOOTH 448 Although he presides over Avid, Louis Hernandez Jr. isn't your typical CEO-turned-author. In two previous volumes, he outlined his vision of an American economy structured around the communities that compose its very foundation. In his latest book, *The Storyteller's Dilemma: Overcoming the Challenges in the Digital Media Age*, released by Hal Leonard earlier this year, Hernandez Jr. brings the same notion of countless small actors with unlimited potential to bear on our tumultuous, ever-shifting mediascape.

The Storyteller's Dilemma is neither a diatribe against economic elites nor a postmortem analysis of the ills of digital distribution. Instead, it proposes a broadminded new approach to digital media that strives to benefit all involved parties—a methodology that at once embraces the intensifying power of the storyteller and eschews the notion that disruption and instability must greet an industry hand-in-hand. Rather than favoring any given group over another, *The Storyteller's Dilemma* imagines a streamlined world of shared platforms and common standards that empower creatives: storytellers, developers and end users alike.

Star Wars | continued from page 1

Skywalker Sound's Leslie Ann Jones and Dann Thompson as they detailed their efforts for Sony Classics' re-release of soundtracks from the iconic film series, Episodes I through VI. Morphing into an archival and restoration mission for the first six films, this process was, in fact, a journey through the various recording platforms from 1977 to 2005.

"In April of 2012, we were asked to make a digital transfer of a half-inch master of a cue from Episode VI [*Return of the Jedi*] by Matt Wood, who apprenticed under [sound designer] Ben Burtt and is now the main sound supervisor for the *Star Wars* films," explained Jones. The impetus was Sony Classics moving to re-release the soundtracks from Episodes I through VI on CD as well as vinyl alongside Episode VII.

"We wanted to look for the original elements in order to make 32-bit, 192 kHz masters," she continued. "And the search really took several weeks to find out what were the appropriate two-track elements to use. At least for the first episodes—Episodes IV, V, and VI—we were looking at two track masters, production masters, EQ copies."

The search included European versions with different EQ curves, productions from an

old *Star Wars* radio show and more. "For the later episodes—Episodes I, II and III—they used the masters from Pat Sullivan [mastering engineer of all *Star Wars* record releases]," Jones explained. "So we were able to give Sony Classics what they needed and they released a whole box set including the vinyl. But it really got us thinking again about all this fantastic music. Not only archiving it—because it was mostly on analog tape and mag—but also, it really could not be used in the format it was in. There are two reasons for archiving: to transfer things to the highest resolution possible and to repurpose, so people can enjoy them ... and it was a monumental task."

"The idea was really to have a film version and a CD version [of the music] because they were not necessarily the same," offered Jones. "[For the earliest films], the soundtracks were very much like the music that came out on the film. On the later episodes, they were not like the film at all. Many of the cues were cut from the film and were not heard in their entirety—even on the soundtrack records—because John [Williams, composer] wanted to create a listening experience on the soundtrack records. So he would actually go into the mastering room with Pat and create different versions of the cues to make something [different]. That meant that

the only copy of that was what was on CD; there was no edited master."

After playing the main theme for the AES audience—successfully rescued from Episode IV's mag—Jones offered, "You know, we're very lucky because we get to sit in the control room and listen to all this music. It's pretty stunning. Just as a composition, and separate from the film, John is just a brilliant writer. And to do six full-length, two-hour episodes, he finds a way to sneak in these themes ... I'm just in awe of this experience."

Next, the pair played a full composition, "Droid Invasion" from Episode I, previously unreleased. Following more audio examples of their restoration work, Jones posed, "Not only is this the music of *Star Wars*, but it is also the history of film scoring technology. When you think about all the different formats that we have available to us, how people worked then and how they work now, it's so different. So you should be able to hear some differences—1977 shouldn't sound like 2007—so the cue [from Episode I] that you just heard has EQ, reverb, surround and LFE."

For the full insight from Jones and Thompson, visit mobiltape.com to download a MP3 of the full presentation, which will be available in approximately one week following the 143rd AES Convention.

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RF Spectrum | continued from page 1

of RF experts on opening day of the convention stressed, some wireless equipment users will be losing access in their regions much earlier.

"I don't want to sugarcoat it, it will be painful," said Joe Ciaudelli, Sennheiser USA's head of spectrum affairs. He was joined on the panel by Shure's Mark Brunner, Jackie Green of Audio-Technica spin-off Alteros and moderator Karl Winkler of Lectrosonics, all key members of the group that has been raising awareness of the wireless audio business with the government over recent years. "We're your real representatives in Washington," said Winkler.

The overriding message was that wireless operators should get their Part 74 licenses. The process is not easy, panelists cautioned, directing applicants to contact a handful of experts who can guide them through the procedure for a nominal fee.

T-Mobile, which acquired the largest chunk of the 600 MHz band, has been aggressively rolling out its new services and intends to have over one million square miles covered by year's end. It recently added 26 more counties to its plan, Brunner reported.

T-Mobile has also been sending letters to Part 74 license holders warning them that the carrier will be firing up new services beginning November 1. On October 10, T-Mobile

announced a partnership with FOX television stations to accelerate the network's repackaging schedule. One example, New Jersey-based WWOR-TV, which serves New York City, will clear the 600 MHz spectrum more than a year earlier than the FCC's plan.

It's not all bad news, Ciaudelli noted: "We did gain access to some alternate bands" from the FCC, and manufacturers are responding with new products. For example, Shure and Sennheiser offer equipment in the 1.9 GHz or DECT band, and Neutrik recently launched its point-to-point Xirium Pro system, operating at 5 GHz. Equipment meeting the FCC's criteria for operation in the 1.4 GHz band will arrive in three to five years, Brunner predicted. Part 74 license requirements have also been changed to make it easier to operate in VHF.

Going forward, said Winkler, band planning-allocating certain frequency bands for different types of gear-and coordination with other users will be essential. Use just enough power to get the job done, he said, and select equipment that is spectrally efficient with wide bandwidth and good filtering.

"Be aware of the transition," advised Brunner. Plan ahead, be prepared to retire non-compliant gear and update your inventories. The major manufacturers are offering trade-in programs during the transition.

"Scan early and often," said Brunner. "You need to be aware of your environment." Above all, he said, operate responsibly.

AES 2017 | continued from page 1

a record on All Access registrations. Our volunteer convention committees continue to raise the bar, year after year, with the quality and range of content in the technical program. We have convention co-chairs Agnieszka Roginska and Paul Gallo to thank for their amazing leadership. They, and the talented full convention committee they assembled, supported by the hardworking, AES headquarters team, have produced an energetic and bustling exhibition floor and a full four days of fascinating sessions covering every aspect of professional audio."

There's only so much looking back you can do, however, when the show is still running through the end of Saturday. There's still lots for audio pros to do, from great educational events to networking opportunities to the chance to see, hear and get hands-on with the latest audio gear.

If you haven't walked through the exhibition floor yet, get moving because it closes up Friday night, while the convention rolls on, serving up workshops, panels, seminars and more through Saturday evening. If you want to check out that hot new product you read about here in the Daily, now is the time.

Elsewhere, there's plenty to learn; Friday alone, there's legendary engineer Bob Ludwig hosting the Platinum Mastering Panel, discussing ways to approach mastering for high-resolution audio, streaming and hi-res streaming. Out on the exhibition floor, there's both the Project Studio Expo on Stage 2, offering programs like New Frontiers in Project Studios and The Special Sauce for Mixing a Hit Record; and the Live Sound Expo, presenting its own workshops on mixing, noise prediction for outdoor events and eight things to get right about point source optimization. And don't forget to plan your Friday night around the Hear Now Festival's presentation, Audio



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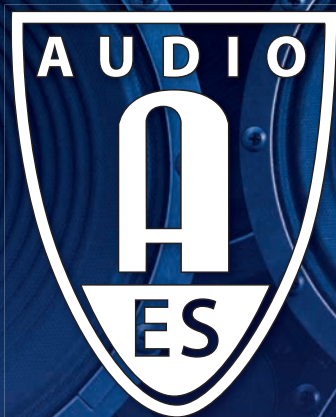


Tonight: A Storytellers Cabaret, being held at 7:30 p.m. at Dolby Labs' NY Screening Room (Tickets are required).

The fun continues Saturday, with neat events like the Latin Producers Panel; the Lunchtime Keynote by Emily Lazar, "More Cowbell? Trusting Your Sonic Gut;" and the AESx Talks, hosted by Alex Case—only a few of the many events to check out as the show coasts to a close.

If you don't have time to check out everything you wanted to, don't worry—there's always next year...and this time, we mean it. Instead of a two-year wait for the next AES Convention in New York, the grand event will return to the Jacob Javits Convention Center October 17-20, 2018, co-locating once again with NAB Show New York. Mark your calendars now and we'll see you next year!

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