

**NABSHOW**  
Where Content Comes to Life

**PREVIEW**

APRIL 2017

# DAILYNEWS



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The Official Newspaper of the 2017 NAB Show • **APRIL 22–27, 2017** • LAS VEGAS CONVENTION CENTER • [www.nabshowdailynews.com](http://www.nabshowdailynews.com)

NAB Show Exhibit Hours: Monday 10 a.m.–6 p.m. • Tuesday–Wednesday 9 a.m.–6 p.m. • Thursday 9 a.m.–2 p.m.

MEDIA. ENTERTAINMENT. TECHNOLOGY.

## THE M.E.T. EFFECT

**10 SESSIONS**  
Media, entertainment and tech generate a busy Super Session lineup.



**14 SUMMIT**  
Conference examines business of media with top executives.



**18 PAVILIONS**  
The show floor offers more learning opportunities with technology-focused pavilions.



## Cinema Conference Explores Future of Motion Pictures

By **JOHN MERLI**, *DIGITAL VIDEO*

The constantly evolving state of cinema — and how its technological, artistic and business components interact — will be considered in-depth by dozens of experts during the Future of Cinema Conference, April 22–23.

The annual event, with this year's theme “The Intersection of Technology, Art & Commerce in Cinema,” is being produced in partnership with the Society of Motion Picture & CINEMA continued on 3

## Media, Entertainment and Technology Take the Stage

By **SUSAN ASHWORTH**, *TV TECHNOLOGY*

The M.E.T. Effect<sup>SM</sup>, this year's NAB Show theme, embraces the convergence of media, entertainment and technology industries and helps explain the show's growing attendance and exhibitor base and the expanded conference and pavil-

SHOW continued on 4

## Exchange Takes The Long View On Trends

By **EMILY REIGART**, *RADIO MAGAZINE*

With one year under his belt, Pilot Executive Director John Clark is even more excited about the Digital Futures Exchange. He and his colleagues want to use the sessions to engage in discussions about how digital technologies will

EXCHANGE continued on 8

# Go Beyond Definition With Sony as your business partner

Let's start the conversation at NAB. Visit [sony.com/NAB](http://sony.com/NAB) to learn about our new solutions, view our presentation schedule, download our Pro USA mobile app and enter for a chance to win a 4K camera and other pro gear.\*

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Enhance your productions and on-air look with Sony's breakthroughs in Imaging, HDR and IP Live. Transform your workflow with our Applications and Cloud-based Solutions. We empower you to create stunning content and move it to every platform with an efficiency that goes beyond definition.

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## Beyond Definition



**CINEMA** continued from 1

Television Engineers (SMPTE).

Cynthia Slavens, director of Mastering & Operations at Pixar Animation Studios, chairs this year's conference program and said that, as the business of cinema evolves, it becomes increasingly important to acknowledge the "marriage" of art and technology.

"Gone are the days of purely physical sets,

rigid film-out schedules and pipelines and content viewed solely in theatrical settings," Slavens said. "Content for the cinema can be created anywhere, to go everywhere. It's an exciting but bewildering time, as the industry undertakes new art and technology opportunities in an environment where the latest and greatest comes at you in the blink of an eye."

Acclaimed visual effects supervisor Rob Legato, known for his work on "Titanic," "Apollo 13" and "The Jungle Book," will present the keynote for the conference on April 22.

One key segment that appears especially bright (both literally and figuratively) is display and projection technology, according to Jaelyn Pytlarz, an engineer at Dolby Laboratories' Applied Vision Science Group. Over the next few years, she said, display technology will incorporate wider color primaries, higher frame rate and higher resolution — and actually begin to catch up with the limits of human perception.

"With this new technology comes the challenge of interoperability. How do we take what we have from the past and make it work for the future?" said Pytlarz. "One thing we can say for sure is we're going to see something we've never seen before!" Pytlarz is moderator for Saturday afternoon's session "Next Generation Cinema: How You See It — Projection & Displays in Cinema."

Filmmaker Jennifer Hall Lee, a moderator

for Sunday morning's "Is Cinephilia Dead or Is It Just Expanding," maintains that cinema still remains a story-telling art traditionally viewed in a shared setting. "This shared experience is part of the story because it changes us as people. We emerge from the theater as a group — having just experienced a film collectively. If we're lucky, we can walk away with a line of dialogue or an image that stays with us..." she said.

Yet Lee does acknowledge a shift to a more singular viewing experience. "Moreover, we in the movie industry increasingly use the term 'content.' That formally changes the concept of cinema as 'art' and relegates it to 'data.' However, being able to view a film at any time on any device expands its power. Cinema as an art is changing, but it remains to be seen if it's dead, or just undergoing a large expansion," said Lee.

The Sunday afternoon session "How You See It or How You Don't: Better in HDR?" examines the still-evolving technology behind high dynamic range. Moderator Patrick Griffis, SMPTE's executive vice president and a vice president at Dolby Laboratories, says HDR is rapidly expanding with more than 300 Dolby Cinemas and state-of-the-art laser projection systems committed in the United States, Europe and Asia by theater chains. "AMC is now accelerating their deployments in the U.S., based on good consumer response," Griffis said.

HDR also is used as a selling point for TV sets. "HDR theatrical releases are capable of nearly full Rec2020 color and 500 times the contrast ratio of conventional projection systems, through use of laser projection," Griffis said, "while TV color volumes can reach up to 10,000 nits peak white, but with a slightly reduced color palette compared to cinema today. The theatrical HDR grade is, thus, a great starting point for a home HDR master."

**"It's an exciting but bewildering time, as the industry undertakes new art and technology opportunities in an environment where the latest and greatest comes at you in the blink of an eye."**

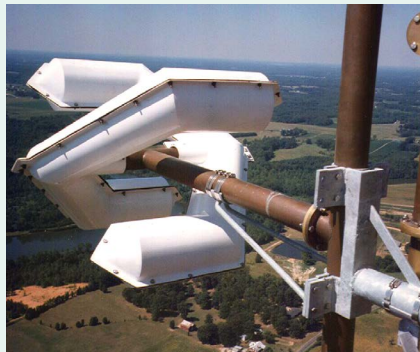
CYNTHIA SLAVENS  
DIRECTOR OF MASTERING & OPERATIONS  
AT PIXAR ANIMATION STUDIOS

**EXHIBITOR NEWS**

**JAMPRO**

**BOOTH C1913** Jampro offers a line of high- and low-power FM antennas. The Jampro JBCP Optimizer side-mount antenna is designed for broadcast applications that need relative insensitivity to icing conditions as well as high power handling.

According to the company, the Optimizer offers "excellent" broadbanding capabilities and VSWR for multiple FM frequencies without the need for field tuning.



The Optimizer uses low impedance bays for unexcelled stability and performance.

Jampro also manufactures combiners, filters, patch panels, rigid transmission line and towers.

**FOCUSRITE**

**BOOTH C1831** Focusrite is demonstrating Red and Rednet, its flagship gigabit Ethernet I/O products, based on the Dante audio over IP architecture.

The company says that this proven, robust system employs economical, standard Ethernet cabling and standard managed GigE switches — minimizing costs and maximizing flexibility.



RedNet offers IP network audio interfaces for broadcast, studios, live sound environments, auditoriums, schools, houses of worship or any application that requires moving large channel count high-quality audio with ultra-low latency.

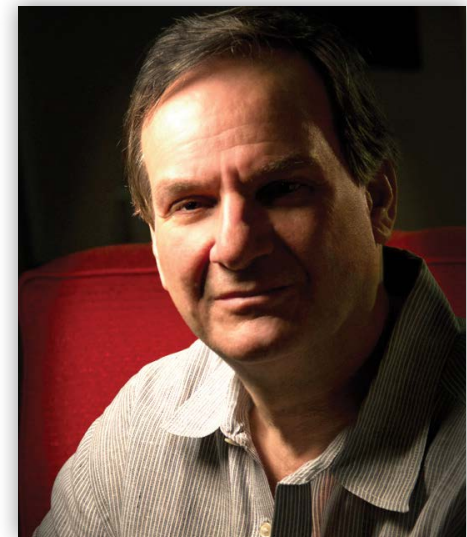
Focusrite's Red range of Thunderbolt audio interfaces features low-noise (-128 dB EIN) mic pres with a new low-distortion, ultra-linear design that guarantees a clean, open and transparent sound, giving accurate representation of the original performance. In addition, they include the analog "Air" effect, emulating the sound of Focusrite's classic transformer-based mic preamps.

**GENERAL SESSION**

**NAB Show Opening**

**MONDAY, APRIL 24  
9-10:15 A.M.**

The NAB Show Opening event will be emceed by "CBS Sunday Morning" host Jane Pauley. NAB President and CEO Gordon H. Smith kicks off the 2017 NAB Show with his State of the Broadcast Industry address "Seizing Opportunities During a Time of Change," followed by a celebration of excellence honoring NAB's Distinguished Service Award winners Joan Lunden and David Hartman and an executive Q&A with keynote Steven Swartz, president and CEO, Hearst, who will be interviewed by Rebecca Jarvis, Chief Business, Technology & Economics Correspondent, ABC News.



**Rob Legato**

Echoing the century-old SMPTE itself, this year's conference reflects "the new phase of cinema after 100 years of film," said SMPTE Education Vice President Richard Welsh, the CEO of Sundog Media Toolkit, who will participate in Saturday afternoon's "Movie Security: How You Steal It (and Then How You Stop Everyone in the Audience From Succeeding)."

Cover photo caption: Keynote speaker Rob Legato served as visual effects supervisor for "The Jungle Book."



**Gordon Smith**



**Jane Pauley**



**Rebecca Jarvis**



**Steven Swartz**



**SHOW** continued from 1  
ion offerings.

Last year, more than 100,000 visitors visited the Las Vegas Convention Center for NAB Show, and in 2017, nearly 1,800 companies will exhibit across more than 1 million square feet of exhibit space.

NAB Show has organized educational content around The M.E.T. Effect<sup>SM</sup>, revamped conferences, introduced new pavilions and streamlined forums.

An expanded lineup of Super Sessions has been scheduled exploring game-changing media technologies; innovative sports and entertainment concepts; emerging business models and markets; and features a track of sessions programmed by Google at NAB Show.

The North Hall will host educational conferences and tracks focusing primarily on media and technology. Among the media-focused programs is the Business of Broadcast, a four-day conference evolved from the long-standing Business Management Conference. The sessions and speakers are designed to give radio and television stations the big scoop on content delivery and to offer practical suggestions in the areas of finance, legal, policy, advertising, marketing, podcasting and digital strategies and business development.

In addition, the Online Video Conference, produced in association with VideoNuze, brings together media and entertainment executives to discuss new online viewer behaviors and streaming business models, while the Digital Futures Exchange targets TV and radio station staff who drive digital revenue for an unscripted conversation of digital trends, strategies and case studies for local markets.

Additional programs examining market opportunities, trends and strategies include the Media Technology Business Summit, produced in association with Devoncroft, and the Media Finance and Investor Program, produced in association with Noble Capital Markets; Google at NAB Show Super Sessions; the Ad Innovation Lab; the M.E.T. 360 Leaders Town Hall; and a Face-



Drones were a draw for visitors on the 2016 exhibit floor.

book Live Video Bootcamp, produced by Sports Video Group.

Technology-focused conferences and tracks are also taking place in the North Hall, which is a move from their traditional South Hall location of past years. Technology trends led NAB Show to introduce the Next-Generation Media Technologies conference, tackling big trends in the entertainment space, including cloud innovations, artificial intelligence and augmented reality. Produced in partnership with the Entertainment Technology Center at USC, the conference will spotlight cutting-edge technologies shaping the creation, distribution and consumption of content. Other programs focusing primarily on technology include an Amazon Alexa Hackathon, the Satellite Technologies track of sessions and the Broadcast Engineering and IT Conference (BEITC).

Another technically focused feature is the new Global TV Tech Day, to be held Saturday, April 22, and open to all Show registration levels. Attendees will be given a preview of the types of technologies emerging in the Next Gen TV space. Presentations will include an overview of developing Next Gen TV standards from the Inter-SDO Group, a look at the Korean launch of ATSC 3.0 UHD service, and an update on Consumer Technology Association's WAVE project, which is attempting to narrow the focus on important elements of OTT.

An offspring of the Broadcast Engineering and IT Conference is BEITC ENGAGE!, a

series of interactive sessions that will let attendees have in-depth conversations with presenters for a full 90 minutes on topics such as IP-based facility design.

Entertainment-focused conferences and tracks are taking place in the South Hall this year. This is a big move for Post[Production World (P]PW), which has been housed in the North Hall in the past. Despite its move it will feature several workshops on corporate productions, aerial photography and timelapse videos, in addi-

ed Virtual & Augmented Reality Pavilion to know that the technology has taken off.

A topic a little more ominous — namely breaches in security — led NAB Show to introduce a Cybersecurity and Content Protection Pavilion, located in the Central Hall, which will offer insights on how to protect valuable assets, programs, networks and data from malicious activity.

The IP Showcase, in the North Hall, will offer attendees a holistic view of industry alignment, action and transformation thanks to internet protocol technology. With leadership from AES, AIMS, AMWA, EBU, IABM, MNA, SMPTE and VSF, the industry has developed this pavilion to help everyone from broadcast/IT engineers to CEOs to producers determine how they can best reap the benefits of IP. This attraction features a full schedule of must-see IP education sessions within its IP Showcase Theatre along with demonstrations of new applications and the latest interoperability developments.

The North Hall is also home to the Advanced Advertising Pavilion, the new NextGen TV Hub and the Facebook Live Video Solutions Partner Pavilion.

What does new technology in the automotive industry mean to content producers and broadcasters? NAB and Ford have teamed up to feature the Connected Car Hackathon, a fun and unique competition in the North Hall where visitors can explore how access to vehicle-generated data and the increasing autonomous capabilities of vehicles will affect the delivery of audio and video inside the car.

NAB Show attendees can learn more about The M.E.T. Effect<sup>SM</sup> during the General Session and through the Super Session lineup, which will shine a spotlight on the intersection of media, entertainment and technology. In addition, "M.E.T. Talks" on Wednesday, April 26, will feature top media and entertainment innovators delivering keynotes TED-talk-style, sharing their career journeys and visions for the media and entertainment future.



An attendee tests a camera at the 2016 NAB Show.

tion to the training and certification sessions.

Adjacent to P]PW, the Creative Master Series returns to provide a behind-the-scenes look at how filmmakers and creative professionals are exploring new methods of storytelling. Attendees will have the opportunity to hear from executive producers, film editors and visual effect designers for some of today's biggest movies and shows, including "Logan," "Ghost in the Shell," "Game of Thrones." It's a session featuring the biggest names in visual effects. The Future of Cinema Conference, with is produced in association with SMPTE and blends a look at the technology and creative work in cinema, remains housed in the South Hall.

New pavilions and returning attractions are on the menu, too. One only has to see the standing-room-only space at the well-attend-

## GENERAL SESSION

# FCC Chairman's Keynote

**TUESDAY, APRIL 25**  
**9-10 A.M.**

On Jan. 23, 2017, Ajit Pai was named Chairman of the Federal Communications Commission. Since then, he has moved forward quickly on issues of particular importance to broadcasters, as well as numerous process reforms designed to enhance agency transparency.

The address is expected to provide insight into the FCC's policy and regulatory objectives related to broadcasting, technology and communications law and regulation.

Please join Chairman Pai for his first NAB address as chairman. This session is open to all registered attendees.



Ajit Pai

## EXHIBITOR NEWS

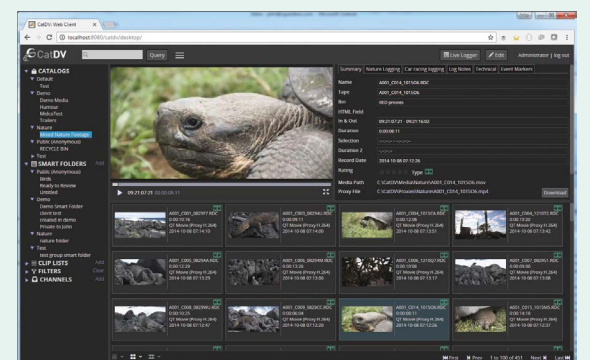
# SQUARE BOX SYSTEMS

**BOOTH SL5024** Square Box Systems is displaying Worker 7, a new workflow automation solution for CatDV MAM deployments. With full support for Linux in addition to Windows and Mac environments, Worker 7 makes CatDV a compelling option for large-scale enterprise users that need to manage huge volumes of assets in virtualized or cloud environments.

The CatDV Enterprise Server 7 now provides more support for web and intranet deployments, with features including a new live logger, frame-accurate video playback, dynamic

sub-clip trimming and download, and sharing of groups of clips.

In addition, CatDV's new Web 2.2 brings views to life with derived values and colored metadata highlighting — great for review, online or archived status. A range of additional organization tools also are provided. These include creation and renaming of catalogs, moving assets and new drag-and-drop capabilities.





ULTRA HD 12G SDI

Blackmagicdesign



## The new Blackmagic URSA Mini Pro is the first true digital camera that's combined with the features and controls of a broadcast camera.

The new URSA Mini Pro is a true digital film camera with a 4.6K image sensor, 15 stops of dynamic range and a wide color gamut that delivers amazingly rich skin tones, natural color response and incredible detail. You also get built in ND filters, dual C-Fast and SD card recorders, an interchangeable lens mount and more! URSA Mini Pro works in both film and video modes, so it's perfect for digital film or broadcast use all while delivering better image quality!



**Blackmagic URSA Mini Pro \$5,995**

Includes DaVinci Resolve 12 Studio for editing and color correction.

Viewfinder, lens and accessories shown, can be purchased separately.

[Learn More!](#)

[www.blackmagicdesign.com](http://www.blackmagicdesign.com)

**Booth # SL216**



# HONORS!



Popular media personalities and former co-hosts of ABC's "Good Morning America" **1 David Hartman** and **2 Joan Lunden** will receive the NAB Distinguished Service Award during the 2017 NAB Show in Las Vegas. The duo will accept their awards at the NAB Show Opening on Monday, April 24.

**3 Maria Elena Salinas**, co-anchor of "Noticiero Univision" with Jorge Ramos, will join the ranks of TV legends when she is inducted into the NAB Broadcasting Hall of Fame during the Television Luncheon, Monday, April 24.

Best known for her role as Betty Suarez on ABC's comedy "Ugly Betty," award-winning actress **4 America Ferrera** will receive the 2017 NAB Television Chairman's Award during the Television Luncheon, Monday, April 24.

**5** Nationally syndicated radio personality **Delilah** will be inducted into the NAB Broadcasting Hall of Fame during the Radio Luncheon on Tuesday, April 25. With more than 8 million weekly listeners on approximately 160 stations across the country, she is the most-listened-to woman on radio in the United States.

**6 John Lyons**, assistant vice president/director of broadcast communications, The Durst Organization, and **7 John Kean**, senior engineer with Cavell Mertz & Associates, have been named the 2017 recipients of the NAB Engineering Achievement Awards.

**8 Catherine Badalamente**, vice president of digital media for the Graham Media Group, will receive the Digital Leadership Award. Lyons, Kean and Badalamente will be honored at the NAB Technology Luncheon on Wednesday, April 26.

► Single tickets to Award Luncheons can be purchased.

## EXHIBITOR NEWS

### PRONOLOGY

**BOOTH SL11807** Pronology is introducing Screener, a multichannel, file-based production screening device that records universally playable MP4 files. Aimed at content producers working in studio, mobile, sporting and a variety of other environments, Screener replaces legacy DVD recorders and offers additional features useful for modern production.



It allows HD-SDI playback in multiple resolutions and extraction of timecode-specific clips. Screener enables users to copy clips to network storage paths and removable storage devices, primarily USB 3 thumb drives. Other features include mobile device support and HD or SD input options; and it allows operators to internally add burn-in timecode from an external LTC source.

Screener also can visually watermark with text or graphics, record a timecode overlay and run on a standard PC or other off-the-shelf hardware. It offers multiple channels per installation.

## EXHIBITOR NEWS

### WORLDCAST SYSTEMS

**BOOTH N8924** WorldCast Systems is rolling out a self-contained, solar-powered FM retransmitter. Solar FM offers hybrid AC



power-up, but can broadcast up to 10 hours on solar power alone.

Designed for areas with limited electrical infrastructure or for temporary installations, the Solar FM retransmitter can receive audio from a number of sources such as its built-in satellite and FM receivers or analog and AES inputs. A dedicated smartphone app provides full configuration capabilities and also enables daily scheduling of operations to make best use of solar power when available, and rely on the AC connection when not.

Versatile, easy to mount and resilient when operating in difficult environments, it is supplied as a turnkey system with solar panel, FM antennas, satellite dish or antenna and the FM transmitter. A NiMH battery and built-in smart battery management system help keep a broadcaster on air.



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## EXCHANGE continued from 1

affect or already are changing local broadcasters.

Clark said he hopes that “anybody and everybody who runs, strategizes and works in the digital operation” for their media organization will add the DFX to their schedule. In his mind, you could be a vice president of visual strategy, a chief digital officer, digital manager of operations — “everyone who is working primarily in and is steeped in the digital side of their business.”

The Digital Futures Exchange is intended to take the long view of trends and technologies, to sift through fads and focus on trends that will continue to impact broadcasting down the road.

“What we want to do is to give local folks a chance to look at some of the larger trends, to start thinking about ‘what does that real-

After the initial welcome and keynote, a panel moderated by Kantar Media Vice President and General Manager Steve Passwaiter will discuss “Digital Political Spending and the Winds of Change.” DSPolitical Chief Technology Officer Mark Jablonowski and Deep Root Analytics CEO Brent McGoldrick will give insights into the long-term strategies for how political campaigns will allocate their ad dollars and how these changes may affect local media in future elections.

Next, Newsonomics President and media analyst Ken Doctor will explore

and revenue applications. Insights will be provided by producer and consultant Caitlin Burns; The VR Fund co-founder and General Partner Marco DeMiroz; Experius VR Head of Partnerships and Venture Partner Michael Orso; Chief Innovation Officer for Automated Insights Joe Procopio; and Google News Lab Training and Development Manager Nicholas Whitaker.

After everyone and their brother got an Amazon Alexa for Christmas, it behooves broadcasters to try to understand what the voice experience should look like. That’s why the DFX added a session titled “Amazon Alexa and Local Media.”

It’s impossible to talk about the future without bringing up artificial intelligence, and this conference track takes a look. Einstein Salesforce Senior Director of Product Management Simon Chan will tell attendees about “Artificial Intelligence and Bots” — what’s coming and what the media should do to take advantage of the technology.

The final session may take some by surprise, but Clark says it’s a perfect fit for the DFX. “Trust and the Media” will explore how trust is gained and lost, and why journalists aren’t the only part of the media that must work to maintain credibility, featuring Interactive Advertising Bureau SVP of Data & Ad Effectiveness Dennis Buchheim, Knight Foundation Journalism Program Officer Karen Rundlet and Shareable Inc. Head of Marketing/GM of Media Gloria Stitt.

“I’m pretty excited about the variety of topics that we’re going to be discussing and then again, how we’re in the same land of digital media, particularly things at the local level,” Clark said.

“We really wanted to get into how these digital technologies are impacting at the local level.”

JOHN CLARK  
PILOT EXECUTIVE DIRECTOR



John Clark addresses a crowd at the opening of the inaugural Digital Futures Exchange in 2016.

ly mean for me in my local market?” said Clark. “We really wanted to get into how these digital technologies are impacting at the local level — not only for news and process information, but also our business in general and the revenue behind it.”

The Digital Futures Exchange will be held Sunday, April 23, beginning at 10 a.m. with the final session concluding at 5 p.m.

“Emerging Models for Local News.” He will explore which journalistic experiments appear to be working and what the future of newsrooms may look like.

Virtual and augmented reality may be coming to a newsroom near you. “The Outlook for 360/VR/AR in Local Markets” will help broadcasters understand these new technologies and their potential journalistic

a first-of-its-kind broadcast-focused service that unites a cloud-based SaaS application with a professional audio interface in the studio to improve the user experience dramatically. It adds that with this unique “no fuss, no hassle” model for managing and processing contributed content from an array of sources, broadcasters can dedicate more time and resources to creating the compelling, timely



and relevant programming that drives their success.

Aimed at radio and TV broadcasters, the D\*AP4 VAP EDITION balances the need for EQ correction and compression with the requirement for natural sound. The unit includes Jünger Audio’s proprietary Spectral Signature dynamic EQ, a tool that offers automatic and dynamic EQ control to balance spectral differences. According to Jünger, by analyzing incoming audio and comparing its spectrum with individually predetermined voice “fingerprints,” the unit can automatically apply dynamic EQ corrections to give a consistent sound.

Jünger Audio’s D\*AP4 product range incorporates adaptive processing algorithms and also uses the Ember+ remote protocol to integrate with playout automation systems and logging and monitoring processes.

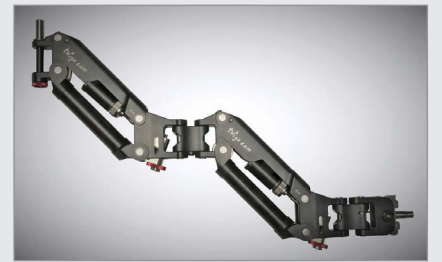
## New Exhibitor SNAPSHOTS

Q. What products or services are you showcasing?

### Twiga Cam

Booth C12828

**Nello Di Marino**, Gen. Mgr.: “The Twiga K4 is the new release of Twiga cam arms. Its brand-new mechanism makes the arm able to move fluently and softly in a range of 400 mm and it smoothly carries any load from 7 to 32 kg, simply by setting its knobs without buying an exchangeable spring set.”



### Fuji Network System/FujiTV, KTV, THK

Booth N1307VR

**Satoshi Okazawa**, FNS Team Leader: “The FNS team is exhibiting products developed for advanced TV production and content use. We have multiple genres to exhibit: 4K delivery network, VR contents, smartphone application and production equipment. We offer a new way of making and using TV content!”



### Aeson LED Display Technologies

Booth SL7624

**Michael Wiener**, President: “Vanguard 4K LED Video Processor: Controller has zero latency. Receiving card has one frame of latency. IC driver has one frame of latency. The total system has an industry-leading two frames of latency with 4K resolution up to 4096 x 2160 pixels and maximum inputs 8192 pixels.”



#### EXHIBITOR NEWS

### DIGIGRAM

**BOOTH N8414** blu by digigram is a cloud-based service that facilitates live content creation from journalists, expert voice talent and remote presenters.

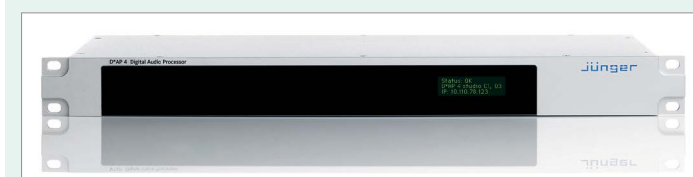
Available as a pay-as-you-go service, digigram says blu by digigram makes it easy for studios to establish several simultaneous high-quality bidirectional communications from a web browser, traditional SIP codec or even telephone as a backup.

The French company says that this is

#### EXHIBITOR NEWS

### JÜNGER AUDIO

**BOOTH N4831** Jünger Audio is demonstrating its D\*AP4 VAP EDITION two-channel voice audio processor as part of a general focus on the benefits of what the company calls Smart Audio.



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UHD



Cloud



Multiscreen



Services



Playout



# Super Session Lineup Meets The M.E.T. Effect<sup>SM</sup>

## SUPER SESSIONS

Media, sports and technology, oh my. No matter where you find yourself on the floor of the Las Vegas Convention Center this year for NAB Show, the program is full of panels and Super Sessions that will address many of the hot button issues in the industry — from UHD to live streaming of sports. Here's a quick peek at what will be available.

### MEDIA

#### CONTENT AT THE CENTER OF MEDIA TRANSFORMATION

April 24, 2-3 p.m.

Consumers have a number of different ways to watch TV nowadays, so what is the best way to market them in this brave new world? This panel, moderated by Cable & Telecommunications Association for Marketing President Vicki Lins, will debate the challenges, share insights into engaging with connected consumers and define success as the media landscapes transform around them.

#### VIDEO PLATFORMS OF THE FUTURE

April 25, 4:15-5 p.m.

A panel of content experts that includes Dwayne Benefield of Sony Interactive Entertainment America, Mashable Founder and CEO Pete Cashmore, Bleacher Report's Rich Calacci and Steve Shannon from Roku will discuss the next frontier of video content production, distribution and consumption.

### ENTERTAINMENT

#### MAKING IT IN THE MAJOR LEAGUES: HOW A VIRAL VIDEO ON FUNNY OR DIE BECAME THE IFC SERIES "BROCKMIRE"

April 24, 3:15-4:15 p.m.

Join Hank Azaria, executive producer and star of IFC's "Brockmire," with co-star Amanda Peet and IFC President Jennifer Caserta as they discuss the making of the critically acclaimed new series.

#### THE REAL STORY: A TAKE ON SYNDICATED ENTERTAINMENT NEWS WITH FOX TV'S FRANK CICHA AND TMZ'S HARVEY LEVIN

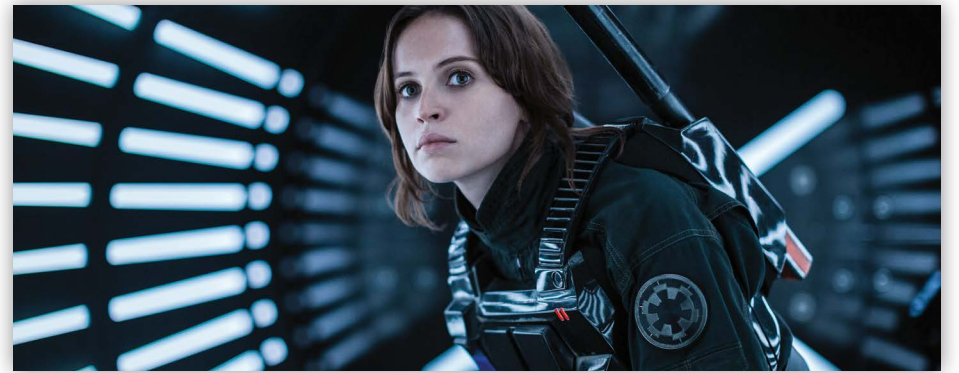
April 24, 3:30-4 p.m.

Get the real story behind the FOX TV/TMZ relationship from two executives who helped create it. Hear how TMZ evolved from a web brand about celebrities into a syndicated entertainment property and how the show's debut on FOX stations pushed boundaries and presented an influential new format.

#### CELEBRITY EXECUTIVE OFFICERS: HOW THESE CEOS MANAGE REALITY

April 24, 4:15-5 p.m.

Larry King will interview entrepreneurs and corporate CEOs who have transitioned their business successes into hit television series.



Felicity Jones as Jyn Erso in "Rogue One: A Star Wars Story." © Lucasfilm Ltd.

#### THE INTRIGUING TALE OF AMAZON PRIME VIDEO'S "THE MAN IN THE HIGH CASTLE"

April 25, 2:15-3:15 p.m.

Executive producer Daniel Percival and cast member Joel de la Fuente (as Chief Inspector Kido) will discuss the production of "The Man in the High Castle" and what made it such a successful OTT series that is changing the television landscape.

#### THE FORCE RETURNS: "ROGUE ONE: A STAR WARS STORY" SUPER SESSION

April 26, 2-3 p.m.

See some great behind-the-scenes footage and hear how sound and visual effects teams worked together to produce another box-office hit for Lucasfilm.

### TECHNOLOGY

#### ULTRA HD BROADCASTING COMES OF AGE

April 24, 10:30-11:30 a.m.

UHD continues to be a topic of much cov-

ersation in the TV industry and Arlen Communication's Gary Arlen will lead a panel discussing new developments. Hanno Basse of 20th Century Fox Film Corp., Madeleine Noland from LG Electronics and Capitol Broadcasting Co.'s Pete Sockett will discuss HDR, UHD consumer displays and early deployments of UHD over ATSC 3.0.

#### NEXT GENERATION IMAGE MAKING - TAKING CONTENT CREATION TO NEW PLACES

April 25, 10:30-11:30 a.m.

It's an exciting time for image making with the emergence of light field, volumetric capture, computational photography and generative imaging technologies attempting to blur the line between live action and computer-generated imaging. Gavin Miller of Adobe, Andrew Shulkind from Technologist, Jon Karafin of Light Field Lab Inc. and Steve Sullivan from Microsoft will pair up to share the science behind these new developments.

#### REACHING FOR THE STARS: CONNECTING TO THE FUTURE WITH NASA AND HOLLYWOOD

April 26, 10:30-11:30 a.m.

NASA and Hollywood continue to serve as an inspiration to one another, and a panel of scientists and filmmakers will be on hand to explore just how these collaborations continue to result in new and exciting outcomes.

### SPORTS MEDIA AND ENTERTAINMENT

#### A NEW ERA OF LIVE ENTERTAINMENT STREAMING

April 24, 12-12:45 p.m.

Speakers who include Steve Hellmuth of NBA Entertainment, Dan Reed of Facebook, Chris Wagner of NeuLion and Brian Atlas of ETN Media Inc. will touch on how the way people watch live events is changing with the emergence of streaming technologies; the capabilities of streaming video providers; and some of the advantages for brands and content rights holders.

#### THE NBA'S GOLDEN AGE OF INNOVATION

April 25, 3:30-4:10 p.m.

NAB Show attendees can take to the court with NBA Deputy Commissioner and COO Mark Tatum as he delves into how the league is driven by new forms of content creation and distribution, including VR and OTT services.

SESSIONS continued on 12

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Join us @ booth N1424



SESSIONS continued from 10

### SPORTS AND THE BUSINESS OF BROADCAST

April 26, 12-1 p.m.

Facebook and Twitter have been two of the bigger companies jumping into the sports broadcasting world, providing more screens and more choices for viewers. But how can sports properties and broadcasters leverage innovation and technology to satisfy the next generation of sports fans? Turner Sports' Craig Barry, along with Todd Goldstein of AEG, Keith Wachtel from the NHL and Chris Granger of the Sacramento Kings will discuss.

### GOOGLE AT NAB SHOW

#### GOOGLE AT NAB SHOW: VR VIDEO — BUILDING A BETTER MOUSETRAP FOR CREATORS

April 25, 2:30-3 p.m.

In this session, Matt Apfel, director of VR Video at Google, and Julina Tatlock, founder and CEO of 30 Ninjas, will share their adventures in producing some of the most popular VR video experiences to date, and the hurdles and opportunities VR video holds for creators.

#### GOOGLE AT NAB SHOW: THE ALGORITHMS THAT POWER WEB VIDEO

April 25, 2:30-3:15 p.m.

Listen to an open conversation between Netflix



Rufus Sewell in "The Man in the High Castle." Credit: Liane Hentscher/Amazon Prime Video.

and Google about the future of internet video with regard to advanced video algorithms for compression and quality measurement. Topics will include Netflix and Google business motivations for algorithm research, the Alliance for Open Media, VMAF and VP9.

#### GOOGLE AT NAB SHOW: MEDIA INNOVATIONS — BRIDGING THE GAP BETWEEN LINEAR TV AND DIGITAL

April 25, 3:45-4:30 p.m.

Google's Shane Peros, managing director of Global Broadcast, Media and Entertainment Partnerships, will lead a discussion with some of TV's brightest CTOs and business

leaders on how to best capitalize on the opportunity afforded by digital technology.

### SPONSORED SUPER SESSIONS

Open to all attendees.

#### INTEL PRESENTS: THERE'S REVOLUTION IN THE AIR — HOW TECHNOLOGY IS TRANSFORMING MEDIA, ENTERTAINMENT AND BROADCASTING

April 24, 11:30 a.m.-12:20 p.m.

The entertainment industry could look very different in the near future with the emergence of mobile technology, virtual reality and other

immersive technologies. Intel is sponsoring a panel led by its own Jim Blakley, with Carnegie Mellon University Professor David Andersen, Dave Ward from Cisco Systems and A.R. Rahman, to look at how technology will change how content is created and distributed.

#### NEWTEK PRESENTS BROADCAST MINDS: "THE POWER TO SEE AHEAD"

April 24, 4:30-5:30 p.m.

Sponsored by Newtek, Jim Louderback of Wochit is set to lead a session on current trends in video and what opportunities lay ahead.

#### CISCO PRESENTS: THE NAKED TRUTH ABOUT MEDIA PRODUCTION IN AN IT STACK

April 25, 11:30 a.m.-12:30 p.m.

Jim Blakley and Dave Ward pull double duty at the show, this time joined by Andrew Lippman from M.I.T. Media, for an examination of the common IT infrastructure that the broadcast media industry is heading for.

#### HUAWEI PRESENTS: ACCELERATE UHD EXPERIENCE ADOPTION

April 26, 12-1 p.m.

While UHD technology is making strides, there are still a number of elements — from consumers to its application — holding it up. Huawei is sponsoring this panel for a deeper look at how to continue to move UHD forward.

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## EXHIBITOR NEWS

## NATIONAL ASSOCIATION OF TOWER ERECTORS (NATE)

**BOOTH C3239** As transaction work gets underway following the historic FCC incentive auction, the National Association of Tower Erectors seeks to raise awareness of safety resources it offers to the industry.



"It is paramount that the wireless carriers and broadcasters involved hire only qualified contractors that are experienced and equipped to conduct the repacking work in a safe and quality manner," the association stated.

NATE is a not-for-profit association that seeks to provide a unified voice for tower erection, service and maintenance companies. It offers resources that can help ensure that safety remains the top priority as work commences on both broadcast and cellular towers.

For example, the new ANSI/ASSE A10.48 Standard is available for purchase; NATE says this is the first comprehensive standard encompassing the entire tower construction, service and maintenance industry. It provides criteria for safety practices in the construction, demolition, modification and maintenance of communications structures.

## EXHIBITOR NEWS

## VMIX

**BOOTH SL4620** At NAB Show, vMix is showcasing vMix 19 for the first time and demonstrating a remote guest feature, vMix Call. This allows vMix to accept up to eight live callers into a production. vMix handles all of the video and audio mix-minus automatically so that anyone can create their own live talk show without audio echoes.

vMix 19's other features include instant replay, 4K, PTZ control and IP connectivity. vMix takes advantage of the latest GPU technology to create a powerful and stable production environment that allows you to scale your workflow easily. Through Newtek's NDI protocol, vMix supports IP connectivity for video transfer over a local network.



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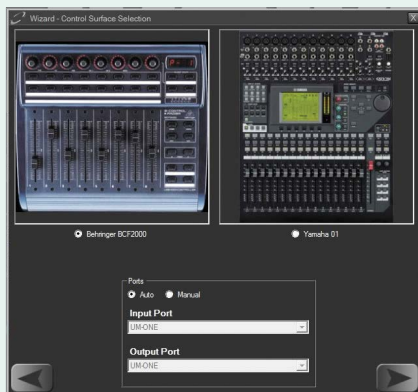
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NAB Booth **SL9724**

## EXHIBITOR NEWS

## 3D STORM

**BOOTH SL5421** 3D Storm is on the NDI Central stand for NewTek NDI developers to present its LiveXpert line of Tools for Live Video and Sports production. According to the company, it has the largest catalog dedicated to NewTek products and products supporting NDI, NewTek's video-over-IP protocol.



Among the products 3D Storm is showing are the Live Media Server NDI (LMS-NDI) and the new LiveMixer for NewTek TriCaster Advanced Edition. Starting at US\$995, LMS-NDI is a software, multi-codec, multichannel player-recorder that can be installed on any PC in a network and be used by any NDI connected to the network.

LiveMixer enables remote control of all TriCaster sound features from a separate PC. LiveMixer has a function called DBSwitch that allows automatic camera switches based on audio levels, plus it supports MIDI devices such as Behringer.



# Media Technology Business Summit Analyzes Strategic Industry Trends

By SARV KREINDLER  
DIGITAL VIDEO

For the sixth year in a row, NAB Show offers the Media Technology Business Summit, a half-day conference that examines “the business of media” from the perspective of all levels of the media value chain including CEOs, CTOs and CFOs. Produced in partnership with research firm Devoncroft Partners, the Summit, held Sunday, April 23, is open to all NAB Show registrants.

“Our objective is for the Summit to create a forum of exchange between [technology suppliers, technology end-users and institutional investors/financial professionals,] while also serving as a thought-provoking kickoff for the show,” explained Joshua Stinehour, principal analyst at Devoncroft.

The conference will begin with two sessions offering a summary of the latest research from Devoncroft’s Big Broadcast Survey, the largest demand-side study of the global media industry. The sessions will provide an analysis of strategic industry trends and developments affecting media technology sector participants and focus on the state of the broadcast and media technology industry in 2017, including key customer investment areas.

The Summit will then feature five executive panels of broadcaster CTOs, broadcaster CFOs, technology vendor CEOs, service provider executives and IT executives representing the full technology stack of suppliers.

The session “The Vendor C-Suite: Strategies for an Evolving Market” will feature a panel of executives at leading technology vendors, including Ross Video CEO David Ross and Belden President and CEO John Stroup, who will offer views on the most important commercial issues facing the industry. Specific topics will include the business challenges and opportunities associated with next-generation technology investments

(such as 4K/ UHD, IP infrastructure and cloud); evolving revenue models associated with virtualized technologies; and merger and acquisition activity for both the vendor and technology end-user.

“The idea for this panel is to give the audience the view of the executive who’s pay-

tion to take advantage of technologies such as IP and virtualization. The session will be moderated by Al Kovalick, founder of Media Systems Consulting.

The following panel, “Service Provider C-Suite: Perspectives on the Future of Media Technology,” will feature Akamai Ex-

ard Friedel, executive vice president/general manager of Fox Network Engineering and Operations; Renu Thomas, executive vice president of Media Operations, Engineering and IT at Disney/ABC Television Group; and John Honeycutt, chief technology officer of Discovery Communications — will offer informed perspectives on the most significant industry trends affecting technology budgets and the technology purchase decision. The audience of “The Broadcaster C-Suite: Trends Driving Investment Decisions” will benefit from an emphasis on the business implications of technology decisions for broadcasters.

The final panel of the conference is new for this year and a chance for attendees to hear from the chief financial officers of three major broadcasters.

“The Broadcaster C-Suite: The Opinion of Financial Decision-Makers” will feature panelists Joe Dorrego, executive vice president/chief financial officer of Fox Television Stations; Michael Tuvell, senior vice president/chief financial officer of Tribune Media; and Lucy Rutishauser, senior vice president/chief financial officer of Sinclair Broadcast Group.

“This is an opportunity to hear from the people who are making the financial decisions about what’s going on in their companies,” said Stinehour. “I can’t think of anything better to be doing on the Sunday of the show.”

“NAB Show is a technology show; and technology exists to support the business model of the customers. As it has evolved, the tech has to evolve, and there are lots of questions other than engineering questions that need to be answered,” Stinehour said. “This Summit is all about bringing the executive communities into one place as a forum to focus in on the business issues that are impacting the technology and purchasing sectors and to help separate the hype from reality.”



ing for the big booth,” said Stinehour.

The session “Leveraging Hyperscale IT Infrastructure for Next-Generation Media Workflows” will feature a panel of executives from IT vendors, including Cisco Systems’ Engineering Chief Technology Officer and Chief Architect Dave Ward and IBM Chief Technology Officer of Global Media and Entertainment Peter Guglielmino. These experts will offer the IT community perspective on developments in the media sector and share opinions on the implications of broader technology advancements. In particular, the discussion will focus on the role of the IT vendor in the ongoing transi-

Executive Vice President and Chief Strategy Officer Bill Wheaton along with other executives from leading media service providers who will discuss views on both technology developments and deployment considerations for media organizations.

In particular, the panel will focus on key considerations for technology solutions for multiplatform content delivery and monetization. Additional topics will include perspectives on next-generation technologies and trends toward greater outsourcing of technology infrastructure.

A panel of technology decision makers at leading broadcasters — including Rich-

## EXHIBITOR NEWS

### ARTEL

**BOOTH N4511** Artel’s DLC510 is a dual-port L-band demodulator and satellite scanner that adds fully automatic L-band satellite-scanning functionality to the company’s media transport solutions. Using Artel’s flexible HTTP- and SNMPv2-based element management systems, the DLC510 provides essential RF information, modulation data and other key metrics used in daily operations in an easy-to-read list.



The InfinityLink platform provides transport of video, audio and data over IP- and fiber-based networks for 3G/HD/SD-SDI, DVB-ASI and Ethernet. It is suitable for broadcast, sports, higher education, government and related applications.

The IP- and fiber-based InfinityLink IL6000 is a 1RU, four-slot chassis with active routing and SNMP management system.

The FiberLink 3500 Series transmits 4K/UHD video at up to 60 frames per second one way. Supporting nearly every type of video, audio and data signal, FiberLink products are suitable for broadcast or corporate studios, OB vans, point-of-view cameras, rental and staging, auditoriums, stadiums and theaters, transportation hubs, distance learning and more.

## EXHIBITOR NEWS

### FILECATALYST

**BOOTH SL10716** FileCatalyst is an eponymous software platform designed to accelerate and manage file transfers, securely and reliably. FileCatalyst Central v3.7 gives clients a new way to monitor and manage their FileCatalyst deployments. FileCatalyst Central is a pure HTML-based interface that lets clients monitor real-time transfers, system health, reports and the management of all aspects of deployed FileCatalyst applications. FileCatalyst



Direct 3.7 has taken object storage integration to the next level by providing a file system style interface for object storage, while providing multi-gigabit transfer speeds.

## EXHIBITOR NEWS

### 360 SYSTEMS

**BOOTH N3524** 360 Systems is introducing its first video-over-IP solution. The TSS IP-2200 video server offers two broadcast-quality channels that record or play video over IP. Initial release will support SMPTE 2022, with field upgrad-



ability to SMPTE 2110 soon after it is ratified.

This addition to the TSS line of video servers gives customers the flexibility for easily navigating from SDI to IP, without the learning curve or guesswork. In addition, current customers purchasing the already-released TSS Mini-2100 or 2200 will be able to convert to the TSS IP 2200 version in the future.



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## EXHIBITOR NEWS

## WEDEL SOFTWARE

**BOOTH N6224** Wedel Software has added new functionality to its MediaSales Quote application — digital contract signing.

Wedel explains that, thanks to this new module, MediaSales Quote lets sales teams add a signature to their device and immediately send a confirmation message to both the customer and their team, while automatically updating the customer file. With digital contract signing, users no longer have to deal with paper contracts and immediately have their documents in digital format.



The application allows signatures to be added on touchscreen devices and keeps track of information such as GPS location, IP address and device details. In addition, the system provides an audit trail and is integrated into the rest of the workflow, so if contract revision is required, a new signing request can be sent.

## EXHIBITOR NEWS

## FREZZI

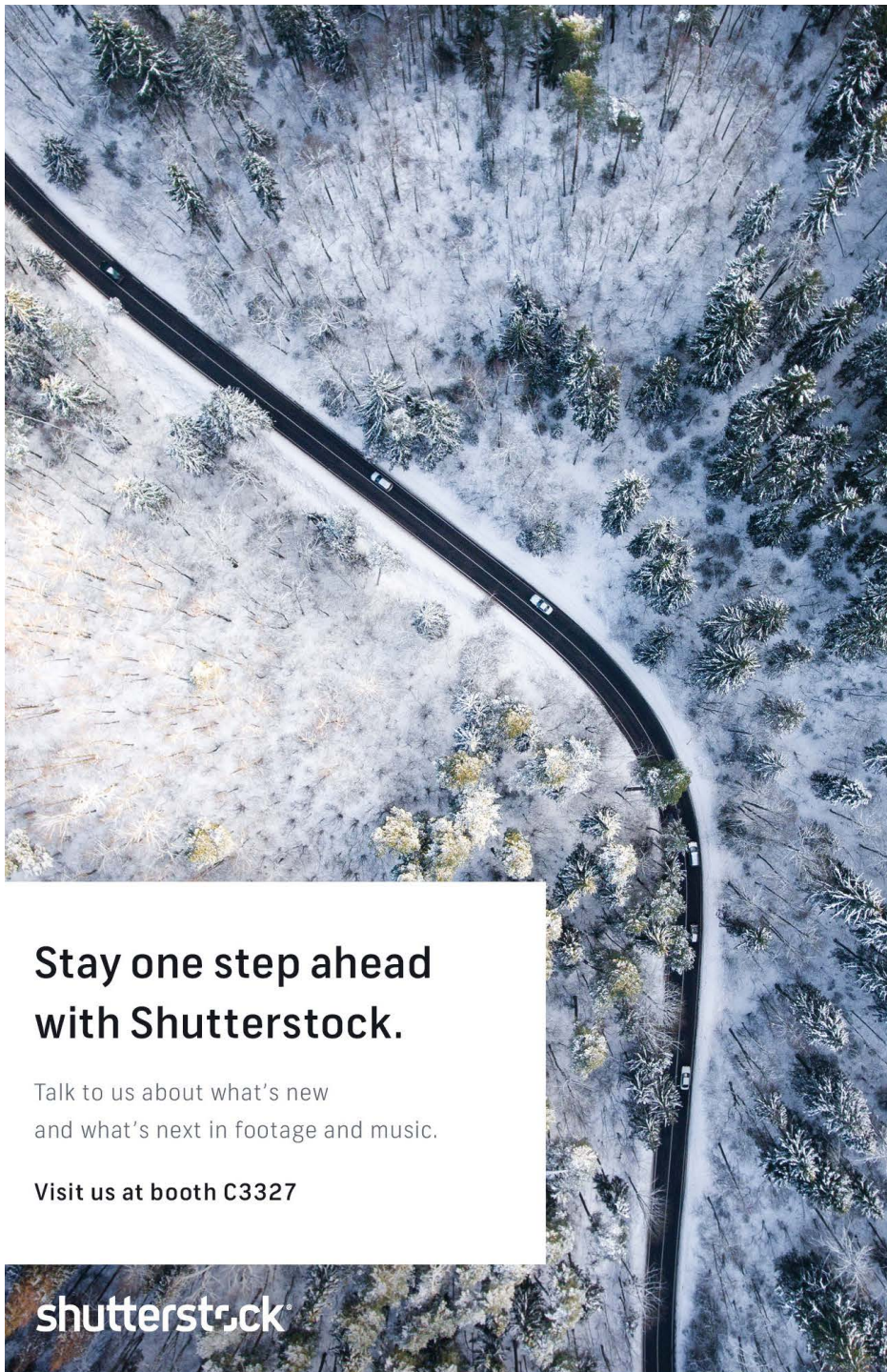
**BOOTH C7114** Frezzi says its new Frezzi SunLight features LED with 575 W HMI output and direct focusing; and that it is lightweight and field friendly.

Using the 93 CRI 5500 K broadcast-quality LEDs and internal reflectors, the SunLight captures 100 percent of the usable LED light. In addition, the beam pattern is adjustable with a directional focusing control from its native 20-degree spot to a flood.



With the SunLight, there is always enough output for applications where HMIs are typically required, but without the harmful UV emissions, external heavy ballasts, dangerous heat or expensive and fragile HMI lamps and inability to run on DC.

The Frezzi SunLight can operate on AC or DC with HD broadcast camera batteries giving a run time of 45 minutes. It's rugged, fully weatherproof with a range of accessories and 100-percent dimmable for the ultimate in portable high-output field lighting.



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# NAB Show to Feature New Global TV Tech Day

NAB Show will feature Global TV Tech Day, a new day-long program that explores emerging media technologies from the perspective of the world's leading media standards development organizations, industry forums and key implementers. Produced by PILOT and open to all attendees, Global TV Tech Day will take place Saturday, April 22.



## Global TV Tech Day Session Schedule

9–10:30 a.m.

**AN OVERVIEW OF TODAY'S EMERGING TECHNOLOGIES**

10:45 a.m.–12:15 p.m.

**THE MPEG ROADMAP TO THE IMMERSIVE AGE**

1:15–2:45 p.m.

**ULTRA HD FORUM MASTER-CLASS: 2017 — THE YEAR OF HDR'S LAUNCH**

3–3:45 p.m.

**KOREA'S LAUNCH OF ATSC 3.0**

4–5 p.m.

**STANDARDS FOR GLOBAL OTT VIDEO: THE WAVE PROJECT**

“The standards driving TV innovation are constantly evolving,” said NAB Executive Vice President of Technology Sam Matheny. “Global TV Tech Day will address the current technological landscape and emerging developments influencing major aspects of the television industry.”

A series of five sessions will provide updates on significant breakthroughs and developments on topics such as IP to cloud broadcast operability; IP standards for media production facilities, HDR, video and VR/AR; MPEG standards and the MPEG-I standard; the emergence of UHD; Korea's launch of Next Gen TV technology; and standards for global OTT video.

Participating organizations include the Inter-SDO Group, SMPTE, JTNM, AIMS and CTA.

All sessions take place in room N260.

## EXHIBITOR NEWS

## AMAGI

**BOOTH SU12207CM** Amagi STORM ad insertion solution is now available on the Intel platform and supports multiple interfaces (IP, SDI and ASI), multiple feed formats (SD/HD), multiple insertion formats (video, full-screen graphics, scrolls and tickers), as well as multiple channels on the same device.



STORM also supports standard replacement triggers such as SCTE-35, Packet 31, DTMF cue tones and Amagi Watermark. The platform is compatible with cloud-based ad insertion and replacement content transported over satellite trickle bandwidth. TV networks using STORM have full control of frame-accurate ad insertions, and can manage and monitor the entire workflow through a web-based UI.

Amagi CLOUDPORT 3.0 offers a comprehensive new scheduling feature that helps to create frame-accurate presentation schedules from scratch, stitching together programming content, commercials, static and dynamic graphics, squeeze backs, event triggers and live event integrations. The scheduling feature makes CLOUDPORT 3.0 a solution for end-to-end creation of linear TV channels for broadcasters and OTT platform providers.

## EXHIBITOR NEWS

## MATROX

**BOOTH SL6316** The new captioning functionality for live internet programming of the Monarch HDX system will be among Matrox's demonstrations at its booth, along with its range of H.264 streaming and recording devices.

The Monarch HDX is Matrox's dual-channel encoder that is capable of retrieving closed-caption data from the SDI VANC. The caption-enhanced H.264 media can then be streamed to video hosting platforms, media servers or content delivery networks; MOV/MP4 files recorded with Monarch HDX preserver captions can be included in video-on-demand or archiving workflows.



Other Matrox products that are at the booth include the MaeveX 6150 quad-4K encoding and recording appliance, which is capable of recording up to four 4K inputs and is making its North American debut. The Monarch LCS lecture capture appliance and Monarch HD professional streaming and recording appliance are also on hand.



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# Pavilions Expand Show Floor Offerings

Attendees to the Show Floor will find a number of business- and technology-focused pavilions with more exhibitors and some session offerings to add to their learning opportunities. Four pavilions are new to the show this year.

## ADVANCED ADVERTISING PAVILION

**➔ ADVANCED ADVERTISING PAVILION**  
The Advanced Advertising Pavilion in the North Hall brings together leaders sitting at the intersection of content, marketing and technology as they address the new opportunities being created by a constantly changing landscape. Featuring publishers, broadcasters and multiplatform content creators as they look to reach and monetize audiences; technologists who want to integrate solutions that deliver value; and marketers who want to create a higher ROI.



## ➔ AERIAL ROBOTICS AND DRONE PAVILION

Content creators are always looking for fresh perspectives and new angles to propel their projects to new heights. Visitors to the Aerial Robotics and Drone Pavilion in the Central Hall will find the industry's leading experts ready to take them through all the aspects of employing aerial technology. The pavilion will feature exhibitor demonstrations built to give attendees an up-close and personal look at the latest technologies in action.



## ➔ ATSC 3.0 PAVILION

This special zone in the North Hall, within the 2017 Futures Park, features 10 individual ATSC members/contributors from around the world, each showing ATSC 3.0-related developments. Demonstrations in the pavilion will include low-power, over-the-air transmission and reception of ATSC 3.0 signals.



## ➔ CONNECTED CAR HACKATHON – DRIVEN BY FORD

What does the new technology in the automotive industry mean to broadcasters and content publishers? Join NAB and Ford in the North Hall for the Connected Car Hackathon, a competition where visitors can explore how access to vehicle-generated data and the increasing autonomous capabilities of vehicles will affect the delivery of audio and video inside the car.

## CONNECTED MEDIA|IP

Multiscreen Delivery | Discovery | Engagement

### ➔ CONNECTED MEDIA|IP

The multiscreen viewing experience comes to life in connected media|IP in the South Upper Hall. This is the solutions destination that explores the underlying technologies enabling audiences to receive, discover and interact with content across any device, anywhere. It's all about IP-focused technology including IPTV, OTT, mobile, social and cloud. And it's all about consumer engagement and bringing audiences closer to the action. Through exhibits and a full seminar lineup, connected media|IP will provide attendees with the tools and knowledge to deliver the ultimate multiscreen audience experience.

### ➔ CYBERSECURITY AND CONTENT PROTECTION PAVILION

As the world becomes increasingly dependent on the cloud and digital platforms, the need for elevated cybersecurity is at an all-time high. The new Cybersecurity and Content Protection Pavilion in the Central Hall features companies securing the future of a digital world. Convention-goers can learn how to protect their most valuable assets, programs, networks, data and ultimately their business from malicious activity.



### ➔ DESTINATION: NXT

From concept to consumer-ready, the North Hall is home to three eXTreme destinations spotlighting tomorrow's technologies and solutions: Futures Park, StartUp Loft and SPROCKIT.



### ➔ FUTURES PARK

Futures Park showcases advanced projects, presented by NAB, powered by PILOT. It features demonstrations of high-tech media developments in progress, prototypes and products not yet available for sale, from academic, government and commercial research laboratories in the United States and around the world.



### ➔ SPROCKIT

SPROCKIT features the most promising market-ready media and entertainment entities from around the world — the Best of the

Best. The "By Invitation Only" startups have proven products, customers and services and are ready to scale. The industry's media and entertainment companies trust SPROCKIT to help them find the right startups to bring the right products, services and revenue models to the market at the right time.



### ➔ STARTUP LOFT

StartUp Loft is the launching pad for the industry's newly created companies. Get the first look at product and service offerings that have recently hit the market.



### ➔ FACEBOOK LIVE VIDEO SOLUTIONS PAVILION

Much of the content now appearing via Facebook Live has become highly-produced, driving even deeper engagement with audiences. Facebook has identified a set of tools and platforms that help publishers optimize their Facebook Live broadcasts. A selection of vendors will be on-hand to demo these tools and platforms, which can help take your Facebook Live productions to the next level. The pavilion will be on the South Upper Lobby.



### ➔ IP SHOWCASE

The new IP Showcase in the North Hall will offer you a holistic view of industry alignment, action and transformation thanks to internet protocol technology. With leadership from AES, AIMS, AMWA, EBU, IABM, MNA, SMPTE and VSF, the industry has developed this pavilion to help everyone from broadcast/IT engineers to CEOs to TV producers determine how they can best reap the benefits of IP. This attraction features a full schedule of must-see IP education sessions within its IP Showcase Theatre along with demonstrations of new applications and the latest interoperability developments.



### ➔ NEXTGEN TV HUB: POWERED BY ATSC 3.0

The NextGen TV Hub, located in the Central Lobby, will showcase the many ways that ATSC 3.0 will transform television, with new capabilities for broadcasters and programmers such as over-the-air addressable advertising and audience measurement. Visitors can see how ATSC 3.0 will be delivered to today's devices in tomorrow's home,

seamlessly mixing over-the-top with over-the-air content in the world's first Internet Protocol broadcast system.

### ➔ POST|PRODUCTION CAMPUS

Content creators can visit the Post|Production Campus in the South Lower Hall to learn the latest tips and tricks for content creators — from shoot to post. Curated in partnership with Future Media Concepts, this learning and networking area of the show floor will feature 30-minute sessions presented by certified instructors, creative sessions by noted editors, daily happy hours, raffles and birds-of-a-feather meetups.



### ➔ VIRTUAL AND AUGMENTED REALITY PAVILION

Attendees can get hands-on in the North Hall with the latest augmented and virtual reality equipment and software. This new medium is affecting all aspects of filmmaking, storytelling, cameras, lighting, sound, production, special effects (VFX), editing, distribution, coding and consumption. The pavilion features content producers and tech companies building the future and changing the way we consume information.



## EXHIBITOR NEWS

### QLIGENT

**BOOTH N6520** An OTT-specific version of Qligent's Vision cloud-based monitoring platform will be on display, the aptly named Vision-OTT. The new platform is a complete virtualized cloud system and leverages other Qligent technology, including its Virtual Probes, and new features such as Amazon Web Services to deploy, host and manage Virtual Probes from anywhere.



The Vision-OTT architecture will include an aggregated server that communicates and collects all field data from each probe or edge device.

The Qligent Oversight Monitoring-as-a-Service system is also being demonstrated as a managed service layer for Vision-OTT. Called Oversight-OTT, the special service provides continuous offsite monitoring, event-based troubleshooting, incident-based and/or periodic analysis, comprehensive reporting and recommendations to improve and scale services.



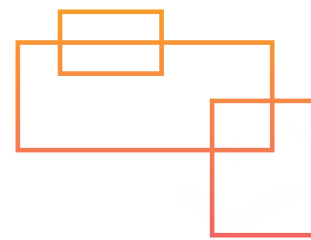
# Perfecting the Media Experience



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Enrich The  
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# Workshops Get Out Into the Field

Gain some hands-on experience in time-lapse filming, aerial videography and cinematic lighting with a weekend workshop before NAB Show starts. Part of Post|Production World, space is limited and separate registration is required.

## CORPORATE & IN-HOUSE VIDEO PRODUCTION

### Field Workshop

Saturday, April 22, 8 a.m.–5 p.m.

Companies are now building in-house video production teams to create ongoing and high-quality content for their web presence and social media outlets. Corporate video production companies have also changed in terms of their structure and resources. While the equipment has gotten better and less expensive, the crews have gotten smaller and smaller.

This full-day workshop will focus on small to no crew in-house and corporate video production. It will cover current digital cinema cameras, lenses, related support gear, audio recording and lighting gear that is best suited for small-scale production teams.

## AERIAL CINEMATOGRAPHY TECHNIQUES

### Field Workshop

Saturday, April 22, 8:30 a.m.–5:30 p.m.

Small unmanned aerial systems (sUAS or Drones) are a staple in the toolkit of any videographer, and with good reason; they are used not only to create beautiful video from new (and previously unachievable angles), but to collect data that can be used for other production content. Cost-effective, reduced-risk and often able to access places



Top instructors share best practices during the "Aerial Cinematography Techniques" workshop.

that are generally inaccessible, is not surprising that video professionals are rapidly adding sUAS to their production kit.

This field trip is designed for those either evaluating sUAS or who have recently acquired an sUAS for production use. Attendees will be able to fly with top instructors who are there not just to share best practices but are ready to address any questions or concerns ranging from standard practices, maintenance or regulatory changes.

## CINEMATIC LIGHTING

### Field Workshop

Sunday, April 23, 8 a.m.–5 p.m.

Cinematography comprises three main disciplines: lighting, composition and camera movement. For many people it's the lighting that's the most mysterious and the hardest to master, but all three must work together as a

cohesive whole.

As a follow-up to last year's "Cinematic Lighting for Narrative, Documentary and Corporate Production" field workshop, Jem Schofield of theC47 and guest instructors will take attendees on location to learn how to light and compose for both corporate and narrative-based projects. This one-day field trip will take attendees through the process of planning, lighting and shooting using largely low-key and cinematic techniques. This class will feature lighting, lighting control, composition, actors and camera setups to teach you how to light for a range of projects.

## AERIAL VIDEOGRAPHY NIGHTTIME FLYING

### Field Workshop

Sunday, April 23, 4:30–11:30 p.m.

Greater than 70 percent of our flying infor-

mation comes through the eye, and the eye is easily tricked in darkness. This is compounded by the inexperienced pilot alternating views between a tabled/lighted display and the position of the UAV in the sky. Night flying has a higher accident rate than identical day flying, both in UAV and manned aviation. Why? Depth perception is severely distorted, as is reaction time. There are also visual illusions that need to be recognized and mitigated. This session will provide information that will allow pilots to sidestep these challenges, while properly assessing and managing the risks associated with night flight (as waived per Part 107.29). You'll also learn the foundation of applying for a COW/COA for night flight from an experienced night-flight pilot.

## POST|PRODUCTION WORLD KEYNOTE: EDITING AT THE SPEED OF THOUGHT

Sunday, April 23 | 4:30-5:30 p.m.

Moderated by Apple, Thomas Grove Carter, a principal editor from U.K. edit house Trim Editing, and Dave Cerf, editor of successful independent film "Todo Lo Demás," will discuss techniques for reducing the time spent ingesting, tagging, sorting, organizing, rendering and exporting in post production to spend more time being creative. Both panelists bring a unique perspective on how to deliver high-quality film and commercial content with cost-effective infrastructure in super competitive industries. They'll discuss how to stay focused on creative output, how to minimize overhead without compromising quality, and how to use Final Cut Pro X to realize these advantages.

## EXHIBITOR NEWS

### CUESCRIPT

**BOOTH C10618** CueScript is launching two products that simplify and enhance prompting in studios and on location.

Using a prompter display with a PTZ camera can restrict the operation of the PTZ. With a patent pending, CueScript has developed a mounting system where the PTZ camera mounts upside down in the top of a specially designed prompter hood. Mounting the system this way eliminates the need for tripods and makes using a lighting stand possible. The PTZ has greater movement in the shots it can achieve, and users are able to choose from a 15- or 19-inch LED display system.

The CueScript wireless "WAND" scroll control also makes its debut. It offers IP-based connectivity, greater battery life, and the ability to have unlimited controllers in a studio complex and simplified operation for the presenter.



with high-resolution content with flexibility, efficiency and workflow collaboration capabilities.

Built on an optimized Linux RAID core with embedded StorNext 5 and integrated metadata storage, each SymplyPRO system comes with 24 drives and 192 TB storage capacity, expandable up to 768 TB. It also features a quad 16 Gb Fibre Channel and dual 10 GbE IP ports per controller supporting macOS, Windows and Linux clients.

SymplyPRO users can simultaneously work on Fibre Channel or IP, based on their performance requirements, for maximum flexibility. Up to 20 users can connect directly to Fibre Channel using SymplyPRO, with sharing for many additional collaborators via Ethernet.

## EXHIBITOR NEWS

### AZDEN

**BOOTH C1123** Stereo/mono switchable, Azden's SMX-30 camera-mounted microphone has a wide frequency response ranging from 40 Hz to 20 kHz. Two microphones in one, the SMX-30's stereo microphone is positioned at the top and features two cardioid polar pattern microphone elements spaced apart at a 120-degree angle for capturing a natural-sounding stereo image, while the SMX-30's mono microphone uses a super-cardioid polar pattern to focus on sound in front of the camera.

With a wide frequency response ranging from 40 Hz to 20 kHz, the microphones also offer a +20 dB gain booster. Integrated into the design of the SMX-30 is a custom-made, shock-absorbing shoe mount to isolate the microphone from camera motor and handling noise.



## EXHIBITOR NEWS

### TBC CONSOLES

**BOOTH C9015** TBC Consoles' SmartTrac line is used for a variety of applications in broadcast environments, including radio and podcasts, which the company is finding to be a growing business.

The SmartTrac Custom Radio Console, built in time to be unveiled at NAB Show, is meant for an application where the talent sits (or stands) opposite the host and includes the benefits of the company's height-adjustable



SmartTrac consoles, twin side carts for rack-mounted equipment and storage in a custom configuration that is customizable to fit the user's space and needs.

TBC notes that more radio stations are now active in creating video and streaming over the internet; SmartTrac is intended to be an attractive and functional setup for such technical furniture applications.

## EXHIBITOR NEWS

### SYMPLY INC.

**BOOTH SL6821** SymplyPRO features field-proven RAID storage and an integrated blend of Fibre Channel and Ethernet sharing, providing broadcasters, film studios, post-production houses and other media creatives who work







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# 4K 4Charity Registration Still Open

By MICHAEL BALDERSTON  
TV TECHNOLOGY

Registration for the annual 4K 4Charity Fun Run organized by Elemental Technologies is still open. Beginning with this year's event, the 4K 4Charity Fun Run series will distribute all proceeds to raising awareness and funding for organizations that work in support of increased diversity and inclusion.

"As we look forward, we recognize that the media and entertainment industry – like so many industries – can and must do more to support diversity and inclusion," said Laura Barber of Elemental and co-founder of the series. "With the support of NAB Show and its members, it's an honor to devote 100 percent of this year's proceeds toward that mission."

The run has taken place each year at NAB Show since 2014 and has raised nearly \$400,000 for nonprofit organizations.

This year the event will donate all its proceedings to raise awareness and funding for Mercy Codes, which works with vulnerable women and adolescents in crises, providing safe places, education opportunities, job skills training and community engagement projects.

Contributions also will be made to Women Who Code, a global nonprofit dedicated



to inspiring women to pursue and excel in technology careers and become leaders and role models in the tech industry.

Sponsors for the event include Association Partner NAB, Media Partners NewBay Media and Rapid TV News; Platinum Sponsors Aspera, Elemental and HBO; Silver Sponsors OZO Nokia and Verimarix; Medal Sponsor Dolby; Bronze Sponsors Acceco, Brightcove, BroadStream Solutions, Comcast Technology Solutions, Irdeto, The Weather Co. and Vizrt; and Kilometer Spon-

sors ChyronHego, Sports Video Group, Tektronix and Wazee.

The run will take place on Tuesday, April 25, at 7:30 a.m. in Sunset Park. Transportation will be offered to and from major NAB Show hotels. Interested runners can visit [www.4K4Charity.com](http://www.4K4Charity.com) to register.

## EXHIBITOR NEWS

### BROADCAST PIX

**BOOTH SL9721** Broadcast Pix Commander series live production systems feature a streamlined touchscreen interface that allows nontechnical personnel to execute sophisticated productions. Designed for government, corporate, education, house of worship and live events, Commander's intuitive control simplifies switching, robotic camera control and the inclusion of graphics, clips and effects. Instead of a complex traditional switcher control panel, Commander is controlled through an uncomplicated touchscreen interface.



Commander systems are also easy to set up. Select a template for the number of cameras used, capture the robotic camera's preset positions, enter names for lower-third graphics and any clips, and start producing. After broadcasting and streaming, finished productions can automatically upload for viewing on an included BPNet cloud portal.

Commander systems are turnkey solutions that require only cameras, audio and any size touchscreen monitor. All systems accept SDI, IP and HDMI inputs, and provide switching, robotic camera control, CG, clip player, recording, streaming and BPNet cloud integration.



4K 4Charity Course Map

## New Exhibitor SNAPSHOTS

Q. What products or services are you showcasing?

### Suitest

Booth **SU9803CM**

**Taras Perevorsky**, CEO: "Suitest provides a super-easy way for end-to-end test automation of your apps. It works with physical devices, operating them



directly through the infra-red port. It also supports desktop browsers and TV emulators for easier test authoring at early development stages. Suitest brings QA to the cloud!"

### CHAUVET Professional

Booth **C12646**

**Albert Chauvet** CEO: "CHAUVET Professional is the thoughtful, forward-looking choice for lighting professionals, offering a carefully designed selection of LED

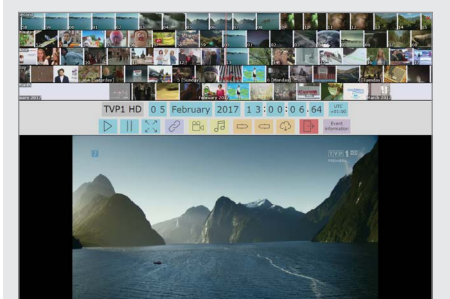


ellipsoidals, Fresnels and color washers. Our fixtures are fitted with the latest technological advances in LED and cooling design, and are perfect for operation in broadcast, studio, in-house corporate sets and film applications."

### Stirlitz Media

Booth **SU6224**

**Greg Podsiadlo**, CEO: "Stirlitz Media Logger is the fastest compliance recording and media monitoring software with HTML5 video playback and MPEG-TS/HLS capture. Broadcasters worldwide use SML to record their own and competing channels. SML is software-only, hardware-agnostic, native IP and records up to 50 TV or radio stations on a single server."





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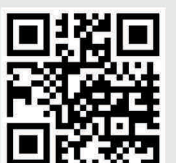
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# Industry Events Partner With NAB Show

A number of events are planned around NAB Show each year, solidifying the show's place as the nucleus of the media and entertainment community.

The NAB Show exhibit floor is open to all those registered for these events. Visit the NAB Show [website](#) for more information.

## AVID CONNECT 2017

Saturday, April 22–Sunday, April 23  
8:30 a.m.–9 p.m.

Avid Connect, a unique gathering of media professionals, is being held the weekend prior to NAB Show. Join industry leaders as they come together to experience the cutting edge and prepare for the year ahead. Be there to strengthen your skills, network with collaborators and try new tools and technologies. Requires separate registration.

## BEA2017

Saturday, April 22–Tuesday, April 25  
9 a.m.–7 p.m.

From the BEA Festival of Media Arts to the latest academic research projects, today's top publishers to free software training labs, career advice for students to cutting-edge speakers, this is the one place where electronic media professionals and educators converge. Requires separate registration.

## INNOVATION SERIES BREAKFAST: TV IN THE AGE OF AUTONOMOUS VEHICLES AND 5G

Monday, April 24, 7–9 a.m.

Guests will include leaders in technology, media, entertainment, marketing, government and finance. The program will focus on innovations that are most likely to have an impact on the business of broadcasting. From self-driving vehicles to anticipatory computing to mixed reality to natural language processing, these mega-trends are



converging and the world will never be the same. Open to all registered NAB Show attendees but must request an invitation.

## IABM STATE OF THE INDUSTRY

Monday, April 24, 8–10 a.m., N235/N237

Attendees will gain insight into where the industry stands now and where it is heading in the future in a stimulating conversation and debate. IABM will host a distinguished panel of industry luminaries who will debate the current situation in, and future prospects for, the media technology sector. All NAB Show registered attendees are welcome.

## AD INNOVATION LAB POWERED BY GABBCON

Monday, April 24–Tuesday, April 25

The advertising model is changing — for buyers and sellers, for TV and video, for ra-

dio and audio, for linear and digital. Do you need to know how? Join the leading buyers and sellers of advertising, media and technology at the Ad Innovation Summit. Separate registration is required.

## #GALSNGEAR

Tuesday, April 25, 8:30–10 a.m., M.E.T. 360° Studio

The event will kick off with a Networking Coffee co-hosted by SAM and BlackMagic Design at the M.E.T. 360° Studio powered by NeuLion in the Central Lobby. From 9–10 a.m., #GALSNGEAR will host discussions and gear demos with female industry leaders on NAB Show LIVE! The show will be available via live stream. The goal of #GALSNGEAR, launched by Women in Film & Video (Washington, D.C. chapter) is to ensure women in the technical fields of media production get high-level networking; access to gear and the latest industry technology; and visibility at major industry events.

## CAREER DAY

Tuesday, April 25, 9 a.m.–3 p.m.

The NAB Education Foundation will host its spring Career Day in partnership with the Broadcast Education Association, providing an opportunity for media companies to network with broadcast professionals of all levels. For job seekers, whether you are looking to find your first job in broadcast or advance in your current position, take advantage of the opportunity to meet with industry recruiters including CBS News, Univision and ION Media. Admission is free for job seekers, but registration is required. Recruiters can meet and interview qualified candidates for open positions.

## NEW YORK FESTIVAL'S INTERNATIONAL TV & FILM AWARDS

Tuesday, April 25, 6–10 p.m.

Since 1957, New York Festival's International TV & Film Awards has honored content in all lengths and forms celebrating exceptional and innovative programs being created today on all continents and across all platforms. As part of its event, New York Festivals will honor Tony Petitti, chief operating officer of Major League Baseball, with the 2017 New York Festivals Lifetime Achievement Award. Separate registration is required.

## THE AMATEUR RADIO OPERATORS RECEPTION

Wednesday, April 26, 6–8 p.m., Westgate Ballroom B

The annual Amateur Radio Operators Reception draws hundreds of broadcasting's best and brightest for a relaxed evening talking shop, enjoying the fellowship of the radio amateur community and winning incredible prizes. The evening is sponsored by Broadcast Supply Worldwide, DX Engineering and Turner Engineering Inc. All NAB Show registered attendees are welcome.

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Nuendo 8

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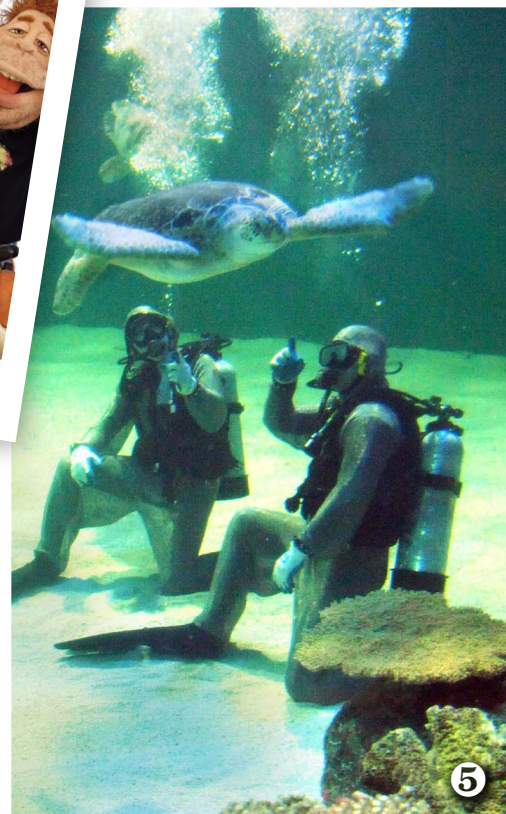
Visit Yamaha Booth C1725 to see the newest digital mixers debuting at NAB. The RIVAGE PM10 Digital Mixing System, NUAGE Advanced Production System and Nuendo 8 will be on display along with other products from our vast lineup. Swing by to get your hands on your favorite gear and talk to our experts.



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DIGITAL MIXING  
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# VEGAS, BABY!



**1** The Fountains at Bellagio — One of the most popular free attractions in Las Vegas, the aquatic show is choreographed to light and music.

**2** A long-time staple on the lineup of favorite shows, the Blue Man Group at the Luxor Hotel & Casino is a comic musical featuring audience interaction.

**3** Ventriloquist Terry Fator can be seen at the Mirage Hotel, along with his hilarious cast of characters.

**4** One of Cirque du Soleil's timeless productions, "O" brings together world-class acrobats and synchronized swimmers at the Bellagio.

**5** Visitors to the Mandalay Bay Resort & Casino can dive with the sharks and turtles in the Shark Reef Aquarium, which features more than 30 exotic sharks and other sea life.

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