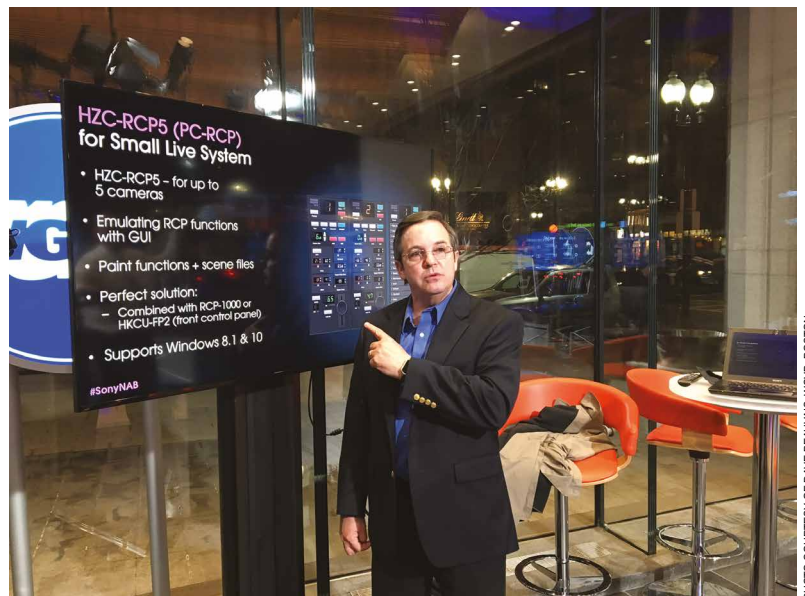


New England February 2017

The meeting on 22 February was held in the Johnson Building annex of the world-renowned Boston Public Library, located in Copley Square in downtown Boston.

Section Chair Marty Feldman began by introducing host, Emeric Feldmar, director of engineering, WGBH-TV (PBS). Feldmar described the yearlong efforts that went into the design, equipment selection, and construction of a new multimedia broadcast facility, operated by WGBH for live radio and television events directly from the Boston Public Library. He also outlined the various challenges encountered when working in a historic building environment where even the most minor details had to first be approved by various boards and agencies.

Since its debut in September 2016, the WGBH studio has been utilized for live and delayed-broadcast television, radio, and web programming, and has become a magnet in the bustling Copley Square area for both Bostonians and tourists alike. The WGBH Facility has open glass walls on the building's street sides, for public viewing of live broadcasts from the exterior sidewalks, and full open-area viewing inside the Library. Internally, there is a truss system for lighting and LCD monitors, which also serves as a room divider from the public walkway and the live studio area. A "Talk Radio" style anchor desk with modern microphone boom systems is centered within the studio space, and three Sony SMPTE fiber-based, 2/3 in. chip broadcast HD cameras are located on lightweight Vinten pedestals with Vinten Vantage robotic pan/tilt heads and



Sony's New England Broadcast representative Steve Dirksmeier describes the Sony video camera equipment installed at WGBH's new "Satellite Studio" at the Boston Public Library, Copley Square.

PHOTO COURTESY OF DAVE BEAUVAIS, WGBH, BOSTON.

Autoscript teleprompters configured within several feet of the anchor desk. The boom microphones are easily removed for any live television event and replaced with headworn microphones or traditional miniature lavalier microphones.

Key to the utilization concept, which Feldmar emphasized in the design of the dual radio and TV system, was a *total* IP-based control scheme for *every* working item within the facility. This included IP-based and fiber transmission of each individual microphone feed and the return feeds for monitor speakers and headsets. Full remote control of the HD camera systems for zoom, focus, pan, and tilt positioning were also included in the scheme. The connectivity includes all DMX lighting control and presenter cueing via IFB and tally lights on the individual microphones.

Feldmar closed his presentation with a Q & A session, which was followed by a detailed technical description of the camera and robotics technology, featuring

Sony's New England broadcast account manager, Steve Dirksmeier, and Gary Adcock, product ambassador for Vitec, the makers of the Vinten pedestals and robotic camera supports employed in the facility

—Marty Feldman, Section Chair
and Paul Beck, Secretary/Treasurer

Ohio March 2017

The section meeting held on 30 March at Mills James production lot in Columbus, Ohio, was a combined venture with the Society of Broadcast Engineers (SBE), Local Chapter 52. Approximately 50 members/guests were present for a very informative presentation delivered by SMPTE's newly elected Central Region Governor Brian Claypool, vice president of strategic business development for Barco's Entertainment Division. Claypool began his presentation with a general overview of the current and expected future state of audio exhibition technologies within the cinema and TV broadcast industries. He explored related

subtopics, reviewing the definition of immersive “3D” audio and the various approaches. Claypool also provided a general outline of the new terrestrial TV broadcast ATSC 3.0 audio standards, expected to be approved by the Federal Communications Commission later this year, which includes both Dolby AC-4 and MPEG-H.

On the cinema side, Claypool discussed standards technologies offered by firms such as Barco with its Auro 11.1 surround channel approach for both cinema and home audio, and the Dolby AC-4 (ATMOS) system, also available in both cinema and home versions. He explained the differences such as Dolby using more “object-oriented” sound placements within a cinema auditorium using up to 64 separate channels and many speakers, versus a more general approach with the Barco Auro 11.1 surround system, using fewer channels/speakers, and at lower costs. He then discussed the new “laser” cinema projector lamp house technologies already in place at



(Left–Right) Presenter Brian Claypool and Gene Batey at the Ohio Section’s March meeting.




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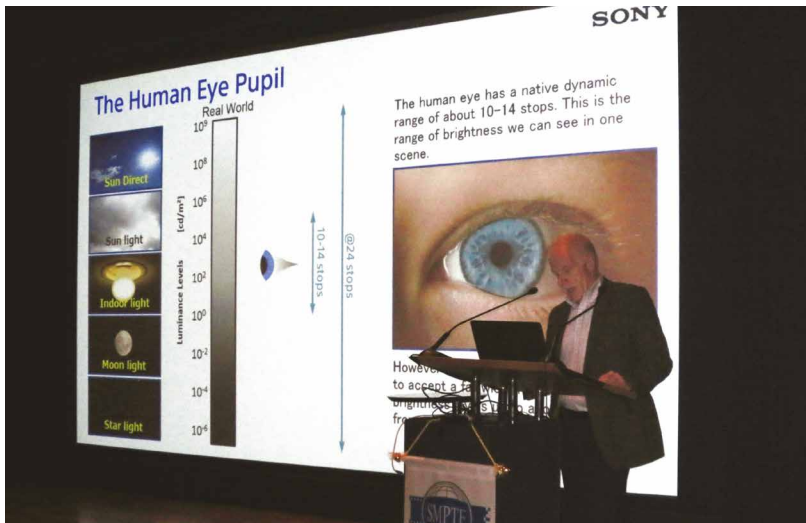
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various installations around the world, including the U.S. He showed various slides that detailed the many complexities and benefits of using a laser light source for big screen cinema projection, over past legacy approaches/technologies such as with film, via Xeon, or arc-type lamp houses. He suggested that with laser light projection, future cinema patrons may not be able to distinguish any of the subtle differences between the “film look” with legacy types of exhibitions and the new higher quality digital laser light types. In closing, Claypool stated that such issues might be determined by the individual viewer’s subjective analysis and impressions. A lively Q&A session followed the enlightening presentation.

—Gene L. Batey
Secretary/Treasurer

Philadelphia March 2017

The Philadelphia Section’s March meeting was held at the NFL Film’s facility in Mt. Laurel, NJ. The event,



Sony's Hugo Gaggioni discusses HDR and Wide Gamut at NFL Films' NJ Theater at the Philadelphia Section's March meeting.

which had 35 attendees, was hosted by Ed Walden at NFL Films and Matt Mussari from Sony, who provided refreshments.

Guest speaker Hugo Gaggioni gave a presentation titled "High Dynamic Range (HDR) Video." He described an emerging group of monitoring,

video encoding, and distribution technologies designed to enable a new home viewing experience with a next generation of television displays capable of intensely bright highlights, and high levels of contrast and color saturation. He stated that HDR, whether in high-definition (HD) or with 4K

and 8K ultrahigh-definition (UHD), will fundamentally change live and episodic TV production and storytelling. The presentation also covered issues facing the content creator and broadcaster: International standardization, challenges facing the simultaneous production of 4K HDR and HD standard dynamic range (SDR) programs, potential "glass to glass" workflows, and the practical application of live HDR images.

—Dover Mundt,
Section Chair

**Washington, D.C.
February 2017**

Joseph Cornwall, technology evangelist, futurist, and business leader at LeGrand, provided the program for the Washington, D.C., Section meeting on 23 February. His presentation—"What's In That Wire?"—explored HDBaseT connectivity and considerations in using this technology for transport of digital video and other signals.

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Program Chair Eric Wenocur (R) extends thanks to Joseph Cornwall (L) for his presentation at the D.C. Section's February meeting.

The meeting took place at the National Association of Broadcasters headquarters building in downtown Washington, D.C., beginning with refreshments and an opportunity for socializing and networking among members and guests.

A short business session followed, after which Cornwall was introduced. He began his presentation with a description of the multiple cable

environments that existed slightly more than a decade ago in connection with devices such as a home-type DVD player, noting how such connectivity had been greatly simplified by the development of High-Definition Multimedia Interface (HDMI) technology. Building on this, he observed that the newer HDBaseT connectivity, which was conceived in 2010, was initially developed as a replacement

for HDMI. Cornwall then traced the evolution of HDBaseT over the past several years, and explored differences and commonalities between HDBaseT and IEEE 802.1000BaseT Gigabit Ethernet. He noted that there had been a widespread adoption of HDBaseT connectivity within the automotive manufacturing industry, machine vision, and consumer devices. He also discussed the latest iteration of HDMI connectivity, HDMI 2.1, noting that it was capable of a 48 Gbit/sec throughput.

Cornwall also provided a “deep dive” into the state-of-the-art device connectivity, exploring external electromagnetic interference to signals being transported, cable attenuation considerations, various formats of pulse amplitude modulation, limitations of transmission of data signals via copper, as well as other considerations in high-frequency signal transport.

The program concluded with a Q & A session.

—James E. O’Neal,
Section Manager

SMPTE

A banner for SMPTe Webcasts. On the left, a woman in a red top is looking at a laptop. The background is a blue-tinted image of two people looking at a tablet. The text 'SMPTe' is in white, and 'Webcasts' is in large, multi-colored letters. Below the title, it says 'Live, interactive educational webcasts covering hot-topic technologies, issues and developments.'

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