

Montréal February 2018

The Montréal Section held a technology update meeting on 5 February at l'École de Technologie Supérieure in Montréal. The event, themed SMPTE ST 2110 suite of standards and the Networked Media Open Specifications (NMOS) Discovery and Registration, drew approximately 130 members and guests to learn about the latest developments on these new and anticipated broadcast infrastructures.

One of the presenters, François Roberge from Matrox Electronics, discussed some of the leading challenges to transitioning from serial digital interface video to video over internet protocol (IP). Roberge began with a brief introduction and provided an update on the status of the standards. He highlighted some of the risks and perils that this paradigm shift brings to early adopters. He mentioned that one of the challenges regarding compatibility is that the different traffic shaping models must be adequately tested.

During a break, Matrox, Google Ventures, and Tektronix demonstrated the technology's functionality and



Approximately 130 people attended the February Section meeting in Montréal.

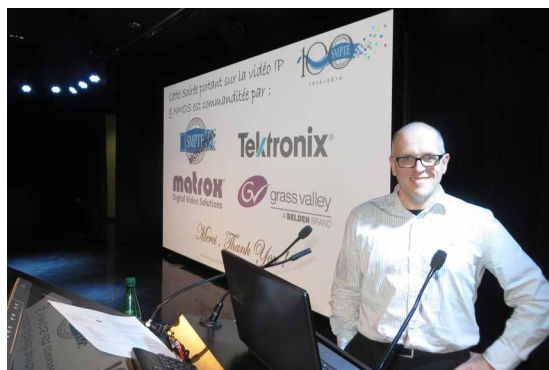
interoperability using equipment that had been set-up for this purpose. The second part of the meeting covered negative channel metal oxide semiconductor (NMOS) IS-04 and IS-05. Serge Grondin from Grass Valley has been actively involved in the development and specification of NMOS since 2016, and presented a detailed overview of the NMOS project.

Presentation content is always available on the SMPTE-MTL page on Facebook; <https://www.facebook.com/smptemtl/>

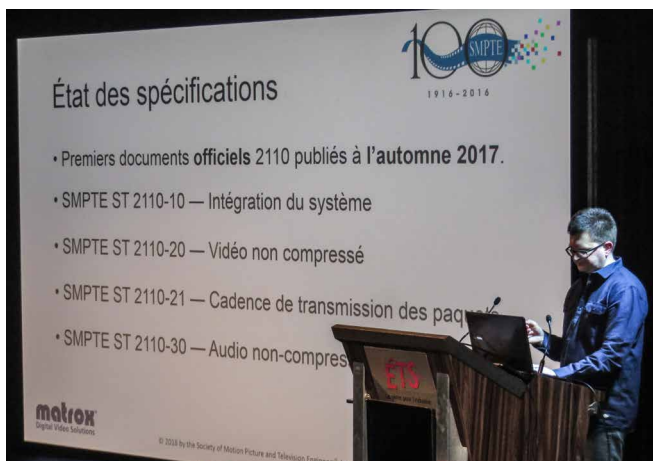
—Gaelan Gauthier
Section Events Manager

New England February 2018

The New England Section meeting held on 27 February, at New TV in Newton, MA, visited the topic of public, educational, and governmental (PEG) access television and its unique challenges for the first time. PEG stations across the country that are primarily funded by a percentage of cable television revenues often produce more live and local programming than their over-the-air counterparts in the same market.



Montréal Section Chair Daniel Guevin.



Speaker Francois Roberge discusses SMPTE 2110.

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SMPTE Fellow Peter Fasciano speaks to a packed house about hyperlocal PEG access TV at the New England Section meeting at New TV, one of the Boston area's many community access stations. Paul Beck (foreground, right) video recorded the meeting.

The meeting had the dual purpose of introducing and enlightening attendees about this form of hyperlocal broadcasting as well as updating those who work in the field on new technology that might lighten their workload, while improving the services they offer.

The New England Section would like to express thanks to all of those who attended this successful event. Also special thanks to New TV a well-equipped and highly regarded PEG station, for making their outstanding facilities available for the meeting.

—Marty Feldman
Section Chair

Ohio February 2018

The Section meeting on 15 February was combined with SBE Chapter 52, and held at the Sinclair Broadcast-WSYX-TV studio plant in Colum-

The technology demonstrated in the meeting was conceived (and is marketed) to facilitate the streaming

and documentation of government meetings, one of the primary services that PEG stations offer.

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Ohio Section meeting attendees listen, view, and interact, along with the GoToMeeting presenter located in Central Europe.



Ohio Section meeting (L–R): Section Chair John Owen, SMPTE Central Regional Governor Brian Claypool.

bus. Forty-five members and guests attended the first meeting where the guest presenter, Harald Fuchs from Fraunhofer, spoke to the group live from Central Europe, via the GoToMeeting online access format. His two-way audio portion was piped into the studio's public address system, along with a two-way video link. SMPTE Central Regional Governor, Brian Claypool, who set up the various two-way communications hardware/software links, was live in the Columbus TV studio assisting with the meeting.

Fuchs gave a rundown of what is contained within the new ATSC 3.0 MPEG-H audio standards package along with features such as an “immersive” audio sound experience, where the viewer/listener could locate specific “sound objects” within a TV show's audio stream. He provided suggestions on how many speakers within a typical viewer's room environment would be necessary and desirable for such reproduction of immersive audio effects. Fuchs also noted that the other immersive type audio

standard approved within the new ATSC 3.0 terrestrial broadcast standards is Dolby AC-4. He also briefly discussed several subtopics related to MPEG-H audio features, such as the capability of a future TV broadcast viewer to use their TV remote control unit to customize and contour their personal audio tastes pertaining to their specific room environments, for example, or their needed languages, all coming from the general TV broadcast signal reception chain.

Fuchs mentioned that the implementation of MPEG-H at the broadcast plant end of the chain allows the option of just being phased in a little at a time if desired; thus, reducing any additional



Wesley Thiessen addresses attendees at the Philadelphia meeting.



Powerpoint slide from the Ohio Section's February meeting.

financial or operational disruptions and burdens that could occur too fast within a broadcast plant. This would also limit unexpected additional costs to the television station's owners' budgets with implementation all at one time and would allow the costs in effect to be spread out over more time. On the receiver side of the audio E-E equations, he pointed out that several television set manufacturers, such as LG and Samsung, have already introduced MPEG-H audio decoding capable TV sets/receivers to the market in South Korea, since there are several ATSC 3.0 terrestrial TV broadcasters on the air currently in the Seoul area. He also noted that the new MPEG-H audio standards could also be very effective in producing immersive audio sound object effects when sent through various online program streaming services in the future. The presentation concluded with a Q&A session with various attendees located in the TV studio, using the webinar streaming method.

—Gene Batey
Secretary/Treasurer

Philadelphia February 2017



The February meeting at QVC and popular topic of "Moving Master Control and Asset Management to the Cloud" was well attended, with more new students than past meetings.

The main program was preceded by refreshments and a roundtable meet and greet. Section Chair Dover Mundt began by thanking QVC for use of their facilities. Chuck Diehl, who produced of the meeting, introduced the speaker Wesley Thiessen, a senior solution architect at Evertz Microsystems, who addressed the evening's topic in three parts.

In Part 1: "Linear Master Control Payout from the Cloud," Thiessen provided a brief history of the evolution of master control that makes moving to the cloud feasible. He shared the effects, requirements, possibilities, and planning needed to make this a reality, reviewing the use case of a facility running dozens of channels 24/7 from the cloud, with live events, time delay, and rebroadcast.

The second part, "Feeding the Machine," included an overview of master control and over-the-top (OTT) media asset management (MAM) workflows enhanced and enabled in the cloud; optimizing workflows to deliver S3, D4, and other OTT content. Thiessen summarized that in today's OTT world, every platform needs a different touch applied to the encoding, the packaging, and the metadata. Using the work completed for linear to drive packaging and ad insertion, along with metadata standardization and transformation, minimizes the effort to deliver multiple formats to multiple destinations.

Finally, in Part 3: "Full Tilt MAM. Bring MAM to Your Production Suite," Thiessen shared some challenges in production and solutions and tools in cloud-based MAM on easing the load. He urged the need to enrich production workflow with smart application of

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artificial intelligence tools, a look at the future that is already here.

Local members from Comcast, Stations, PBS, consultants, and students engaged Thiessen in a lively Q&A session after the presentation. Section Manager, Steve Tadzynski, recorded the presentation production for archive.

—Chuck Diehl
Section Manager

Washington, D.C. January 2018

Washington, D.C., Section members, and guests, gathered at the PBS headquarters facility in Arlington, VA, on 18 January for the first Section meeting of the New Year. The program was entitled “The PBS’ Media Supply Chain 5.0 Project: Utilizing and Maximizing What the Future is Providing” and was presented by Renard Jenkins, PBS Operations vice president of engineering and distribution, and newly elected SMPTE Eastern Region governor.

The meeting, which began with refreshments and socializing, was formally called to order by Section Chair Tom Hackett, who after a short business meeting turned the meeting over to Jenkins for his presentation.

Jenkins began by describing the scope of PBS operations, with its 172 member stations and 350 other stations that take part in PBS activities. He addressed the challenges of trying to meet today’s television content delivery, noting that PBS, like other television entities, had evolved from film to tape, and then file-based operations. Jenkins stated that the goal now is to move to virtualized products and services.

He characterized the current modality at PBS headquarters as a “packaging operation,” with all content, secondary events, interstitials, and such being assembled, and then handed off to the PBS transmission center located several miles away. Jenkins added that the current PBS facility now accommodates nearly three times the peak content load it was designed for, but is still able to maintain a very high reliability factor.

Jenkins explained that efforts are underway to develop a simpler and easier way for member stations and others to deliver content, and to move everything to a file-based delivery system with bidirectional capability. He stated that the plan is to take a phased approach, first with the installation of a media gateway, and then moving to cloud-

based playout; thus, allowing the operation to divest itself of the considerable amount of hardware now employed and its associated support costs. The desire is also to move away from proprietary platforms and to establish a single API-based platform.

Jenkins’ presentation was followed by a lengthy Q&A session.

(Acknowledgment is extended to Washington, D.C., Section member Bill Weston for his assistance in preparing this report.)

—James E. O’Neal
Section Manager

Washington, D.C. February 2018

The second 2018 monthly meeting of the Washington, D.C., Section took place on 15 February at the National Association of Broadcasters headquarters in downtown Washington. The event, held jointly with Chapter 37 of the Society of Broadcast Engineers, featured speaker Jim Jachetta, chief technology officer and executive vice president of VidOvation, describing his company’s work in helping to meet the technological challenges in connection with a fast-paced live reality television show.

An opportunity for socializing and networking preceded the program, which was called to order by Section Chair Tom Hackett. Hackett acknowledged Section members present and introduced Program Committee Chair, Eric Wenocur, who provided information on future Section meetings and other activities.

Jachetta began the presentation by describing his company’s role in assisting with the production of an A&E television series, “Live PD.” He recalled that he was approached by show producers looking for a cost-effective solution for doing the fast-paced live show from as many as seven different cities simultaneously with as many as 36 cameras being deployed in police cars and by on-foot camera operators. Further complicating matters was the requirement for operation of the mobile cameras at speeds as great as 130 miles/hr and maintaining precise synchronism between cameras and accurate lip-synch, as the show runs live without an opportunity to fix slippages in post-production.



(L–R) Washington, D.C., Section Chair Tom Hackett and presenter Renard Jenkins.



Jim Jachetta of VidOvation provides the presentation at the Washington, D.C., Section's February meeting.

The solution proposed and adopted was the use of bonded cellular video/audio transmission technology, utilizing connectivity with multiple service providers to ensure reliability. Jachetta described the specialized antenna units deployed on the various police cars involved in the show, noting that their protective “radomes” resembled Styrofoam food containers, leading some to joke about the “Chinese carryout” placed on the trunk lids of the police vehicles. An appropriate number of streaming video transceivers were deployed at the A&E master control facility in New York City, where the show was switched. He reported that the project was successful, with overall video/audio latency held to 7 msec or less. SMPTE

—James E. O’Neal
Section Manager



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