

Section Meetings

Chicago

March 14, 2000

The March meeting attracted 35 attendees for a presentation by Randy Hall, who began by reviewing audio landscape in the broadcast industry. In-large most audio today emanated from an analog infrastructure; the more advanced facilities include provision for a stereo program. With DTV on the horizon for many stations, the move to digital involves converting to an AES digital plant and incorporating multichannel program capabilities. Hall reviewed the basics of the AES signal specification and compared twisted pair vs. coaxial AES cabling issues. Once the basic foundation of AES was understood, he outlined different types of AES infrastructures and compared their relative merits. Multilevel baseband AES, embedded, Dolby E, AC-3, and the new SMPTE 324 standard were among those covered. Hall affirmed that SMPTE 324 is one of the most exciting new developments for audio system engineers. Its advantages include avoidance of compression, compatibility with future eight-channel VTRs, fewer requirements for routing and patching, and reduced cost of codecs for the multiplexed format.

In conclusion, Hall maintained that there is no clear choice for audio system design at this time and encouraged all engineers faced with making system design decisions to carefully evaluate their requirements by asking a lot of questions and comparing costs. A Q & A session followed the presentation. Interested participants were given a tour of the Harpo Studios.—Steve Robinson, Secretary/Treasurer

Nashville

February 17, 2000

The February meeting began with a presentation by Al Nunez on the history of Tanberg Television, Inc. After many years in television and audio, Tanberg is now going into digital television. John Axlenko then reviewed the current status of digital television systems. He pointed out that they are still in flux, especially 720p and 1080p or i.

Axlenko also discussed different distribution means, as well as network management systems from single to multiplex. ATSC and MPEG-2 will continue, MPEG-3 will be incorporated into MPEG-2, and MPEG-4 will follow. MPEG-7 interfaces databases (video and audio) and MPEG-21 is designed to protect data, especially for e-commerce. The presentation was followed by discussion from the audience.—Phil Arnold, Secretary/Treasurer



New York Section meeting in March. Left to right: Jim Albro, NBC; Bruce Lilly, Section Manager; Dave Badger, Thomson Consumer Electronics.

Nashville

March 16, 2000

The March meeting included two displays of Softimage D.S. and a Spruce DVD authoring system. Bill Hite, Marshal Graphics, gave a brief introduction of the company and introduced presenter Todd Lacy, Softimage D.S., who talked about its system. Attendees were able to witness firsthand, the system's editing capabilities.

Rick Hite, Spruce DVD, then presented the Spruce DVD, which takes finished material and organizes the program with points so the end user can then choose parts or places in the program (DVD). This system, like mastering CDs, can do complete authoring. It has a picture stream, eight audio streams, and room for menu info. Attendees were amazed at the ability of the DVD to reference the Internet and all of the avenues that are open to the user.—Phil Arnold, Secretary/Treasurer

New York

March 15, 2000

Approximately 80 people attended the March meeting on "Improvements in DTV Reception," which was held at NBC in Rockefeller Center. Recent reports of early DTV receiver problems and reception issues made this a timely topic. Mark Grabb, General Electric, spoke about the NIST (co-sponsored with GE Corporate R&D, NBC, Thomson Consumer Electronics, and Thomcast/Comark) project titled "Improvements in DTV Reception." The goal of the project is to develop and demonstrate new and improved consumer receivers. Grabb outlined a brief history of the impetus behind the project, then described DTV testing methods and results from early tests made as part of the project. The testing methods revolve around characterization of the transmission path using transmission of a pseudo-random test sequence, analysis of

the received signal, and determination and replication of the transmission characteristics in a laboratory environment.

After Grabb's presentation and a brief Q & A session, Dave Badger, Thomson Consumer Electronics, gave a presentation on factors influencing consumer DTV receiver sales growth, which included a timeline for expected improvements in the relevant issues affecting that growth. Among those issues were device-to-device compatibility, price, digital cable compatibility, broadcast compatibility, receiver performance, and consumer acceptance.

Badger also discussed receiver sensitivity, adjacent and co-channel performance, multipath performance (both static and dynamic), and receiver-lock acquisition and maintenance. In 2000, he expects reduced prices, resolution of equipment and broadcast compatibility issues, and improvements in co-channel and multipath performance. In 2001, he expects further price reductions, additional improvements in multipath performance, and the introduction of digital cable-compatible receivers. In 2002, Badger anticipates that receivers will be priced for the masses (under \$1,000) and indoor reception issues will have been solved.

In closing, Badger presented CEA predictions of DTV receiver growth (130,000 in 1999 [actual current figure is about 120,000], 750,000 by the end of 2000, 2 million in 2001, 5.5 million in 2002, 10 million in 2003, 14 million in 2004, 20 million in 2005, and 30 million in 2006). The program concluded with a Q & A session.—Bruce Lilly, Section Manager

Ohio

March 9, 2000

The March meeting, held jointly with the Central Ohio Chapter of the Society of Broadcast Engineers, took place at the new facilities of Industrial Video, Inc., in Columbus. Approximately 70 members and

guests were in attendance for a very informative presentation by Steve Mahrer, Panasonic Broadcast & Digital Systems Co.

Mahrer's Power Point presentation centered around the theme "HDTV: Status Today—Insight Into Tomorrow!" He brought attendees up-to-date on what the digital television broadcaster can expect from cameras to display monitors. The presentation included a comprehensive history of NTSC broadcast standards in the U.S., as well as current DTV broadcasting standards. He explained how the new digital broadcast standards could be adapted as a business model in competition with other digital media such as cable, satellite, the Internet, DVD, etc., now available in the video market place. Mahrer emphasized that the digital signal pipeline has changed more than any other item in the broadcast industry because it has grown much larger and contains a greater variety of customer-requested services. He believes that broadcast suppliers must be prepared to offer virtually anything that a customer wants in the larger digital pipeline. He further explained that this larger pipeline also carries more competition for signal services, on both ends.

Mahrer mentioned that today's sophisticated digital HDTV monitors will continue to be far superior in video quality and

higher in price. He stated that this is necessary in order to give the broadcast customer the full display value of the DTV signal. As time goes on, consumer HDTV monitors will begin to drop in prices, but continue to display 720 line. The successful recording of the full Dolby digital AC-3, 5.1 signal including Dolby E, is now possible with digital video decks such as those made by Panasonic. A Q & A session followed the presentation.—Gene L. Batey, Secretary/Treasurer

Rocky Mountain March 15, 2000

AT&T's HDTV test facility was the site for the March SBE/SMPTA meeting. The presentation from TeraNex included an equipment demonstration and a peek into how military applications are making it into broadcast. TeraNex is a spin-off of Lockheed Martin imaging technology used by the U.S. military in high-resolution mapping, targeting, and microscopy.

Randy Thomas and Steve Wong of TeraNex demonstrated their unique product, which has the capability to accept SDI and ATSC formats, and to up or down-convert to the various ATSC formats. They discussed de-interlacing techniques includ-

ing motion compensation and a proprietary TeraNex pixel compensation algorithm.—Rome Chelsi, Section Chair

Sacramento March 15, 2000

The March meeting addressed two alternatives to the MPEG compression system. Peter Symes gave an interesting description of the wavelet compression system and how it differs from the MPEG system. After reviewing the similarities between the two systems, Symes explained how wavelets are used to compress and separate information components of a picture. He covered the pros and cons of the two systems and the problem of using temporal compression with wavelets.

Wayne McLachlan then described the fractal system of compression. The system, a very different concept of compression than MPEG and wavelets, is based on using a mathematical iterative formula to recreate the original image. McLachlan explained that although this method is capable of producing impressive results, the computational power required to produce a workable system for live video pictures does not make it a practical solution at this time.—Mike Betts, Secretary/Treasurer

Industry News

BKSTS to Co-host Conference on Visual Effects

The BKSTS in association with the Visual Effects Society will hold a three-day conference on Visual Effects in London on September 22-24. This year the event will be held on the South Bank, with two morning sessions at the BFI IMAX, and the remainder in NFTI. The change of venue is in response to an increasing interest in all aspects of visual effects, which has led to an overwhelming demand for delegate places.

The conference program is enriched by a mix of new technology, innovative applications, and creative utilization. If you, or your colleagues, are working on a project or with some technology that you believe would fit this criteria, and would interest the international visual effects community, please send a brief resume of the idea as soon as possible. Presentations should normally last about 20 minutes.

Send a resume of the suggestion, including a proposed title, a synopsis, and proposed speaker(s) to Dave Scammell, Committee Chair: c/o John Graham, BKSTS, 63-71 Victoria House, Vernon Pl., London, WC1B 4DA; tel: 020 7242 8400; fax: 020 7405 3560; e-mail: movimage@bksts.demon.co.uk.

World Television Forum Announces Three Speakers

The World Television Forum—Montreux 2000 has announced three keynote speakers for this year's event, which takes place in Montreux, Switzerland on June 1-4.

Craig Mundie, Microsoft; Nicholas Negroponte, MIT Media Laboratory; and Lord David Puttnam have been chosen to address Forum delegates.

Mundie focuses on refining Microsoft's vision for Web lifestyle products and services. Initial areas of work have included home networking and the evolution of Microsoft's intelligent appliances and "smart objects" strategy.

Negroponte is co-founder and director of the MIT Media Laboratory in Boston, MA. He is also the Jerome B. Wiesner Professor of Media Technology and director of the MIT Media Laboratory, Europe. The Media Lab is supported by nearly 170 corporations worldwide and has led in the development of now-familiar areas such as digital video and multimedia.

Puttnam has had a 30-year career as an independent film producer. He was chairman and chief executive officer of Columbia Pictures between 1986 and 1988 and is currently director of Enigma Productions.

PBS DTV Training Seminars

PBS will be holding a series of training seminars on DTV. "The ABC's of DTV" (non-technical) addresses DTV strategy, planning, and transition issues and new service opportunities. "The DTV Transmission Seminar" (technical) covers real world "how-to's" and a broad understanding of the issues involved in planning the transition to digital television. Courses include real-world HDTV, enhanced TV, multicasting, and hands-on workshop video demonstrations. Seminars will be held as follows: DTV Transmission Seminar, May 17-18, Salina, KS; The ABC's of DTV, May 30, PBMA Conference, San Antonio, TX; The ABC's of DTV and DTV Transmission Seminar, June 19-23, WIPR, San Juan, Puerto Rico; The ABC's of DTV and DTV Transmission Seminar, July 13-15, WQED, Pittsburgh, PA.

Kodak Plays Major Role in Film Development

Eastman Kodak Co. has announced that it will work actively with manufacturers of theatrical hardware and software to enhance the presentation of images and