

Section Meetings

Atlanta July 2003

Twenty-nine professionals attended the meeting on July 14 at WXIA-TV, where Jim Frantzreb, Avid Technology, Inc., gave a presentation entitled, "Considerations in Designing a Nonlinear News Workflow Broadcast and Work Group Implementation." Frantzreb detailed how Avid enhances media sharing, network environments, and standards interoperability. Sharing media during editing requires two streams of bandwidth for high-resolution video and audio, playout of transfer sequences, and realtime response to eliminate latency. Television is now inundated with IT—realtime "fabric" used to supplement sports and other live programs. Unrestricted access is key in eliminating the limitations on the number of clients the application can accommodate within one session.

When designing reliable nonlinear workflow for news and broadcasting, there are a few basics to be addressed. First, carefully organize the system transition, while simultaneously creating new capabilities. Second, plan for tomorrow by discussing with vendors the issues of scalability, expansion, and technology upgrades. For example, can the present equipment coexist with the new equipment? Finally, nothing is perfect! There should always be a backup plan for hardware and software reliability, dual path design for redundancy, as well as overall integration and usability.

Considerations for strategic planning and implementation of nonlinear workflow include identification of those in need of access, development of training stages in groups, designation of internal experts acting as liaisons between staff and vendors, recognition of the varying skill levels of the edit staff, and establishment of realistic expectations of time goals. The presentation was followed by a Q & A session.

Special thanks to Brad Newberry of WXIA-TV for providing a group tour and discussing how Avid nonlinear implementation has improved the workflow efficiency in their newsroom, and also to Jim Frantzreb, Earl Higgins, and Nicole Adams of Avid; all made the evening a great success.—*David Siegler, Section Chair*

Hollywood June 2003

On June 17, Ralph Sargent, Film Technology Co., Inc., delivered a presentation on the preservation and

restoration of moving images recorded on obsolete or now little-used motion picture formats. Six film gauges were discussed: 22mm, 28mm, 9.5mm, 16mm lenticular Kodacolor, regular 8mm, and super 8mm. In each case the technical history of the format was discussed, as well as the science and hoopla surrounding a format's introduction, use, and market success or failure. Examples of films from each of the gauges were shown (with live piano accompaniment by Robert Israel) utilizing either 16mm or 35mm prints made by optical printing from the originals. In each case, the optical printing technology and methods employed for restoration were discussed. In regular and super 8mm, disclosure was made of computer-directed, wet-gate optical printer projector gates, which can compensate for shrinkage, warping, curl, and other physical deterioration of the original film.

Before and after the presentation, Herb Farmer, longtime SMPTE member, and Steve Wright, exhibited many samples of the historic equipment associated with various obsolete formats. An original Pathe KOK 28mm projector, a Pathescope 28mm splicer, a Pathe 9.5mm "baby" projector and camera, samples of various film gauges, and unusual cameras for regular and super 8mm were among the items on display.

Both the presentation and the equipment display provoked a lively discussion and Q & A session, leaving the audience with considerable exhilaration and enthusiasm for both the past and future of motion pictures.—*Richard P. May, Section Chair*

Napa Valley College May 2003

On May 13, members of NVC's SMPTE Chapter 11 Club were enthralled by a visit from Jeff Johnston, a 2001 alumni, who currently works as a senior systems engineer at SignaSys, a San Jose-based, independent systems integration company. Johnston started working at SignaSys a month after his graduation, when the company was still in its infancy. His skills and knowledge have grown tremendously, along with the company, which has grown ten-fold, due to its project conceptualization, design, and management style.

Johnston discussed systems integration, focusing on SignaSys' work in the multichannel DTV arena with PBS affiliates across the country. A PowerPoint presentation detailed the company's approach with PBS and their current DTV rollout. The hour-long program also included a detailed explanation of MPEG encoder/multiplexer control, statistical multiplexing, traffic and automation control, dynamic PSIP, multichannel monitoring, and IP encapsulation. Johnston made it very clear that successful systems integration does not rely solely on smart engineering prowess, but also on keen overall project planning and management.—*Faye Pilgrim, Secretary*

New York January 2003

The meeting on January 22 was hosted by Tribute, a new lower Manhattan venue containing two theaters with HD projection, plus reception and display areas; an ideal location for the topic, "Variable Frame Rate HD Acquisition and Post."

A small hands-on demonstration area was set-up with equipment, courtesy of Abel Cinetech and Panasonic. The smaller theater was used to continuously play clips provided by several facilities, while the larger one had an overflow of attendees sitting in the aisles to see presentations by the distinguished panel.

Jesse Rosen, Abel Cinetech, began with an overview of acquiring and posting variable frame rate material. Don Lenzer, an independent cinematographer, talked about his experiences shooting with the Varicam and showed raw footage from a current project on "Dance in Cuba," shot on location in Havana. Peter Heady, senior editor at Tape House Editorial, discussed projects posted at that facility on the Quantel iQ and showed some examples of the work. David Niles, Colossalvision (and also the host), discussed his projects with the Varicam, which included both acquisition and posting at his facility. Several clips were projected, including a music video shot at Tribute.

A lively Q & A session followed, in which several attendees shared their own production and post-production experiences. The meeting ended with a teaser of Tribute, projected in 3-D, showing the sites and sounds of New York City.—*Warren Singer, Past Chair*

New York June 2003

Approximately 80 members and guests attended the Section meeting on June 18, held at All Mobile Video's Chelsea Studios on West 23rd Street in midtown Manhattan. Prior to the main meeting, Ed Schuller, Test Materials Chairman and member of the Archival Committee, introduced Sol Negrin, ASC. Negrin delivered a very interesting talk on the history of Chelsea Studios, which were originally known as the Jesse Lasky Studios. They were used to produce films for



Sol Negrin, ASC, addressed the New York Section on the history of Chelsea Studios at the June meeting.



Section Chair Bruce Lilly (r) thanks Mark Chiolis of Thomson Grass Valley for his presentation of the Viper FilmStream camera to the New York Section.

Paramount Pictures during the 1910s and 1920s, and predate the better-known Astoria Film Studios in Queens.

The speaker, Mark Chiolis, senior marketing manager for acquisition and production at Thomson/Grass Valley, discussed the company's Viper camera and the FilmStream process. Chiolis stressed that the Viper FilmStream camera is another tool in the production of feature films, episodics, etc., and not a replacement for film. He described the design goals and technical specifications of the Viper camera and the FilmStream concept. The Viper uses three 9.2 megapixel HD-DPM+ CCDs similar to those in the Philips (now Thomson/Grass Valley) LDK studio and portable cameras. The Viper has four different outputs: FilmStream, which is 4:2:2 10-bit log dual RGB with no video processing; HD-Stream, which is 4:2:2 10-bit log single HD-SDI with minimal video processing; 4:4:4 10-bit dual link RGB HD-SDI with video processing; standard 4:2:2 YUV single HD-SDI with video processing. Chiolis then discussed the various acquisition, storage, and editing products and solutions manufactured not only by Thomson/Grass Valley, but also many other manufacturers, including Accom, Sony, and BayTech. He encouraged the audience to ask

questions during the presentation, and they enthusiastically complied.

The presentation ended with a screening of material filmed on the Viper, both the raw uncorrected and final color corrected versions. Segments of feature films were also shown, in which material shot on the Viper was interspersed with that shot on 35mm and other media. The presentation was followed by a Q & A session, which focused not only on the Viper and FilmStream process, but also on future developments in image acquisition.

The New York Section would like to thank Eric Duke of All Mobile Video for his generous donation of the meeting space, Thomson/Grass Valley for refreshments prior to the meeting, and Mark Forman for the pictures taken at the meeting.—*John Ferder, Section Manager*

New York Section Annual NAB Wrap-Up Meeting April 23, 2003

Approximately 120 members and guests attended the annual "NAB Wrap-Up" meeting on April 23, held at the auditorium in HBO's headquarters in midtown Manhattan. HBO has been the regular host of this meeting, and again generously catered the Social Hour prior to the meeting. During the Social Hour, attendees were given tours of HBO's projection facilities, and pictures of the 2003 NAB, taken by Mark Forman, were shown in the auditorium.



The panelists for the New York Section NAB Wrap-Up meeting were (l-r): Chris Bauer, Craig Cuttner, Bob Ross, Dave Satin, and Marc Schubin.

The meeting began with a review of the newest test materials by Edgar Schuller, the Section's Test Materials Advisor. Schuller took advantage of the excellent projection facilities to show a 200-ft reel of RP-40 test film, and describe the tests and measurements that can be conducted when it is used.

Section Manager John Ferder, CBS, moderated the meeting. This year's panel, described by many attendees as "the best yet" and "informative, interesting, and entertaining," included Christopher Bauer, vice-president of engineering, Fox News Channel; Craig Cuttner, vice-president of technology, HBO; Robert Ross, senior vice-president of east coast operations, CBS; David Satin, image acquisition specialist; and the annual panelist, Mark Schubin, engineer and columnist for *Digital Television* magazine. Each panelist spoke for 10-15 min about his impressions of the 2003 NAB, and products and services he found noteworthy.

Chris Bauer discussed Fox News' expansion efforts and the products he saw that applied directly to those efforts. In particular, he spoke about product improvements by Thomson/Grass Valley and Radamec. Craig Cuttner spoke of his impression that there was almost no broadcasting at what is supposed to be a broadcaster's convention. He noted that with the continuing trend of installing lower-end equipment into PCs, the concept of "broadcast quality" appears to be disappearing.

Bob Ross noted that although there was talk of lower attendance this year, all the vendors he visited

were busy and the booths were generally crowded. He spoke of Panasonic's RAM-cam and Sony's Blu-Ray optical camera system as developments that will revolutionize workflow, from acquisition through storage. Dave Satin spoke primarily about electronic cinematography. His discussion of the new Dalsa camera was embellished by Mark Schubin's visual representation of the Beyer filter Dalsa employs in the camera.

Mark Schubin broke his presentation down into four areas: acquisition, storage, processing, and distribution/transmission. He agreed with previous comments about Sony, Panasonic, and Dalsa. He also noted Canon's 100 x 9.3 and Fujinon's 101 x 8.9 HD field lenses, Enhanced Technologies' 2 and 4 terabyte storage products, Telecast Fiber's HD-POV system, Digital Juice's effects processor that records onto DVD-RAM, and, his "hit of the show," Drake's new wireless intercom system, which uses cellular technology.

An interesting Q & A session followed, in which attendees questioned panelists about the products discussed, and also the emerging technologies that panelists felt would develop in the future.

The New York Section would like to thank Michelle Ayala, John Moreno, and Ted Morano of HBO for all their help in producing such a successful meeting. In addition, thanks to Ed Schuller and Eric Hausman, and to Mark Forman of Screening Room, for his photography work at this and other Section meetings.—
John Ferder, Section Manager



(l-r) Ron Uhlig, David Stern, Art Cosgrove, Paul Tracy, and speaker Diana Janos, at the Rochester meeting in June.

Rochester June 2003

Attendees filled the WXXI-TV boardroom on June 18 for the final meeting of the season, entitled "Video Direct to the Net with JVC Cameras." Diana L. Janos, JVC Professional Products Co., presented some of the latest engineering samples of revolutionary hardware.

The DM-NC40 MPEG-4 network codec, a standalone device the size of a dictionary, permits realtime, up to 2 Mbits/sec Tx/Rx of video (352 x 240, 176 x 120) and audio (G.726: 16 to 32 kbits/sec; AAC-LC: 96 to 128 kbits/sec) over a network connection. The concept is to provide a low-cost and flexible internet streaming media alliance (ISMA)-compliant videostream that supports Quicktime, Real, and WM players. Used with any camera source, the device allows teleconferencing with ~200 mS delay, video surveillance with an alarm input, or even JPEG picture transmission, and recording with a built-in CF card. JPEG (704 x 480) decoding is not included, but handled through the web browser.

Janos explained that JVC Professional is becoming more of a "bit bucket" vendor than a tape-based entity and proceeded to show the Streamcorder family of products. Their paradigm involves a Cisco-compatible, high-security network, available through a docking add-on such as the KA-DV350 card. She brought her own GY-DV5000 and GY-DV300 camcorders, and the BR-DV6000 VTR to round out the suite of equipment.—*John P. Weiksnar, Section Manager*



Attendees at the Rochester Section meeting in June.



Rob Whiting, SBE, and Rocky Mountain Section Chair Rome Chelsi.

Rocky Mountain July 2003

Each year the Rocky Mountain Section of SMPTE and Chapter 38 of the SBE hold an annual networking session on Lookout Mountain in Denver, CO. With 93 attendees, this event, as in previous years, proved to be the most popular and a welcome relief from the tedious world of broadcast engineering. Members discussed issues in a relaxed social setting in the shadows of the broadcast towers—a

reminder of our unresolved political issues related to the DTV rollout.

The Section would like to thank the sponsors who generously supported this event: Sony Corp. (John Switzer), Lewan and Associates (Lynn Osborn), Leitch (Brad Torr), Pinnacle Systems (Rome Chelsi), Pilat Media (Kathy Standage), Encoda (Lyle Kaufman), Burst Communications (Kirk Basefsky), VYVX/Teleport Denver (Theren Davis), and Westlake Electronic Supply (Matt Granard).—*Rome Chelsi, Section Chair*



Rocky Mountain members networking session.

Sacramento June 2003

About 20 members and guests attended the Sacramento meeting on June 25 at the studios of KUVS. The host, chief engineer Bill Mouzakis and his assistant, Francis Sandico, opened with introductions and stories about events in television history. Attendees were divided into two groups in which one toured the facilities while the other commiserated about old times. When the first group finished the tour they traded places. KUVS became the first all-digital studio in the Sacramento area five years ago.—*Mike Betts, Secretary/Treasurer*

San Francisco June 2003

Members met at the York Street Studio of Tech TV (www.techtv.com) in San Francisco on June 19, to attend a presentation by Virgil Lowe, Fortel DTV (www.fortelDTV.com), who discussed "The Problems and Solutions of Integrating Analog Video into a Digital Studio." His detailed presentation started with an outline of the current problems inherent in converting analog signals to digital, and why it is important to get the cleanest possible signal throughput, especially prior to encoding for MPEG or upconversion to HDTV.

Efficiencies of 20% to 40% can be gained using modern comb-filtering techniques, allowing for greater storage capabilities and more bandwidth for satellite transmission. The use of error detectors, including field, frame line-up, line-down, and average of line-above and line-below, are important elements that help the comb-filter identify and eliminate cross-color artifacts, while improving luminance and color resolution, and reducing hanging dots.

The presentation was followed by a lively Q & A session and a demonstration of hardware, showing a variety of challenging scenes before and after A/D conversion and signal processing. Dave Seedal and James Russell of Tech TV helped host the event.—*Howard Kirsch, Section Manager*

San Francisco July 2003

TV remote broadcasts, also called OB (outside broadcasts), offer video engineers some of the most interesting technical challenges, while making some of the funniest and strangest stories about "video in the trenches." The speaker, Jim Boston, literally grew up with video remote trucks (his father was a pioneer in the business) and gave a highly entertaining talk, "TV On Wheels," at the meeting at KTVU in Oakland, CA.

The remote-broadcast veteran told the audience that the only place constituting a universally agreed-upon parking place for a remote truck is "out back next to the dumpster." Boston described the technical challenges of designing, constructing, and operating remote trucks and added that remote engineers have seen it all. He told a story of having to comfort a distressed mother with a child in tow, who had opened the door of his remote truck expecting to find the potty. "Surely you have a restroom?" Well, no... The largest trailers weigh 80,000 lbs., the highway limit, but they have no "WC," although it has been discussed. If a truck could have one and make the legal weight, it would probably be installed next to the engineer in charge.

Boston's new book, "TV on Wheels, The Story of Remote Television Production," is described on his website at www.dtvengineering.com.

Section Manager Gary Youngs, who organized the meeting, arranged for attendees to tour a Magnetic Image remote truck that was brought to the meeting site. Tom James and Scott Scheel of Panasonic demonstrated a remote-truck-style, high-definition camera. Ken Manley and Ed Cosci of KTVU engineering hosted the event, supplying the space and logistics, and refreshments. Attendees found the evening both informative and enjoyable.—*Roy Trumbull, Section Chair*

Twin Cities July 2003

The Section was privileged for a second year, to be a whistle stop on Larry Bloomfield's Taste of NAB roadshow. Bloomfield, news technical editor for *Broadcast Engineering* magazine, has worked as a former chief engineer at several TV stations. A raconteur extraordinaire, he has traveled around the country for the second second consecutive year, immediately following NAB. Bloomfield gave demonstrations of the kind of station or post-specific esoteric technology that can be found in the back aisles of South Hall. This year, he authoritatively discussed technology used by Aja Video Systems, Leader, Evertz, ESE, Quartz, Sundance, Larcen, Wohler, Jampro, and Lightning Master. As he moved on his motorized scooter between the product stations, he could substantiate virtually all the product uses with personal stories about having needed or used such a device.

There was plenty of swag to bring back to work, and as a show-stopper finale, Bloomfield gave away a fine coax stripper/crimper tool, wire stripper, pocket grayscale/white card, a pocket knife, pocket flashlight, and a lightning calculator. Bloomfield's biggest strength is in promoting the shared knowledge and brother/sisterhood of broadcast engineering. Detailed information about Tech Notes can be found at www.technotes.tv.—*James Miller, Section Chair*