

Section Meetings

Detroit March 2005

The consulting firm Macprofessionals in Novi, MI, hosted the Section meeting on March 15. Jon Rutherford, the firm's director of training, gave the 36 attendees a quick overview of the company and its services. Dean Norton, director of technology, continued with a tour of RAID basics and storage topologies, including an overview of direct attached storage, network attached storage, distributed file systems, and the attributes and benefits of each. The presentation continued with a description of how Apple's XSAN and Xserve RAID operate, with considerations on how to best configure the system for a user's needs. Several sample topologies were illustrated, including scenarios such as outside connectivity and large numbers of workstations. Norton concluded with a demonstration of Apple's administration interface.

Prior to the meeting, the managers met for dinner at Novi's Greek Isles restaurant.



Presenters Dean Norton (l) and Jon Rutherford (r) discuss storage concepts for nonlinear editing with Detroit Section members at the March meeting.

—Frank Maynard, Secretary/Treasurer

Hong Kong February 2005

On invitation, SMPTE Asia Pacific Governor K. L. Lam, Secretary/Treasurer Raymond Lai, and Manager Percy Fung attended the First Technical Conference for Chinese Digital Film and Television Production and Reception, organized by the China Society of Motion Picture and Television Engineers (CSMPTE) in Boao, a resort on Hainan Island, located in the southern part of China.

About 200 guests from major cities in China attended the two-day conference, which was divided into three sessions: topical reports, topical speeches, and paper readings. A total of 17 presentations were delivered by representatives from China Central Television (CCTV),



About 200 guests from major cities in China joined the two-day conference.



Group Photo: (L-R) Felix Sheh, Snell & Wilcox HK Ltd; Percy Fung, Manager, SMPTE-HK; K. L. Lam, Asia Pacific Governor; Yi-qin Liu, President, CSMPTE; Raymond Lai, Secretary, SMPTE-HK; Ze-yang Chu, Vice-Director-General, CSMPTE; Song-ying Liu, Vice-Director-General, CSMPTE; and Zhengbao Gu, Vice-Secretary, CSMPTE.

film production companies, major technology companies, and vendors. In his opening speech, Wang Lian, Technology Bureau under the State Administration of Radio, Film, and Television, briefed the audience on the latest developments of digital film and television in China. During the session of topical reports, Lai introduced the history, functions, operations, vision, and mission of SMPTE and the Hong Kong Section.

Other reports delivered during the session included the Development of High-Definition Production, CCTV; HD Planning, Sony; Advanced Digital Television Broadcasting Terrestrial Transmission System (ADTB-T), Jiaotong University, with demonstration of mobile reception; Digital Film Workflow, Hualong Film Digital Production Co.; Digital Intermediate, Film Technology Research Institute; Innovation of Workflow in a Digital Age, Panasonic; Development Trend of Mobile Digital TV in China, Digital Video Technologies Co.; and Post-Production of Digital Film and TV, Quantel.

During the session of topical speeches, Guangzhou Strand Lighting introduced the Digital Lighting System of Shenzhen Television Centre; Beijing Founder Electronics Co., gave a brief on the Critical Technical Analysis of IPTV; Sony introduced the Newest High-Definition Technology; Newauto Video presented the Solution of Digital TV Program Platform; and Dayang outlined the Integration Solution of Digital TV Program Platform.

In the final paper readings session, Percy Fung, Digital Magic, presented a paper on the Technology of Digital Intermediate, while the representative of Jiaotong University focused on the Technique of Image Quality. The occasion provided a good opportunity for the Societies to develop a closer partnership, and more technical exchanges are expected in the near future.

—Raymond Lai, Secretary

San Francisco March 2005

Fifty people attended the meeting on March 17, hosted by Adobe Systems (www.adobe.com) at their offices in San Jose, CA. JVC regional manager Brian Rutz (www.jvc.com) and Jacob Rosenberg, an independent filmmaker, author, and digital-video expert who consults for Adobe, entertained attendees with informative and enjoyable presentations on the new HDV video format.

JVC, Canon, Sharp, Sony, and others developed the HDV format to provide affordable high-definition (HD) production capabilities. Based on MPEG-2, HDV offers an impressive price-performance breakthrough in HD production. To help reduce manufacturing costs and purchase prices, HDV is based on the standard-definition (SD), motion-JPEG DV-tape format, using consumer/industrial DV transports. The HDV codec employs both spectral and temporal compression, and different group-of-pictures (GOP) structures. Data rates can be either 19 Mbits/sec or 25 Mbits/sec to accommodate various hardware designs for different applications.

Rutz said JVC is introducing the GY-HD100 professional HDV camcorder featuring a three-chip, 1/3-in. progressive-scan CCD with interchangeable lenses that records 720/24p, 720/30p, and 480i (DV). The unit includes a range of playback-conversion capabilities. JVC is also launching the BR-HD50U, a companion VTR for editing. Both devices record a 19 Mbit/sec MPEG-2/6-GOP transport stream. The company also offers the JY-HD10, employing a newly designed single-CCD device with a row of white and green filters, followed by a row of cyan and yellow filters, instead of using a common RGB-type filter. The result is a single-chip camcorder with three-chip luminance performance.

Companies in the HDV consortium will introduce three “data variants” of the format (for a list, go to www.hdv-info.org) to address a range of markets, from television broadcast and production, to electronic newsgathering (ENG), to event videography. Manufacturers believe HDV will eventually replace most of today’s SD-DV applications.

Rosenberg, who excels at editing HDV with Adobe Premier Pro, discussed the key aspects of video editing with the format and showed several examples. Premiere Pro works with HDV as seamlessly as it did with SD-DV. It offers the additional benefit of realtime, variable bit rate HDV file conversion. Using Aspect HD from CineForm (www.cineform.com), the producer takes standard MPEG-2 files from tape and converts them to a VBR CineForm file that can be processed faster and more accurately, with the flexibility of not requiring a data-rate ceiling or a certain tape format.

Rosenberg demonstrated HDV editing with Premiere Pro, using a movie he edited, *Dust to Glory* (www.ifcfilms.com), as an example. A chronology of the annual 1,000-mile, 32-hour automobile race down the Baja Peninsula, *Dust to Glory* used both slow-motion film cameras—Super 16mm on the ground and 35mm in helicopters—along with airborne and land-based video gear, including lipstick video cameras in the racers’ helmets. Rosenberg recorded each video stream with two HD decks, so tapes could be seamlessly changed, although on-board tapes for the lipstick cameras had to be swapped when the racers stopped for gas. Over 32 hours of continuous coverage yielded 250 hours of raw HD footage.

The final film print for *Dust to Glory* is based entirely on a

compressed HD digital file that was color-corrected, titled, edited, and effected on a desktop PC using Adobe Premiere Pro and Adobe After Effects. These tools and the Prospect HD VBR 1920 x 1080, 10-bit, 4:2:2 codec allowed for multi-regeneration of clips and titles while still retaining their resolution. Because the film was mastered in HD, the final film and video versions—both using 16 x 9 and 4 x 3 aspect ratios—could be produced from the same master digital file.

—Kellie McKeown and Howard Kirsch, Section Managers

Washington, DC February 2005

Thirty-five members and guests attended the meeting on February 17 at the Public Broadcasting Service headquarters in Alexandria, VA. The program, titled “PSIP Requirements and Implementation for Broadcasters—Just What Channel Am I?” began with a presentation on the tables that make up the ATSC Program and System Information Protocol Standard A/65, delivered by Art Allison, director of advanced engineering at NAB. He outlined the advantages of including full and accurate PSIP information in transmitted DTV signals. Allison emphasized the need for broadcasters to meet the FCC rules on PSIP, which came into effect on February 1, 2005.

George Anderson, sales manager, digital services, Thales Broadcast & Multimedia, followed with a discussion on arrangements for practical implementations of PSIP by broadcasters, including transfer of necessary metadata from other equipment and systems in the broadcast plant into the PSIP generator, using the new ATSC Programming Metadata Communications Protocol Standard A/76.

Graham Jones, director of communications engineering at NAB, showed some off-air screen shots of the Washington, DC, area DTV stations. These included program guide and information displays produced by a DTV receiver using transmitted PSIP information. Art Allison also provided comments on the completeness and accuracy of the PSIP tables from these stations as detected with a Triveni Digital StreamScope bitstream analyzer. The good news was that most of the DC-area stations have made an attempt to implement PSIP to meet FCC rules by including channel navigation and program information. The bad news was, some of the stations still have areas of PSIP data that are missing or incorrect, and there is still work to be done before PSIP is 100% correct for all DTV stations.

Many thanks are extended to PBS for its hospitality and to Thales for sponsoring the refreshments.

—Graham Jones, Section Manager/Program Chair

Washington, DC March 2005

The Section meeting on March 17 was held at the Washington, DC, headquarters of Eurovision Americas. Eurovision is the operational service of the European Broadcasting Union (EBU), the world’s largest provider of international transmission services for live sports and news events. The organization provides programming and transmission services to national broadcasters and associated networks in 80 countries in Europe and elsewhere.

About 30 SMPTE members and guests, and employees of



Washington, DC, Section members with Jay Hahn at Eurovision Americas Headquarters.

Eurovision and some co-located associated broadcast organizations, attended a presentation by Jay Hahn, vice-president and engineer-in-charge and Ron Hacker, consultant to Eurovision.

The presentation covered the Eurovision network arrangements for feeding video, audio, and data over satellite and fiber circuits between Washington, New York, and international destinations. Hacker explained the arrangements of Dynamic Synchronous Transfer Mode (DTM) technology for video and data connections over fiber, with various advantages over ATM. Hahn described Eurovision operations for the 24-hour news exchange network and major news and sports events and provided some background on the design and implementation of the Washington facilities for program origination and routing. Questions on the DTM system were answered by Erling Hedkvist, Net Insight, Inc.

Following the presentation, attendees had the opportunity to tour the facilities and discuss further issues about the system design and operations. Many thanks are extended to Eurovision for their hospitality and excellent refreshments.

—Graham Jones, Section Manager/Program Chair

Gerald Finn Retires from Pasadena City College

After More Than 25 Years of Tireless Dedication

In 1996, Adele Martin, former Pasadena City College student, was working on an ENG project. She'd shot her footage and was beginning her edits. Pushing a deadline, she panicked when one of her tapes was "eaten" by an edit bay tape deck. With no time to reshoot this pivotal scene, she sought Gerald Finn's advice. He calmed her hysterics and proceeded to solve her problem. Martin gave him the mutilated tape and he drove it to NBC for a friend of his to repair and salvage almost all of the crucial material. He returned the tape to her the next day. Martin turned her project in on time and received an "A." "What is so extraordinary is Gerald Finn's dedication to students exhibiting enthusiasm for and dedication to succeeding at PCC," said Martin, who is a successful freelance technical director in the television industry in the Los Angeles area and an archivist at Fox.

This story is typical of Gerald Finn and can be repeated over and over again by an endless number of former PCC students. Rosanne Tan, who works at Alphasogs as a post-production assistant said Finn has extended a wonderful energy of encouragement and belief in success for students like herself. Other students describe him as a great teacher and motivator, with the ability to encourage the learning process and generously share his technical knowledge. His quest in life for perfection has led to his desire to see his students excel above all others in the television industry.

Charlene Allen, a camera and audio operator at HD Vision Broadcast Center, attributes much of her success to Finn's attitude toward the relationship between work and school. He has encouraged students to treat school just like they would a job. "Be on time and do the job to the best of your ability."

Finn has had a powerful impact on a multitude of students during his 27 years of teaching at Pasadena City College. A stalwart supporter of SMPTE, he is founder of the PCC Student Chapter and served as faculty advisor from 1981 to 2003, when Rebecca Gaddy took over. "When Jerry approached me to be faculty advisor for the PCC student SMPTE chapter," said Gaddy, "I had no idea the impact this would have on my life. During the past two years, I have developed a great respect for



Gerald Finn (third from left) takes part in a roundtable discussion with students, during the 142nd Technical Conference and Exhibition in Pasadena, CA.

his ability to guide this organization into the active force that it is today. I feel the real challenge will be in keeping this dynamo moving forward and growing into an even more active voice for PCC students. The honor and bewilderment I originally felt when he invited me into this realm is evolving into a goal for growth and continuing stellar activity on campus, with the ability to reach out to other areas of the world."

Finn has encouraged student membership and attendance at the SMPTE conferences when held in Pasadena, CA. He established scholarships for students to attend, through funds raised in the student chapter and has encouraged students to apply for SMPTE scholarships, such as the Lou Wolf Scholarship, which has been awarded to several PCC students. Finn relished in the success of former students and in introducing them as newcomers at the conferences and as guest speakers at the student chapter bimonthly meetings. Several people have found these introductions to be great contacts in the future.

A SMPTE Fellow, Finn received the Citation for Outstanding Service to the Society in 1989, recognizing his dedicated service to SMPTE over a sustained period of time. In 1997, he was awarded the Eastman Kodak Gold Medal Award for his lifelong contribution to educational programs. In 2001, his tireless involvement in local and national activities was also recognized with the SMPTE Presidential Proclamation Award. Finn was also the 2001 recipient of the Risser Education Outstanding Teacher Award, one of PCC's highest honors.