Section Meetings

Atlanta
April 14, 1997

A crowd of 27 people gathered at the Southern Baptist Home Mission Board to listen to consultant and author Craig Birkmaier, whose presentation was on the changing role of the broadcaster and the broadcast facility in light of the new opportunities and challenges presented by DTV. He began with a brief review of the positions outlined by the "Digital TV Team" (Microsoft, Intel, and Compaq), specifically mentioning opportunities for enhanced profits arising from interactivity. Java was explored both in concept and as a potential platform for a new breed of intelligent receivers. The concept of DVD-ROM as a potential test bed for interactive DTV systems was raised. Next, the relationship among raster resolution, storage media consumed, decoder memory size, and overall cost of systems was examined. Finally, a potential solution of layered coding, which would allow enhancement layers to spatially augment a base layer and thus enable universal reception at varying levels of receiver cost and complexity, was presented. The meeting concluded with a tour of the new, modern facilities by host Jesse Wilson. — Dick Perin (Secretary/Treasurer), Sony Electronics

Chicago
April 22, 1997

Some 65 people turned out for this joint SMPTE/SBE meeting, held at the WLFD-TV studios. Ole Plett, Philips TV Test, began the program by explaining the basic issues we all face in analog timing of large video facilities. He then extended the discussion to include mixed analog and digital facilities, where the problems of timing are further complicated by the fact that delays in digital systems tend to be quite a bit larger than in similar analog systems. Typical solutions were proposed in the form of time-plane diagrams and the use of FIFOs, pipeline delays, and auto-timing circuits. A lively question-and-answer period followed. Additionally, the new Philips digital SPG, which attempts to display many of the issues described in the presentation, was on display. — Steve Robinson (Secretary/Treasurer), Serial Scene

Detroit
April 15, 1997

John F. X. Browne, John F. X. Browne and Associates, gave the 24-member audience an update on the FCC's Report and Order on Digital TV Broadcasting. He outlined the changes made from previous notices of inquiry with regard to power and channel allotments, the rollout schedule, and the Commission's expectations of licensees. Browne then answered a few questions from the attendees.

Wallace Murray, Ameritech, updated the audience on the progress of his company's serial component video service offerings over the past year. Since the prototype of the service was demonstrated for Section members last year, production equipment has been made available and is being used in many installations. Also, the carrier has the ability to accept either analog or digital audio from the customer and embed it within the bitstream, whereas Ameritech had previously carried only video with the SVCS service and required a separate path for the audio. Technical aspects of the service were discussed, including the impact of cliff effect, signals used for testing circuits, and colorimetry considerations. A demonstration of the transmission equipment was conducted, and although no fiber connection was available to the outside network, an optical attenuator was used to simulate the presence of 24 km of fiber. The equipment passed the signal with no degradation.

The presentation concluded with discussion of potential applications of SVCS, including fixed point-to-point and switched circuits for ENG use to relieve congestion in the 2- and 7-GHz TV auxiliary bands, and a virtual "video dialtone" service for broadcaster and production houses. Questions from the audience followed. — Frank Maynard (Secretary/Treasurer), WKBD-TV

Wallace Murray addresses the Detroit Section in April.

Ed Note: The May issue of the *SMPTE Journal* inadvertently ran an incomplete report for the Hollywood Section's February meeting. The report follows in its entirety, with our apologies.

SMPTE SECTION CALENDAR

Hong Kong

For further information contact Section Chair Kwok-Luen Lam, Wharf Cable Ltd., 5/F Wharf Cable Tower, 9 Hoi Shing Rd., Tsuen Wan, N.T., Hong Kong, tel: +852-211-24511, fax: +852-211-28764, e-mail: kl@hk.super.net

Dates for future meetings:
August 1997: VOD/IMS
November 1997: MPEG-2

San Francisco

For further information contact Section Chair Charles Hintz, KTVU Partnership, Inc./Fox, tel: (510) 874-0290, fax: (510) 272-9957, e-mail: CHARLESinCA@aol.com, Internet: http://members.aol.com/SMPTEsf/seminars.html

The 1997 San Francisco Section Second Saturday Tutorials:

August 9, 1997
Video Acquisition and Display

September 13, 1997
Digital Audio and Compression

October 11, 1997
Growing into MPEG

November 8, 1997
Living with MPEG-2

All times are 9:30 a.m. to 4:00 p.m. Seminars 1, 3, and 4 will be held at Stanford University, Gates B-01 Computer Science Classroom, Palo Alto, Calif. Seminar 2 will be at Dolby Labs, 100 Potrero Ave., San Francisco, Calif.

To publicize your Section events, please send announcements to SMPTE Headquarters, 595 W. Hartsdale Ave., White Plains, NY 10607, tel: (914) 761-1100, fax: (914) 761-3115, e-mail: edit@smpte.org. Information must be received by the 15th of the second month preceding issue date (e.g., June 15th for August issue).

SMPTE President David L. George (front, second from right) greets members of the Napa Valley and Mashpee student chapters at the SMPTE Booth at the NAB Convention in April. Gary Vann (left rear) Napa Valley College faculty adviser, was also present.

Hollywood
February 19, 1997

The February meeting was held at the Gene Autry Western Heritage Museum; some 170 people attended. Tom Gavin of the Jet Propulsion Laboratory and five project engineers presented an in-depth overview of the October 1997 mission to Saturn. The spacecraft, named Cassini, after the astronomer, will undertake a seven-year journey to reach its ultimate destination.

Valerie C. Thomas talked about the Star Finders that allow the spacecraft to orient itself accurately over vast distances. The Star Finder works in conjunction with a hemispherical resonator gyroscope to accurately hold position for the imaging systems. This technology, manufactured by Litton Industries, has no moving parts. Lynn Gresham, the gyroscope systems engineer passed around to the audience some of the actual hardware for their inspection.

Pamela Hoffman described the design and testing of the pyro ring, which mates the spacecraft to the booster rocket. Hoffman was also responsible for the thermal blankets that protect the spacecraft from temperature extremes and micro meteorite impacts. The audience was given souvenir samples of the 20-layer blankets.

Cindy Kahn then described the wide and narrow field cameras that use 1024 x 1024 1-in. CCD sensors that will provide the high-resolution images from the spacecraft. The 1024 x 1024 device was chosen because it was the best available at the time the sensor system was designed. She explained how optical filters are used to detect wavelengths outside the normal visible spectrum.

Suzanne J. Spitz talked about the spacecraft's 4-m antenna that is used for nine different radio systems to relay information to the earth. It also supplies thermal protection for the entire spacecraft on its gravity-assisted journey to the gas giant, Saturn. The antenna is constantly facing toward the sun to provide shade for the entire spacecraft. The solar energy on the antenna is 2.7 times the intensity of the solar energy received on earth. Total weight of the antenna is 200 lbs and the antenna works at frequencies as high as 34 GHz.

Tom Gavin, the spacecraft systems manager, told many anecdotal stories about the seven-year design and building schedule for the 12,500-lb spacecraft. He stated that some of the technology, which includes 1-Gbyte memory chips, will be available shortly in the marketplace for our use in 100-GByte packages.

The meeting was extremely well received by the audience, who, according to the JPL engineers, asked many difficult questions. — Alan Hart (Chair), Modern Videofilm, Inc.

Hollywood
May 14, 1997

Seventy-five people attended the May meeting, held at the Gene Autry Western Heritage Museum. Liz Jefferson, Television Test, explained the research behind the Sarnoff Labs JNDmetrix™ and the subsequent licensing of the research by Tektronix. She also described the development of a new product type that rates image quality in reference to the human visual model. She was followed by her colleague, John Edwards, who illustrated the operation of the system and showed examples of different images impairments and the subsequent JND rating.

This presentation was well received by the audience, many of whom suggested that this technique is needed today. — Alan A. Hart (Chair), Modern Videofilm, Inc.

Napa Valley College
April 8, 1997

The April meeting was the chapter's annual trek to the NAB Convention in Las Vegas, Nev. Napa Valley College students were given the opportunity to meet SMPTE President David George, IMMAD Broadcast Services, as well as mingle with members from the Mashpee Chapter. Former students now working for Sony stopped by the SMPTE booth to share their success stories. — Robert Maniaci, Student President

Nashville
April 17, 1997

The meeting was preceded by a dutch treat dinner at Uncle Bud's Catfish Restaurant on White Bridge Road. Then Section Chair Mike Quinn, Philips BTS, opened the meeting by taking a look at broadcast spectrum, new digital standards, the computer industry consortium, and broadcast strengths and challenges. Past Chair Mike Arnold, Scene Three, Inc., began an open forum discussion, touching on areas of redefined channel allocations for DTV, relaxed specifications for broadcasters, and the freedom of signal distribution.

Mike Nichols, WSMV, provided an interesting and informative presentation regarding the actions of the Broadcaster's Consortium. He discussed the 1-MW cap on average power and the concern over testing for B-grade coverage area. Lively discussion included channel allocations being chosen by computer models and in the television markets 31 and above needing to be on the air by the year 2002.

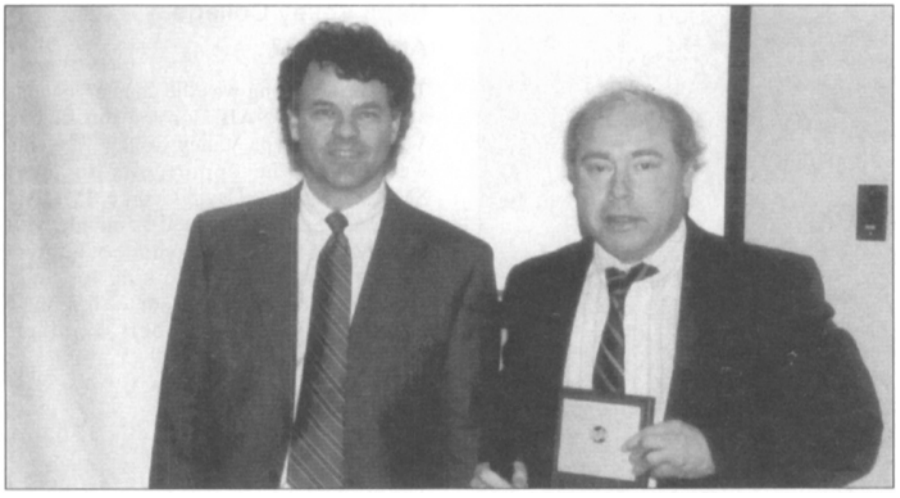
The meeting concluded with some challenging questions presented to the group, such as: is the general public going to be willing to spend the additional money for DTV and how do you market the technology to them? — Tom Hoffman (Secretary/Treasurer), The Filmworkers Club

New York
March 19, 1997

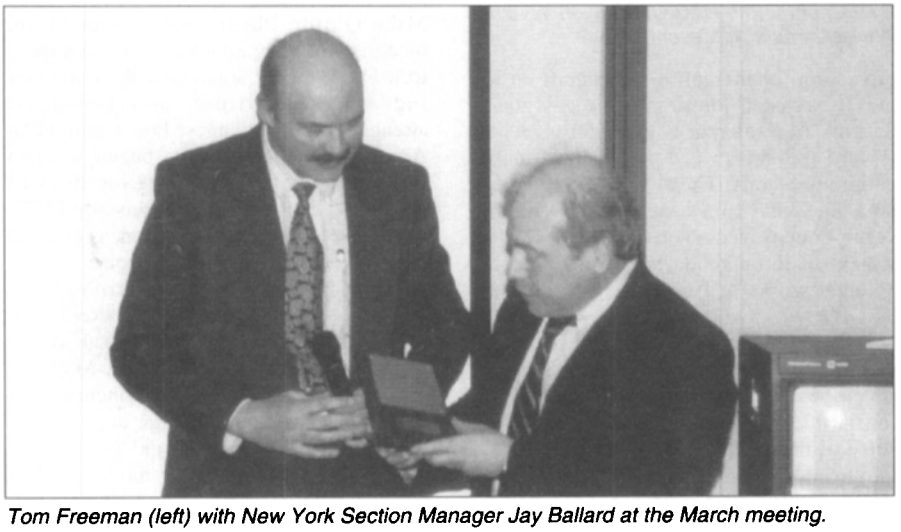
Over 100 members and guests came to the NBC Studios for two presentations given by representatives of Tektronix, Inc.

Bill Thompson described the company's approach for a JND analyzer, which would quantify signal impairments in moving images. While primarily aimed at measuring video compression artifacts, the product is also applicable to uncompressed video systems. The analyzer relies on an algorithm developed at the Sarnoff Corp. that mimics the human visual system's response to motion.

Tom Freeman then presented a seminar on avoiding the pitfalls in serial digital implementation and testing of serial digital equipment. He discussed the SMPTE



Speaker Bill Thompson (left) with New York Section Manager Jay Ballard at the March meeting.



Tom Freeman (left) with New York Section Manager Jay Ballard at the March meeting.

259M standard and issues such as cliff effect, jitter, and return loss. — Jay Ballard (Manager), NBC

Pasadena City College
March 25, 1997

Last spring, guest speaker Eddie Lopez got an entry-level job at Wexler Video while still attending Pasadena City College; since that time, he has become Wexler's head of quality control. He told his 28-member audience that he believes promotability comes from hard work and a true love for the business; working well with others is also an important factor. He spoke of the long days and his task of making sure all equipment to be rented meets his standards. He also detailed what he believes sets his company apart from other rental houses. Lopez went on to say that he may like to pursue directing, and that his current position provides many connections. The students enjoyed his presentation and were highly motivated by the rapid progress of such a recent graduate. — Candace Brown, Student Chair

Pasadena City College
April 8, 1997

Fourteen students who were unable to attend the NAB Convention with the rest of the chapter took advantage of the opportunity to see a compilation tape from H.M.A. Video and 4 MC, Inc., which showed samples from Disney as well as some familiar commercials. — Candace Brown, Student Chair

Pasadena City College
April 22, 1997

This April meeting featured guest speaker Clay Woods, a colorist with Magic Film and Video Works. It was while he was a student at Pasadena City College just over a year ago that he got an entry-level position as a negative cutter. He believes that the rapid advancement he has enjoyed has to do with the strong foundation he received while a college student. He advised the students to take advantage of what they are learning, explaining that he has used what he learned in order to further his career. He then told his audience about an average day at work and the use of such equipment as waveform monitors and vectorscopes, which are used in production courses at the college. Woods never expected to reach his current position so quickly, and attibutes his movement to a good attittude. His philosophy is to do the best that you can in any situation. — Candace Brown, Student Chair

San Francisco
April 24, 1997

When it came to a show of hands, there were only 30 at Silicon Graphics, Mountain View, Calif., for the April meeting. Members and guests, still exhausted from NAB, chose to attend our April meeting about the Internet just that way — on the Internet! First, Section Webmaster John Goodell, Goodell & Associates, spoke about the Section's Web site — which can be found at http://members.aol.com/SMPTEsf — and all of its links. The page and most of the links were demonstrated using an Indigo2 and a very fast T-1 line.

The home page is simple and uncluttered, so that it downloads quickly on any computer. Members are very pleased with the look and feel of the page. Over 1,600 people have visited the SMPTEsf home page since it went on-line in December 1996. As for the other advantages, the Section no longer prints a "Page 2" because the jobs page is part of the site; as a result, both paper and printing costs have been eliminated. The page also provides links to the student chapter at Napa Valley College as well as to SBE, IICS, and other closely related organizations. The Section members agree that Goodell deserves a lot of credit for an on-going job well done!

Next, Section Chair Charles Hintz, KTVU/Fox, spoke of the Section Seminars for 1997. Now known as the SMPTEsf Second Saturday@Stanford Tutorials, sign-up will be available soon on a related SMPTEsf web page. Only 10% of the activity will be on killed, ground-up trees pressed flat and bleached. (Now I'll stop hugging that tree!) All the necessary speakers have already been contacted and agree to speak on the arranged dates. The final schedule for full-day seminars is "Video Acquisition and Display," August 9, 1997; "Digital Audio: Control and Compression," September 13, 1997; "Growing into MPEG," October 11, 1997; and "Living with MPEG-2," November 8, 1997. Seminars 1, 3, and 4 will be at Stanford University, Gates B-01 Computer Science, Palo Alto, Calif. Seminar 2 will be at Dolby Labs, 100 Potrero Ave., San Francisco, Calif. — Charles Hintz (Chair), KTVU/Fox