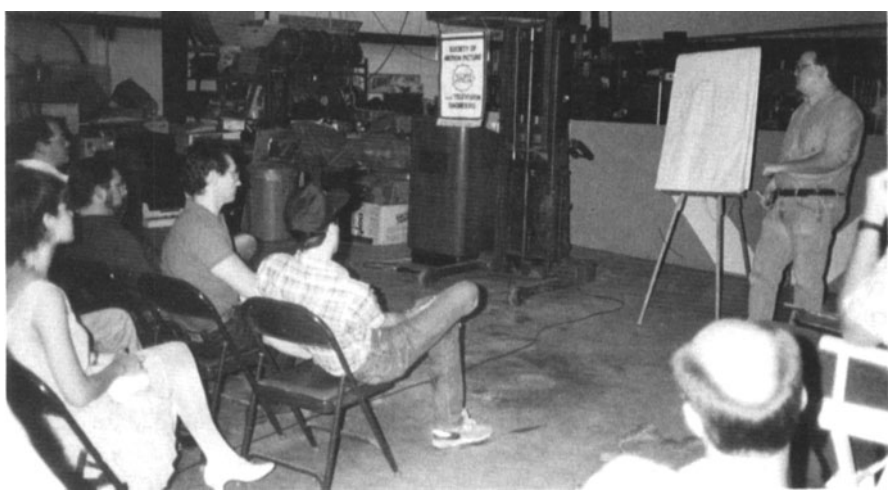
Section Meetings

Detroit, May 21, 1992 — At a meeting held at Sandy Corp., 40 members and guests heard a presentation on Sony D-2 VTR technology. Dave Desmarais, Sony Corp., explained the features of the original D-2 VTRs, discussed the improvements incorporated in the latest generation of products, and described how these features have improved operating efficiency. He also explored the latest procedures and schedules in D-2 VTR maintenance, including tape technology and customer support. Desmarais was assisted by Mark Doane, Sony Corp., during a lengthy question-and-answer session. — Helge Blucher (Secretary/Treasurer), ProVision, Inc.

Houston, May 20, 1992 — Doug Robertson, Citizen Doug Productions, explained how audio is recorded digitally and demonstrated the process of editing audio with a Mac-based editor controller and Sound Tools software. His presentation on digitizing audio included defining frequency and sampling notations and storage methods. He also discussed the advantages and disadvantages of digital audio, the methods used to convert between analog and digital systems, and the development of and differences between the various sampling rates. Robertson then recorded a line from a film he is working on and, using the digital editor, manipulated it until it perfectly matched the lip sync of the film. The meeting was held at Bunch-McLendon Studios, one of the area's oldest continually operating film studios, and it concluded with a tour of the facilities. — Robert Musburger (Secretary/Treasurer), University of Houston.

From left: Joe Hoffman, Vernon L. Kipping, Charles Hintz, Ken Graham, and Ken Spickler at the March meeting of the Napa Valley College Student Chapter.

Napa Valley College, March 25, 1992 — The chapter welcomed guest speakers Vernon L. Kipping, San Francisco Section Chairman, who gave a presentation on the SMPTE's status in the film and television industries and noted that the college's chapter is San Francisco's first student chapter and the eleventh in the world; Joe Hoffman, filmmaker, who fielded questions about the film industry and how it differs from television; and Charles Hintz, KTVU, who talked about HDTV and fiber-optic technology. Hintz also discussed the SMPTE San Francisco Section and its benefits, including that NASA/Ames Research, Lucasfilm, Dolby Labs, the silicon valley, and other industry giants are all very close by. — Kenneth Spickler (Chairman), Napa Valley College.



Doug Robertson, Citizen Doug Productions, lecturing on digital audio and Mac-based digital editing to the Houston Section.

Napa Valley College, May 14, 1992 — Charles Hintz, KTVU, gave a lecture on digital video with the help of Gary Young, Panasonic. The presentation featured a demonstration of Panasonic's new D-3 VTR, which added reality to the lecture's curriculum and provided valuable hands-on exposure of forefront technology and concepts in action. — Kenneth Spickler (Chairman), Napa Valley College.

New York, March 19, 1992 — "NBC New York's Implementation of the MARC System," was the topic of the March meeting, which took place at NBC Studios. Donald Brookfield summarized the evolution of a project in which NBC's videotape operations were significantly improved by the installation of 11 of Panasonic's Matsushita Automated Record Play (MARC) systems.

Robert Doherty described the physical Panasonic system and how the MARC machines are used for program and commercial recording and playback. Using projected slides, he also illustrated how the host computer system controls each MARC.

The robotic system can access any one of the up to 450 cassettes in each machine's library. The system can also record from any of 159 different program sources and provide automatic program delay operations ranging from 5 min to 12 hr. The systems are used to control tape operations in all four time zones of the network's operations.

Stephen Asay then described the hardware and software systems developed by NBC to integrate the MARCs into NBC's

Donald Brookfield, NBC, discussing Panasonic's MARC System at the New York Section meeting.

Gary Vann, Napa Valley College, observing a demonstration of equipment during the San Francisco Section meeting.

operation. He explained that several major subsystems are connected to the MARCs over a LAN and how these systems all work together to produce the network's taped programming. He also discussed the features of each subsystem.

The meeting concluded with a demonstration of the MARC system in actual operation and a tour of Switching Central and the Skypath Control satellite operations. During the meeting, the SMPTE receiver/monitor setup test tape was demonstrated and explained by Ed Schuller, Test Materials Advisor. — Ed Schuller (Manager/Test Materials Advisor), Entertainment Video Systems.

Pasadena City College, May 12, 1992 — The session, entitled "The Picture Monitor: The Most Important Device In Any Video System," attracted 71 attendees. The program detailed why the conditions of monitoring video have significantly contributed to NTSC's problems and what the SMPTE documents have to offer in the way of a solution. Joseph J. Kane, Jr., Joe Kane Productions, was the guest speaker.

For his presentation Kane used a Sony 1251 projection system, a disc player, a video standard disc, and 35mm slides. Using a colorimetry diagram, he explained why a direct-view CRT is limited in reproducing the entire color spectrum. He noted that a currently marketed detergent package that uses green and cyan will not reproduce on NTSC. Phosphors used on monitors today are SMPTE "C" Phosphors.

He explained the use of SMPTE color bars in setting brightness, color, and hue on a monitor, adding that if contrast is set too high, the resolution will be adversely affected. However, the accuracy of the transmitted signal has improved markedly over the past five years. It was noted that a viewer's color perception is affected by environment; fatigue is enhanced if the monitor is in a dark room. The SMPTE recommends between 30 and 35 fL for brightness from a CRT. In a movie theater, the light on the screen is low so that it will not demand ambient light.

Kane said that an ideal viewing environment would be determined by the height of the raster of the monitor. With H standing for distances, he gave the following formulas: The front of the monitor should be at eye height. The monitor should be 2.5 to 5 H from the rear wall. This would place the picture in its own focal plane. Walls should be neutral in color, as should designs on the wall. The distance to the viewer should be 7.6 H (in a working environment 4 to 6 H, 5 to 8 H for a viewing environment). The primary viewing angle should be 15°. Lights in the room should be placed so that they minimize the glare hitting the face of the monitor. A 6500°K light from the rear of the monitor should be included. This environment, which was tested at a facility on the East Coast, resulted in an improvement in the efficiency rate of its employees after a three-month period. The meeting concluded with an explanation of past and present calibration units used in the industry. — Gerald Finn (Student Chapter Advisor), Pasadena City College.

San Francisco, May 30, 1992 — The meeting, entitled "Training for TV's Future," was held at Napa Valley College. The session focused on what employers require in job applicants and how educators are providing training to equip students to meet these standards.

Roy Trumbull, KRON-TV, discussed what is expected from job applicants in the television industry. He said that mathematical skills are very important in understanding electronics because they help in comprehending the scheme of the circuits and knowing the input and output of circuit systems. Hands-on experience in laboratory work is also vital. Trumbull noted that some manufacturers' technical manuals contain mistakes that are continuously reprinted. Only hands-on experience in lab work enables students to learn of these errors. Understanding and using computers are also critical. Students should learn at least one data base and spread sheet and they should be able to use a computer-aided design system to create line drawings of projects. Programming knowledge is also helpful.

Trumbull added that the only valuable nontechnical skills are drama and speech. He said that it is important for an applicant to be able to make presentations or

speeches to customers or other audiences. In addition, attending meetings of the SMPTE and SBE is also very important in establishing contacts within the industry.

Gary Vann, a professor at the college, was the second speaker. He spoke about how Napa Valley College is working to provide students with the requisite skills needed in the TV industry, and noted that the college has a very active SMPTE Student Chapter.

Vann started the TV instructional program in 1970; classes began in 1971 in one classroom, and 1973 brought the program's first graduates. He said a key factor to the program's success has been the formation of an advisory committee to provide guidance in skills and abilities needed in the television and electronic industries. Another successful element is the generosity of manufacturers who have provided technical equipment. Of note, the college has a policy of open attendance and the first 27 students who apply are accepted. However, he stressed that students entering the program should be well versed in mathematical skills.

Since the program has a heavy academic load, Vann advises students against working at a job. The pace of study is such that if a student misses several classes, it is very difficult to catch up. During the first year of study students are introduced to the equipment and to electronic courses; during the second year, the students get into schematic diagrams. The college also has a program offered by the International Telecommunications System that provides grants enabling students to attend training programs offered by manufacturers. — Vernon L. Kipping (Chairman), Consultant.

Toronto, May 12, 1992 — The meeting began with a presentation, entitled "Advanced Digital Nonlinear Editing and ISDN File Transfer Technology," by Seth Haberman, Montage R&D Corp. Haberman gave the audience a brief history of his company's development, noting that Montage was one of the first suppliers of random access editing equipment using multiple high-quality consumer decks to accomplish the feat. He said that now, with the advent of compression video, the Montage III equipment operates entirely in the digital domain.

The technical portion of his discussion centered around the technologies involved in interframe compression. He noted that with interframe compression, each frame of a video is treated as a separate entity and processed according to one of a number of algorithms, which differs from the interframe compression scheme that builds frames from known reference points. Haberman pointed out that Intel's DVI product operates in this manner, as does the Fractal technology and the J-Peg standard. He described the basic principle of the mathematical transformations of the J-Peg standard and the principles of subsampling employed by Intel's DVI, and provided insights into the practical limitations of each technology, citing the relative impairments that viewers perceive when observing pictures.

During the discussion, details of design parameters employed by Montage were given and the audience provided a rationale for the technologies that were selected. Haberman also discussed the company's special interest in providing interfaces through ISDN and other data networks that are now emerging in North America and gave some insights into the relative merits of carrying compressed video into the home through either the cable or telephone company's technologies. He concluded with a fascinating demonstration of the performance of the equipment and its ease of operation.

The second paper of the evening was presented by Michael Arbuthnot, Ampex, who discussed his company's DCT videotape format. He gave a general description of the 19mm tape format, noting that the product is encoded with digital component signals, compressed 2:1 with a CCIR 601 digital interface. He said that the equipment is aimed at film-to-tape and post-production markets where broadcasters and producers require a cost-effective, high-quality, digital component tape format.

He pointed out some of the key features of the machine and tape format, including that since the tape width is 19mm, the track parameters closely match that of the D-2 format and therefore, Ampex considers that format to be robust; similarly, in light of the advanced mathematics that have been applied to the development of the compression algorithms, the format is purported to be extremely competent in terms of multigenerational performance.

He noted that the machine uses approximately 100 new semiconductor devices, weighs approximately 100 lb, and consumes 165 W. The tape cassettes allow operation lengths from 15 min to 3 hr. He also described the complete line of switchers, editors, and digital effects products that are available for the new format — Peter Laidlaw (Secretary/Treasurer), Imagineering Ltd.

News

Bob Hammond, Sony Corp. of America, has been named Chairman of the Education Committee of the SMPTE Washington, D.C. Section. He replaces Norm Stein, Department of Defense, who will continue his role as Section Manager. To support the section's educational interests, the committee is currently developing a speakers bureau. Individuals who are interested in becoming a part of this bureau should contact Bob Hammond, Chairman, Education Committee, SMPTE Washington, D.C. Section, 1305 Burni Ruth Ln., Severn, MD 21144.

The Fitchburg State College SMPTE Student Chapter has announced the results of its election of officers. Arthur Whitehead will serve as president, Ethan Becker will act as vice-president, Rachel Barber was named secretary, and Ann Catalini will serve as treasurer. To date, the chapter has held several meetings, served as host of five workshops, and organized trips to attend meetings of the SMPTE New England Section.

Shoichi Takada has been named president of Fujinon Inc. He will be in charge of all operational aspects of the company's four divisions: broadcast and communications products, binocular, industrial, and medical. His responsibilities include the supervision of sales, marketing, and product development for each division. Prior to his promotion, Takada served as executive vice-president of Fujinon, Inc. Before that he was manager of the company's optical products sales division.

Howard T. La Zare has formed FTI FilmTec International, a company that provides engineering solutions and services to the film laboratory community worldwide. A two-time recipient of the