

matography" can match and even surpass the required primary imaging characteristics of film.

Thorpe showed there are certain advantages of video over film, but also noted the concessions video equipment manufacturers are making to achieve a certain "film look," especially the use of the 24-per-second frame rate in video production. Increasingly, film and video are influencing each other.

Thorpe discussed the obstacles that have historically prevented the convergence of video and film. Although many of those problems stemmed from the inadequate quality of video imaging and recording in the 1970s through the middle of this decade, he added, "a great deal of the contention between film and video has been exacerbated by differences in the 'language' used to describe 'imagery.'" Analyzing the most important imaging characteristics of film versus video, Thorpe said he finds the nomenclature of film more descriptive and useful than most video terms, so he made the following comparisons in film language:

Exposure Latitude: The best 35mm film stock (EXR-5245) has an exposure latitude of 9.5 F-stops; the HDCAM cam-

corder has an exposure latitude of 11 F-stops;

Exposure Index: The imaging sensitivity of devices such as HDCAM exceeds high-speed film, in excess of 600 ASA—with no perceivable "grain";

Tonal Reproduction: High-definition camcorders have circuitry that allows them to easily emulate and match most commonly available film stocks;

Color Reproduction: a digital camera can match most known film stocks;

Picture Sharpness: HDCAM camcorder tape capture is less sharp than a 35mm film color negative, but exceeds 35mm film at the level of the first generation positive print; an HDTV camcorder is decisively sharper than Super-16mm film; a Digital Betacam camcorder is only slightly sharper than Super 16.

Thorpe concluded his presentation by showing clips of some recently produced comparisons of identical footage shot on film on high-definition video, with playback for both projected on a high-definition video front-projector. The audience then joined in with questions and comments.—Peter Hammar, Secretary/Treasurer

Chicago November 18, 1999

The November meeting attracted 20 attendees for a presentation made by Darryl Krall, regional sales manager for Quantel. Krall discussed a new approach to the handling of the various HDTV formats in post-production. Mixed formats of source materials may be presented for compositing and editing, presenting a potential need to convert all source material to a common format for processing and then subsequent conversion to the selected output format. A concern arises out of the fact that multiple conversions within the post-production process, as well as the distribution process, may potentially reduce the overall quality of the program. Quantel is proposing a combined hardware and software solution that allows input of all source material to be stored in its native format and subsequently converted to the required output formats during final processing. This approach minimizes the number of possible conversions and therefore improves the quality of the final output. Krall answered a number of questions following the conclusion of his formal presentation.—Steve Robinson, Secretary/Treasurer

News

LA Film School First in North America with Sony High-Definition Soundstage

The Los Angeles Film School has announced the beginning of construction on what will be Sony's only professional high-definition digital stage in a school setting in all of North America. Its unique state-of-the-art specifications will include Sony HDTV cameras and switching equipment, as well as up-and-down conversion capabilities; a cinematographic 16 x 9 format; film speed of 24 frames per sec; Sony high-definition editing bays, compatible with digital video, digital Beta and Avid; and "Filmmation" film replication capabilities. "With the transition from analog to high definition underway, we feel that it is very important for us to give our students the chance to stay on top of the future of filmmaking," said film school dean Amedeo D'Adamo.

The LA Film School is a one-year intensive professional training program in motion pictures, television, and new media, with emphasis on directing, producing, cinematography, editing, re-recording, mixing, and production design.

HDTV Coverage at 2000 International CES

The Consumer Electronics Association (CEA, formerly CEMA), has announced its first time plan to provide HDTV coverage of 2000 International CES. Attendees and exhibitors at the January 6-9, 2000, Las Vegas venue, will witness history in the making, courtesy of a technology that made its industry debut there in 1998. Gourvitz Communications Inc. has been selected to produce *CES Today*, a daily hour long HDTV convention television program, which will cover CES product introductions and demos, show events, keynote speakers, and select conference sessions; and will air during show hours on HDTV monitors throughout the four exhibition venues.

CEA, a sector of the Electronic Industries Alliance (EIA), represents more than 500 U.S. manufacturers of audio, video, accessories, mobile electronics, communication, IT and multimedia products sold through consumer channels. The CEA sponsors and manages the International Consumer Electronics Show (CES), and reinvests all profits into industry services including technical training

and education, product promotion, engineering standards development, market research, and legal affairs support.

ITU Standard for Digital A/V Equipment Interconnection

Connecting a cable television feed to a videocassette recorder (VCR) and a digital television set (DTV) in the home environment has become easier, thanks to a global standard approved by the ITU during recent meetings in Geneva, Switzerland. The interface standard, Recommendation J.117, "Home Digital Network Interface Specification" is applicable to HDTV and conventional definition television sets worldwide. Terrestrial and satellite feeds can also make use of this standard, which will eventually be extended to address personal computers and a full compliment of networked devices in the home.

This key interface was specified by ITU-T Study Group 9, the same Telecommunication Standardization Sector ITU study group that was responsible for cable television. Its basis is an existing interconnection technology called IEEE 1394, established by IEEE, based on an inven-

tion by Apple Computer, originally called "firewire." The 4 or 6-wire cable interconnection system provides a high-speed serial data bus for up to 63 interconnected devices. Rec. J.117 provides a system that allows for the passage of large amounts of data at typical rates up to 200 million bits per sec, which is important when delivering digital video and data services.

Also adopted by the ITU, was a copy protection system to help companies that own intellectual properties, such as movies, to control the process of making copies and prevent theft. Digital piracy is a major problem because an original copy can be used to render multiple copies without generational degradation. Rec. J.95, referenced in J.117, offers a basis for providing program content owners with a recognized system to shield their work from possible signal theft. The ITU is a global organization, where the public and private sectors meet in cooperation to develop telecommunications and national telecommunication policies.

New Technology For Digital Video

The Sarnoff Corp. has announced the availability of Vision Optimized Encoder (VOE) technology to give MPEG-2 encoder chips visibly improved digital video quality during the compression process: from HDTV signals to low bit rate video for the Internet. VOE merges advanced MPEG-2 encoding algorithms with Sarnoff's JNDmetrix model. JNDmetrix technology in VOE monitors the encoding, determines where distracting artifacts could occur, and allots more bits to those areas of the picture to minimize distortions.

The VOE encoder offers significant improvements in almost every area of MPEG-2 performance, including rendering motion and handling problem video effects such as quick cuts between scenes and fades-to-black; and also improves allocation of bits across channels in a multiplexed environment.

NEC Selects TeraLogic's TL750 Graphics Processor for GigaStation

TeraLogic, a leading provider of solutions for broadband digital television and services, announced that its TL750 processor has been chosen by NEC to provide the graphical interface for NEC's GigaStation, the first digital video recorder (MVDISC Recorder) that uses optical discs. Its MVDISC cartridge has a capacity of 5.2 Gbits/side and can record up to four hours. The TL750 is a high-performance graphics

processor with sophisticated video and audio processing capabilities that enables OEMs to deliver high-quality interactive graphics to television sets.

TeraLogic's TL750 provides a number of features and capabilities to deliver graphics-rich data services by seamlessly integrating graphics with video and audio delivered via analog or digital TV networks. Among the target applications for the TL750 are standard-definition DTV set-top boxes (for DBS satellite, cable and terrestrial broadcast, Internet TV terminals, personal video recorders, and DVD players. The TL750 also supports all international DTV standards and service providers' specifications.

New York Film Academy Opens West Coast Offices

The New York Film Academy, successfully ensconced in New York for eight years, has expanded to include a West Coast office based at Universal Studios. The opening workshop will be held on January 3, 2000. The Academy offers an intensive filmmaking program where participants write, direct, shoot, and edit their own short films. This expansion means that aspiring filmmakers will now be afforded the unique opportunity to shoot their projects on a fully operational studio lot per agreement with Universal Studios, as well as at various locations throughout Los Angeles.

Belden Cable Chosen for use at the Sydney 2000 Olympic Games

Belden Electronics Division has announced that it has been contracted to provide the vast majority of backbone and horizontal cables used in the transmission of voice, video, and data for the Sydney 2000 Olympic Games broadcast. The nearly 6-million-ft cable infrastructure will service over 120 broadcast sites within the Sydney Olympics Broadcasting Organization's (SOBO) state-of-the-art International Broadcast Centre (IBC). For the duration of the games, the IBC will become the largest, most advanced site in the world—accommodating signals from nearly 40 sports venues, which are then distributed by SOBO to a worldwide audience of over a billion people.

Beverly J. Wood Appointed VP at Deluxe Labs

Deluxe Laboratories has appointed Beverly J. Wood to the newly created role of vice-president of Technical Service and Client Relations. Wood will serve as the

primary liaison linking directors and cinematographers with the lab, on issues related to high-tech services ranging from film/digital conversion to silver retention, and other proprietary printing processes.

Deluxe Labs President, Cyril Drabinsky noted "Beverly Wood offers a rare combination of high-tech know how and aesthetic sensibilities which make her the ideal candidate for this role." Working directly with cinematographers and directors who are interested in custom looks, Wood guides those projects in all stages through the lab, from pre-production planning to release.

Wood works with Deluxe's customers in Los Angeles, Toronto, and London.

Seven Fujifilm Facilities Honored for Safety

Seven Fujifilm facilities were honored with the first Annual Photographic & Imaging Manufacturers Association (PIMA) safety "Excellence" Awards. The facilities include Fuji Photo Film U.S.A., Inc. regional offices and distribution centers in Edison, NJ, Duluth, GA, and Carrollton, TX; Fuji Medical Systems U.S.A., Inc., in Stamford, CT, Roselle, IL and Burbank, CA; and Fuji Photo Film, Inc., in Greenwood, SC.

The awards were inaugurated by PIMA to recognize member companies that significantly improve all areas of health and safety in the workplace. Those eligible for recognition are PIMA member companies, which manufacture or process photographic, graphics arts, and/or medical diagnostic products or equipment. "Excellence" awards winners must meet specific criteria indicating either an annual loss-time injury and illness rate of 0.50 or less per 100 workers; or an improvement in loss-time injury and illness incident rate of 25% over a two-year period.

Philips to Build Facilities in Thailand

Philips Digital Video Systems Thailand was recently selected by the Center for Educational Television (CET), a division of the Ministry of Education, to build their main audio/video production studio facility. This studio will be used to produce CET's distance learning programs for nationwide broadcast.

The turn-key project with a contract value in excess of \$1.3 million, will feature LDK20 studio cameras; a DD35-3 video production switcher, with DVE/CG; DCR950 DVCPRO VTRs for linear and nonlinear editing systems; a digital audio mixer; lighting and cyclorama; and a nonlinear editing system.