

## SPECIAL REPORT

**S**MPTe'S 142nd Technical Conference and Exhibition, held October 18-21, 2000, offered attendees a remarkably informative four-day program. Content Acquisition, Processing, and Distribution was the topic of the week, with the Conference and Exhibit Hall attracting a crowd of nearly 2,000 people.

Responsible for the successful program and selection of so many outstanding presentations was Editorial Vice-President Robert Kisor, Paramount Pictures, who worked closely with Program Chairs Darcy Antonellis, Warner Bros., and Barry Zegel, CBS, to deliver a wide range of papers related to the acquisition, processing, and distribution of content.

As well, the many functions at the conference, from luncheons to coffees, were all successful and made possible by the generosity of the following: AJA Video Systems, Bexel, CBS, Eastman Kodak, EMC Corp., Liberty Livewire, LSI Logic, Panasonic, Plus 8 Video, Quantum, Thomcast.

### WEDNESDAY

Bob Kisor, along with Seminar Chairs Suzanne Donino, Turner Broadcasting, and Bob Schwartz, EMC Corp., welcomes the 400

strong audience, officially starting off the conference with the All-Day Seminar on Digital Archiving and Asset Management. Standing room only is the order of the morning, with so many attendees that an extra room with video feed has to be set up to accommodate the overflow. Presentations include topics on metadata, digital archiving, and media management. In an interesting presentation on Media Asset Management Databases, Jim Mains, EMC Corp., tells the audience, "The bottom line is that content creation, production, and distribution are becoming increasingly digital," and that, "we need to improve upon our ability to work in this new digital paradigm as we bridge the analog and digital worlds."

A boxed lunch is served, and attendees show more interest in the conversations incited from the seminar presentations than the food. The lunch provides an excellent breaking point, not merely to rest, but to compare notes and further absorb topics discussed in the morning session.

The seminar continues with an interesting presentation by Janet Gardner, eMotions Inc., on the



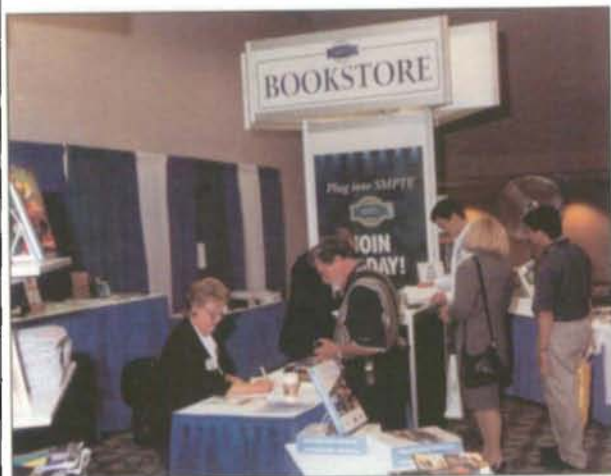
*Which way to go when both destinations are informative, educational, and instructive? Both!*

Criteria for Adopting a Media Asset Management System. Gardner covers topics ranging from technology and solution adoption trends to considerations for moving forward in the adoption of technology to realizing business goals based upon risk and cost. Another presenter, Julius Adams, IFsec, discussing system security for cable operators entering the digital domain, quotes a *New York Times* article that states, "there are worries that what has happened to the pop music industry, with songs being swapped and pirated on the internet beyond the reach of record company accountants, will happen with movies, too, if firm protections are not put in place first." This concern is echoed in the Conference's keynote address by Jack Valenti, Chairman and CEO, Motion Picture Association.

To cap the day, the seminar ends with a panel discussion that lasts well past its expected time. Presenters respond to questions posed by the audience and expand on areas that deserve more time than was allowed their presentation. Attendees agree that the seminar was very informative, educational, and successful.



*Despite more than expected numbers of attendees, registration moved smoothly, with very few lines and minimal wait at the registration booths.*



*Between sessions, SMPTE's Bookstore bustles with activity as attendees purchase standards, books, SMPTE T-Shirts, and more.*

**THURSDAY**

Although the numbers of registrants are high, careful planning and pre-registration make for short lines at the registration counters. A lot of planning goes into conferences, and through the concerted efforts of Conference Vice-President Thomas Jordan, General Arrangements Chairs John Brooks and Jim Smith, and SMPTE Meetings Manager Dianne Gabriele, the conference is running quite smoothly.

**7:30 a.m.**

Last-minute attendees register for the conference as pre-registrants trickle in early to get good seats at the morning sessions; visit the SMPTE book store; and peak through the doors of the Exhibit Hall, scheduled to open later this morning.

**8:00 a.m.**

The sessions start on time. Opening remarks by Peter Smith, NBC, and Craig Cuttner, HBO, Co-Chairs of the session on Broadband Distribution for Broadcast and Cable, as well as Curt Behlmer, Soundelux, and Robert Rast, Dolby Labs, Co-Chairs of the Digital Cinema session, set the tone for the morning by explaining topics to be covered

in their sessions and introducing the morning's presenters.

Papers in the session on Broadband Distribution for Broadcast and Cable range from time division multiplexing video and data streams into a 1.5 Gbit/sec HDTV stream to multi-channel serial digital video transmission, distribution, and reception. In a presentation on how ATM networks

ensure transparent transport of realtime professional broadcast services, presenters from Thomson Broadcast Systems in Rennes, France, conclude, among other things, that ATM networks, in addition to appropriate NAs, are well suited for contribution and distribution applications, secure connection-oriented architecture, maintain excellent performance, and carry all types of traffic.

Over in the Digital Cinema session, papers being discussed include the balancing of technology in digital cinema systems and work on SMPTE's Digital Cinema Study Group's DC28 Report. The report, being presented by Tom Scott, Ednet, Inc., explains that the transition from analog to digital is well under way in 2000, and that digital sound already exists in theaters. The DC28 group also discuss such topics as D-Cinema

System Audio Assumptions, Digital Sound on Film, DCDM Audio, Compression in Current Systems, and Encryption and Watermarking.

**12:04 p.m.**

While many conference attendees make their way to one of Pasadena's wonderful restaurants to further discuss the presentations, SMPTE Fellows congregate at the Pasadena Conference Center's Mishima Plaza (Mishima is Pasadena's sister city in Japan), where an excellent lunch is served al fresco, and they have the chance to visit old friends and welcome new Fellows into their honored circle. Inducted Fellows are David A. Baylor, Craig Cuttner, Angelo D'Alessio, Alain Enon, Hans Hoffman, Lawrence R. Kaplan, Robert B. Kisor, Bruce F. Miller, Charles A. Pantuso, Stephen Pumble, Udai P. Singh, and Craig C. Todd.

SMPTE Past-President and Chair of the Fellows Membership and Qualifications committee, David L. George, IMMAD ECVS, addresses the gathering: "This Society is dedicated to supporting the needs of this industry and its many professionals, through providing an effective mechanism for standardization, information, and educational activities, as well as by providing opportunities for professional support and personal growth and networking. Within SMPTE, individual members can and do find many of the tools they need to maintain technical proficiency, immediacy, and contacts.



*Students take part in a round table discussion during the SMPTE Student Fair.*

**Students Receive SMPTE's Lou Wolfe Scholarship**

SMPTE's first annual Lou Wolfe Jr. Scholarships were awarded at the Conference. Recipients were James Goldsmith, now studying at University of Massachusetts, Evan Kingsley, now at the University of Rochester, Patrick Riley III of Mashpee High School, and Kenneth Allen Young, of Pasadena City College.

This very event provides such opportunities for some of the leading lights of the industry, Fellows just like you!" George also set the peg for future Fellows by stating that, "SMPTE is about standardization, shared knowledge, and continuing education about motion imaging. SMPTE can be found at the leading edge of developments in our field. Together, we are continuously expanding the technological underpinnings of our industry. But, as critical as these technologies are to the future, a talented and knowledgeable human resource to harness and apply them will be even more critical to the industry's growth and success in the long run." George is overheard mentioning later during the luncheon that he is happy to see that the number of female SMPTE members taking part in presentations is growing, and that more should be done to encourage women in the industry. (The full text of George's speech appears on p. 944.)

**1:35 p.m.**

Back from lunch, attendees have time before the afternoon sessions to visit over 75 booths in the exhibit hall or one of the several demonstration rooms. The exhibit hall sees heavy traffic, with companies from almost every aspect of motion imaging, displaying their services and wares.

The sessions continue with Webcasting and Enhanced TV-Data Broadcasting and All That's Interactive, chaired by Michael Dolan, DirectTV, and Dan Zigmond, Microsoft WebTV, and

Content Storage and Management: Tape, Disk, Video, Film, and Virtual Environments, chaired by Andy Watson, Network Appliance, and Al Kovalick, Pinnacle Systems. In the Webcasting and Enhanced TV session, J. F. Carruthers discusses the new SMPTE Standard 334M for adding data to the SMPTE 292M signal using proven broadcast procedures and processes. Carruthers also explains that VANC in the SMPTE 292M stream means that the combined V/S/D can be switched, routed, and stored using familiar processes and that captioning, V-chip, and ATVEF interactive data injection continue to occur at the same point in the process, using the same tools in the same way it is presently done. Another paper presented by Brett Jenkins, Thomcast Communications, Inc., addresses MPEG transport providing a reliable mechanism for delivery of IP traffic, broadcasters needing flexibility in implementing solutions, and the fact that no one can truly predict what services will become the best revenue generators.

In the session on Content Storage and Management, David Bancroft, Philips Broadcast, presents a paper and concludes, among other things, that expressing moving images as data instead of video is an increasingly common practice and that bulk offline storage is needed, with a greatly increased data transfer rate than is currently available.

**6:36 p.m.**

The conference rooms are silent, the sessions completed for the day, but if we follow the sound of hundreds of voices echoing throughout the Pasadena Conference Center, we reach the exits that take us out to the Mishima Plaza (where today's Fellows Luncheon was so successful), and find that the Conference's Reception is in full swing. A wonderful buffet surrounds the tented plaza, as attendees mingle and mix, break bread, pass business cards, and discuss the day's informative sessions. The reception is scheduled to end at 8 p.m., but it looks as if many people are still engaged in conversation as the wait staff clean up.

**FRIDAY****6:50 a.m.**

Computers controlling radar systems in the Southwest shut down, stranding West Coast passengers for a good part of the day. Some Friday and Saturday attendees are affected, but brave the wait (some on the tarmac for hours) to get to the conference.



*Fellow inductee David Baylor (L) chats with Phil Livingston (C) and another colleague during the Awards Reception.*

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*SMPTE President Charles Jablonski congratulates Bob Kisor, SMPTE Editorial Vice-President, on becoming a SMPTE Fellow.*



*Alain Enon—SMPTE Fellow. Enon's certificate is accepted by Jean-Pierre Vitton.*



*David Baylor—SMPTE Fellow. Baylor oversees the worldwide development and integration of support for Direct TV.*



*Udai P. Singh—SMPTE Fellow. Singh is responsible for R&D and technical activities relating to film processing at Technicolor Labs.*



*Lawrence Kaplan—SMPTE Fellow. Under Kaplan's leadership, Omneon has created an integrated networking and storage platform that enables production and distribution in various types of media.*



*Craig Todd—SMPTE Fellow. Todd optimized the application of matrix surround sound technology to the Dolby Stereo optical film sound format.*



*Hans Hoffman—SMPTE Fellow. Working in the research of serial digital interface, Hoffman is also responsible for the development of a jitter measurement device.*



*Angelo D'Alessio—SMPTE Fellow. Involved in television engineering and sales from his early days at Philips, has also been active in HDTV electronic production.*



*Past-President David George accepts the Fellow Membership certificate on behalf of Steve Pumple.*



*SMPTE matters being discussed by (L to R) Rene Villeneuve, Fred Motts, Milton Shefter, and John Brooks.*



*SMPTE President-Elect, John L. Mason (R), along with Milton Shefter and Barbara Wolfe, at the reception before the SMPTE Awards Ceremony.*

**9:18 a.m.**

Sessions are well under way, and in the sessions on the Digital Station-Content Acquisition and Broadcast, chaired by Ira Goldstone, Tribute Broadcasting, and Russ Meyerson, WB100+, attendees are presented a host of papers such as DTV in a Box, where the migration to DTV in a seamless fashion is discussed.

In the concurrent session, Alan Masson, Eastman Kodak Co., and Nolan Murdock, Panavision, oversee the smooth flow of papers in Film Format and Acquisition Technologies—What's New and Improved. Papers here discuss squeezing even higher quality from 35mm prints using scope 1.5X, and John P. Pytlak, Eastman Kodak Co., addresses the differences between scope and flat film.

**12:16 p.m.**

Attendees once again take in Pasadena's wonderful climate at SMPTE's Industry Luncheon, sponsored by EMC Corp. The turnout is well over 500 people, who have come to enjoy good food and hear Jack Valenti, Chairman and CEO, Motion Picture Association, deliver the keynote address. Urgent business in Washington, DC, keeps Valenti from appearing in person, but through the wonders of satellite transmission, courtesy of CBS, Valenti is able to deliver his address, and converse with SMPTE President Charles Jablonski. Valenti's speech focuses on protecting the very products of the industry, especially now that it is so easy to copy, download, and reproduce electronically, and states that efforts must be geared towards transmitting them... in a safe and secure environment." (See Valenti's speech on page 942.)

**2:28 p.m.**

Sessions are well under way this Friday afternoon. By now, attendees are in the conference

**Many Thanks!**

The Society thanks the following companies for their continued recognition of SMPTE members: Eastman Kodak, Eastman Kodak Gold Medal Award; Fuji, Fuji Gold Medal Award; John Grierson International, John Grierson International Gold Medal Award; Technicolor, Technicolor/Herbert T. Kalmus Gold Medal Award.

mode, carefully selecting the sessions and papers they're interested in attending, coordinating their schedules to attend papers in concurrent sessions.

SMPTE enjoys working together with other organizations and societies with similar goals, that's why one of the afternoon sessions, Visual Effects and Animation: New Tools and Techniques, is being given in conjunction with the Visual Effects Society. Papers range from discussion of Z-Axis data, to archiving reality through image-based modeling, rendering, and lighting. Ray Feeny, RFX, and Jonathan Erland, Composite Components Co., oversee this session.

In the concurrent session chaired by Alan Hart, Modern VideoFilm, and Tad Marburg, Warner Bros., the topic is Format Transitions and Conversions: Techniques and Technologies. Papers here include Film Sequence Detection and Removal in DTV Format and Standards Conversion, where Scott Ackerman, TeraNex, Inc., concludes that there are many different 2:3 sequence combinations, and that 2:3 removal is the most effective way to standards convert film originated material to PAL or 1080p/24, and that 2:3 insertion/removal in combination with format conversion is beneficial.

**6:50 p.m.**

While a some of Conference attendees begin a recreational Friday night in southern California, a group of approximately 200 gather in one of the beautiful banquet halls in the Pasadena Double Tree Hotel for SMPTE's Honors and Awards Reception. The cere-

mony, sponsored by Eastman Kodak Co., is held to honor those who have made outstanding achievement in the motion imaging industry. Recipients include John E. Baldwin, Geoff Boyle, Mitchell J. Bogdanowicz, Arjun Ramamurthy, Lemuel L. Davis, Franz Herbert, Klaus Landsberg (posthumously), D. Peter Owen, Edmund Di Giulio, Glenn Reitmeier, Mike Pietrowski, Jay H. Ballard, Dixie L. Parham, and Leonard W. Eden. The awards ceremony is followed by a wonderful evening reception, held on a veranda overlooking Pasadena's architecturally historic city hall with cascading waterfalls that flow around its grounds.

**SATURDAY****7:49 a.m.**

Coffee in hand, attendees make their way to session rooms. Today is the last day of the conference and many are returning home tonight. Many of those who are staying the extra day or reside in the area are planning on accepting Bill Werner's invitation from Texas Instruments to attend a private Hollywood digital version screening of the new movie, *Space Cowboys*.

**9:19 a.m.**

The session titled Audio Production and Post Production: The Multichannel Process and its Challenges, finds David Bytheway, Philips, extolling some of the advantages of embedded audio systems, which include the fact that they can significantly reduce routing resources and

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*SMPTE President Charles Jablonski welcomes attendees to the Industry Luncheon.*



*After a superb meal, Industry Luncheon attendees listen to the keynote address, given by Jack Valenti, President and CEO of the Motion Picture Association. Valenti delivered his address via satellite, and can be seen on-screen, as if seated on the far left side of the dias, along with all members of SMPTE's Executive Committee and Conference Program and Arrangements Chairs.*



*SMPTE Conference Vice-President, Thomas Jordan, addresses the attendees of the Industry Luncheon.*



*"No one doubts that this (new technology) may well be the most significant entry into the society since Gutenberg's invention of movable type and the advent of television." —Jack Valenti*



*Bob Schwartz (third from left) of EMC<sup>®</sup>, which sponsored the Industry Luncheon, awaits the keynote address with his colleagues.*



*Tablemates at the Industry Luncheon, including Bernie Lechner, Bob Rast, and Bob Hopkins, await the first course.*



*With over 500 people attending, the Industry Luncheon was a great success.*



*Larry Brandt (R) chats with a colleague before the luncheon. SMPTE gatherings like the Industry Luncheon, offer great networking opportunities.*

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*Edmund Di Giulio,  
Fuji Gold Medal recipient.*



*Glenn Reitmeier,  
SMPTE Progress Medal  
recipient.*



*Geoff Boyle  
Eastman Kodak Gold Medal  
Award recipient.*



*Mitchell Bogdanowicz  
Technicolor/Herbert T. Kalmus  
Gold Medal Award recipient.*



*Leonard Eden,  
Citation for Outstanding Service*



*Jay Ballard,  
Citation for Outstanding Service*



*Mike Pietrowski,  
Citation for Outstanding Service*



*Franz Herbert,  
SMPTE Journal Award recipient.*



*Arjun Ramamurthy,  
SMPTE Journal Award  
recipient.*



*Lemuel L. Davis,  
SMPTE Journal Award  
recipient.*



*D. Peter Owen,  
Presidential Proclamation  
recipient.*



*Cleve Landsberg, accepting the  
Presidential Proclamation on  
behalf of his late father, Klaus  
Landsberg.*

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interconnect cabling, patch bays, etc., or carry up to 16 channels. Bytheway also lists the disadvantages, such as the fact that support for all 16 channels of audio is missing in most VTRs and disk servers, and many only support the first four channels.

In the session on Dailies and Content Review Technologies, James Toten, Tribune Entertainment Co., gives an interesting presentation using a model of a television series with major execs and production facilities spread out between Los Angeles, Australia, and Toronto, and shows how dailies allow all locations to work together, acting almost like traditional productions that must all be located in the same city. This session was followed by a panel discussion on the delivery of dailies, led by Chuck Garsha, Media Systems Inc., and Tom Scott, EDNet.

### 11:20 a.m.

With morning sessions scheduled to end earlier than the other days, attendees take advantage of the longer lunch break to enjoy an extended tour of the Exhibit Hall, have one last lunch with friends and associates, or head to their hotel rooms to finish packing for the return home.

### 2:40 p.m.

Afternoon sessions are in full swing, and Chairs Merrill Weiss, Merrill Weiss Group, and Oliver Morgan, Avid Technology, oversee papers presented in Metadata Applications and Options for Production and Transmission. We hear a presentation by Gomer Thomas, Triveni Digital, Inc., which answers questions such as: Where is electronic program guide (EPG) technology going? What metadata support is needed for state-of-the-art EPGs? and What is happening in the DTV standards arena to provide the metadata? We are presented with a paper from Stephen Long, National Imagery and Mapping Agency, and Michael Vetter, SAIC. Long and Vetter are dis-

cussing Real-World Implementations and Benefits of the SMPTE KLV Metadata Protocol, and how, among other things, metadata has always been an important concept in the U.S. Department of Defense.

In the concurrent session, Leon Silverman, Laser Pacific, and Marker Karahadian, Plus 8 Video, handle the flow of interesting papers that are being presented in 24P Production and Post-Production. In a paper titled High Performance Electro-optic Camera Prototype, S. A. Stough and William Hill, Lockheed Martin, ponder whether the invention of television could have predated the invention of color film and question how the inventor of the cinema in 1968 would pitch his idea to a venture capitalist, and more importantly, what would be the outcome?

### 5:30 p.m.

The sound of vacuum cleaners and construction crews are the only sounds in the Pasadena Conference Center. The Exhibit Hall is now busy as exhibitors pack their displays and wares; ready to call it a conference. By now, attendees are all heading home, with ideas, papers, Power Point presentations, and memories of a very informative conference circling their brains. SMPTE Conference Vice-President Tom Jordan said it best: "It remains

the goal of SMPTE conferences to provide the most industry-relevant topics from engineers and scientists working at the heart of emerging technologies," and the SMPTE 142nd Technical Conference and Exhibition has certainly lived up to this statement. In his welcoming letter to attendees, SMPTE President Charles Jablonski said that, "SMPTE conferences offer some of the best programs in the industry; they are attended by industry members from around the world. This is a great opportunity for (attendees) to explore the many new possibilities in our field." Those who attended the 142nd Technical Conference, many coming from overseas, now return home with presumptions to what lies ahead and what topics will be discussed at SMPTE's 143rd Technical Conference in 2001.

The Society would like to thank the following companies for participating in the Exhibition:

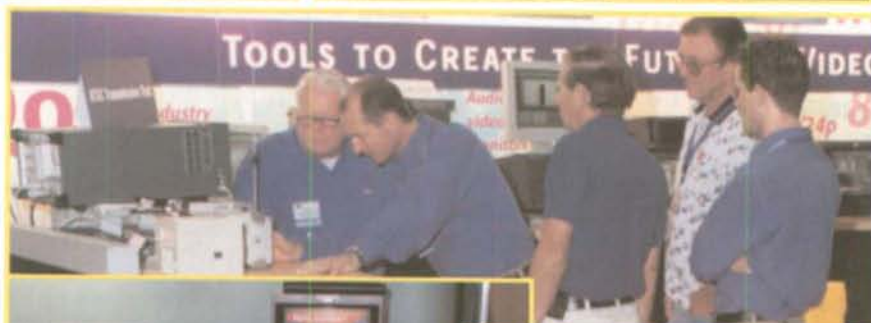
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 Quantum Corp.  
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 EMC Corp.  
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