



The 143rd SMPTE Technical Conference and Exhibition

New York Hilton, New York
November 4-7, 2001

SMPTE's 143rd Technical Conference and Exhibition proved once again that the Society's conferences continue to deliver the best in session program and content. The theme of the conference, **Pixels, Packets, Processing, and Infrastructure**, attracted attendees from almost every corner of the motion imaging industry. The program's lineup was already strong, with industry experts in areas from Metadata and New Digital Facilities to Film Acquisition and Asset Management. Despite fears of diminished registration due to recent events in New York, conference management was mildly surprised at the large number of onsite registrants.

The All-Day Seminar

The conference began on Sunday with the All-Day Seminar, and as the New York Marathon ran its course through the five boroughs, attendees at the All-Day Seminar had a marathon of their own in the way of "Packets and Streaming Media." The day's event, chaired by *Chuck Dages* and *David Colter*, Warner Bros., ran its course, with a morning session on "Systems, Servers, and Devices," which included papers on *Optimizing Streaming Media Quality* and *16-Channel Central Casting Facility*. The afternoon session proved just as informative,

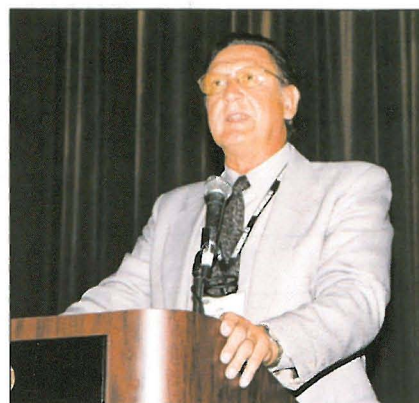


Conference Vice-President Thomas Jordan, welcomes attendees to the Industry Luncheon and introduces SMPTE President John Mason.

with paper topics ranging from *Content on the Web: Downloading vs. Streaming* to *Digital Rights Management in a Multimedia Environment*.

The Technical Program Begins

An opening ceremony kicked off the Technical Program, as Conference Vice-President *Thomas Jordan* and President *John Mason* welcomed attendees. The ceremony featured guest speaker *Scott Teissler*, chief technology officer for Turner Broadcasting Systems, Inc. After the opening ceremony, Monday's technical sessions were officially under way, and attendees headed for the session halls. And with two concurrent sessions, there was always



SMPTE President John Mason addresses the attendees of the 143rd Technical Conference and Exhibition's Industry Luncheon.

something to find at SMPTE's Technical Conference.

The morning program had a good turnout for the "Broadband, Internet, and New Distribution Methods" session. Chaired by *Pete Ludé*, iBlast Networks, session papers ran the gamut from *Satellite Broadband Internet for Production and Post-production*, to *Getting the Picture: How Will Interactive TV Services be Displayed in the Home?* Not forgetting the importance of sound, there's always a session on the topic, and the "Audio" seminar, chaired by *Richard Hess*, National TeleConsultants, Inc., and *Jim DeFilippis*, News Technology Group, attracted many to its papers, which included *CBC's Radio Digital Archiving System*, and *Monitoring and Controlling Audio-to-Video Delay in Broadcast Systems*.



SMPTE Sections Vice-President René Villeneuve and Financial Vice-President Robert Kisor at the Industry Luncheon.



SMPTE President John Mason and Executive Vice-President Gavin Schutz.



SMPTE President John Mason with former President Robert Smith.



SMPTE Conferences are also a time for the Society's Engineering, Editorial, Executive, and Governor's meetings. Here, SMPTE's engineering meeting is well under way: (l-r) Staff Engineer Mark Hyman, Edmund DiGiulio, Edgar Schuller, and Director of Engineering, Carl Girod.



Conference Vice-President Thomas Jordan with Dr. Sharon Flank, Vice-President of eMotion, who delivered the keynote address on behalf of eMotion's President and CEO Robert Griffin.



Left to right: SMPTE Executive Vice-President Gavin Schutz discusses the conference with Executive Director Fred Motts and IBC's John Wilson.



Former SMPTE President Robert Smith (l) and Editorial Vice-President Ed Hobson.



Left to right: William C. Miller, David George, and Peter Symes.



It was smooth sailing at the registration booths, as attendees grabbed their conference materials and passes, and headed for the sessions and exhibit halls.



An exhibitor shows his wares in one of the two exhibit halls. Seventy exhibitors displayed the latest in motion imaging products, services, and technology.

The Exhibit Halls

Monday morning also saw the grand opening of SMPTE's 143rd Exhibition, where 70 companies displayed the latest in motion imaging technology and services. Always a major attraction, this year's exhibit drew companies from around the world.

SMPTE would like to thank the companies that participated in this year's event.

Academic Press
 ADC
 AgileVision
 AJA Video
 Astro Systems, Inc.
 Audio Accessories, Inc.
 Avid Technology, Inc.
 Axon Digital Design B.V.
 Barco Control Rooms
 BarcoNet
 BBC Technology
 Belden Electronics Division
 Bittree, Inc.
 Broadcast Store (BCS)
 Chyron Corp.
 Controlware, Inc.
 Convera
 daVinci
 Discreet
 DNF Controls
 Dolby Laboratories, Inc.
 DVS Digital Video, Inc.
 DynaPIX Wireless Video
 Encoda Systems
 Envivio
 Evertz Microsystems Ltd.
 FOR-A
 GEPCO
 Globalstreams

Grass Valley Group
 Innovation TK Ltd.
 Kings Electronics
 Leader Instruments Corp.
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 Maxell Corp.
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 Miranda Technologies, Inc.
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 Nema Electronics Intl. Inc.
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 OmniBus Systems
 OmniVue
 Panasonic Broadcast
 ParkerVision, Inc.
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 PESA Switching Systems, Inc.
 Pixelmetrix
 Quantel Inc.
 Quartz Electronics Ltd.
 Rohde & Schwarz, Inc.
 Ross Video Ltd.
 Scopus Network Technologies
 SeaChange International
 Sencore, Inc.

Snell & Wilcox
 Sony Electronics Inc.
 Sundance Digital, Inc.
 SyntheSys Research, Inc.
 Tandberg Television
 Tektronix, Inc.
 TeraNex
 Trompeter Electronics
 Utah Scientific, Inc.
 Video International
 Video Products Group, Inc.
 Videotek, Inc.
 Vistek Electronics
 West Penn Wire/CDT
 Wohler Technologies

The Industry Luncheon

Monday's morning sessions adjourned in time for attendees to get to the Industry Luncheon, held in the Hilton New York's elegant Trianon Ballroom. This annual event brings SMPTE Conference attendees together at a formal luncheon where they can meet colleagues and associates, and hear addresses by the industry's movers



The Welcome Reception, given for all attendees and exhibitors, is well under way in the elegant Trianon Ballroom of the Hilton New York.



The Annual Honors and Awards Ceremony was held Tuesday night in the West Ballroom. Gavin Schutz, SMPTE's Executive Vice-President, announces the recipients of this year's honors, awards, and citations.



Attendees of the 25th Annual Fellows Luncheon. SMPTE welcomed 12 new Fellows at the function.



Robert Smith, President and CEO of DuArt Film & Video and former SMPTE President, delivers the keynote address at the Fellows Luncheon.



SMPTE officers, 143rd Conference chairs, and keynote speaker pose before entering the Industry Luncheon. Back row: (l-r) Program Chairs Phil Livingston and Chuck Phelan, Editorial VP Edward Hobson, Financial VP Robert Kisor, Sections VP René Villeneuve, 143rd General Arrangements Chair Warren Singer, Conference VP Thomas Jordan. Front row: (l-r) Executive VP Gavin Schutz, President John Mason, eMotion's CTO and Technology VP, Sharon Flank, Engineering VP William Miller, and General Arrangements Vice-Chair Rich Carlson.

and shakers. This year's keynote speaker was *Robert L. Griffin*, president and CEO of eMotion, Inc. Griffin's address was delivered by eMotion's vice-president, *Sharon Flank*, as Griffin was detained in Florida by Hurricane Michelle.

After the luncheon, the afternoon began with an enlightening session on "Servers and Networking," chaired by *Al Kovalick*, Pinnacle Systems. Papers in this segment included *Fault Tolerance in a Distributed Media Server*, and *Preventative Monitoring for Digital Television Networks*. *Brad Gilmer*, Gilmer & Associates, and *Hans Hoffmann*, EBU, chaired the other session on "File Formats for

Interchange." With interesting papers on the status of *Stream and File Formats*, and *The MXF Wrapper and its Application*, the meeting was engaging and educational.

The Welcome Reception

The adjournment of Monday's sessions was hardly the end of the day for attendees, as everyone headed to the Welcome Reception. This highly anticipated event is a great mixer and a wonderful way to merge business with pleasure as reception-goers seek new clients, schmooze with old ones, and compare accounts of recent industry spins and turns with associates and

colleagues. The Trianon Ballroom's gilded elegance and sophistication, combined with the joviality of those present, provided a buoyant contrast to recent events in New York City.

Tuesday's Sessions

The Technical Program resumed Tuesday morning with sessions divided between video and film. On the video side, "Case Studies in New Digital Facilities," chaired by *David Horowitz*, Horowitz Television Technology, and *Randall Hoffner*, ABC, Inc., included several impressive presentations such as *Controlling Complex Broadcast Infrastructures and Intelligent*

Infrastructure for New Digital Installations. For those in film, a wonderfully informative session on *Film Acquisition and Processing: Emulsions, Cameras, and Facilities*, was chaired by *Timothy Spitzer*, Tapehouse Editorial Co. Papers here included *Application of the Latest Technologies to a New Fujicolor Negative Film*, and a progress report on *Using 35mm Digital Intermediate to Provide 70mm Quality in Theaters.*

The 25th Annual Fellows Luncheon

During Tuesday's lunchtime, as most conference attendees went out to sample some of New York's finer restaurants, those with the eminent title of SMPTE Fellow headed to the Hilton's Nassau Suite for the 25th Annual Fellows Luncheon. Attended by Fellows only, the luncheon was a smashing success thanks largely to Keynote Speaker *Robert Smith*, President and CEO of DuArt Film and Video, and former SMPTE President (1979-80). Smith gave a moving eulogy of his friend and associate, Ken Mason, another former SMPTE president and father of SMPTE's current president.

Tuesday's Technical Program Continues

Tuesday's afternoon kicked off with sessions in MPEG-4 and Archival Asset Management. Papers in the "New Standards for New Media: MPEG-4 and IPMP" session, chaired by *Richard Mizer*, Digital Ventures Diversified, Inc., and *Rob Koenen*, Intertrust Technologies, were well rounded and covered the topic superbly, with papers on *Intellectual Property Management and Protection*, to *Authoring for MPEG-4 Applications: Technologies and Techniques.*

The Archival and Asset Management session was quite engaging, with papers ranging from the *Content Supply Chain for Media*



David Bancroft accepts this year's Journal Award.

Asset Management, to the Need for Integration of Physical and Virtual Media Asset Systems. Chaired by *Janet Gardner*, Perspective Media Group, and *Gary Morse*, Fox Digital, the session ended with a fascinating panel discussion on media asset management (MAM), which featured panelists from the entertainment industry who had either deployed or are in the process of deploying a MAM solution.

The Honors and Awards

Tuesday evening found a large assembly of honored guests as SMPTE held its Annual Honors and Awards Ceremony and Reception. As award winners and new Fellows



Glen A. Reitmeier, recipient of the Leitch Gold Medal Award, poses with his wife.



Clyde D. Smith receives a Citation for Outstanding Service to the Society.

were introduced by SMPTE Executive Vice-President *Gavin Schutz*, SMPTE President *John Mason* conferred upon each their award.

2001 Fellows

"A Fellow of the Society is one who has, by proficiency and contributions, attained an outstanding rank among engineers or executives in the motion picture, television, or related industries."

The Society congratulates the following individuals elevated to the grade of Fellow.

David J. Bancroft, Thomson multimedia

Michael E. Cox, Mirador Techniques Ltd.

Christopher L. DuMont, Eastman Kodak Co.

Thomas M. Gurley, Association of Maximum Service Television



Walter Druker is honored with a Citation for Outstanding Service to the Society.

Peggy Sullivan Feted at Awards Ceremony



SMPTE's National Standards Coordinator, Peggy Sullivan Murname, receives one of SMPTE's highest accolades, the Society Citation, for 47 years of service to SMPTE. Presenting the Citation are President John Mason (l) and Engineering Vice-President William Miller.

Margaret (Peggy) Sullivan was presented with a Citation for Outstanding Service to the Society at the recent 143rd Technical Conference. Sullivan, whose career at SMPTE has lasted for 47 years, will retire on January 15, 2002. She will be missed by SMPTE Officers, Standards Committee members, and the staff at Headquarters; all wish her many years of happy retirement. What follows are some brief glimpses into her long association with the organization.

Q: *What was the SMPTE like when you were first hired? Who were the people involved and where was the office?*

A: There were fewer than a dozen people working at Headquarters in 1954: the executive secretary and his assistant; the editor of the *Journal* and his secretary; a part-time test film engineer; the staff engineer and his secretary; the membership secretary, the office manager; the bookkeeper, and a mail clerk. The office was on the 10th floor at 55 West 42nd Street between 5th and 6th Avenues across from Bryant Park in Manhattan.

Q: *What was the most significant standard(s) developed in the 47 years you have been with the organization?*

A: Standards for color television were probably the most significant at that time, but the Society worked on other important aspects of the industries it served: high-speed photography, magnetic recording, safety versus nitrate film, CinemaScope, and test films.

Q: *How has the standard-making procedure changed over the years?*

A: Not very much. The standards are still basically established the same way: A technology committee accepts a proposal, votes on the specifications, and, if approved, the Standards Committee is balloted. If the proposal is accepted, it goes to the Society's website (it was published in the *Journal* from the 1950s until just recently) for trial publication. The document is then submitted to the American National Standards Institute for approval. Before desktop publishers or fax machines, all documents were typeset with enough room for the figures to be pasted on the copy.

Q: *Describe some humorous incidents.*

A: The first meeting of the Video Tape Recording Committee was scheduled to take place at the Engineers' Club in New York City

in 1958. The executive secretary, Col. Charles Stodter, had never met the chairman of the new group, Howard Chinn. I was asked to introduce them and take the minutes of the meeting. When Col. Stodter and I arrived at the club, we were told that I could not enter to attend the meeting because women were not permitted on the premises unless special permission was given in advance. After much explanation, I was allowed to go to the meeting room to make the introduction and was then escorted from the premises. One of the committee members volunteered to be the amanuensis.

Q: *Who was the most memorable officer (personality) within the Society?*

A: I won't choose one officer of the Society because I learned so much from all of them. Over the years, I have had an opportunity to be involved with so many good people who were dedicated to standardizing the technology.

Q: *What are your plans for the future?*

A: My husband and I are looking forward to spending part of the year in North Carolina trying to improve our golf scores.



Twelve new Fellows were added to the Society, among them (l-r) Christopher L. DuMont, Beverly Pasterczyk, and David C. Harrington.



Attendees of the Industry Luncheon enjoy fine dining in the Hilton New York's elegant Trianon Ballroom.



Bernard J. Lechner, recipient of the Progress Medal.

David C. Harrington, Eastman Kodak Co.

Akihiro Hori, Nippon Television Network Corp. (NTV)

Henry W. Mahler, CBS

Wayne C. McLachlan, Grass Valley Group

Neil Neubert, JVC Professional Products Co.

Beverly M. Pasterczyk, Eastman Kodak Co.

René L. Villeneuve, National Film Board of Canada

James H. Wilkinson, Sony Broadcast & Professional Europe

Honors and Awards Recipients

The Society of Motion Picture and Television Engineers is pleased to honor the following recipients of awards for outstanding

achievement in the motion imaging industry.

The Citation for Outstanding Service to the Society

Walter Druker, The Broadcast Store

Kwok-Luen Lam, Hong Kong Cable TV Ltd.

Otto E. Mikkela, Finnish Broadcasting Co. (ret.)

Charles Pantuso, DTVIR.com

Clyde D. Smith, Turner Entertainment Networks

The Journal Award

David Bancroft, Thomson multi-media

Journal Certificate Awards

Charles Fenimore and John Libert, National Institute of Standards & Technology

Stephen Wolf, U.S. Dept. of Commerce-NTIA/ITS.T

Laurence Thorpe, Sony Electronics, Inc.

The Society Citation

Margaret "Peggy" Sullivan Murnane, SMPTE

LeRoy DeMarsh, Consultant

The Fuji Gold Medal Award

Donald E. Trumbull, Trumbull Engineering Inc.

The James A. Leitch Gold Medal Award

Glenn A. Reitmeier, nVention, at Sarnoff Corp.

The Technicolor/Herbert T. Kalmus Gold Medal Award

Joerg D. Agin, Eastman Kodak Co.

The Samuel L. Warner Memorial Medal Award

James A. (Jack) Cashin, USL, Inc./ Ultra Stereo Labs

SMPTE Progress Medal Award

Bernard J. Lechner, Consultant

Wednesday's Technical Program

Wednesday's lineup was no less top-notch, as attendees chose between two explorative sessions. The first, "24P: An Update," chaired by Gavin Schutz, Liberty Livewire, and Terry Brown, Laser Pacific, included presentations on the *Further Evolution of 24P Acquisition*, along with the *Search for a Universal Timing Reference Signal* and *P24...The Next Generation*. In the concurrent session, "Metadata: Case Studies, Expectations, Realities, and Lessons Learned," chaired by Robert Slutske, National Telecommunications Inc., and Bill Harris, IBM Global Services, papers explored *Metadata in Media*, *Creating Access and Usability in a Digital Video Archive*, and *UMID Watermarking for Managing Metadata in Content Production*.

Wednesday's afternoon sessions were balanced between "D-Cinema," chaired by William Miller,



At the Fellows Luncheon: Ed Schuller with Peter Keane, age 92. Keane has been active in the industry since his first job with Technicolor in 1935.



SMPTE volunteers help make the conference run smoothly and efficiently. Front row: (l-r) Volunteer Chair Ed Schuller, Jim Chladek, Audio-Visual Chair Ben Homenic. Back row: (l-r) Eric Hausman, David Reynaga, Andrew Milne, Bruce Lilly, Roland Govantes, and Steve Painter.

ABC, Inc., and David Bancroft, Thomson multimedia, and "Video and IP," chaired by Darcy Antonellis, Warner Bros., and Gary Washauer, Pinnacle Systems. In the D-Cinema session, presentations included *The Business of Digital Cinema—The Exhibitor's Perspective* and *the European Digital Cinema Scene*. Also noteworthy was a paper on *the Laser Cathode Ray Tube—A Paradigm Shift in Illumination*. The "Video and IP" session was no less informative, with papers on *Satellite, Broadcast, and Broadband Networks Powered with Storage Area Networks (SAN)*, and *Extending Video Networks with IP and Ethernet*.

Wednesday's sessions ended, attendees headed for New York's airports, or rounded the corner to their offices—another successful SMPTE conference concluded. As is the nature of putting on conferences, much work goes on behind the scenes. SMPTE staff, its officers, and the local section, work hard to give SMPTE conferences strong and informative programs, comfortable accommodations, and a successful conference experience. From the intensive logistical work of Conference Vice-President Thomas Jordan and Meetings

Manager Dianne Gabriele, to the work of Editorial Vice-President Edward Hobson, Program Chairs Phil Livingston and Chuck Phelan, and SMPTE Headquarters' Marilyn Waldman on constructing a complete and thorough program, much work needs to be done. And we would be remiss in not mentioning the amount of time and effort put into the conference by New York's Section members, including General Arrangements Chair Warren Singer, and Audio Visual Chair Benjamin Homenick. These are just a few of the many people who made the 143rd SMPTE Technical Conference and Exhibition such a success and to whom we take off our hats.

Thanks to our Sponsors

SMPTE would like to thank the corporate sponsors who made the 143rd a rousing success. From sponsorships of coffee breaks, to entire events like the Awards Ceremony, sponsors make our conferences shine. The following companies participated:

- CBS, Inc.
- Cintel
- Fox, Inc.
- Home Box Office
- Eastman Kodak Co.

- Liberty Livewire Corp.
- Omneon Video Networks
- Panasonic Broadcast & Television Systems Co.
- Sony Electronics
- Thales Broadcast & Multimedia Inc.
- Thomson multimedia Broadcast & Network Solutions

Upcoming Conferences

Dallas, Texas, will be the place for motion imaging professionals in February with SMPTE's 36th Annual Advanced Motion Imaging Conference. The theme of this year's event, *Image Quality—Theory and Application*, is sure to be informative, educational, and enlightening.

At a time when competitive pressures are forcing increases in channel capacity and reductions in hardware and personnel costs, this conference focuses on the dying art and science of recognizing and maintaining image quality. In this era of increasing compression ratios and the use of less-than-optimum equipment in professional situations, we all must be able to make intelligent and informed trade-offs that benefit the supply-side providers, as well as present and future consumers. So, don't miss this conference!