

144th SMPTE TECHNICAL CONFERENCE AND EXHIBITION

OCTOBER 23-26, 2002
PASADENA, CALIFORNIA

PROGRESS and PRAGMATISM

All-Day Seminar

OCTOBER 23
Wednesday Morning

8:00 a.m. - 12:00 p.m.

Digital Rights Management

Session Chair: *Bradley Hunt*, MPAA

In the post-Napster era, a great deal of activity is taking place to define methods to protect digital content from unauthorized or unrestrained copying and use. Content owners naturally worry that easy access to pristine digital content, which can be copied without quality degradation, will destroy the business model that funds the very creation and distribution of the content. This is especially true with the advent of intermediate digital storage devices like PVRs, which allow content to be stored and viewed for lengths of time that conflict with existing content distribution business models. The body of technology that seeks to address the content owner's right to a certain amount of control and protection is called Digital Rights Management (DRM), a disciplined method for communicating and enforcing agreements between content rights holders and content users. This seminar will address the end-to-end issues, technology, and techniques involved with assigning, communicating, implementing, and enforcing copy protection and control of digital content.

S-1

The Challenges of Confronting Piracy, *Ken Jacobsen*, Motion Picture Association of America

S-2

A System Reference Model for Digital Rights Management, *Martin J. Stein*, Motorola, San Diego, CA

S-3

The History of Encryption: from the Egyptians to Present Day, *Eric Sprunk*, Motorola, Inc.

S-4

An Overview of Digital Content Protection Technologies, *Brendan Traw*, Intel Corp.

S-5

Digital Broadcast Copy Protection, *Ray Krasinski*, Philips Consumer Electronics

OCTOBER 23
Wednesday Afternoon

2:00 - 5:00 p.m.

Application of DRM and Content Protection Technologies

Session Chair: *Marty Stein*, Motorola

Opening Remarks

S-6

The Application of DRM Technology for Securely Delivering Content Over the Internet, *John Godwin*, Movielink LLC, Santa Monica, CA

S-7

How DRM, Copy Protection and Watermarking Technologies Work Together to Securely Deliver Content, *Kirby Kish*, Digital Technologies, Macrovision

S-8

Consumer Electronics, Content Protection, and the Law, *Sandra Aistars*, Weil, Gotshal & Manges for Matsuhita

S-9

The Role of Consumer Electronics in Protecting Broadcast Content, *Brian Markwalter*, Consumer Electronics Association, Arlington, VA

Technical Sessions

OCTOBER 24

Thursday Morning

Session 1

Advanced Digital TV 1: Progress Reports

Session Chair: *Brett Jenkins*, Thales Broadcast and Multimedia

Advanced digital television has been in the U.S. and around the world for more than three years. This session will provide an update on the challenges and some proposed solutions facing broadcasters, cable operators, program suppliers, receiver manufacturers, and consumers. Presentations include:

8:05 a.m. #1

A Further Analysis of the Minimum Useful Field Strength Required for DT Reception in all Broadcast Bands, *Mark A. Aitkin*, Sinclair Broadcast Group, Hunt Valley, MD

8:30 a.m. #2

Toward a High-Definition Installation Standard, *Stephen H. Lampen*, Belden Electronics Division, San Francisco, CA

8:55 a.m. #3

Multiprogram Transport Stream and Local Content Stream Management and Switching Solutions or Multiple Program Management in a DTV Station, *Jean Marcher*, Thales Broadcast & Multimedia, Alexandria, VA, and *George Anderson*, Thales Broadcast & Multimedia, Shamong, NJ

9:20 a.m. #4

800-MHz-Band Digital HDTV MWL for Mobile Transmission, *S. Okabe*, *T. Ikeda*, *Y. Ito*, and *T. Maeda*, NHK (Japan Broadcasting Corp.) Setagaya-ku, Tokyo

9:45 a.m.

Break

9:55 a.m. #5

Video Scrambler for MPEG-Based Applications, *Melih Pazarci*, Istanbul Technical University (ITU), Maslak, Istanbul, Turkey, and *Vadi Dipcin*, Turkcell Illetisim Hiz. A.S., Mesrutiyet Cad., Istanbul, Turkey

10:20 a.m. #6

Compatible Panambic and Periphonic Surround

Sound for Advanced Television—ITU 5.1 and Beyond, *Robert E. (Robin) Miller III*, Robin Miller Filmmaker Inc., Bethlehem, PA

10:45 a.m. #7

Realtime Monitoring of DTV MPEG Transport Streams Using Template-Based Testing, *Mark Barnes*, Tektronix, Inc., Cambridge, U.K.

11:10 a.m. #8

Data Broadcast Multimedia Home Platform (MHP) Services—Testing Requirements, *Graham Norgett* and *Richard Hall*, Tektronix, Inc., Cambridge, U.K.

OCTOBER 24

Thursday Morning

Session 2

Production/Post Production/Special Effects—New Systems & Processes

Session Chair: *TBA*

New Systems and processes are impacting the production and post-production of both film and television. This session will provide insights on new methods, including networking, automation, and media asset management as used in entertainment and news operations. Presentations include:

8:05 a.m. #9

New Approach to Ingest of Audio-Visual Assets, *F. Abbe*, *M. Holmes*, and *J. Shike*, Snell & Wilcox, Santa Clara, CA

8:30 a.m. #10

Windows Media Technology and the Future of Television, *Algie Abrams*, Microsoft Corp., Redmond, WA

8:55 a.m. #11

Understanding High-Speed Transmission Layers in Broadcast and Post Environments, *Joseph Coffey*, EE, ADC, Minneapolis, MN

9:20 a.m. #12

A Future View of Digital Online Production, *Tony Gingiss*, Media.net Communications, Manhattan Beach, CA

9:45 a.m.

Break

9:55 a.m. #13
Applying Master Control Automation Techniques to the Digital Newsroom, *Fred Schultz* and *Robert C. Johnson*, Sundance Digital, Inc., Irvine TX

10:20 a.m. #14
Media Asset Management Systems in Broadcast: Resource Management Considerations, *Paula Viana* and *Arthur Pimenta Alves*, INESC Porto, Porto, Portugal

10:45 a.m. #15
Media Asset Management in Newsroom Production: A Case Study, *David Wilkins*, VertigoXmedia, Montreal, Que., Canada

11:10 a.m. #16
Networked Special Effects Processing for Film and High-Definition Video, *Christopher C. Woollard*, University of Greenwich, London, U.K.

11:35 a.m. #17
Digital Communications for Sound and Images, *Thomas A. Scott*, EDnet, Inc., San Francisco, CA

OCTOBER 24 Thursday Afternoon

Session 3

Advanced Digital TV 2—Three Years Later: A Progress Report

Session Chairs: *Peter Ludé*, iBlast, and *Jerry Whitaker*, ATSC

The U.S.-based ATSC developed and helped launch digital terrestrial television in the United States. Work to improve the system continues. The session will offer updates from ATSC members and participants on the status of DTV deployment, emerging applications, and VSB enhancement. Presentations include:

2:05 p.m. #18
Overview of ATSC Activities, *Mark S. Richer* and *Jerry Whitaker*, Advanced Television Systems Committee (ATSC), Washington, DC

2:30 p.m. #19
VSB Enhancement: A Status Report, *John Tollefson*, PBS, and *David H. Layer*, NAB, Washington, DC

2:55 p.m. #20
DTV Closed-Captioning Requirements and Implementation, *Gerry Field*, CPB/WGBH National Center for Accessible Media (NCAM), Boston, MA

3:20 p.m. #21
Data Broadcasting, *Michael A. Dolan*, Consultant, Alpine, CA

3:45 p.m.
Break

3:55 p.m. #22
DASE: On The Air, *Graig Smithpeters*, Nielsen Media Research, Dunedin, FL

4:20 p.m. #23
Content Identification, *Michael A. Dolan*, Consultant, Alpine, CA

4:45 p.m. #24
HDTV: The Killer APP for DTV, *Robert P. Seidel*, CBS, New York, NY

OCTOBER 24 Thursday Afternoon

Session 4

The Film Laboratory of the New Millennium

Session Chairs: *Beverly Pasterczyk*, Eastman Kodak Co., and *Richard Smith*, CFI

The film lab is more than chemicals today. This session will include papers on topics ranging from film emulsions and laboratory measurements for quality to new techniques for film mastering. Presentations include:

2:05 p.m. #25
4K Scanning for the Digital Film Laboratory, *David J. Bancroft*, Thomson Multimedia Broadcast Solutions, Slough, U.K., and *Volker Massmann*, Thomson Multimedia Broadcast Solutions, Weiterstadt, Germany

2:30 p.m. #26
The FilmStream Workflow: Delivering Pixels to Postproduction, *P. Centen*, *J. van Rooy*, *M. Stekelenburg*, Thomson Multimedia Broadcast Solutions, Breda, The Netherlands, and *David J. Bancroft*, Thomson Multimedia Broadcast Solutions, Slough, U.K.

2:55 p.m. #27
Influence of Image Spread on Sound Film Performances, *M. Herz*, Eastman Kodak Co., Rochester, NY; *J. P. Vitton*; Kodak Industrie, Saone, France; *A. Masson*, Eastman Kodak Co., Hollywood,

CA; *S. M. Gerlach* and *Susan D. Hill*, Eastman Kodak Co., Rochester, NY

3:20 p.m. #28

Development of Fuji Color Image Management System (FIMS)—Color Reproduction/Conversion Program for Digital Motion Picture Production, *Yasunori Mimaki* and *Makoto Yamada*, Fuji Photo Film Co., Ltd., Ashigara Research Lab, Minamiashigara-Shi, Kanagawa, Japan

3:45 p.m.

Break

3:55 p.m. #29

Online Sensitometric Measurements for Motion Picture Films, *Ujwal N. Nirgudkar*, Patel India Distributors Pvt. Ltd., Mumbai (Bombay), India

4:20 p.m. #30

Film Scanning at 4K, True Digital Archives and Realtime Restoration, *Peter Swinson*, Cintel International, Ware, Herts, U.K.

4:45 p.m. #31

A Data-Centric Approach to Cinema Mastering, *Thomas J. True*, SGI, Mountain View, CA

Welcome Reception

6:00 - 8:00 p.m.

**OCTOBER 25
Friday Morning**

Session 5

Hot Concepts in Storage Systems

Session Chair: *Clyde Smith*, Turner Entertainment Networks

Storage systems are quickly becoming the heart of any contemporary media production facility. Learn what is new in the areas of SAN, NAS, fault-tolerant methods, and storage arrays. Hear what techniques are being deployed for realtime access to on-disc media. See why storage systems are becoming a dominant technology in new facilities. Presentations include:

8:05 a.m. #32

Joint SAN and NAS Architecture of Disk-Based Storage for Media Applications, *S. Faibish*, *A. Sahin*, *D. Venkatesh*, *S. Oguz*, and *U. Sezer*, EMC Corp., Network Storage Group, Southboro, MA

8:30 a.m. #33

A Unified Platform for Networked Media, *Al Kovalick*, CTO Broadcast Solutions/Pinnacle Systems, Mountain View, CA

8:55 a.m. #34

Scalable Data Redundancy with RAID 5 over RAID 5—Unparalleled RAID 5 over RAID 5 Supports Scalability from 7.2TB to over 20TB, *Scott Leif* and *Tracy Laidlaw*, Globalstor Data Corp, Chatsworth, CA

9:20 a.m. #35

Technical Challenges in Integrating SAN and NAS Technologies, *Lowell Moulton*, Sony Systems Integration, San Jose, CA

9:45 a.m.

Break

9:55 a.m. #36

Is NAS Ready to Take on the Challenge of Collaborative Video File Sharing? *Mohan Mysore*, Ciprico, Inc., Plymouth, MN

10:20 a.m. #37

Realtime Multistream, High-Resolution Media Delivery: An Architectural Approach, *David Schleifer*, Avid Technologies, Inc., Tewksbury, MA

10:45 a.m. #38

Collaborative Editing on a Broadcast Media Server, *Bruce McKay*, Omneon Video Networks, Sunnyvale, CA

**OCTOBER 25
Friday Morning**

Session 6

**Acquisition Systems for Motion Imaging—
New Cameras, Imagers, and Lenses for
Television and Film**

Session Chair: *Laurence J. Thorpe*, Sony Electronics

Camera technology is making new strides. The move to 24P, HD, variable frame rate acquisition, and improved quality at lower costs are driving demands of new innovative cameras for studio and field operations. This session will explore the new technologies and innovations in acquiring moving images from the lens to the recording system. Presentations include:

8:05 a.m. #39

12 Mega-Pixel Electro-Optic Cine Camera

Development, Part 2, *William A. Hill and Stephen A. Stough*, Lockheed Martin Management & Data Systems, San Jose, CA

8:30 a.m. #40
Six-Band HDTV Camera System for Accurate Color Reproduction, *K. Ohsawa and H. Fukuda*, Telecommunications Advancement Organization of Japan, Tokyo, Japan; *T. Ajito and Y. Komiya*, Olympus Optical Corp., Tokyo, Japan; and *M. Yamaguchi and N. Ohshima*, Tokyo Institute of Technology, Yokohama, Japan

8:55 a.m. #40-A
Circle of Love—A Reference Film, *Hans Kiening*, ARRI, Turkenstrabe, Munich, Germany

9:20 a.m. #41
Broadening the Capabilities of Digital Motion Picture, *Laurence J. Thorpe*, Sony Electronics, Inc., Park Ridge, NJ

9:45 a.m.
Break

9:55 a.m. #42
High-Performance Prime Lenses for Digital Cinematography, *Kornelius J. Mueller*, Division of Carl Zeiss, Oberkochen, Germany

10:20 a.m. #43
HD Lens Optical Design Relating to Focus Breathing and Depth of Field Issues, *Gordon Tubbs and Ken Ito*, Canon USA Inc., Broadcast & Communications Division, Englewood Cliffs, NJ

10:45 a.m. #44
Variable Speed and Enhanced Gamma Extend HD Video Capture Functionality, *M. Brinkman, J. Merritt, D. Wiswell, H. Yu, and K. Taguchi*, Panasonic Broadcast & Television Systems Co.

11:10 a.m. #45
Image Resolution of the 1-CCD PALOMAR Motion Camera, *DASA*, Inc.

11:35 a.m. #46
The Effect of Optimized Imaging System Components on Final Image Quality, *John Galt and Iain Neil*, Panavision, Woodland Hills, CA

Industry Luncheon

12:30 - 2:00 p.m.
Speaker, James C. Stoffel, Chief Technical Officer, Director, Research & Development; Senior Vice-President of Eastman Kodak Co.

OCTOBER 25 Friday Afternoon

Session 7

They're Not Your Father's Archives—New Systems for the New Millennium

Session Chair: *Michael Brinkman*, Panasonic

For years, media has been archived on videotape. The tide is changing; more and more media assets are being stored as pure data. This session will explore what is new in tape and optical-based archive systems. Also, media management issues will be considered. Presentations include:

2:05 p.m. #47
Managing Archive Storage Systems and the Transition from Tape to Disk, *Carsten Baumann*, Leitch, Inc., Burbank, CA; *Chuck Larabie*, Asaca/Shibasoku Corporation of America, Golden, CO; and *Steve Atkinson*, SGL, Lafayette, CO

2:30 p.m. #48
High-Speed and High-Density Optical Disk for Broadcasting Use, *Naoki Shimidzu and Haruki Tokumaru*, Japan Broadcasting Corp., Tokyo, Japan

2:55 p.m. #49
High-Speed, High-Volume Data Backup for Image Processing Operations in Digital Motion Picture Production, *David J. Bancroft*, Thomson Multimedia Broadcast Solutions, Slough, U.K., and *Henning Schmidt*, Thomson Multimedia Broadcast Solutions, Weiterstadt, Germany

3:20 p.m. #50
Advanced Server Design and Media Asset Management in Today's Broadcast Environment, *Carsten Baumann and David Cunningham*, Leitch, Inc., Generations Technologies, Burbank, CA

3:45 p.m.
Break

3:55 p.m. #51
Using a High-Performance File System in Video Production, *H. Chadwick, L. Degollado, and S. Griffin*, IBM Software Group, Video Archive Solutions, Bethesda, MD

4:20 p.m. #52
Technical Strategies for Implementing MXF-Based Systems Architectures, *Lowell Moulton*, Sony Systems Integration, San Jose, CA

4:45 p.m. **#53**
Digital Storage Archiving: The Final Frontier, *Rob Nieboer*, StorageTeck, Louisville, CO

OCTOBER 25 **Friday Afternoon**

Session 8

Display Technology—Professional and Consumer

Session Chair: *Edmund Di Giulio*, *The Tiffen Co.*

Means to display moving images are continually being improved. This session's topics include higher definition imaging systems, human perception, and new personal displays. Presentations include:

2:05 p.m. **#54**
Personal Projection, *V. Michael Bove, Jr.*, and *Wilfrido Sierra*, Object-Based Media Group, MIT Media Laboratory, Cambridge, MA

2:30 p.m. **#55**
The Study of Color Conversion Method for Partial Color Blindness, *Y. Kawai*, *T. Suzuki*, *D. Kato*, and *Y. Iwai*, NHK, Tokyo, Japan

2:55 p.m. **#56**
Ultra-High Definition, Wide-Screen Image System with 4000 Scanning Lines, *M. Sugawara*, *K. Mitani*, *H. Shimamoto*, *T. Yamashita*, *M. Kanazawa*, *K. Hamada*, and *F. Okano*, NHK, Tokyo, Japan

Honors and Awards Ceremony and Reception

7:00 - 9:00 p.m.
Annually SMPTE gives awards to those in the industry who have demonstrated great achievement and contribution to motion imaging.

OCTOBER 26 **Saturday Morning**

Session 9

Digital Cinema Update 1

Session Chair: *Glenn Kennel*, *Eastman Kodak Co.*, and *John Brooks*, BFA

The race to an all-electronic digital cinema projection system continues. Numerous issues face technologists, theater owners, content owners, and government and regulatory bodies. These sessions will continue an exploration that began at NAB 2002 during the SMPTE All-Day Digital Cinema Summit. Proponents of a number of systems will deliver presentations on compression, mastering, and projection. Members of the SMPTE DC28 committee will present a progress report on the Society's work in developing a standard. The session will conclude with a panel discussion which is sure to raise some controversial issues. Presentations include:

8:05 a.m. **#57**
A New Paradigm for Digital Cinema Standards, *Sean Adkins*, W2 Enterprises Inc., Vancouver, BC, Canada

8:30 a.m. **#58**
Light Modulation and the Human Visual System: DLP Cinema vs. Film, *Gregory Hewlett* and *Gregory Pettitt*, Texas Instruments, Plano, TX

8:55 a.m. **#59**
Digital Cinema Compression—Achieving an International Standard for Single Inventory Distribution, *Richard Mizer*, Digital Ventures Diversified, San Francisco, CA

9:20 a.m. **#60**
Theater System Architectures for Digital Cinema, *Steven A. Morley*, Qualcomm Inc., San Diego, CA

9:45 a.m.
Break

9:55 a.m. **#61**
Report on the Status of the DC28 Technology Committee Work, *Tom Scott*, SMPTE Engineering Director, Film, and *Curt Behlmer*, Chair DC28

10:20 a.m. **#62**
A Transfer Function for Digital Cinema, *David Richards*, Christie Digital Systems, Costa Mesa, CA

10:45 a.m. **#63**
UnSportsman-Like Conduct—ADA Litigation Against Stadium-Style Seating; Motion Picture Theaters, *John Paul Scott*, Create Access, Glendale, CA

OCTOBER 26 Saturday Morning

Session 10

Novel Methods for Content Distribution Part 1

Session Chair: *Brad Gilmer*, Gilmer & Associates, Inc.

The old models for content distribution are being challenged by a host of new ideas. New and novel content distribution methods are rapidly being deployed utilizing traditional broadcast channels, the internet, and cable systems. Centralized broadcast, feed localization, and content caching methods will be discussed. Presentations include:

8:05 a.m. #64
Plug & Play System for an Advanced Networked Broadcasting Station, *Y. Kaneko*, *M. Yamamoto*, and *Y. Izumi*, NHK, Tokyo, Japan

8:30 a.m. #65
Frame Accuracy Automation in an IP World, *Brian Campanotti*, Masstech Group, Richmond Hill, Ont., Canada

8:55 a.m. #66
Adapting Test and Measurement Tools to Central Casting and Broadband IP Contribution, *Brett Jenkins*, Thales Broadcast & Multimedia, Southwick, MA, and *Pierre Clement*, Thales Broadcast & Multimedia, Cesson-Sevigne, France

9:20 a.m. #67
The Third Wave in Television, *Fred Fourcher*, BitCentral, Irvine, CA

9:45 a.m.
Break

9:55 a.m. #68
New Vistas in Content Distribution, *Al Kovalick*, CTO Broadcast Solutions/Pinnacle Systems, Mountain View, CA

10:20 a.m. #69
Operational Models for Centralization of Terrestrial Broadcasting, *Chris Lennon*, Encoda Systems, Inc., Colorado Springs, CO

10:45 a.m. #70
Xon2A—Framework for Motion Imagery Interoperability, *Stephen Long*, NIMA, Reston, VA;

Guy Beakley, Hicks & Associates, McLean, VA; and *W. Barry Michel*, SAIC, Dayton, OH

11:10 a.m. #71
Fault-Tolerant Routing Switcher Topologies for Centralized Distribution Systems, *Chuck Meyer* and *Bob Hudelson*, NVision, Inc., Grass Valley, CA

Fellows Luncheon

12:30 - 2:00 p.m.
This luncheon honors those members distinguished as Fellows. You must be a SMPTE Fellow to attend.

OCTOBER 26 Saturday Afternoon

Session 11

2:00 - 5:00 p.m.

Digital Cinema Update 2—Presentations and Panels

Session Chairs: *Edward Hobson*, National Teleconsultants, and *Peter Symes*, Grass Valley Group

A special session presented by the American Society of Cinematographers and the International Cinematographers Guild.

Film and Digital Cinema: Technology in Service of the Art Form

Part I—Aesthetic decisions and practical realities involved in film and digital media options for production.

Introduced by *George Spiro Dible*, ASC, President of the International Cinematographers Guild.

Part II—Digital Film Mastering
Introduced by *Steven Poster*, ASC, President of the American Society of Cinematographers.

Part III—Truth or Myth
Journalists from the trade and consumer press discuss the effects and influence of technology on the art of filmmaking.

OCTOBER 26
Saturday Afternoon

Session 12

**Novel Methods for Content Distribution
Part 2**

Session Chair: *Karl Paulsen, Azcar*

See *Content Distribution 1* for details.
Presentations include:

2:05 p.m. #72
Starz Encore Headquarters—A New, Automated,
Server-Based, Multichannel Broadcast Facility, *Ray*
Milius, Starz Encore Group, Englewood, CO

2:30 p.m. #73
Data Broadcasting of NHK, *Satoshi Kageyu*, NHK,
Tokyo, Japan

2:55 p.m. #74
Establishing Consistent and Extensible Methods of
Metadata Exchange Through IP Multicast Distribution
and Other Cool Stuff, *Joe Fabiano*, Pathfire, Roswell,
GA

3:20 p.m. #75
Systems Considerations for the Distributed Broadcast
Model, *Karl Paulsen*, Azcar, Cannonsburg, PA

3:45 p.m.
Break

SMPTÉ would like to thank the following sponsors for their contributions to the 144th Technical Conference and Exhibition:

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Avid Technology
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3:55 p.m. #76
Streaming Video for TV Broadcast Take Two—
Streaming Video/Audio Technology Adapted to
Monitoring, *Michel Proulx* and *Robert Fiset*, Miranda
Technologies, Saint-Laurent, QC, Canada

4:20 p.m. #77
Considerations for Multichannel Signal-Integrity
Monitoring, *David Strachan* and *Orest Holyk*, Evertz
Microsystems Ltd., Burlington, Ont., Canada

4:45 p.m. #78
Distribution Systems Requirements for New Broadcast
Business Models, *Kerry Wheelles*, Leitch Inc.,
Chesapeake, VA

5:10 p.m. #79
The Human Interface: Making Vast Amounts of
Realtime Network Monitoring Data Accessible and
Easy to Interpret for People, *Danny Wilson*, Pixelmetrix
Corp. Pte Ltd., Singapore, Singapore

Coming in February!!!
Don't miss the 37th Advanced
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February 27 - March 1, 2003.

144th SMPTE TECHNICAL CONFERENCE AND EXHIBITION

October 23-26, 2002
Pasadena Center • Pasadena, CA

"Progress and Pragmatism"

CONFERENCE REGISTRATION FORM

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Full Conference: Member	\$700	<input type="checkbox"/>
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		<input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday <input type="checkbox"/> Friday

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REGISTRATION PACKAGES

- **Full Conference Registration:** Includes admission to the all-day seminar on Wednesday, October 23 (box lunch), all of the technical sessions, admission to the exhibit hall, the Welcome Reception, the Industry Luncheon, and the Honors and Awards Reception.
- **Sessions Only:** Includes admission to all of the technical sessions, the exhibit hall, the Welcome Reception, the Industry Luncheon, and the Honors and Awards Reception.
- **Seminar Only:** Includes admission to the all-day seminar on Wednesday, October 23 and a box lunch.
- **Life Members & Life Fellows:** Includes admission to the all-day seminar on Wednesday, October 23 (box lunch), all of the technical sessions, and the exhibit hall. Additional tickets are required for admission to the Welcome Reception, Industry Luncheon, and the Honors and Awards Reception.
- **Students:** Includes admission to the all-day seminar on Wednesday, October 23 (box lunch), all of the technical sessions, admission to the exhibit hall, the Welcome Reception, the Industry Luncheon, and the Honors and Awards Reception.
- **Speakers:** Includes admission to the all-day seminar on Wednesday, October 23 (box lunch), all of the technical sessions, admission to the exhibit hall, the Welcome Reception, the Industry Luncheon, and the Honors and Awards Reception.

CHANGES & CANCELLATIONS

- Cancellations must be requested in writing and sent to SMPTE via mail or fax.
- A \$75 administrative fee will be incurred on all cancellations.
- No REFUNDS or CANCELLATIONS will be accepted if postmarked or faxed after October 9, 2002.

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Registration forms must arrive at Headquarters no later than Friday, October 18, 2002

HOTEL RESERVATION FORM

144th SMPTE Technical Conference and Exhibition
Pasadena, CA • October 23-26, 2002

HOTEL REQUEST FORM MUST BE RECEIVED BY: October 7, 2002
(All reservations will be accepted on a first come, first served basis)

Read the information below before completing the form.

The Pasadena Convention and Visitors Bureau will make hotel assignments upon receipt of this official hotel reservation form. Reservations must be made through the Housing Bureau to receive the conference-discounted rates. Reservations will be assigned with consideration of date received and your expressed hotel preference. Please print or type all information and return promptly via fax (626) 844-0790 or mail to the Pasadena Convention & Visitors Bureau offices at the address below. Absolutely no telephone reservations. Thank you.

HOTEL	SINGLE 1 bed, 1 person	DOUBLE 1 bed, 2 person	DOUBLE/DOUBLE 2 beds, 2 person	TRIPLE 2 beds, 3 person	QUAD 2 beds, 2 person
Sheraton 303 E. Cordova <i>[Parking for overnight guests is currently \$7.00 (self-park) per day.]</i>	\$129.00	\$129.00	\$129.00	\$144.00	\$159.00
Hilton Pasadena 168 S. Los Robles Ave. <i>[Parking for overnight guests is currently \$10.00 (self-park) and \$12 (Valet) per day.]</i>	\$149.00	\$149.00	\$149.00	\$174.00	\$199.00
Doubletree 191 N. Los Robles Ave. <i>[Parking for overnight guests is currently \$6.00 (self-park) and \$11 (Valet) per day.]</i>	\$159.00	\$159.00	\$159.00	\$174.00	\$189.00

144th SMPTE TECHNICAL CONFERENCE AND EXHIBITION OCTOBER 23-26, 2002

IMPORTANT: Fill in all information and fax or mail immediately.
Use only one form per room (Deadline: October 7, 2002).

Name _____
(first name) (last name)

Company Name: _____

Daytime Phone# (____) _____ Fax# (____) _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Arrival Date: _____ Departure Date: _____

Room Occupied by: _____

(California State Law requires all occupants to be registered)

Accommodations Desired:

- Single (one person) Double (1bed/2 people) Triple (2 beds/3 people)
 Double/Double (2 beds/2 people) Quad (2 beds/4 people) Other (specify) _____

Hotel Preference: 1st _____ 2nd _____ 3rd _____

Special Request(s) (Based on availability): _____

A deposit for the first night's lodging must accompany this request. The deposit will be credited to your account and will assure reservations being held. Cancellation or alteration of this reservation must be made 3 days prior to arrival; or deposit could be forfeited. Room rate does not include Bed Tax of 12.11%.

Visa Mastercard American Express Diners Club Discover card Check

Card No: _____ Exp. Date: _____ / _____

Signature (required): _____

IMPORTANT HOUSING NOTES

- Reservations cannot be accepted by phone.
- Maximum of three (3) reservations per person. Occupants' names must be received by dead line, no exceptions.
- Housing request must be received by **October 7, 2002** in order to obtain the discounted rate.
- Please submit one form per room. Forms may be duplicated if necessary.
- If two or more individuals occupy the same room, submit one form listing all additional names.
- No reservations can be accepted without a check or credit card guarantee.
- Credit cards are preferred, but checks are also acceptable. Please make checks payable to **THE HOUSING BUREAU**.
- Alteration or cancellation of this registration after October 7, 2002 must be made directly with the hotel. Cancellations must be made 3 days prior to arrival date or **deposit will be forfeited**.
- Please contact the Housing Bureau at (626) 795-9311 if you have not received an acknowledgment within 30 days of submitting your application.
- Once acknowledgment letters have been received please call the hotel directly for a confirmation number.
- Room rates are subject to room tax of 12.11%.
- Hotel check-in is 3:00 p.m. Hotel check-out is noon. A credit card may be required.
- A credit card guarantee must be used when submitting a rooming list and a letter of authorization from the cardholder stating his/her approval. A back to back copy of the credit card is also required.
- The Housing Bureau cannot be responsible for requests received after the cut-off date (October 7, 2002) or for room reservations made directly with hotels.

Fax or Mail your housing request with your deposit guarantee no later than **October 7, 2002** to:

PASADENA CONVENTION AND VISITORS BUREAU, Housing Department 171 S. Los Robles, Pasadena, CA 91101.

Tel: (626) 795-9311 Fax: (626) 844-0790

Please make your check payable to **THE HOUSING BUREAU**.

The Pasadena Convention & Visitors Bureau will send out an acknowledgement once reservations are received.