



CONFERENCE PROGRAM

OCTOBER 18-20, 2006



Please note that as the *SMPTE Motion Imaging Journal* goes to press, there are several sessions for which we're still scouting for the best possible presentations to give you! For the most up-to-date program information, please check out the SMPTE website: www.smpte.org.

WEDNESDAY, OCTOBER 18—MORNING SESSIONS

Professional Displays

Chair: Ron Williams, Landmark

A look at displays and the many digital transport interfaces for professional use.

SED Display Technology, *Sean Collins, Toshiba*

D-ILA LCOS Technology for Projection Display, *Keiichiro Doi, Victor Company of Japan*

Scaling and Display Processing Technology, *Jed Deame, Silicon Optix*

Interconnect of High Resolution Display, *Paul Wolf, Silicon Image*

Laser Displays: True Colors, *Jean-Michel Pelaprat, Novalux Inc.*

Display Port Interconnect of Displays, *TBD, Genesis*

Super-Resolution Bandlet Upconversion for HDTV, *Joan Bruna and Stephane Mallat, Let it Wave*

Film Technology and Archive Futures

Chair: Andy Maltz, Academy of Motion Picture Arts & Sciences

Motion picture film is still the preferred medium for movie production and creation of archival masters. With more digital motion picture cameras being introduced for acquisition and the continuing trend towards digital mastering, will the digital bits last as long as the filmed images? This session will present information on the latest in film technology, the use of film in creating preservation masters of digitally finished motion pictures, and trends in digital motion picture archives.

The Latest Technology of Fujicolor Motion Picture Film, *Masaaki Miki, Junichiro Hosokawa, Hiroshi Hirano, Kouichi Yokota, Ryouji Nishimura, Fuji Photo Film Co., Ltd.*

Motion Picture: Mapping the Future, *Christopher L. DuMont, Nestor M. Rodriguez, and Richard C. Sehlin, Eastman Kodak Co.*

A Survey of Digital Separation Processes, *Grover Crisp, Sony Pictures*

Open Road: Restoration Informs Modern Digital Archiving, *Andrea Kalas, British Film Institute*

Preserving Digital Media, *Mary Baker, HP Laboratories*

Vertically Integrated Digital Archives: Production, Distribution, and Preservation, *Nicola Mazzanti, FIRST—Film Restoration and Conservation Strategies*

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WEDNESDAY, OCTOBER 18—AFTERNOON SESSIONS

HD for the Consumer

Chair: Mark Johnson, Mark R. Johnson Consulting

This session will explore the formats that promise to have the greatest impact on bringing HD to the masses, including specific underlying technologies, production techniques, and consumer products. Which formats will battle over this territory, and which will survive?

Moving High-Definition Content Around the Home, *Stephen Palm, Broadcom*

HDTV at 4 Mb/Sec to Maximize Return on Investment on HDTV Deployment, *Jean-Pierre Henot, Grass Valley*

Applying Digital Watermarking to Home Entertainment CDNs, *Reza Rassool, Widevine Technologies*

Film Grain Technology in HD DVD, *Joan Llach, Thomson*

AVC Compression for Blu-Ray Disc, *Cristina Gomila, Thomson*

Panel Discussion: High-Definition Optical Disc Production—The Truth

Panelists include Kilroy Hughes, Microsoft; Don Eklund, Sony Pictures; Chris Armbrust, Technicolor; and others

The New Infrastructure—AV/IT Systems and Technology

Chair: Al Kovalick, Avid Technology

Modern video systems are built using hybrids of AV and IT technologies. This session will cover topics such as realtime storage systems, video QoS requirements for LAN/WAN, AV and IT tricks to improve performance, creating efficient workflows in a tapeless environment, high-availability design methods, and more.

Essentials of IT Networking for A/V, *Al Kovalick, Avid Technology*

New Requirements for Content Processing from Acquisition to Air, *John E. Wadle, OmniBus Systems*

A Flexible and Practical Content Exchange Framework in KBS, *Byunghee Jung, Yeonhee Oh, and Sungchoon Park, Korean Broadcasting System*

New Integrated Workflows for Broadcast Facilities, *Christopher Lennon, Harris Corp.*

SOA and Web Services in Broadcast, News, and Post-Production, *John Footen, National TeleConsultants*

Autonomous Flow Scheduling: A Realtime Internet Protocol for Loss-and Delay-Sensitive Audio-Video Applications, *Curtis A. Siller, Jr., and Steve Chen, Rivulet Communications, Inc.*

THURSDAY, OCTOBER 19—MORNING SESSIONS

Digital Cinema: The Intermediate Train Has Left the Station

Chair: Wendy Aylsworth, Warner Bros.

For the past five years, the standards for digital cinema have been emerging from the work of the SMPTE, DCI, EDCF, JDCC, and other groups; and the standards are nearing completion. But pioneering cinema post-production studios and facilities have already forged ahead, employing Digital Intermediates for the creation of both celluloid and digital release prints, and in the process have blazed a trail through a forest of technical and logistical problems. This session will cover the problems: both those that have been conquered as the Digital Intermediates dealt with the changes and those that are yet to be solved as digital cinema comes into regular practice.

Panel Discussion: The DI Process Today, *Dave Stump, Apple; Jim Whittlesey, Deluxe; and Hajime Kamata, Sony*

Temporal and Chromatic Sampling Artifacts in Digital Intermediates, *Gabriel Fielding and Paul W. Jones, Eastman Kodak Co.*

Improvements in DI Workflow Through Acceleration of Supporting SAN Infrastructure, *Jim Farney, Donald Yan, Pierre Seigneurbieux, and Chris Genereaux, Exavio, Inc.*

Defect Detection and Correction Using Infrared-enabled Film Scanners, *Gabriel Fielding and Haithem Albadawi, Eastman Kodak Co.*

Proposed Safe Image Area for Motion Picture Production and Post-Production, *Howard Lukk, Disney*

Sound for Pictures: Media in Transition

Chair: Lorr Kramer, DTS

The present is a time of transition and opportunity. This year, the HD-DVD and Blu-Ray consumer high-definition disc formats enter the market, with expanded audio capabilities in channel count, coding quality, and applications; the formats relate not only to movies, but to music and games. Outside the home, digital cinema commitments and installations are accelerating. Changes on the picture side have created a pull for, and vehicles for, audio advancements. This session will explore the present and future audio developments that are emerging in this changing environment.

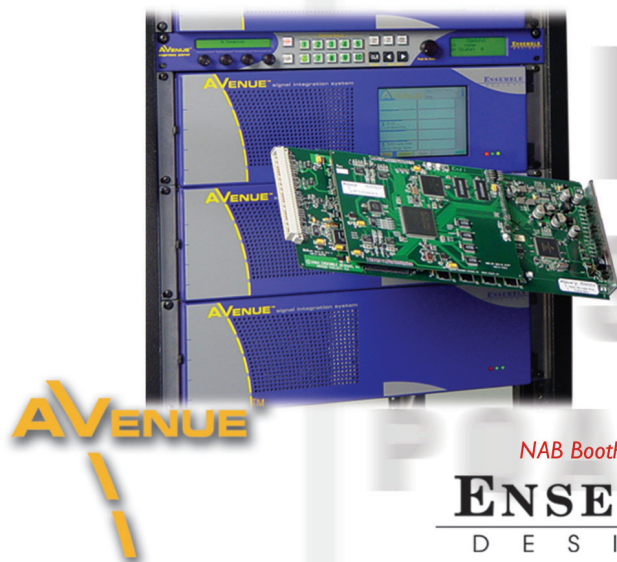
Bit Budget Management for HD DVD and Blu-Ray Disc, *John Carey and Ronny Katz, DTS, Inc.*

Advances in Loudness Metering for Broadcast Applications, *Gilbert A. Soulodre, Communications Research Centre*

Protocol, Techniques, and Technologies of Sound Restoration, *John Polito, Audio Mechanics*

Recent Results in Room Acoustic Equalization for Multichannel Audio Playback, *Sunil Bharitkar, Chris Kyriakakis, Audyssey Laboratories, Inc., and USC*

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THURSDAY, OCTOBER 19—AFTERNOON SESSIONS

Compression: The Next Generation Gets Real

Chair: Michael D. Smith, MDS Consulting

Wide adoption of the next-generation image and video compression codecs has begun. JPEG-2000 is being used to distribute most new features in digital cinema. H.264 and VC-1 are being used for broadband, satellite, and high-definition DVD distribution. This session explores the compression-related issues in these new applications.

Assessment of Image Quality in Digital Cinema Using the Motion Quality Ruler Method, Reinhold Thiel, Paul Clark, Dick Wheeler, Paul Jones, Marcel Riveccie, and Jean-Fabien Dupont, Eastman Kodak Co.

Efficient JPEG-2000 VBR Compression with True Constant Quality, Paul W. Jones, Eastman Kodak Co.

Layered Rate Allocation for Digital Cinema, Michael W. Marcellin and Ali Bilgin, ECE Dept., University of Arizona

VC-3—A New HD Video Compression Format for Ingest, Payout, and Editorial Creation, Al Kovalick and Dane Kottke, Avid Technology

Advanced H.264/AVC Video Encoders in Next-Generation Television, Sean McCarthy, Modulus Video

Advanced MPEG-2 and MPEG-4 AVC (H.264) Compression Techniques for the Broadcast Environment, Matthew Goldman, Tandberg Television

Content Protection/Piracy

Chairs: Rob Bauer and Jim Williams, MPAA

Coral—Interoperability Framework for DRMs, Jack Lacy, Intertrust

SVP—Secure Home Networking System, *Eli Hibshoosh, NDS*

Minimizing Piracy's Impact to a Studio, *Darcy Antonellis, Warner Bros.*

Hacking as a Business, Not a Hobby, *Robin Wilson, Nagra*

Comparison of Forensic Marking Architectures, *Joseph E. Oren, Cinea, Inc., a Dolby Company*

FRIDAY, OCTOBER 20—MORNING SESSIONS

The Renaissance of the Stereoscopic Cinema

Chair: Lenny Lipton, REAL D

A commercially viable stereoscopic motion picture technology has been introduced, which is gaining momentum. The products based on this technology use digital projection and electro-optics to overcome the projection difficulties that have inhibited the growth of the medium. The conference will have presentations covering a historical review of prior art problems, projection screen technology, camera design, obtaining stereo content from CGI files, and converting planar assets to stereoscopic images.

Maximizing the Stereoscopic Effect While Minimizing Viewer Stress and Using CG Stereoscopic Camera Techniques to Allow the Impossible, *Phil McNally, Disney*

Breaking the Cycle: Why 3-D Movies Fail, *Ray Zone*

Stereoscopic Cinematography in the 21st Century, *Jason Goodman, 21st Century 3D*

Turning Your 3-D Assets Into "3-D" Films: or, Giving New Depth to CGI, *Rob Engle, Sony*

Creating a Viable Conversion Method for Sequences of 2-D Images, *Steve Birtwistle, Conversion Works*

Design Consideration for Polarization Conserving Stereoscopic Projection Screens, *Matt Cowan, Entertainment Technology Consultants*

HD for Broadcasting

Chair: Sterling Davis, Cox Broadcast

This session will explore the processes and requirements for converting TV stations to HD. It will address newscast, infrastructure, graphics, distribution, and contribution issues that need to be confronted when contemplating the HD conversion. It's a difficult endeavor, but getting easier...come find out why.

Software-Based Master Control and Payout Solution: Dream or Reality? *Ian Fletcher, OmniBus Systems*

Station Conversion: SD to HD Graphics and Mater Control Branding, *Caren Anhder and Rich Griffin, Avid Technology*

The Transition to HD in a Local News Environment, *John Demshock, Chip Reif, Dave Sirak, WFTV*

The State of Microwave as it Relates to the Transition to HD in a Non-Linear Environment, *Michael C. Payne, Microwave Radio Communications*

HD News—Don't Fear the File, *Ed Casaccia, Grass Valley*

Producing Content for Multiple Distribution Channels, *Ethan Bush, National TeleConsultants*

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FRIDAY, OCTOBER 20—AFTERNOON SESSIONS

Realizing IPTV: Further Issues and Angles on Content Management, Deployment, and Systemization

Chair: Steve Wynn, Sony

Successful navigation of the networked IPTV landscape will require core competencies in AV/IT areas, a prudent migration plan, consideration of new business realities...and a creative and practical application of all these elements and more. This session will address the current realities of IPTV from the production side (including content management), the business planning side (including consumer impacts), and the engineering side (the nuts and bolts of IP delivery). Papers will include updates from the relevant standards committees, real-world system examples, and lessons learned "on the net."

IPTV—The Business Opportunity for Delivering Interoperable File-Based Media, John Delay, Harris Corp.

Ensuring Video Services Quality for IPTV Delivery from the Head-end to the Home, Stephane Billat, Evertz

Workflow Managed Asset Environments and IP Content Networks, Jamie Meyer, Pathfire, Inc.

The Challenges of MPLS for Video, Wes Simpson, Telecom Product Consulting, and John Dale, Media Links, Inc.

COP3—A Standard for Securing Transport of Video Feeds Over IP, Mary-Luc Champel, Thomson Grass Valley

Ensuring IPTV Quality of Experience—The Picture Must Be Clear, Danny Wilson, Pixelmetrix Corp.

Image Acquisition—Recent Advances

Chair: Marker Karahadian, Plus 8 Digital

The Effect of Single-Sensor CFA Capture on Images Intended for Motion Picture and TV Applications, Richard B. Wheeler and Nestor M. Rodriguez, Eastman Kodak Co.

CCD and CMOS Imagers: Is One of them a Dead-End Street or is it a Bifurcation? *Peter Centen, BU Cameras, Grass Valley Nederland B.V.*

Color Space Management Evaluation Material "CoSME," *Ichiro Kawakami, Tokyo Institute of Technology*

SATURDAY, OCTOBER 21—MORNING AND AFTERNOON

Historical Seminar—Film and Television History Day!

Our entertainment technology industry—film, video, and audio—helped shape the 20th Century and will continue to define the 21st. Old or young, you're a part of that history! Stories from those early days offer as much fun as the entertainment our equipment and techniques helped produce. Join us for some great sessions covering, among many topics, videotape recording, which is celebrating its 50th anniversary this year, kinescope video-on-film that preceded the VTR, Vitaphone "talking pictures," probably one of the most important breakthroughs of all time, and other topics like color TV, videotape editing, cameras, and microphones. Some of the pioneers who made it happen will share their memories with us. The Hollywood Section's access to a treasure trove of classic gear for our "mini-museum" will make this a "don't-miss" event!

SPECIAL EVENTS

SMPTE'S 90TH ANNIVERSARY BASH AND SPECIAL MOVIE SCREENING WEDNESDAY, OCTOBER 18—EVENING

It's opening night of the Conference, it's SMPTE's 90th Anniversary, and it's time to party and celebrate! Join us at Warner Bros. Studios as we mix, mingle, and have fun. Then, following the Anniversary Bash, you're invited to a special movie screening. More information to come!

INDUSTRY LUNCHEON THURSDAY, OCTOBER 19—12:15 - 1:30 p.m.

This anticipated event features wonderful food and good company. Our keynote speaker for the SMPTE Industry Luncheon is *Kirk Paulsen*, Apple's senior director pro applications marketing.

HONORS AND AWARDS CEREMONY RECEPTION FRIDAY, OCTOBER 20—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. Awards include Fellowship to the Society, Honorary Membership, the Citation for Outstanding Service, the SMPTE Journal Award, and several corporate-sponsored awards and medals that honor work in specific areas of the industry.

SMPTE FELLOWS LUNCHEON SATURDAY, OCTOBER 21—12:15 - 1:30 p.m.

SMPTE Fellows and Life Fellows are honored for their accomplishments, and given a chance to get together annually at this luncheon. Our special keynote speaker for the Fellows Luncheon is *Wendy Aylsworth*, Vice-President of Technology for Warner Bros. Technical Operations. Wendy is not only a SMPTE Governor and Fellow, but also Chair of the SMPTE DC28 Committee.

SMPTE STUDENT EVENT SATURDAY, OCTOBER 21—3:00 - 5:00 p.m.

All members, especially students, are invited to our special student event, as SMPTE once again underscores the importance of our next generation of motion imaging professionals.

TERANEX AD

EXHIBITOR LIST

COMPANY NAME	BOOTH NUMBER	COMPANY NAME	BOOTH NUMBER
ADC	.200	N SYSTEMS INC.	.112
AJA VIDEO SYSTEMS, INC.	.218	NETWORK ELECTRONICS	.201
ASCENT MEDIA	.113	NVISION	.203, 205
AVID	.400	OMNEON	.209
CINEGY	.316	OMNIBUS SYSTEMS	.109
COBALT DIGITAL	.114	PESA/FORTEL DTV	.202
CRISPIN	.211	PIXELMETRIX	.402
DOREMI	.304	QUANTEL	.309
DTV INNOVATIONS	.307	ROHDE & SCHWARZ	.413
ENCO	.215	SAMMA SYSTEMS	.111
EVERTZ	.405, 407, 409	SEACHANGE	.401
FLORICAL SYSTEMS INC.	.208	SENCORE	.305
GENNUM CORPORATION	.306	SGL	.311
GRASS VALLEY	.115, 117, 119	SNELL & WILCOX	.301
HARRIS	.100, 102, 104	SUNDANCE DIGITAL	.404
HOMERUN MEDIA	.318	TANDBERG TELEVISION	.303
HOTRONIC, INC.	.210	TEKTRONIX	.300
IPITEK	.217	TERANEX	.204, 206
K-WILL CORPORATION	.408	T-VIPS	.106
LEADER INSTRUMENTS	.207	TV LOGIC	.302
MAXIMUM THROUGHPUT	.108	UTAH SCIENTIFIC	.219
MEDIA LINKS	.107	VIDEO CLARITY	.308
MIRANDA	.101, 103, 105	WEXLER VIDEO	.314
MPRO	.110		

(AS OF 9/5/2006)