143rd SMPTE Technical Conference and Exhibition

Hilton New York, November 4-7, 2001

Pixels, Packets, Processing, and Infrastructure

ALL-DAY SEMINAR

NOVEMBER 4

SUNDAY

Packets and Streaming Media: A Tutorial

Chairs: *Chuck Dages*, Warner Bros., New Media, and *David Colter*, Warner Bros.

9:00 - 9:15 a.m.
Welcome Remarks—Chuck Dages

SUNDAY MORNING SESSION

Systems, Servers & Devices

9:15 a.m. **#S-1**

Optimizing Streaming Media Quality, *Al Kovalick*, Pinnacle Systems, Mountain View, CA

10:00 a.m.
Break

10:15 a.m. **#S-2**
Media Friendly Microprocessor Architectures and Tools, *Ralph Biesemeyer*, Intel Corp., Beaverton, OR

10:45 a.m. **#S-3**
Case Study—www.CTVNEWS.com, *Jamie Olliver*, Blue Zone, Vancouver, BC, Canada

11:15 a.m. **#S-4**
16-Channel Central Casting Facility, *Keith DeBelius* and *Jay Fine*, National TeleConsultants, Inc., Glendale, CA

11:45 a.m. **#S-5**

The Last 500 Yards, *William Chamberlin*, VNCI, Portsmouth, NH

** This program is subject to change without notice.*

12:00 noon
Lunch Break

SUNDAY AFTERNOON SESSION

Coding, Codec, and Players

1:15 p.m. **#S-6**
Content on the Web: Downloading vs. Streaming, *David Colter*, Warner Bros., Burbank, CA

2:00 p.m. **#S-7**
Alternate Content Delivery and Encoding, *Declan Caulfield*, Kamera, Stockholm, Sweden

2:30 p.m.
Break

2:45 p.m. **#S-8**
Digital Rights Management in a Multimedia Environment, *Marcus Peinado*, Microsoft Corp., Redmond, WA

3:15 p.m. **#S-9**
The MPEG Legacy and its Future in the Convergence of the Broadcast and IT Industries: A Brief Look at the Past and a Peek at the Future, *Peter Schirling*, IBM Research, Yorktown Heights, NY

SMPTE would like to thank the following sponsors for helping to make the 143rd Technical Conference and Exhibition a success.

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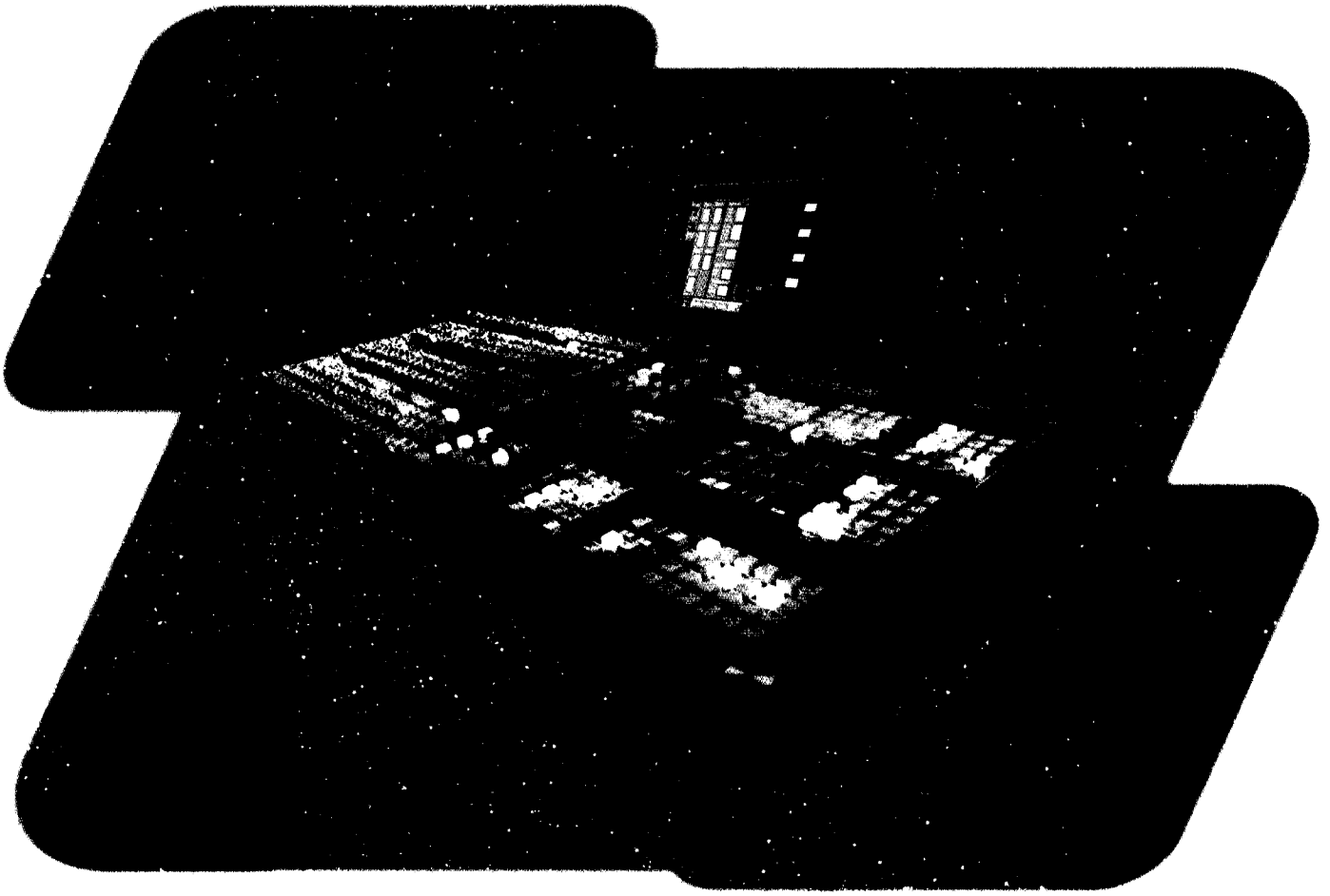

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TECHNICAL PROGRAM

NOVEMBER 5

MONDAY MORNING

8:30 a.m.

Introduction

Opening Session and Guest Speaker

Scott Teissler, Chief Technology Officer for the CNN News Group and Turner Broadcasting System, Inc. (TBS, Inc.)

Broadband, Internet, and New Distribution Methods

Chair: *Pete Ludé*, iBlast Networks

9:00 a.m. #1
Delivery of Broadcast Services Over ADSL or VDSL Services, Constraints, and Issues, *Jean Chatel* and *David Mouen Makoua,* Thomson multimedia Broadcast & Network Solutions/Nextream, Sevigne Cedex, France

9:30 a.m. #2
Satellite Broadband Internet for Production and Post-Production, *Martin J. Stein*, Motorola, Inc., San Diego, CA

10:00 a.m. #3
Encrypted Satellite Multicast: Quality, Security, and Reliability Considerations Attending the Distribution of Television as Addressable Data, *Dom Stasi,* TVN Entertainment, Burbank, CA

10:30 a.m. #4
Getting the Picture: How Will Interactive TV Services be Displayed in the Home? *Skip Pizzi*, Microsoft Corp., Wellesley, MA

Audio

Chairs: *Richard Hess*, National TeleConsultants, Inc., and *Jim DeFilippis*, News Technology Group

9:00 a.m. #5
Monitoring and Control of Audio-to-Video Delay in Broadcast Systems, *Tom Tucker* and *Dan Baker,* Tektronix, Beaverton, OR

9:30 a.m. #6
AES 31—Facts and Features, *Author TBA*

10:00 a.m. #7
Overview of the CBC Radio Digital Archiving System, *Tom Holden,* CBC, Toronto, Canada

10:30 a.m. #8
A Case Study of Showtime and Dolby Digital 5.1 Multichannel Audio, *Richard Southard,* Showtime Networks, New York, NY, and *Jeffrey Riedmiller*, Dolby Laboratories, Inc., San Francisco, CA

12 noon - 2:00 p.m.
Industry Luncheon

MONDAY AFTERNOON

Servers and Networking

Chair: *Al Kovalick*, Pinnacle Systems

2:15 p.m. #9
Content Creation Utilizing Large-Scale Archive with Content ID and Original Time Code, *H. Hiki, Y. Ishibashi, M. Kawa[illegible]* and *F. Hasegawa*, Telecommunications Advance[illegible] Organization of Japan, Yamagata, Japan

Paper [illegible] #10

2:45 p.m. #11
Characteristics of Unprotected and Protected Storage Area Networks (SANs) in Broadcast Environments, *C. Jason Mancebo*, SGI, Mountain View, CA

3:15 p.m. #12
Fault Tolerance in a Distributed Media Server, *Donald C. Craig*, Cineon Video Networks, Sunnyvale, CA

3:45 p.m. #13
"Central Casting:" Panacea or Peril? *Jerry Berger* and *Rick Post*, AgileVision, Princeton, NJ

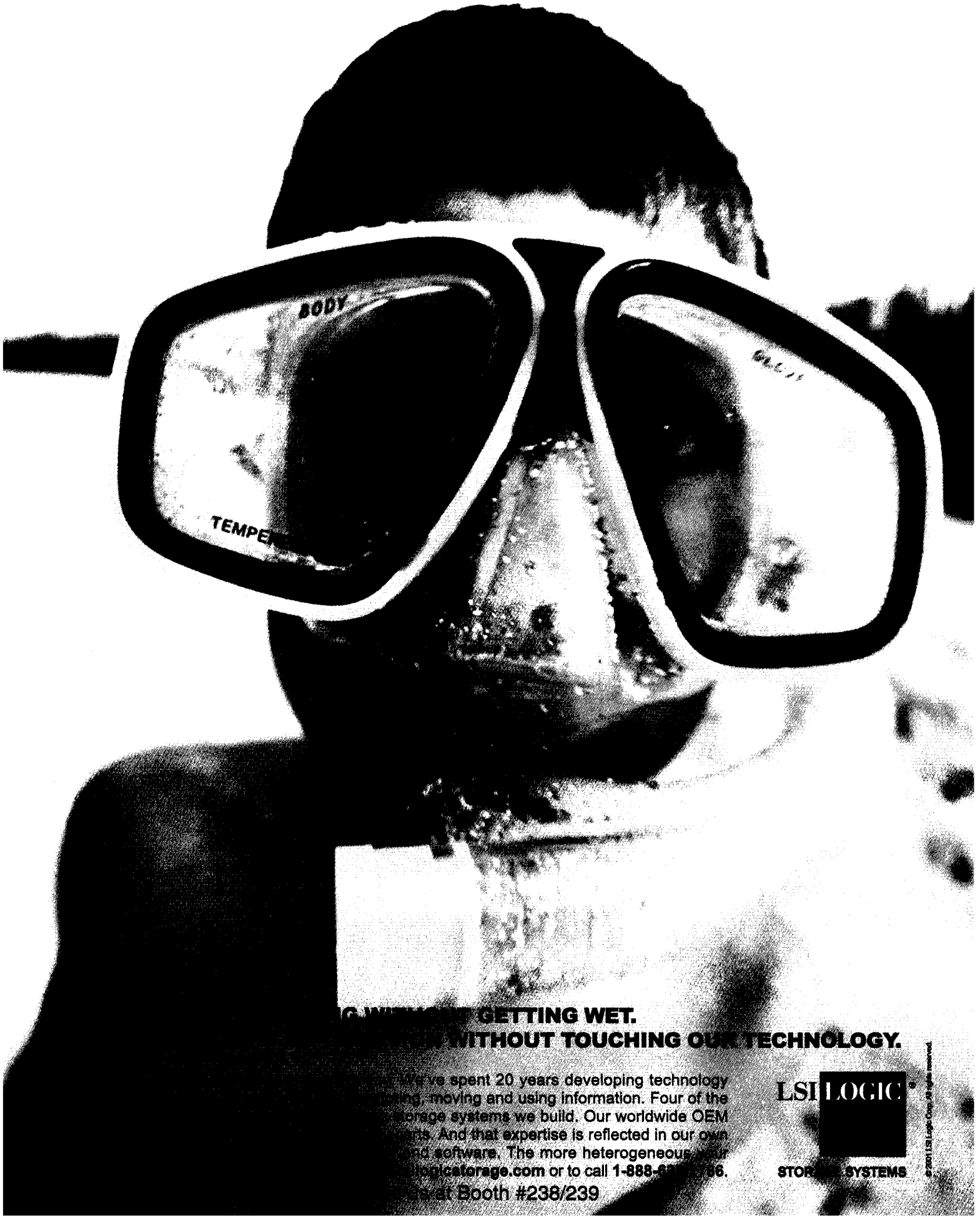
File Formats for Interchange

Chairs: *Brad Gilmer*, Gilmer & Associates, Inc., and *Hans Hoffmann*, EBU (European Broadcasting Union)

2:15 p.m. #14
Enabling Network Interoperability Between Video File Servers: The SMPTE 360M General eXchange Format (GXF), *Bob Edge*, Grass Valley Group, Nevada City, NV

2:45 p.m. #15
Streaming and File Formats—Where Are We Now? *Bob Edge*, Grass Valley Group, Beaverton, OR

3:15 p.m. #16
User Requirements for File Formats, Associated Metadata, and Transfer Options in Future IT-Based TV Production, *Hans Hoffmann*, EBU, Geneva, Switzerland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3:45 p.m. **#17**
The MXF Wrapper and its Application, *James H. Wilkinson*, Sony BPE, Hants, U.K., and *Bruce Devlin*, Snell & Wilcox, Hants, U.K.

4:15 p.m. **#18**
Technical Aspects of the Advanced Authoring Format, *James Cain*, Quantel, Newbury, Berkshire, U.K.

4:45 p.m. **#18A**
Steps Towards Achieving True Interoperability in Interchange, *Oliver Morgan*, Metaglue Consultancy, Lexington, MA

5:15 p.m.
Round-Table Discussion

6 p.m. - 8:00 p.m.
The Welcome Reception

NOVEMBER 6

TUESDAY MORNING

Case Studies: New Digital Facilities

Chairs: *David Horowitz*, Horowitz Television Technology, and *Randall Hoffner*, ABC, Inc.

8:30 a.m. **#19**
Centralized Network Origination (CNO) White Paper, *Adam Semcken*, The Systems Group, Hoboken, NJ

9:00 a.m. **#21**
Leading-Edge Technology, Multiple Vendors, and User-Friendly Solutions—It Can Be Done, *Jim McGrath*, A.F. Associates, Inc., Northvale, NJ

9:30 a.m. **#22**
Intelligent Infrastructure for New Digital Installations, *M. Snell, M. Holmes*, and *John Shike*, Snell & Wilcox, Santa Clara, CA

10:00 a.m. **#23**
Design of a Local Centralized Multistream Playout Facility, *John Luff* and *Karl Paulsen*, Azcar USA Inc., Canonsburg, PA

10:30 a.m. **#24**
Controlling Complex Broadcast Infrastructures, *Julian* [illegible], London, U.K.

Film Acquisition and Processing: Emulsions, Cameras, and Facilities

Chair: *Timothy Spitzer*, Tapehouse Editorial Co.

8:30 a.m. **#26**
Color Space Conversion with 3D-LUT for Laser Film Recorder, *Ado Ishii*, Imagica Corp., Tokyo, Japan

9:00 a.m. **#27**
A Tour Up the Gray-Scale Vector of the RGB Color Cube: How Computer Graphics Color Spaces Relate to Digital Video Color Difference Spaces, *Leonard J. Reder*, Arete Entertainment, Sherman Oaks, CA, and *Michael Farris*, Innoveda Inc., Camarillo, CA

9:30 a.m. **#28**
Application of the Latest Technologies to a New Fujicolor Negative Film, *K. Kawai, K. Makino, H. Murakami*, and *S. Yamaryo*, Fuji Photo Film Co., Ltd., Ashigara Research Lab, Minami-Ashigara, Kanagawa, Japan

10:00 a.m. **#29**
Design Improvements for Motion Picture Film Projectors, *C. L. DuMont, A. F. Kurtz, B. D. Silverstein*, and *D. H. Kirkpatrick*, Eastman Kodak Co., Rochester, NY

10:30 a.m. **#30**
Realtime Restoration of Film and Video-Originated Archives, *S. Crane, M. Holmes*, and *J. Shike*, Snell & Wilcox Inc., Santa Clara, CA

11:00 a.m. **#31**
Using 33mm Digital Intermediate to Provide 70mm Quality in Theaters—A Progress Report, *R. A. Morton, M. A. Maurer, G. Fielding*, and *C. L. DuMont*, Eastman Kodak Co., Rochester, NY

12 noon - 2:00 p.m.
Fellows Luncheon

TUESDAY AFTERNOON

New Standards for New Media: MPEG-4 and IPMP

Chairs: Richard Mizer, Digital Ventura Diversified, Inc., and *Rob Koenen*, Interactive Technologies [illegible]

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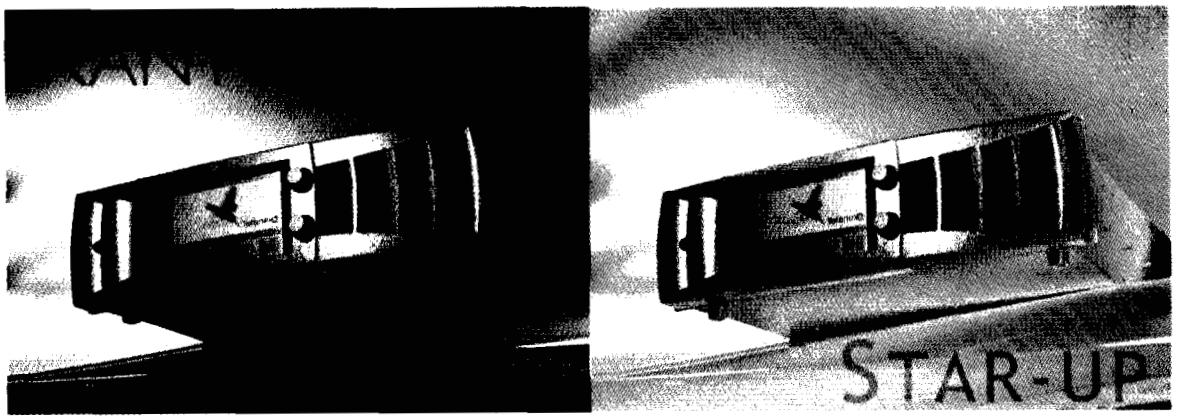

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2:30 p.m. **#33**
Authoring for MPEG-4 Applications: Technologies and Techniques, *Pamela Arthur*, LSI Logic, Milpitas, CA

3:00 p.m. **#34**
Advanced Audio Coding, *Schuyler Quackenbush*, AT&T Labs

3:30 p.m. **#35**
Architectures for MPEG-2 Transcoding from the Production Format into MPEG-4 Internet Video Format, *Rolf Hedtke* and *Matthias Schnoell*, Fachhochschule Wiesbaden, University of Applied Sciences, Wiesbaden, Germany

4:00 p.m. **#36**
Intellectual Property Management and Protection (IPMP), *Jack Lacy*, InterTrust Technologies Corp., Santa Clara, CA

4:30 p.m. **#37**
Special Update: MPEG-4 Studio Profile, *Hugo Gaggioni*, Sony Electronics, Park Ridge, NJ

Archive and Asset Management

Chairs: *Janet Gardner*, Perspective Media Group, and *Gary Morse*, Fox Digital, Los Angeles, CA

2:00 p.m. **#38**
Effective Use of Grouping Capabilities in Archive Management, *Steve Atkinson*, SGL, Lafayette, CO, and *Bernie Walsh*, Software Generation, Ltd., Southampton, Hants, U.K.

2:30 p.m. **#39**
Need for Integration of Physical and Virtual Media Asset Systems, *Hugh R. Heinsohn*, Xytech Systems Corp., Burbank, CA

3:00 p.m. **#40**
Review of Enterprise Content Management Installations at European Broadcasters, *Per Sjofors*, Tecmath AG, CMSD, Woodland Hills, CA

3:30 p.m. **#41**
The Content Supply Chain for Media Asset Management, *Joshua Duhl*, International Data Corp. (IDC), Winchester, MA

4:00 p.m. **#42**
Practical Applications of Agent-Based Asset Management Technology to Digital Media Distribution Systems, *Steven C. Bilow*, Grass Valley Group, Beaverton, OR

4:30 p.m. **#43**
Pulling It All Together with Asset Management, *Robin Wang* and *Ken Tankel*, Dalet Digital Media Systems, New York, NY

5:00 p.m.
Panel Discussion: MAM means different things depending upon the business problem and industry. Closing the session will be a panel of individuals from the entertainment industry, who have either deployed or are in the process of deploying a MAM solution. Each panelist will be given an opportunity to describe their MAM solution, their process for choosing the business area against which to apply a MAM technology, and lessons learned to date. The goal is to look at how different organizations define MAM as well as at the diversity of solutions.

NOVEMBER 7

WEDNESDAY MORNING

24P: An Update

Chairs: *Gavin Schutz*, Liberty Livewire Corp., and *Terry Brown*, Laser Pacific

8:00 a.m. **#44**
P24...The Next Generation, *Jim DeFilippis*, News Technology Group, Los Angeles, CA

8:30 a.m. **#45**
Imaging System Components and Their Influence on Image Quality, *John Galt*, Panavision, Woodland Hills, CA

9:00 a.m. **#46**
The Further Evolution of 24P Acquisition, *Laurence J. Thorpe*, Sony Electronics Inc., Acquisition Systems, Park Ridge, NJ

9:30 a.m. **#47**
Advanced Techniques for Conversion To and From 1080p 24, *Jed Deame*, Teranex, Orlando, FL

10:00 a.m. **#48**
1080P/24...Don't Forget the Metadata! *David Strachan*, Evertz Microsystems Ltd., Burlington, Ontario, Canada

10:30 a.m. **#49**
24P Workflow, *Mike Phillips*, Avid Technology, Melrose, MA

11:00 a.m. **#50**
The Search for a Universal Timing Reference Signal, *Peter Symes*, Grass Valley Group, Nevada City, CA

11:30 a.m. **#51**
How to Easily Move and Utilize Film Images as Data in a Real-World Video Facility, *Steve Roach*, da Vinci Systems, Inc., Carson City, NV

Metadata: Case Studies, Expectations, Realities, Lessons Learned

Chairs: *Robert Slutske*, National TeleConsultants, Inc., and *Bill Harris*, IBM, Global Services

8:00 a.m. **#52**
Video Content Management in Broadcast, *Derek Gascon*, Convera, Carlsbad, CA

8:30 a.m. **#53**
Case Study of an Early Adopter: The CNN Digital News Archive, *Samuel R. Shore*, Concadia Solutions, LLC, San Jose, CA

9:00 a.m. **#54**
Creating Access and Usability in a Digital Video Archive, *John Phillips*, Survivors of the Shoah Visual History Foundation, Los Angeles, CA

9:30 a.m. **#55**
Practical Implementation of Metadata for the CBS HDTV Program Delivery Specification, *Bob Seidel*, CBS, New York, NY

10:00 a.m. **#56**
Media and Assets Exploited with the Metadata Fabric, *Dipto Chakravarty*, Artesia, Rockville, MD

10:30 a.m. **#57**
UMID Watermarking for Managing Metadata in Content Production, *Jason Pelly*, *Daniel Tapson*, *John Stone*, and *Stephen Keating*, Sony Broadcast & Professional Europe, Basingstoke, Hampshire, U.K.

Wednesday Afternoon

D-Cinema

Chairs: *William C. Miller*, ABC, Inc., and *David Bancroft*, Thomson multimedia

2:00 p.m. **#58**
The Business of Digital Cinema—The Exhibitor's Perspective, *John Fithian*, National Association of Theatre Owners, North Hollywood, CA

2:30 p.m. **#59**
The European Digital Cinema Scene, *Peter Wilson*, Snell & Wilcox Ltd., Petersfield, U.K.

3:00 p.m. **#60**
Experimental Ultrahigh-Definition Color Camera System with Three 8M-Pixel CCDs, *K. Mitani*, *M. Sugawara*, and *F. Okano*, NHK Science & Technical Research Laboratories, Tokyo, Japan

3:30 p.m. **#61**
In Pursuit of the "Agile Codec"—Parallel Processing Enables Flexible, Low-Cost Digital Cinema Solutions, *B. Jason Crew*, Teranex, Inc., Orlando, FL

4:00 p.m. **#62**
The Laser Cathode Ray Tube—A Paradigm Shift in Illumination, *Michael D. Tiberi* and *Glenn H. Sherman*, Principia Light Works, Inc., Marina Del Rey, CA

4:30 p.m. **#63**
The White Paper: Theory and Practice of White Points for Digital Cinema, *Matt Cowan* and *H. Loren Nielsen*, Entertainment Technology Consultants, Los Angeles, CA

5:00 p.m. **#63A**
A Review of Survey Responses to Digital and Film Presentation, *Charles S. Swartz*, Charles S. Swartz Consulting, Sherman Oaks, CA

Video and IP

Chairs: *Darcy Antonellis*, Warner Bros., and *Gary Washauer*, Pinnacle Systems

2:00 p.m. **#64**
Applying DRM Technologies to Video on the Net, *Eric Grab*, DivXNetworks, Inc., San Diego, CA

2:30 p.m. **#65**
Satellite, Broadcast, and Broadband Networks Powered with Storage Area Networks (SAN), *Greg Reitman*, LSI Logic Storage Systems, Inc., Los Angeles, CA

3:00 p.m. **#66**
Realtime Video and Audio Content Delivery Over IP Packet Networks—TrueCircuit Implementations, *Carsten Baumann*, Leitch, Inc., Burbank, CA, and *Yendo Hu*, Path 1 Network Technologies, San Diego, CA

3:30 p.m. **#67**
Extending Video Networks with IP and Ethernet, *Ted Brunner*, Omneon Video Networks, Sunnyvale CA

Industry Luncheon

Monday, November 5
12:00 - 2:00 p.m.

Sit down to a banquet with your colleagues; share information, business cards, and a good meal. The event is capped by the conference's keynote address, as a mover and shaker in the motion imaging industry speaks to attendees. Keynote speaker will be *Robert Griffin*, President and CEO of eMotion, Inc. Griffin joined PNI in January

1998, where after leading the company to profitable growth, crafted the merger between PNI and Cinebase software to form eMotion in January 2000.

The Welcome Reception

Monday, November 5
6:00 - 8:00 p.m.

This event has always been successful, and expectations are no different for this year. The Welcome Reception is the perfect opportunity to get to know the colleagues with whom you'll be sharing the next few days, and to get re-acquainted with friends from previous SMPTE conferences. Join us for a relaxed evening of good company and hors d'oeuvres.

Fellows Luncheon

Tuesday, November 6
12:00 - 2:00 p.m.

The 25th Annual Fellows Luncheon (For SMPTE Fellows only). At this significant event, SMPTE honors all of its Fellows and Life Fellows. SMPTE Fellows are individuals who have attained outstanding rank in the motion picture, television, and related industries. Keynote speaker will be *Robert Smith*, President of DuArt Film and Video and former SMPTE President (1979-1980).

Honors and Awards Reception

Tuesday, November 6
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 Honorary Membership, the Citation for Outstanding Service, the Eastman Kodak, John Grierson/Technicolor, Fuji, *SMPTE Journal* awards, and the new Leitch award.

Registration/Bookstore hours

Saturday, November 3
1:30 p.m. - 3:30 p.m.

Sunday, November 4
7:00 a.m. - 5:00 p.m.

Monday, November 5
7:00 a.m. - 5:00 p.m.

Tuesday, November 6
7:30 a.m. - 5:00 p.m.

Wednesday, November 7
7:30 a.m. - 2:30 p.m.

Exhibition Hours

Monday, November 5
10:00 a.m. - 6:00 p.m.

Tuesday, November 6
10:00 a.m. - 6:00 p.m.

Wednesday, November 7
10:00 a.m. - 2:00 p.m.

SMPTE's Member-Get-a-Member Campaign Extended !

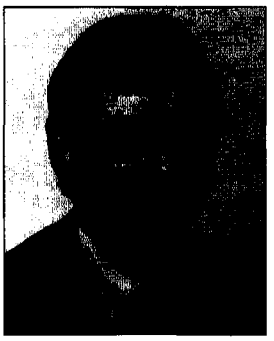
We've extended our campaign to give you more time to WIN! That's right, you can win a new Palm Pilot. And all you need to do is solicit new members. Do you have friends who could benefit from SMPTE membership? Then sign them up, and make sure they put your name on the application form, because the more who enter with your name on their form, the greater your chance of winning a Palm Pilot.

So, while you've got your Journal open now, make some photo copies of the Membership Application towards the back of the Journal, and enlist some new members today!

TWELVE SMPTE MEMBERS ELEVATED TO FELLOWS AT THE ANNUAL LUNCHEON

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.

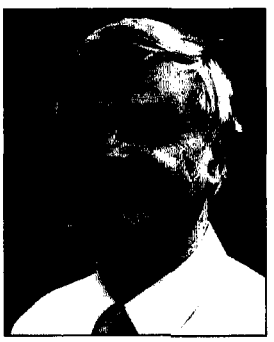
David J. Bancroft



Dave Bancroft is business and technology development manager for Thomson multimedia Broadcast & Network Solutions. Based in the U.K., he provides long-term strategic planning services to product development groups in his company such as the film imaging and recording group based in Germany and the camera group in The Netherlands. He is also involved in developing electronic imaging solutions for new applications such as digital cinema production.

Bancroft represents his company in the standards-making activities of ISO, ITU-R, and SMPTE, where he is chairman of the 123 Image Technology Committee. He has presented many papers at SMPTE conferences and at NAB, IBC, Broadcast Asia, and other conventions. Several of these have been published in the *SMPTE Journal*, and this year, "Recent Advances in the Transfer and Manipulation of Film Images in the Data and HDTV Domains" won the 2001 SMPTE Journal Award for an article published in 2000.

Michael E. Cox



Mike Cox began a long career with the BBC, first in film recording, videotape, and telecine; then in management of its television resource base, including post-production, graphic design, and regional operations. In 1997, he set up Mirador Techniques Ltd. specializing in project management and consultancy, primarily to the broadcasting industries. He played a leading role in the introduction of digital and server systems, including those at the BBC and ABC's European bureau.

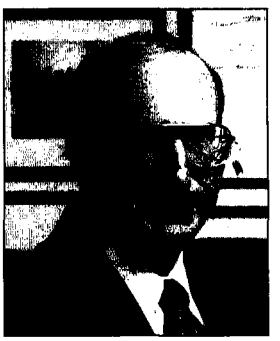
Currently active in all aspects of metadata and its implementation in future digital systems, Cox chairs SMPTE's Metadata Dictionary Resolution Task Force and plays an active role in both metadata systemization and material identification.

Christopher L. DuMont

Christopher L. DuMont is a senior technical associate in the Entertainment Imaging business unit of Eastman Kodak Co. He has worked in motion picture systems studies for the last 12 years, and in the military doing remote sensing prior to working at Kodak. Among his outstanding achievements are: engineer/inventor of the technology base for Primetime, a made-for-scanning color negative film; executive/technical leader for the program to enhance the theatrical experience that involved inventing a new projector intermittent, projector lamphouse, and projector lens; co-inventor of PreView, a digital still camera, computer, and printer system that emulates the film look on movie sets.

DuMont has been the author and presenter of papers at numerous SMPTE conferences. He holds six U.S. patents in the imaging science field for Kodak.

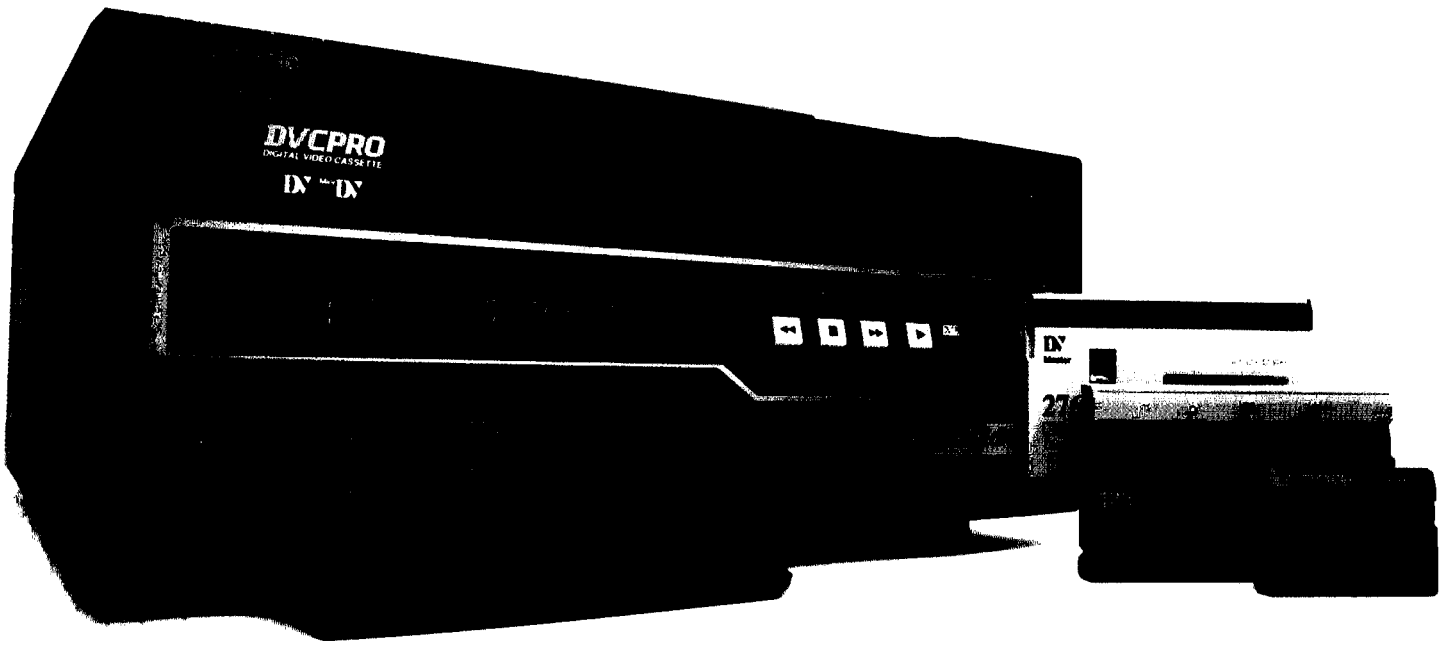
Thomas M. Gurley



Tom Gurley is vice-president, technology, of the Association for Maximum Service Television (MSTV), providing technical guidance and support to the organization and its more then 400 member television stations, and representing it in various forums. He has a key role in the Digital Television Station Project, sponsored by MSTV, NAB, and the CEA. As chair of the project's technical committee, he is responsible for directing its technical activities.

Prior to joining MSTV, Gurley was director of testing at the ATTC, where he was responsible for the development and implementation of procedures and direction and management of testing advanced television systems, including the Grand Alliance system. He holds three patents, has written numerous technical papers, and has been a frequent conference and seminar speaker on various aspects of television technology.

A great triple play.



The new AJ-D455 DVCPRO Studio Editing VTR.

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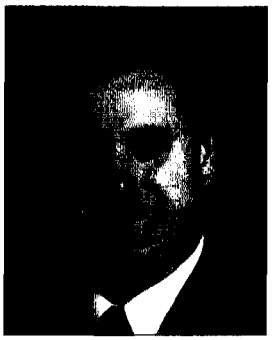
Two 16-bit/48kHz Audio Channels	Digital In/Out: AES/EBU, IEEE-1394, SDI
Analog In/Out: Component/Composite/S-Video and Analog Audio	

David C. Harrington



David C. Harrington has worked for many years at Eastman Kodak Co. as a chemist and manager in the Kodak Research Labs and Entertainment Imaging Business Unit. Currently a senior technical associate on special assignment as the product rationalization manager, he has most recently worked in the motion picture arena as manager for environmental photographic processes, product development manager for new film offerings, and as worldwide technical services manager for professional motion imaging.

Harrington is a member of the ISO/TC 36 committee and a member and past chairman of SMPTE's L-6 committee.

Akihiro Hori

Akihiro Hori is a senior researcher at Nippon Television Network Corp. in Tokyo, Japan. In 1977, he joined Hitachi Central Research Laboratory and conducted R&D for fiber optics and digital cross connect systems. In 1990, he moved to Nippon Television and has been conducting research and development for the next-generation television broadcasting equipment. His current work is focused on IP broadcast system development. For ten years, Hori has been involved with standardization committees of SMPTE, the ITU, and Japan's ARIB.

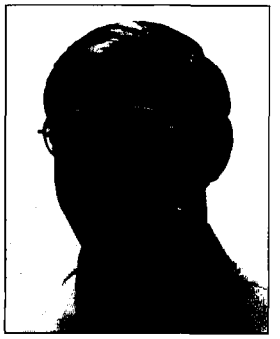
Among Hori's nine awards are recognition of his development of the Broadcast Markup Language; the 525 progressive scan VCR system (DVC-PRO-P); the 525 progressive scan TV camera; and an ID signal insertion system (watermarking) into TV (1993). He has applied for 58 patents in Japan, Europe, and the U.S.

Henry W. Mahler

Henry W. (Hank) Mahler is associate director, development, CBS, Inc., where he evaluates each new technology or piece of equipment considered by CBS Engineering. His suggestions to manufacturers and his work in high-definition television have influenced the design and implementation of equipment used not only by CBS, but by broadcast companies worldwide. In the 1960s, his field sequential camera systems contributed to the live coverage of the Apollo mission on the lunar surface.

Mahler's active participation in the TRRT Applications Subcommittee led to the standards for D-1 and D-2 recording, the implementation of high-quality VTRs, and the development of subsequent digital video recording devices. He is the author of numerous technical papers, many of which have been published in the *SMPTE Journal*.

Wayne McLachlan



Wayne McLachlan has been involved in the video industry for 36 years, and with GrassValley Group (Tektronix) in a number of different capacities involving product test development and quality for 26 years. Since 1980, he has taught "Introduction to Broadcast Video—Principles and Measurement," a course from which he has compiled a 12-volume videotape series.

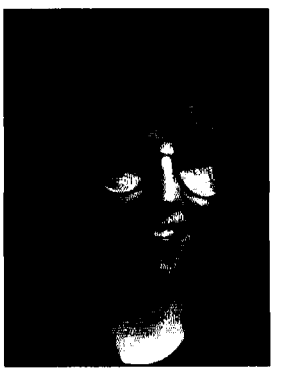
A Past-Chairman of the Sacramento Section, he has authored several application booklets on testing methods, including "Comprehensive Video Test Methods," a guide in use for 20 years.

Neil Neubert

Neil Neubert is manager of advanced technology for JVC Professional Products Co., responsible for the assessment of advanced audio, video, and telecommunications technologies and their implementation. He began his career in television, engineering the design of monochrome closed circuit television cameras. Later he concentrated on the design of broadcast color television cameras and their application to electronic cinematography and high-definition television.

Neubert participates in the activities of major digital audio/video technology and standards-making bodies around the world. He currently serves SMPTE as Chairman of the Television Recording and Reproduction Technology Committee (V16).

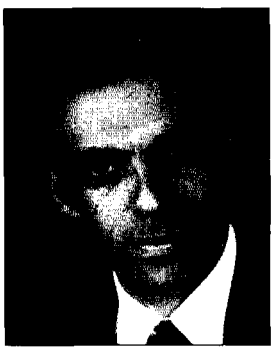
Beverly Pasterczyk



Beverly Pasterczyk began her career at Kodak in Rochester as a product development engineer in the Motion Picture Products Division, focusing on process solution technologies. In her current position as large format specialist, she is involved in all aspects of the production, post-production, distribution, and exhibition of large format films.

An active member of SMPTE since 1984, Pasterczyk held many different positions in local sections ranging from the Publicity Chair in Rochester to both Manager and Secretary in Hollywood. Film Topics Chair for the 1993 Fall Conference in Los Angeles, she is the co-author of a paper published in the *SMPTE Journal*. She is a board member and Technical Standards Committee Chair for the Large Format Cinema Association, serves on the Scientific and Technical Awards Committee, and is a member of Women in Film.

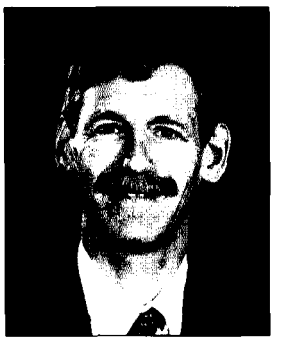
René Villeneuve



René Villeneuve has been a director of the National Film Board of Canada since 1997. He heads the integrated technical motion picture and television facilities of the agency, as well as being responsible for its informatics division.

Currently Sections Vice-President of SMPTE, Villeneuve has served a variety of functions at the section level (Secretary-Treasurer and Chairman) and was Canadian Governor for 1994-1995. He also participated in organizing television conferences in Montreal and mini-conferences of the Toronto-Montreal/Quebec-Ottawa and Rochester Sections. In 1998, he received the Citation for Outstanding Service to the Society.

James H. Wilkinson



James H. (Jim) Wilkinson joined the newly created Advanced Development Laboratories of Sony Broadcast as one of the founding members. Since then, as chief research scientist, he has worked in the areas of digital video recording, video bit rate reduction, digital image processing and digital audio.

Wilkinson has participated in many standards activities in the SMPTE. He was an active and prolific member of the EBU/SMPTE Task Force and is now chairman of the Pro-MPEG Forum File Interchange Working Group. In 1995, SMPTE awarded him the Alexander M. Poniatoff Gold Medal for Technical Excellence.

HONORS AND AWARDS

SMPTE has announced the winners of awards for outstanding achievement in the motion imaging industry. The Honors and Awards Ceremony and Reception will be held on November 6, 2001, during the 143rd SMPTE Technical Conference and Exhibition at the Hilton New York Hotel in New York City.

Progress Medal Award

It is the purpose of this award to honor the individual by recognizing outstanding technical contributions to the progress of engineering phases of the motion picture, television, or motion imaging industries. The Progress Medal may be awarded annually, and it should be awarded for an invention or for research or development which, in the opinion of the Committee, has resulted in a significant advance in the development of motion picture, television, or motion imaging technology. It is the conclusion of the Board of Governors that, in considering an award to an individual, continued technical contributions over a period of years should be weighed as an important factor.

This year's award was presented to **Bernard J. Lechner**. Lechner's 30-year career at RCA covered all aspects of television and display research, from early work on home VTRs in the late 1950s, extensive development of flat-panel matrix displays in the 1960s, advanced two-way cable TV and pay-TV systems in the early 1970s, to HDTV in the mid-1980s. He holds ten U.S. patents and is widely published in the areas of display and television systems.

An independent consultant since 1987, Lechner has been an active participant in various groups working on standards for advanced television systems in the U.S., including the FCC Advisory Committee on ACATS. He is chairman of the ATSC Specialists Group on ATV Transport Standards and co-chairs a SMPTE Working Group relating to standards for HDTV. He served as a member of the U.S. delegation to the extraordinary and final meetings of the CCIR in Geneva, concerning international HDTV standards.

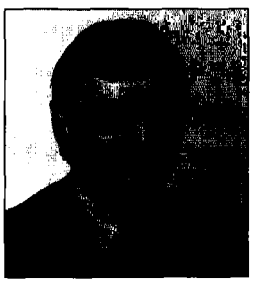
The Fuji Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding engineering achievements in the design and development of new or enhanced techniques and/or equipment that have contributed significantly to the advancement of photographic or electronic image origination.

This year's award is presented to **Donald E. Trumbull,** for his groundbreaking designs of process projection systems, motion control cameras, and their associated apparatus. Heading Trumbull's filmography are *Star Wars* and *Close Encounters of the Third Kind*. Without his contributions to the budding science of motion control cinematography, neither production would have been possible. Later, he produced a substantial body of new technology and garnered several patents and awards, including an Academy award for the design and development of the Blue Max traveling matte flux projector for composite photography. In 1990, the Academy bestowed on him its Medal of Commendation.

The Journal Award

One Journal Award shall be presented to the author(s) of the most outstanding paper originally published in the Journal of the Society during the preceding calendar year. In addition, up to two Journal Certificates may be presented to the author(s) of the paper(s) receiving the next highest score as detailed in sub-paragraph (c). Papers published in the Journal are eligible only if any previous publication was by the Society.



The recipients are listed below by year, with the date of *Journal* publication given after the title.

The Journal Award was presented to **David Bancroft** for "Recent Advances in the Transfer and Manipulation of Film Images in the Data and HDTV Domain," published in the April 2000 *Journal*.

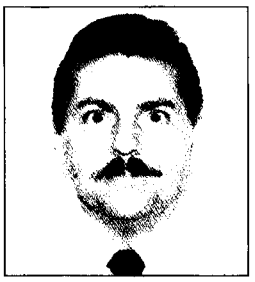
David Bancroft began his career in broadcast engineering at the BBC in London. He became particularly interested in videotape recording and related mechanical wonders, which led to an international odyssey lasting 20 years. Bancroft is currently business and technology development manager for Thomson multimedia Broadcast & Network Solutions. Based in the U.K. he provides long-term strategic planning services to product development groups in the company and is also involved in developing electronic imaging solutions for new applications.

A Journal Certificate of Merit was presented to **Charles Fenimore, Stephen Wolf,** and **John Libert** for "Perceptual Effects of Noise in Digital Video Compression," published in the March 2000 *Journal*.

Charles Fenimore has worked on computational models for fluid and electrically driven flows at the Lawrence Berkeley Lab and at NIST. For several years, he has been involved with measurements and models for quality assessment of moving digital imagery, including the production of

synthetic imagery and the acquisition of natural imagery as "probes" of compression systems.

Stephen Wolf has been a project leader for the Video Quality Standards Project at the Institute for Telecommunication Sciences, an agency of the National Telecommunications and Information Administration. During this time, he developed innovative methods for performing in-service digital video quality measurements for which he was awarded two U.S. patents. Wolf is an active participant and contributor to the standardization activities of both ANSI and the ITU.



John M. Libert, in 1986, led research to develop computational vision methods for image motion perception and stereopsis. In 1997, he joined the Electronics and Electrical Engineering Laboratory of the National Institute of Standards and Technology, where he currently conducts research in video quality measurements as a part of NIST's Video Technology Project.

A Journal Certificate of Merit was presented to **Laurence Thorpe** for "Technical Aspects of the New World of Multiformat DTV Embodying Progressive, Interlaced, and Segmented Frame Video Format," published in the September 2000 *Journal*.

Laurence Thorpe is recognized as one of the pioneers of the HDTV market development movement in the U.S. He holds ten patents in the field of broadcast development. Thorpe is currently vice-president of acquisition systems for Sony Electronic, responsible for all broadcast studio and portable cameras for the Sony Division. A Fellow of SMPTE, he has published many papers on camera technology and HDTV imaging. In 1981 he won the David Sarnoff Award for his innovations in automatic studio color cameras.

The James A. Leitch Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding contribution in the application of digital technology to the motion imaging arts and sciences. The award shall recognize developments in software, equipment, systems, or the standardization of technology involved in the acquisition, processing, or distribution of sound and images related to motion imaging.

The first James A. Leitch Gold Medal was presented to **Glenn A. Reitmeier**, general partner and chief technology officer of nVention, a subsidiary of Sarnoff Corp., for his substantial contribution and pioneering work in digital television, digital media, and digital convergence. A leader of the Grand Alliance computer interoperability effort, he led the Sarnoff Labs team in the development of the Advanced Digital HDTV system, which later became the basis for both the Grand Alliance HDTV system and the Hughes DirecTV digital satellite system. These innovations enabled data broadcasting and allowed digital television to become a powerful new medium.

Reitmeier holds over 40 patents in digital television technology. His work has resulted in three NATAS Technical Emmy awards.

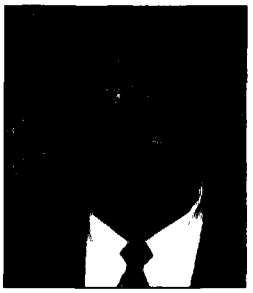
The Citation for Outstanding Service to the Society

The purpose of this citation is to recognize individuals for dedicated service to the Society over a sustained period of time. Particular emphasis is to be placed on service performed at the Section level, including, but not limited to, services performed at Section meetings, special Section meetings and national conferences. This year, there are five recipients of this award.

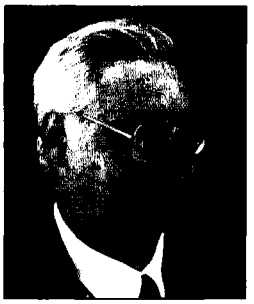
Walter Druker. For his exceptional dedication and contribution to the New York Section by documenting all the section meetings for the *SMPTE Journal*. His sustained presence at the meetings and his initiation of the "Page Two" component of the Section meeting notices have provided valuable and useful service to the New York Section membership and contributed to maintaining a strong relationship between the Board of Managers and the members of the Section.

Kwok-Luen Lam. As an ardent promoter of SMPTE in the Hong Kong film and television community, Lam has initiated many activities that have given the Society a high profile through technical seminars, conferences, and discussion panels. Generously contributing his time and efforts to ensuring the vitality of the Section, he has been a respected leader of the Section, a driving force in achieving the success it has achieved.

Otto E. Mikkela. During his active career as a recognized worldwide expert in colorimetry and digital television development, Mikkela has been the driving force behind many of the highly successful meetings in the Nordic Section for many years. Even after retirement, he has continued on as a regular member of the Section Board of Managers and has held numerous positions. His strong social commitment and his efforts to establish sustained collaborations with other industry associations have made him a prominent and highly respected figure who has brought valuable recognition of the SMPTE in his region.



Charles Pantuso. Since 1975, Pantuso has been a driving force and a leader of SMPTE in his local community. Twice Chair of the Dallas-Fort Worth Section, he has presented many papers at local and national events and has been a strong figure in supporting SMPTE engineering and educational activities. He has maintained a sustained and dedicated presence in his local Section throughout his very demanding business and professional endeavors and is deserving of this recognition.



Clyde D. Smith. A dedicated and tireless contributor to the SMPTE since 1987, Clyde Smith has been a prominent player in more than one SMPTE Section. Having held the position of Manager, Secretary-Treasurer, as well as Chairman in the Nashville, Florida-Caribbean, and Atlanta Sections, he has also been a driving force in promoting SMPTE seminars and conferences in the southern region and elsewhere. His sustained efforts to encourage local members to participate in SMPTE activities have resulted in maintaining a strong SMPTE influence in the region he now represents on the Board of Governors.

The Society Citation

The Society Citation recognizes individuals or companies who have actively been involved in specific Society engineering or editorial functions.

This year a citation was presented to **Margaret "Peggy" Sullivan Murnane**, in recognition of the dedication of her entire professional life and enormous contribution to the Society, which has profoundly influenced its work. Peggy Sullivan has served SMPTE in the role of National Standards Coordinator since 1954. Every SMPTE Standard, Recommended Practice, and Engineering Guideline issued in those 47 years has benefited from her editing. Working interactively with the experts on technical committees, she has ensured that the documents are grammatically correct, contain valid references, and are consistent in style. She has also been responsible for the voluminous correspondence required by ANSI in their standards approval process.

A citation was also presented to **LeRoy DeMarsh**, in recognition of his outstanding work and leadership over the past six years as Chairman of the Board of Editors. In that capacity, he has managed the volunteers who read and edit submissions for publication in the *Journal*, working closely with the professional staff in the Editorial Department to produce an award-winning publication.

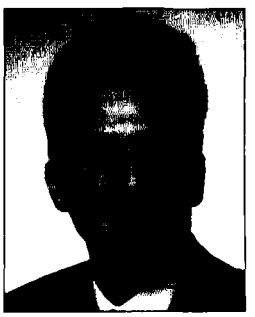
The Technicolor/Herbert T. Kalmus Gold Medal Award

It is the purpose of this award to honor the recipient by recognizing outstanding contributions in the development of color films, processing, techniques or equipment useful in making color motion pictures for theater or television use.

This year's award was presented to **Joerg D. Agin**, senior vice-president, Eastman Kodak Co., for his substantial contributions and leadership in advancing the technology and techniques used to produce color motion pictures. Under his direction, Kodak developed and brought to market the widely celebrated family of Vision motion picture products that raised the standards of film quality. In the process, he led the division to an unprecedented eighth Academy Award for Scientific and Technical Excellence and its tenth Emmy for contributions that more fully preserve the quality of film for television distribution.

The Samuel L. Warner Memorial Medal Award

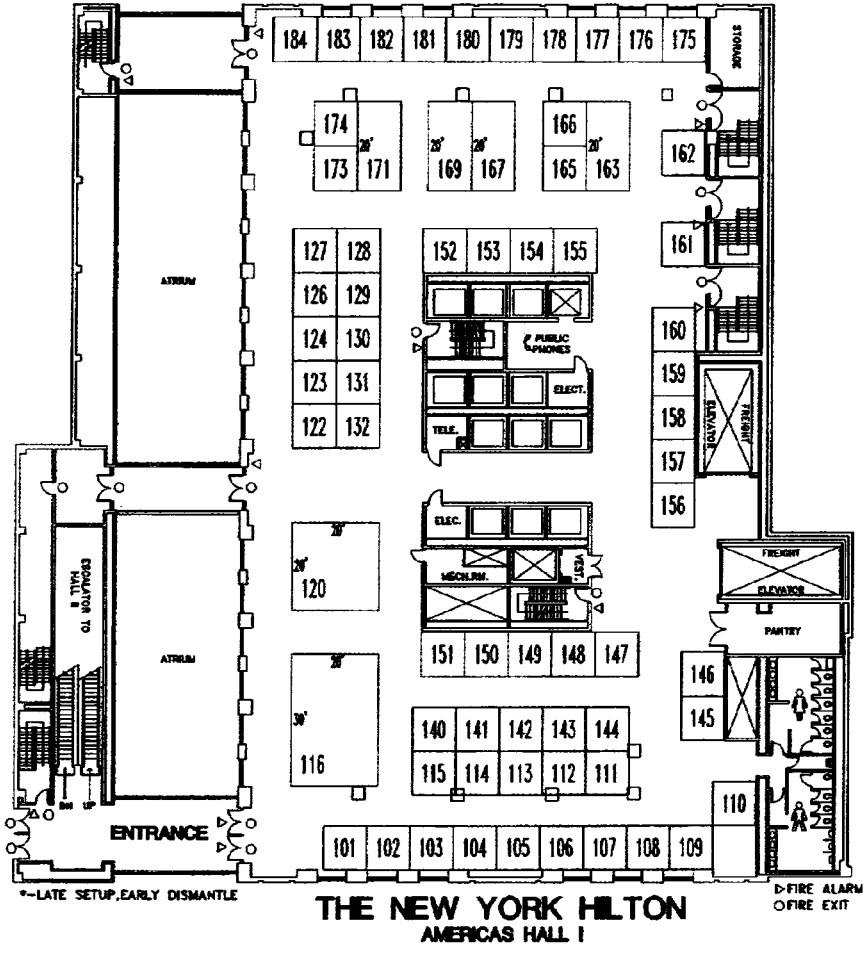
It is the purpose of this award to honor the individual by recognizing outstanding contributions in the design and development of new and improved methods and/or apparatus for sound-on-film motion pictures, including any step in the process.

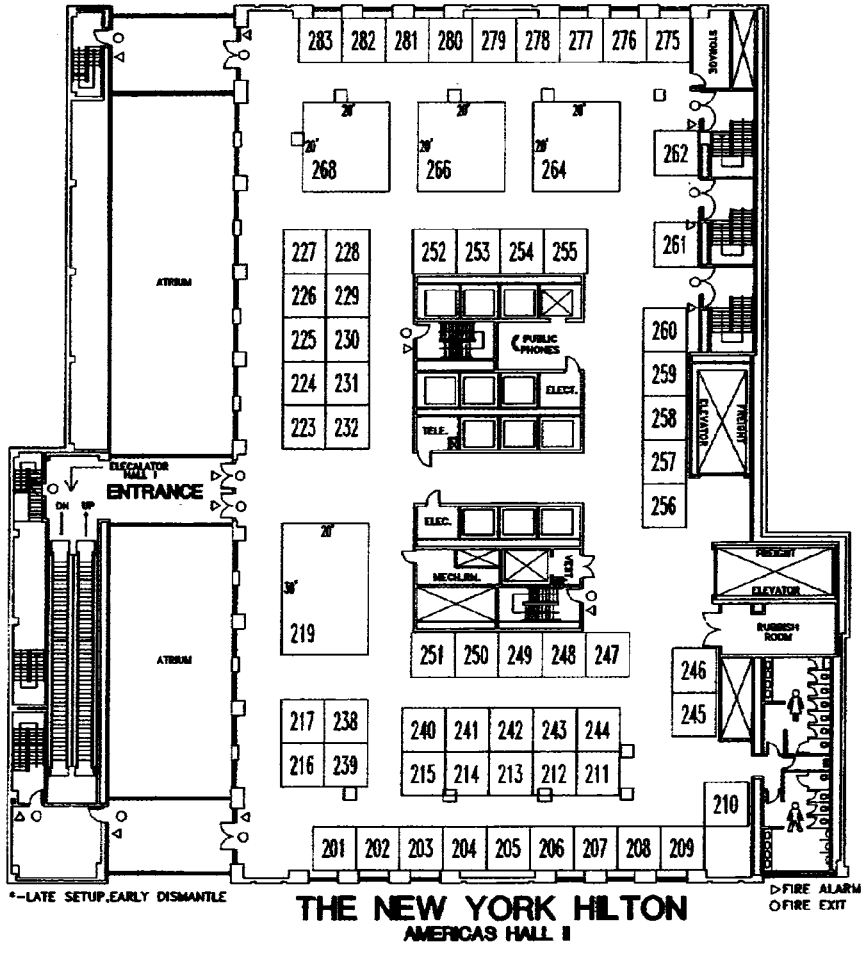


This year's award was presented to **James A. (Jack) Cashin**, who in the early 1970s developed the 8-track recording equipment used in Robert Altman's film *California Split*. The system allowed the director to use streams of sound impressionistically, and the film became a watershed in the industry for its pronounced effect of coincident speech and sound. Subsequently, Cashin responded to theater owners' expressed need for improved two-channel optical sound playback. His solution cancelled the effect of film weave and soundtrack imbalance. Today, some 55,000 film projectors worldwide are equipped with a new generation of sound track reader for cyan print sound track playback. A substantial share of them are Cashin's reverse scan sound track readers, which reduce laboratory costs and assure better sound presentation quality with less background noise levels as film prints wear.

EXHIBITORS FLOOR PLAN

143rd SMPTE TECHNICAL CONFERENCE AND EXHIBITION
HILTON NEW YORK, NOVEMBER 4-7, 2001





List of Exhibitors

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Fax: 530-265-1021
Email: sandy_kramer@adc.com
Web: www.adc.com
Contact: Sandy Kramer

AgileVision **Booth 162**
201 Washington Road
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Web: www.aja.com
Contact: Pamela Thompson

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Glendale, CA 91201
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Web: www.discreet.com
Contact: Geraldine Stone

Discreet, a division of Autodesk, Inc., is a worldwide leader in digital content creation, management, and distribution tools. Discreet develops systems and software for visual effects, 3-D animation, nonlinear editing, infrastructure and integrated universal mastering workflow solutions as well as realtime 3-D broadcast graphics cre-

ation and delivery systems. Discreet serves a broad range of markets involved in content creation, delivery and use, including: film, television and HDTV, internet broadcast, corporate/government/educational multimedia, post-production, games and animation, and rich media for the web.

DNF Controls **Booth 157**
12843 Foothill Boulevard, Suite D
Sylmar, CA 91342, USA
Tel: 818-898-3380
Fax: 818-898-3360
Email: info@dnfcontrols.com
Web: www.dnfcontrols.com
Contact: David Jaffe

DNF Controls is a leading manufacturer and designer of field proven, award-winning control solutions for the television broadcast and post production industries. DNF Controls' product line includes video server controllers, DDR/VTR controllers, RS422 switchers, and slow motion controllers. The company is headquartered in Sylmar, CA; the web address is www.dnfcontrols.com.

Dolby Laboratories, Inc. **Booths 145, 146**
100 Potrero Avenue
San Francisco, CA 94103
USA
Tel: 415-645-5000
Fax: 415-645-4000
Email: info@dolby.com
Web: www.dolby.com
Contact: Tom Daily

DVS Digital Video, Inc. **Booth 131**
1756 Flower Street
Glendale, CA 91201
USA
Tel: 818-241-8680
Fax: 818-241-8684
Email: info@digitalvideosystems.com
Web: www.digitalvideosystems.com
Contact: Peter Spoer

DynaPIX Wireless Video **Booth 224**
75 Northeastern Boulevard
Nashua, NH 03062
USA
Tel: 603-880-4411
Fax: 603-880-6965
Email: bdrowns@dtccom.com
Web: www.dynaPIX.com
Contact: Bonnie Drowns

The DynaView handheld microwave video receiver/monitor is designed for film assist applications. Roam around the set and switch between three video channels. Operation is in the 2.4 GHz unlicensed band. A 4-in. color monitor is integrated into the unit. One battery provides eight hours of continuous operation. Lightweight, handheld, and affordable!

Encoda Systems **Booths 178, 179**
1999 Broadway, Suite 4000
Denver, CO 80202
USA
Tel: 303-237-4000
Fax: 303-237-0085
Email: jon.hammarstrom@encodasystems.com
Web: www.encodasystems.com
Contact: Jon Hammarstrom

Encoda Systems provides automation solutions from entry-level to high-end, determined by your facility's workflow, number of channels, budget, and ultimate goals. Products include: DAL Playlist Manager–an entry-level solution that incorporates a video server or replaces a cart machine; DAL M-Series Automation–a single-station solution for full automation of one to six channels; DAL Series Automation–a multichannel solution for complex international and domestic configurations.

Evertz Microsystems Ltd. **Booths 126, 127**
5288 John Lucas Drive
Burlington, Ontario L7L 5Z9
Canada
Tel: 905-335-3700
Fax: 905-335-3573
Email: sales@evertz.com
Web: www.evertz.com
Contact: David Strachan

Evertz designs, manufactures, and markets high-quality audio, video, and film equipment required by professional production and post-production facilities and television broadcasters worldwide. Our current product line consists of a wide range of HDTV & SDTV products, routers, keyers and logo inserters, converters, film systems, fiber optics, and closed captioning equipment.

Force, Inc. **Booths 216, 217**
825 Park Street
Christiansburg, VA 24073
USA
Tel: 540-382-0462
Fax: 540-381-0392
Email: force@forceinc.com
Web: www.forceinc.com
Contact: Rod Ballard

GEPCO **Booth 110**
1770 Birchwood Avenue
Des Plaines, IL 60018
USA
Tel: 847-795-9555
Fax: 847-795-8770
Email: gepco@gepco.com
Web: www.gepco.com
Contact: Ken Bernd

Gepco is a manufacturer of audio and video cable, cable assemblies and specialty cable products. Audio cables include multipair/dual-pair, single-pair, multiconductor, speaker, guitar/instrument, microphone, and digital audio. Video cables include general purpose, precision video and serial digital coax, RGB/multicore coax, and camera cable. All cable can be cut to customer length requirements.

Grass Valley Group **Booths 240, 241, 242**
400 Providence Mine Road
Nevada City, CA 95959
USA
Tel: 530-478-3437
Fax: 530-478-3014
Email: peter.d.symes@grassvalleygroup.com
Web: www.grassvalleygroup.com
Contact: Peter Symes

Innovation TK Ltd. **Booths 175, 176, 177**
Scott House
Hagsdell Road
Hertford, Herts SG1 388G
United Kingdom
Tel: 44-1992-553-533
Fax: 44-1992-558-979
Email: kate@innovation-tk.com
Web: www.innovation-tk.com
Contact: Delphi Durrant

The ITK Millennium Machine telecine will be demonstrating the following amazing features: Super 8 gate, to add to the 16mm and 35mm gate; pin registration; genuine 3K and 4K scans at 4 fps; 2K scans at 15 fps; and the ITK data solution.

Kings Electronics **Booth 258**
670 White Plains Road #107
Scarsdale, NY 10583
USA
Tel: 914-713-5000 x314
Fax: 914-713-0123
Email: trustman@kingselectronics.com
Web: www.kingselectronics.com
Contact: Allen Trustman

Kings designs, develops and manufactures RF interconnect solutions for a broad range of industrial markets including military, aerospace, telecommunications and indeed broadcast. Video products operate from analog through HDTV domains. Featured are Fibre-Cam Tri-Loc connectors (7760 series), standard WECO 2.4 Ghz plus video jacks (7750 series) and our exclusive micro mini A-V interconnect system (8600-015-056).

Leader Instruments Corp. **Booths 114, 115**
6484 Commerce Drive
Cypress, CA 90630
USA
Tel: 800-645-5104
Fax: 714-527-7490
Email: sales@leaderusa.com
Web: www.leaderusa.com
Contact: George Gonos

Leader Instruments Corp. manufactures electronic test and measurement equipment. Products include multiformat digital and analog video waveform monitors/analyzers, vectorscopes, sync and test signal generators. Formats include HD-SDI and SD-SDI, component analog, Y/C, and composite for NTSC, PAL, and SECAM systems. Check out the new LV 5170D multiformat HD/SD waveform monitor.

Leitch, Inc. **Booth 120**
920 Corporate Lane
Chesapeake, VA 23320
USA
Tel: 757-548-2300
Fax: 757-548-4088
Email: don.thompson@leitch.com
Web: www.leitch.com
Contact: Don Thompson

Leitch will be showing the latest technology in servers, storage, and content distribution including the NEO series of interface, conversion, and digital processing functions; MediaFile clip and still file; WhipLash II sports multicam slow-motion system; and Pilot, the latest technology in monitoring and control. Highlights include our dpsRealityHD demonstration of HD editing advancements.

LSI Logic Storage Systems, Inc. **Booths 238, 239**
1551 McCarthy Boulevard
Milpitas, CA 95035
USA
Tel: 888-638-2786
Fax: 970-206-5150
Email: info@lsilogicstorage.com
Web: www.lsilogicstorage.com
Contact: Greg Reitman

Maxell Corp. **Booth 124**
22-08 Route 208
Fair Lawn, NJ 07410
USA
Tel: 201-794-5900
Fax: 201-475-5403
Web: www.maxell.com
Contact: Patricia Byrne

Maxell is the manufacturer of magnetic media products, specifically professional audio and video products, which include MS Studio, DAT, ADAT and DTRS audiocassettes, D-2, D-3, D-5, DVCPRO, betacam, betacam SP, betacam SX, digital betacam, VHS and 8MM videocassettes, and floppy disks, optical disks, DLT, 4MM, 8MM, CD-R and DVD-R data media products.

Microwave Radio Communications, LLC **Booth 107**
101 Billerica Avenue
Building 6
North Billerica, MA 01862-1256
USA
Tel: 978-671-5700
Fax: 978-671-5800
Email: info@mrcbroadcast.com
Web: www.mrcbroadcast.com
Contact: Dan McIntyre

Microwave Radio Communications (MRC) (www.mrcbroadcast.com) is the leading provider of analog and digital video microwave systems to television broadcasters in North America and a major provider worldwide. MRC designs, manufactures, and markets microwave radio systems and accessories for broadcasting, telecommunications and government applications. The company is a leader in engineering and research and development of technologically advanced products that support video transmission requirements.

Miranda Technologies, Inc. **Booths 142, 143, 144, 180**
2323 Halpern
St. Laurent, Quebec H4S 1S3
Canada
Tel: 514-333-1772
Fax: 514-333-9828
Email: mpinsonn@miranda.com
Web: www.miranda.com
Contact: Michel Proulx

Mohawk/CDT **Booth 259**
9 Mohawk Drive
Leominster, MA 01453
USA
Tel: 978-537-9961
Fax: 978-537-4358
Web: www.mohawk-cdt.com
Contact: William G. Kosky

Nemal Electronics Intl. Inc. **Booth 201**
12240 NE 14th Avenue
North Miami, FL 33161
USA
Tel: 305-899-0900
Fax: 305-895-8178
Email: info@nemal.com
Web: www.nemal.com
Contact: Ben Nemser

Nemal Electronics is a manufacturer of cable, connectors, assemblies, and patch panels for HDTV broadcast, audio, video, and RF/Microwave applications. We design and install SMPTE standard HDTV composite fiber optic cable systems worldwide. In addition to our stock of over 3,000 items, we manufacture custom products to order. Nemal has offices in Miami and São Paulo, Brasil.

Network Electronics U.S., Inc. **Booth 182**
49 Miller Place
Miller Place, NY 11764
USA

Tel: 631-928-4433
Fax: 631-928-6966
Email: mbilet@networkgroup.no
Web: www.network-electronics.com
Contact: Morten A. Bilet

Network Electronics, manufacturer of fiberoptic broadcast and telecom equipment, will exhibit the Flashlink product line—an optical networking solution capable of transporting 1 to 40 uncompressed SDI channels with 8ch of audio pr. channel on one single mode fiber. Also on display: THOR and GYDA monitoring and control software with TCP/IP and SNMP interfacing. Network Electronics also manufactures the most compact routers, A/V converters, and DA's.

OmniBus Systems **Booth 154**
202 Providence Mine Road
Suite 207
Nevada City, CA 95959
USA
Tel: 530-470-1700
Fax: 530-470-1718
Email: richard.zahm@omnibussystems.com
Web: www.omnibussystems.tv
Contact: Richard Zahm

OmniVue **Booth 167**
157 East 32nd Street
New York, NY 10016
USA
Tel: 212-779-2580
Fax: 212-481-9508
Email: hglass@omnivue.com
Web: www.omnivue.com
Contact: Harry Glass

OmniVue is a manufacturers' representative for advanced analog and digital video technology companies. On display will be the newest products that meet the demands of production, post-production, distribution, and presentation markets. Some of the manufacturers at the booth include: Communications Specialties, Compix Media, Fast Forward Video, Hamlet Video, iDex Displays, Laird Telemedia, Listec Video, Seamount Technologies, Zandar Technology.

Panasonic Broadcast **Booth 219**
3330 Cahuenga Boulevard West
Los Angeles, CA 90068
USA
Tel: 323-436-3500
Fax: 323-436-3660
Email: hillerm@panasonic.com
Web: www.panasonic.com/broadcast
Contact: Michelle Dayot Hiller

ParkerVision, Inc. **Booth 250**
8493 Baymeadows Way
Jacksonville, FL 32256
USA
Tel: 904-737-1367
Fax: 904-731-0958
Email: sales@parkervision.com
Web: www.pvtv.com
Contact: Tom McGowan

ParkerVision's PVTV System allows one director to simultaneously control all the equipment necessary to air an entire live newscast. PVTV handles late-breaking news, controls many third-party devices, integrates with most news automation systems, and can be upgraded to also automate webcasting. Also check out the affordable CameraMan Robotic digital camera.

PatchAmp **Booth 123**
20 E. Kennedy Street
Hackensack, NJ 07601
USA
Tel: 201-457-1504
Fax: 201-457-1507
Email: jimt@patchamp.com
Web: www.patchamp.com
Contact: Jim Tronolone

PatchAmp Distribution Systems (PA-5024) and (PA-5032) are considered major advancements in patching and distribution technology. These patented high-density products simplify and greatly reduce wire fabrication and installation costs. The PatchAmp Distribution Systems combine patch panels and distribution amplifiers all internally wired in 14-rack units frames and are designed for HD, SD, and Analog Video, AES, and RF applications. PatchAmp Distribution Systems are upgradeable from SD to HD without rewiring distribution system.

PBI Media LLC **Booth 215**
6310 San Vicente Boulevard, Suite 510
Los Angeles, CA 90048
USA
Tel: 323-653-8053
Fax: 323-653-9920
Email: akorpita@pbimedia.com
Web: www.pbimedia.com
Contact: Andrea Korpita

PBI Media LLC's Entertainment & Dynamic Media Group includes ShowBiz Expo, the largest and most comprehensive tradeshow and conference for creative production professionals, June 1 - 3, 2002 at the Los Angeles Convention Center. Film & Video Magazine covers the entire process of content creation for entertainment applications, and AV Video & Multimedia Producer addresses the creation of dynamic media for business applications.

PESA Switching Systems, Inc. **Booth 113**
35 Pinelawn Road, Suite 99E
Melville, NY 11747
USA
Tel: 631-845-5020
Fax: 631-845-5023
Email: salesinfo@pesa.com
Web: www.pesa.com
Contact: Dan Mazur

Pixelmetrix **Booth 158**
27 Ubi Road 4
#05-01 MSL Building
Singapore 408618
Singapore
Tel: 65-547-4935
Fax: 65-547-4945
Email: samantha@pixelmetrix.com
Web: www.pixelmetrix.com
Contact: Samantha Koh

Pixelmetrix Corp. provides equipment and network intelligence systems to digital broadcasters and telecom operators for management and monitoring of broadcast service quality. Pixelmetrix DVStationis an award-winning multiport, multilayer powerful parallel computer for monitoring quality-of-service of an end-to-end broadcast network. Designed for content delivery management, DVStation provides signal integrity, service integrity and remote/central casting capabilities for dependable broadcast services.

Quantel Inc. **Booths 128, 129**
199 Elm Street
New Canaan, CT 06840

USA
Tel: 203-972-3199
Fax: 203-972-3189
Email: quantel@quantel.com
Web: www.quantel.com
Contact: Ken Ellis

Quantel manufactures innovative, creative products for the broadcast and post community worldwide. From Paintbox to Editbox, Infinity and now iQ, Quantel has brought the graphics creation process to the forefront of the design industry.

Quartz Electronics Ltd. **Booth 130**
59 Suttons Business Park
Reading, Berks. RG6 1AZ
United Kingdom
Tel: 44-118-935-0200
Fax: 44-118-935-0202
Email: sales@quartzuk.com
Web: www.quartzuk.com
Contact: Michael Hall

Rohde & Schwarz, Inc. **Booth 251**
7150-K Riverwood Drive
Columbia, MD 21046
USA
Tel: 410-910-7800
Fax: 410-910-7801
Email: rudy.niznansky@rohde-schwarz.com
Web: www.rsa.rohde-schwarz.com
Contact: Rudy Niznansky

The Rohde & Schwarz group of companies with headquarters in Munich develops, produces and markets communications and T&M instruments and systems with the emphasis on mobile radio, broadcasting, EMC measurements, general-purpose and RF test equipment, radiomonitoring and radiolocation, radiocommunications as well as IT security. Rohde & Schwarz has subsidiaries and representatives in over 70 countries.

Ross Video Ltd. **Booths 159, 160**
8 John Street
Iroquois, Ontario K0E 1K0
Canada
Tel: 613-652-4886
Fax: 613-652-4425
Email: stever@hq-rossvideo.com
Web: www.rossvideo.com
Contact: Steve Romain

SeaChange International **Booth 109**
124 Acton Street
Maynard, MA 01754
USA
Tel: 978-897-0100 x3099
Fax: 978-897-0132
Email: adelaney@schange.com
Web: www.schange.com
Contact: Brian Cabeceiras

Sencore, Inc. **Booth 163**
3200 Sencore Drive
Sioux Falls, SD 57107
USA
Tel: 800-736-2673
Fax: 605-335-6379
Email: gcarter@sencore.com
Web: www.sencore.com
Contact: Garrett Carter

Sencore offers MPEG DVB and ATSC streamers, players, analyzers and real time monitors; serial digital analyzers and generators, 8-VSB monitors, 8-VSB modulators, 8PSK modulators, signal level meters, and cable testing products. Most recently introduced is a line of transport stream servers. Call 1-800-SENCORE for all of your testing needs.

Snell & Wilcox **Booths 150, 151**
2225-1 Martin Avenue
Santa Clara, CA 95050
USA
Tel: 408-260-1000
Fax: 408-260-2800
Email: info@snellamerica.com
Web: www.snellwilcox.com
Contact: John Shike

Snell & Wilcox is a world leader in the design and manufacture of digital image processing products for new media, television broadcast, and post-production applications. The company has one of the world's largest specialist research teams dedicated to processing the moving image in realtime.

Sony Electronics Inc. **Booth 116**
1 Sony Drive
Park Ridge, NJ 07656-8003
USA
Tel: 201-358-4107
Fax: 201-930-4752
Contact: Gerard Charles

Sundance Digital, Inc. **Booth 174**
4500 Fuller Drive, Suite 205
Irving, TX 75038
USA
Tel: 972-444-8442 x102
Fax: 972-444-8450
Email: sales@sundig.com
Web: www.sundancedigital.com
Contact: Steve Krant

Sundance Digital, the new leader in television automation for centralcasting and individual stations, offers affordable, high-performance software solutions: FastBreak Automation, for comprehensive on-air control of video servers, tape transports, switchers and peripherals; Intelli-Sat Broadcast Recording Manager; SalesView content browser; TimeLiner event sequencing, and FastBreak Spot Play, for commercial insertion.

SyntheSys Research, Inc. **Booth 132**
3475-D Edison Way
Menlo Park, CA 94025
USA
Tel: 650-364-1853
Fax: 650-364-5716
Email: michelle_brown@synthesysresearch.com
Web: www.synthesysresearch.com
Contact: Michelle Brown

SyntheSys Research, Inc., manufacturers innovative test and measurement equipment providing solutions to the telecommunications, semiconductor, disk drive, and video industries worldwide. Specializing in physical layer format testing, SyntheSys Research has developed the worlds first eye diagram with jitter spectrum display for high-definition serial digital video signals.

TANDBERG Television **Booths 103, 104**
12633 Challenger Parkway, Suite 250
Orlando, FL 32826
USA
Tel: 407-380-7055
Fax: 407-380-6691

Email: lhobbs@tandbergtv.com
Web: www.tandbergtv.com
Contact: Lisa J. Hobbs

Tandberg Television is a market leader in the provision of open solutions for the digital broadcasting of video, audio, and data across various networks including satellite, terrestrial, IP and telecom. Its digital solutions are currently used by broadcasters around the country, including NBC, CBS, Tribune, FOX, Warner Brothers, and Telemundo.

TECHNIFORM **Booth 245**
PO Box 8283
95802 Cergy Cedex
France
Tel: 33-1-30-75-02-59
Fax: 33-1-30-75-01-22
Email: techniform@wanadoo.fr
Web: www.techniform.fr
Contact: Michele Hubert

Techniform offers a wide range of wipers and soft touch tires that are renowned for their higher resistance to wear and contamination. The largest laboratories and most equipment manufacturers throughout the world trust Techniform's products.

Tektronix, Inc. **Booths 152, 153**
14150 SW Karl Braun Drive
Beaverton, OR 97077
USA
Tel: 503-627-7111
Fax: 503-627-3678
Web: www.tektronix.com
Contact: Eric Hodges

TeraNex **Booths 183, 184**
7800 Southland Boulevard
Orlando, FL 32809
USA
Tel: 407-858-6000
Fax: 407-858-6001
Email: info@teranex.com
Web: www.teranex.com

Teranex, Inc. is a leading provider of scalable, realtime video computing platforms, applications and services for broadcast, film, post-production and internet video. The company manufactures the industry's first realtime video computer which runs the Xantus format conversion, the Starfront noise reduction and pre-compression processing, and the Star-up integrated upconversion and advanced noise-reduction applications developed by Teranex.

Trompeter Electronics **Booth 108**
31186 La Baya Drive
Westlake Village, CA 91362
USA
Tel: 818-707-2020
Fax: 818-865-4454
Email: sales@trompeter.com
Web: www.trompeter.com
Contact: Mark Borton

Utah Scientific, Inc. **Booth 173**
4750 Wiley Post Way, Suite 150
Salt Lake City, UT 84116
USA
Tel: 801-575-8801
Fax: 801-537-3099
Email: rfowler@utsci.com
Web: www.utahscientific.com
Contact: Ray Fowler

Since 1977 we have been manufacturing a complete line of routing switchers, master control switchers, and automation systems. Come see the new HD-2020 digital master control switcher and the just released UTAH-400, an entirely new approach to large-scale digital routing switchers.

Video Products Group, Inc. **Booths 111, 112**
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Camarillo, CA 93012
USA
Tel: 805-383-5500
Fax: 805-383-5519
Email: sshiller@vpginc.com
Web: www.vpginc.com
Contact: Sue Shiller

Video Products Group Inc., (VPG) is a leading provider of advanced technology uncompressed and compressed video transport solutions for users who need broadcast/contribution-quality video signals delivered absolutely error-free in realtime over any long distance in a fully managed environment. Solutions include: SDI/SDTI embedding and transport; network management; DVB-ASI mux transport; network interfaces OC-3, OC-12, ATM; DWDM; and data embedding. Check the website for a complete line of VPG products.

Videotek, Inc. **Booth 156**
243 Shoemaker Road
Pottstown, PA 19464
USA
Tel: 610-327-2292
Fax: 610-327-9295
Email: dtaylor@videotek.com
Web: www.videotek.com
Contact: Jerry Williamson

Vistek Electronics **Booth 202**
195 Maplewood Avenue
Maplewood, NJ 07040
USA
Tel: 973-313-6416
Fax: 973-313-6469
Email: don.cardone@vistek.tv
Web: www.vistek.tv
Contact: Don Cardone

West Penn Wire/CDT **Booth 260**
2833 West Chestnut Street
Washington, PA 15301
USA
Tel: 800-245-4964
Fax: 724-222-6420
Email: lou.valente@westpenn-cdt.com
Web: www.westpenn-cdt.com
Contact: Louis V. Valente

Wohler Technologies **Booth 232**
713 Grandview Drive
South San Francisco, CA 94080
USA
Tel: 650-589-5676
Fax: 650-589-1355
Email: sales@wohler.com
Web: www.wohler.com
Contact: Chris Shaw