

# NAB 2001 DAILY NEWS

The Convergence Marketplace

From the Publishers of Radio World, TV Technology, Pro Audio Review and Audio Media

## DTV Deadlines Challenge

### Session Looks at Digital Rollout

By Andrew Morris  
TV TECHNOLOGY



The Sunday morning session titled "Meeting the DTV Deadline" highlighted the struggles stations continue to experience as the DTV rollout progresses. This session, moderated

by Jeff Andrew of Gannett Broadcasting and kicking off the NAB Broadcast Engineering Conference, discussed the state of digital television throughout the world, techniques for improving DTV coverage, the rollout of DTV closed captioning and knowledge to be gained from stations that have implemented DTV in the United States.

"To date, 187 stations have gone on the air with DTV," said Andrew. "For the remainder of the commercial stations to meet the FCC mandated deadline of May 1, 2002, we

would have to see one station go on the air every six hours between now and then."

Joseph Flaherty of CBS, Philip Laven of the European Broadcasting Union and Om Khushu of the Asia-Pacific Broadcasting Union reviewed the state of digital television throughout the world today.

Referring to the FCC's reaffirmation of 8-VSB as the DTV modulation standard, See DTV Deadline, page 2

### Larger Facilities Demand New Solutions

By Ken R.  
RADIO WORLD



As satellite radio comes online and as broadcast groups form more massive market clusters, engineers must handle management issues, from audio storage to personal communication, in new ways.

This was apparent in a panel discussion that moderator Paul McLane, editor of Radio World newspaper, called an "engineering summit meeting."

Al Kenyon, vice president of projects

and technology for Clear Channel Radio, said his company designated a group of 15 regional engineers who each oversee from 40 to 120 stations in the 1,200-plus station group.

"The regional managers work closely with local engineers in purchasing and maintenance decisions," said Kenyon, "and you definitely want the local people to feel that they have an input into these decisions."

Margaret Bryant is director of engineering and technical operations for ABC Radio Networks. She deals with a number of 24-hour, satellite-delivered music formats that are based in Dallas, news

See Roundtable, page 2



### NAB2001: The Pilgrimage to Vegas

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## DTV Deadline

Continued from page 1

Flaherty said, "With the modulation issue put to bed, the DTV rollout is accelerating. There are now 64 markets covering 68 percent of U.S. households with DTV. With more than 1,100 stations slated to go on the air with DTV by May 1, 2002, we can expect some delay."

### DIFFERENT IDEAS

Laven said, "Digital television — not HDTV — is what is important in Europe. After a serious flirtation with HDTV in the mid-90s there is now little or no interest in HDTV."

"Features that are important," said Laven, "are the addition of program services, a widescreen aspect ratio and mobile service."

"In Asia, in general, most countries are moving toward digital," said Khushu. "Most have chosen COFDM and most have left open or mandated the possibility of HDTV. Mobile services and data-casting applications are seen as attractive offerings."

R.W. "Sam" Zborowski of ADC Telecommunications discussed Single Frequency Network techniques for on-channel boosters for 8-VSB.

"With the absence of spectrum for translators, on-channel boosters can be used for special situations in 'propagationally challenged' areas," Zborowski said. He discussed the issues that must be addressed so that an on-channel



Jeff Andrew

boosters can be used to solve 8-VSB coverage problems in different types of terrain.

### CLOSED CAPTIONING & DTV

Gerry Field of CPB/WGBH NCAM and Gregory Forbes of PBS discussed the implementation of closed captioning in the DTV signal.

"The DTV closed captioning standard provides the means to derive data from line 21 data in the analog NTSC signal. This means stations will not have to recaption all of their programming," said Field.

Dave Sparano of Harris Corp. reviewed the experiences of 100 TV

## Stations Urged to Offer HDTV

David Ranada, the technical editor of Sound and Vision magazine, opened the 2001 NAB Broadcast Engineering Conference with a compelling argument for why broadcasters must embrace HDTV. Introduced by Lynn Claudy, NAB senior vice president, science and technology, Ranada said, "Broadcasters are in a battle for the consumer's time with packaged media. The only way to win this battle is with HDTV."

"In the past, the term 'Broadcast Quality' meant the highest quality available for a video or an audio signal," Ranada said. In recent years, the terms "CD Quality" and "DVD Quality" have supplanted "Broadcast Quality" as the benchmark for superior audio and video. In fact, today the phrase "Broadcast Quality" is met with derision from high-end consumers.

Ranada pressed the argument that consumers are becoming increasingly sophisticated in their choices for home entertainment. Inexpensive, high-end test materials have become available for consumers to set up high-quality entertainment centers. Broadcasters are in danger of losing this leading edge and trend-setting customer to providers of packaged media.

"People will buy HDTV sets in order to watch HD tapes and HD DVDs," Ranada said. This in turn, Ranada implied, leaves broadcasters little choice but to embrace HDTV to compete with packaged media.

— By Andrew Morris



David Ranada

stations that have implemented DTV with Harris transmitters.

Sparano pointed out the many project-management techniques that can be used to anticipate and alleviate the inevitable problems that arise when installing a new transmitter and antenna, reinforcing an old tower, renovating an old building and installing new or reusing old transmission lines.

## Roundtable

Continued from page 1

operations in New York and Los Angeles, and commentator Paul Harvey, based in Chicago. She said the telephone is a critical tool in communication among engineering staff.

"There used to be lots of e-mail back and forth, but we've found that teleconferences are more useful for staying in tune with what everyone is doing," said Bryant. "It's a matter of personal style, but it seems to be more one-on-one, and I like the change."

Tony Masiello, vice president of operations for XM Satellite Radio, oversees a new facility in Washington, that will feed programming to 100 channels. XM has instituted a "service level agreement" approach to technical management, with differing tiers of responsibility.

"On the first level are the operators of the control centers, the front-line guys," said Masiello. "On level two are the maintenance people who attend to failing equipment and on the third level are the engineers who solve the non-maintenance problems."

Masiello said "turfs" had to be firmly delineated and comparable pay ranges instituted.

### WORKING TOGETHER

Not only do more stations share space under one roof these days, but Internet and broadcast departments constantly butt heads. Frank McCoy, vice president of engineering for American Media Services, said many station Web pages are merely a dumping ground for public service announcements and other information that should not be clogging up on-air programming.

Kenyon said his company tries to make the content compelling and wants Internet and broadcast functions to work together.

"In fact, local news stories from our individual stations are sent to Chicago for editing and then they are inserted into the Web pages," he said.

The session covered a broad range of engineering management topics and was attended by approximately 100 engineers and managers.

David Baden, director of technical operations for Radio Free



From Left: David Baden, Frank McCoy, Margaret Bryant, Al Kenyon, Tony Masiello and Paul McLane.

Asia, said that despite a tendency to think of them as separate domains, broadcast engineers also need to be involved with the Internet, because, he said, streaming is the model of broadcasting in the future.

As technology leaps forward, a challenge for large organizations is to build facilities in such a way that they won't be obsolete quickly. For example, McCoy said, his former employer built a facility a few years ago that could handle voice-tracking by DJs in multiple markets.

"With that need in mind, we built a great facility in Austin; and even though it's only three years old, it's technically behind. Three years is an eternity."

Ken R. is a former broadcaster who now devotes full time to writing.

## NAB 2001 The Convergence Marketplace



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# NAB Unites New Talent, Industry

By Laura Dely  
RADIO WORLD



Radio, TV and Internet students, as well as other broadcasting aspirants gathered to meet potential employers and hear how they might begin to build a career in the industry at two events Sunday.

The events were sponsored by A.F. Associates, Inc., a broadcast engineering firm that has introduced a computer-based video asset management system.

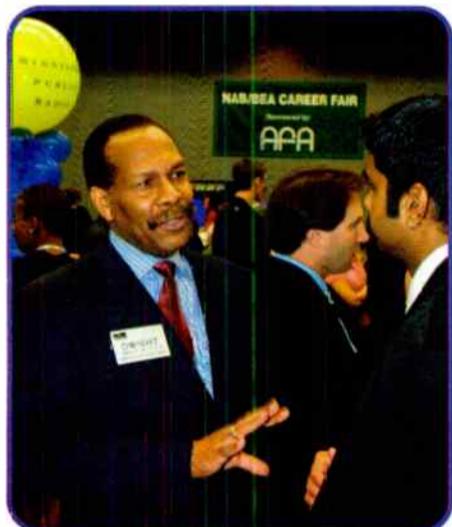
The NAB's Department of Human Resource Development's NAB/Career Employment Seminar began the day with a panel of experienced broadcasters who told the attendees how they got started in the industry and how the hopefuls might proceed to achieve similar success.

## A PLACE FOR ALL

All the panelists offered compelling testimonials about their starts in the industry, but an address from Patty Talahongva, White Spider Communications president and member of the Native American Journalists Association, was perhaps the most heartfelt when

she first spoke to the crowd in her native Hopi, then explained in English how her company television company was named.

"My name in Hopi means "white spi-



Dwight Ellis discusses career opportunities with a student.

der," Talahongva said. She asked if there were any other Native Americans in the room. She said it "breaks my heart that I am the only Native American here."

Dwight Ellis, vice president of NAB's Human Resource Development department, said that the seminar and the NAB/BEA Career Fair that followed were part of NAB's continuing initiative to insure that new people who aspire to work in the broadcast industry in any capacity have a way to be connected to people and institutions that can make that happen.

"This effort is now more important than ever before," said Ellis. "With convergence of the industry, there will be fewer jobs and with the EEO rules in limbo, it's important to connect prospective employers and employees to establish the relationships that lead to jobs and great careers in broadcasting."

Sherri Brennen, vice president of recruiting and training at Belo Broadcasting, said her company participates in the annual Career Fair because it is a great place to look for young people who would be with the company a long time.

"Also, we have a multiplatform company, so we like to find great people for our TV stations, Web sites and newspapers. The Career Fair provides an opportunity to build on our 100-year old talent search."

## THINKING AHEAD

Johanna Garcia is a sophomore at Northern Arizona University in the electronic communications program. She hoped the seminar would help her get a head start in her broadcasting career.

"I brought a sample resume so I can have it evaluated by the panel they have to do that here," Garcia said. "I also want to know how I can improve my chances [of being hired], what classes I should take.

Media liability and loss prevention are a concern in the new millennium. In today's session, You be the Jury - You Decide: Local Broadcasters On Trial, 3:30-4:45 p.m., LVCC N234/236, these issues are discussed in a mock trial format. The panelists discuss topics ranging from newsgathering torts, libel, invasion of privacy, trespass and the First Amendment. Panelists include: Jim Borelli, Media/Professional Insurance Agency Inc., Mike DiSilvestro, Media/Professional Insurance Agency Inc., Richard Goehler, Frost Brown Todd and Jerianne Timmerman, Legal & Regulatory Affairs.

And then next year, when I'm old enough to be an intern, I'll have better shot at getting a good situation." Ellis said that Garcia's got it right.

"This is a process — a career development process that is based on relationships: who you know and individual relationships," said Ellis.

"More than anything else, the NAB's department of human resource development provides mentors that allow prospective employees to show that they can communicate well and work well with people — important keys to succeed now or even further down the road."

Ellis mentioned that the next step in the NAB's effort to connect potential employers with employees will be an invitation-only human resource symposium for 100 broadcasting executives in Washington, D.C. in May, with keynote speaker Jeremy Rifkin.

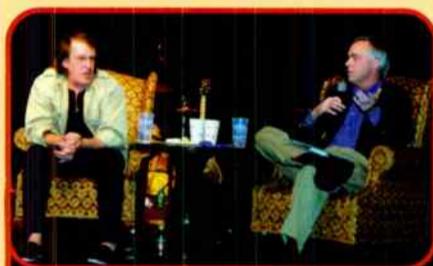
The topic for the symposium is "A Future for Diversity in Broadcasting" and will explore recruitment, promotion and retention of diverse personnel in the broadcast industry.

# Freedom Sings With Jefferson Starship

A blast from the past to kick off NAB2001: Jefferson Starship was among the featured entertainment Saturday at the "Freedom Sings" concert, a program of musical concerts presented by the First Amendment Center. Freedom Sings, a celebration of free expression in music, promoted awareness of the connection between music and the First Amendment at the Saturday evening event at the Mirage hotel.

The evening began with a cocktail reception followed by a panel discussion and musical performance featuring Jefferson Starship with Paul Kantner and Marty Balin; and Nashville, Tenn., recording artists Andrew Gold, Jonell Mosser, Bill Lloyd and Will Kimbrough. The event was co-sponsored by the Freedom Forum and the NAB Education Foundation.

Artists contributing to Freedom Sings performed songs banned by the government (from pre-Revolutionary times to present day), censored by radio or that have been viewed as offensive. Performers combine banned songs and protest anthems of the past with their own material.



Paul Kinder of Jefferson Starship (left) and Ken Paulson, executive director of the First Amendment Center, speak about censorship and the freedom of expression. Jefferson Starship headlined the Freedom Sings concert.



# NRSC Finalizes AM IBOC Test Criteria

By Leslie Stimson  
RADIO WORLD



NRSC members unanimously passed criteria for AM lab and field test procedures on Saturday at its meeting in Las Vegas. "iBiquity has everything they need to test," said Milford Smith, DAB subcommittee chairman of the standards-setting body, the National Radio Systems Committee.

The group had previously given iBiquity the FM test procedure and the company says those tests are nearly complete. It plans to begin AM testing right after the completion of NAB2001.

Other than the station field tests, lab tests facilities being used are the Advanced Television Test Center in the Washington, D.C., area and DynaStat in Austin, Texas.

These tests are different from earlier tests in that now there is just one company developing IBOC technology. Smith said that with these test data, the body will be able to draw some definite conclusions about the viability of IBOC.

When the NRSC reviewed earlier data from what were then two propo-

nents, USA digital Radio and Lucent Digital Radio, it concluded there "was a reasonable probability" that IBOC would be a significant improvement over analog, one of the main goals of the NRSC in evaluating this technology.

Unlike earlier tests, which were conducted and supervised by the proponents, these new tests are conducted by iBiquity and monitored by NRSC test observers. Once the data is turned over to the NRSC, Smith estimated a 60- to 90-day evaluation period.

As iBiquity is still integrating the Perceptual Audio Coder into its system, initial tests are being done with the former USADR's AAC. Some tests relating to audio performance would likely need to be redone with PAC.

Smith estimated the NRSC could issue a final report and possible recommendation of the system by mid-2002 and believes the FCC would move expeditiously on IBOC station authorization.

The test procedures working group, headed by Journal Broadcast's Andy Laird, was heavily involved in developing the test criteria. At the next DAB subcommittee meeting, planned for May 8, that group plans a so-called "hand-off" to the test evaluation group, headed by VOA's Dr. Don Messer.

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# DV: Storytelling Production Tool

By Mary C. Gruszka

TV TECHNOLOGY



telling great stories.

Whether HD or DV, digital video technology — as fascinating as it is from a technical point of view — is ultimately a tool for telling great stories. Ideas on making the best creative use of this technology were shared at the Digital Video Production Workshop, “Track One: Production Tools and Techniques,” held Saturday at the Venetian. Produced by the CMP Digital Video Media Group partnering with NAB, the workshop offered six engaging and informative sessions on topics ranging from digital cameras, desktop applications, nonlinear editing, graphics, lighting and digital cinema.

In “Session 1: Desktop Tools for High-Quality Delivery,” Todd LeValley and Gary Reisman, both from the NBC Agency, MAGIC Room in Burbank, Calif., discussed how low-end tools can successfully be used for high-end broadcast delivery.

They outlined both the advantages and disadvantages of the desktop approach and offered helpful hints to make the “low-end look higher.”

“We’ve found that not only are the low-end tools great for producing elements for the big boxes, but with the latest versions of software, they can easily do projects from storyboarding to the final compositing,” LeValley said.

While film shows no signs of a dying any time soon, HD and DV production are having a marked impact on cinema. But it is still a “wild frontier” out there, as Adam Wilt said at the start of “Session 2: Digital Cinema, HD in Production and Exhibition.” Wilt, a consultant, owner Origin8 Video and senior engineer at Omneon VideoNetworks moderated this session, which featured consultant Charles Poynton, cinematographer Jeff DeVuono and

HD pioneer Barry Rebo of Emerging Cinema, as panelists.

One advantage for shooting in HD is



The Digital Video Production Workshop sessions offered suggestions on how to best utilize technology as a tool for creative storytelling.

that it “eliminates the what-ifs,” DeVuono said. “You can see if something’s wrong, and if it is, you can fix it.”

Poynton said that for electronic cinema, various technical issues need to be resolved due to the technical differences between 35mm film and HD video, and also the differences between video viewed in a light or dim environment like the home, and a dark environment like a cinema.

Even so, there are HD exhibitor opportunities today, Rebo said. He is working to create an infrastructure of cinemas in alternative venues like museums and performing arts centers that would engage digital technology to create cost-effective ways for distributing and projecting high-quality film.

“The last hurrah for specialty films is digital cinema,” said Rebo.

The four breakout afternoon sessions delved deeper into the technology; the art and craft of DV production.

Bruce Johnson, Painted Post Multimedia, and Adam Wilt presented an

overview of DV cameras, features, controls and filters and how to get the best pictures out of them.

Lighting, as Wilt said, is the most important non-camera component of image quality, and John Jackman, Comenius Communications, demonstrated effective lighting techniques.

Motion Graphics Techniques was conducted by Trish and Chris Meyer, Cybermotion and Nonlinear Editing Techniques was covered by Frank Capria, Kingpin DTVpix.

“Editing is more than getting the viewers from A to B,” Capria said. “It is about making the audience feel a certain way once they are there.”

More details about this session are available at the Digital Video Web site, [www.DV.com](http://www.DV.com)

Mary C. Gruszka is a systems design engineer and consultant in the New York metro area and a frequent contributor to TV Technology.

## Content, Compression, Moneymaking

By Robert Brilliant

TV TECHNOLOGY



With broadband growing wildly and with wireless devices in common use across much of Asia and Europe, it is time for the production industry to revise its Web media production standards, carefully consider new compression schemes and look closely at ways for making money via Internet-distributed media.

These were some of the conclusions reached in the Digital Video Production Workshop’s track two program, “Web Delivery,” held Sunday at the Venetian Hotel. A large, enthusiastic crowd heard presentations and a lively interchange of ideas from experts in Web video production, distribution and business model development.

The opening panel discussion covered the topic of Web video and interactivity with a focus on the promises and challenges of MPEG-4, the latest version of MPEG which may emerge as a ubiquitous compression standard.

MPEG-4 encompasses codecs for video, several types of audio, and graphics and interactivity. An MPEG-4 enabled device would comply with all these codecs.

### INTEROPERABILITY?

Panel moderator Peter Hoddie of Generic Media noted that MPEG-4 could show the way to wide-scale interoperability, defined by the panel as the ability to create content that can play on any desktop, wireless or set-top device.

“Interoperability for different kinds of content through a common standard is the promise that MPEG-4 brings us,” Hoddie said.

Panelist David Singer of Apple Computer voiced a similar opinion, noting that MPEG 4 will nurture a “multivendor ecology” with one compression standard sup-

ported by many vendors. Singer also said that because MPEG-4 supports interactivity, it may open the door to true interactive television Webcasting.

Fellow panelist Julien Signes of Envivio saw the prime challenges presented by MPEG-4 as improved production values for content, better compression techniques and digital rights management for protecting copyrights and controlling distribution.

The panel, which also included Bob Frye Sr. of PacketVideo, Ganesh Rajan of iVast and Jordi Ribas-Corbera of Microsoft, generally agreed that the evolution of MPEG-4 will involve a complex interplay between what is technically possible and what users actually want.

### TIMELY TOPIC

The next session was a spirited exploration of a timely topic: How to monetize Web video content.

This panel was moderated by Nels Johnson of Download Recordings, who described subscription-based micro-payments as the Holy Grail of current Web video monetization efforts. This model is based on making Internet content available to users through micro-fees that run from a few cents to a few dollars per use.

Some conclusions reached by this session’s panelists included: Current e-commerce is not a monetizing model for Internet content, high-quality broadband must become commonplace before most people will pay for mainstream content delivered over the Internet, micro-payment schemes now in development are several years away from deployment, and the public mindset that the Internet is free will change when quality content is available at a reasonable price.

The track’s afternoon sessions included Web-based animation, methods for automating Web production, compression tips and tricks, and a breakout session on the do’s and don’ts of Webcasting.

## Digital Radio Around the World

By Leslie Stimson

RADIO WORLD



Attendees at the “DAB Global Perspectives” Engineering Conference track session heard the latest about field tests for the Digital Radio Mondiale system, U.K. receiver uptake and the U.S. perspective on DAB.

Peter Jackson, Merlin Communications International, gave an overview of the London field tests of the Digital Radio Mondiale system for MF/HF bands. DRM used five propagation models, using real-time channel simulators to test the ability of the system to work with existing transmitters. DRM used Thomcast equipment but said other manufacturers are beginning to develop equipment designed to be compatible with the DRM signal, including Fraunhofer.

The OFDM signal transmitted is designed to occupy 10 kHz bandwidth, he said.

The recent ITU recommendation of the DRM system for a DAB standard is the “first part that’s necessary for digital broadcasts to take place” in the AM band, he said.

DRM is seeking approval from the IEC and ITU as well, and hopes to receive approval for receiver standards in Q1 of 2002.

Digital radio is facing a “standards Babel,” said David Wood, EBU, Geneva, referring to the plethora of systems such as DRM, iBiquity, WorldSpace, Eureka-147 and the satellite DAB systems in the U.S.

Consumers want smaller, portable and cheaper DAB receivers. “Clearly we’re not there yet,” he said. But he did point to a price reduction in DAB receivers in England to £450.

Forty-thousand DAB receivers recently sold in the U.K., he said. He showed the audience a new DAB receiver on the market in the U.K., the Psion Wavefinder.

Charles Morgan, NRSC chairman, Susquehanna Radio, was slated to give the U.S. perspective. He was ill and could not attend the session, but Moderator Milford Smith read a statement that summed up his perspective on IBOC in the U.S. as “uncertain.”

When IBOC in the U.S. will become a reality is a “moving target,” he stated. If the commercial rollout goes as hoped, he stated, he believes 5 percent of the U.S. listeners would be hearing terrestrial digital radio in 2005.

# MPEG-4 Explained at SMPTE Seminar

By Andrew Morris  
TV TECHNOLOGY



The traditional Saturday SMPTE seminar, held every year at the annual spring convention, explained in scrupulous detail the MPEG-4 standard. MPEG-4 is a set of object-oriented coding technologies used for the representation of multimedia content.

Chaired by Richard Mizer and Rob Koenen, the session featured a variety of speakers, including representatives of Apple Computer, AT&T Laboratories, C-Cube, Microsoft, Philips, Sony and Sarnoff Corp.

The speakers explained various aspects of the MPEG-4 standard, including both low and high bit-rate applications ranging from video delivered to a cell phone to video delivered to a 35-inch television receiver.

## FILLING A NEED

Rob Koenen of InterTrust explained that MPEG-4 was developed to fill "the need for a common multimedia technology that offers solutions to the three main service paradigms. These are broadcast, peer-to-peer communication and user-to-host retrieval."

MPEG-4 offers tools for coding content ranging from mobile devices, such as cellular phones and personal digital assistants (PDAs), to streaming services, such as video delivered over IP networks and broadcast of high-quality video content.

"Nobody believes MPEG-4 will replace MPEG-2 due to the current investment in MPEG-2 equipment," Koenen said, "but MPEG-4 content can be carried over MPEG-2 systems."

For low bit-rate applications, such as wireless delivery to handheld devices, MPEG-4 provides technologies for error recovery. Jack Donner of Packet Video said, "Wireless environments are too error-prone for today's multimedia delivery methods. MPEG-4 offers robust solutions for delivering multimedia content in this type of environment."

Didier LeGall of C-Cube Microsystems discussed the requirements for higher bit-rate applications, "My concern is with the ability to deliver broadcast-quality video at about a 1 Mbps compression rate to a 35-inch television receiver and not to a display that is the size of a postage stamp. The last thing you want to see is blocking effects on a 35-inch TV," said LeGall.

LeGall added, "Despite the success of MPEG networks in the satellite and cable industries, video over IP will not go away and we will only see more and more over time." LeGall anticipates delivery of broadcast quality video to television receivers via the Internet.

## CHOOSE YOUR OBJECT

The object-oriented nature of MPEG-4 allows for a host of interesting possibilities. These include the transmission of individual MPEG-4 coded objects that can be assembled at the client location. A viewer could choose whether or not he or she wanted a stock ticker or sports scores parading across the lower third of the TV set.

Isabelle Corset of Philips jokingly held out the possibility of transmitting video of

a soccer match with all the video available to the viewer except the ball — if the viewer is willing to pay, the coded object representing the soccer ball would suddenly become available.

Microsoft's Jordi Ribas-Corbera struck a discordant note when he said, "MPEG-

4 is a little like the Energizer Bunny of standards — it offers a large set of tools." Ribas-Corbera seemed to be saying that the standard keeps going and going and has become too unwieldy to implement.

Ribas-Corbera indicated that there is a lot of support for Windows Media Player and

that it is installed in a lot of handheld devices. "I'm not sure if MPEG-4 makes sense from a business standpoint," said Ribas Corbera.

Philips' Corset and InterTrust's Koenen pointed out that Microsoft's Windows Media Player technology has an MPEG-4-compliant video coder, but is not compliant with MPEG-4 audio coding and is also not compliant at the system level. In essence, they said, Windows Media is not compliant with the MPEG-4 standard in any meaningful way.

Corset said, "MPEG-4 is a standard and we are not at the stage of ensuring interoperability. The support of hundreds of companies assures content longevity."

Soon it will be up to the marketplace to decide the place MPEG-4 has in the worlds of broadcast and streaming media.

*Andrew Morris is a consulting engineer based in New York City. He writes an irregular column for TV Technology magazine and is also working for NBC on the broadcast of the 2002 Winter Olympic games from Salt Lake City.*



From left to right: Richard Mizer, Jack Donner, Shawn Ambewani, Al Barton, Isabelle Corset and Michael Tinker.

# Crossing the DTV Finish Line

By Joe Fedele  
TV TECHNOLOGY



This year's NAB Television Management Conference began with a hard look at some of the main issues confronting the DTV transition. With an impressive list of high-profile players from various facets of the television and regulatory industries, the six-person panel and moderator Dick Wiley exchanged their views and answered some tough questions about the realities of facing the digital television age.

At issue was how quickly broadcasters will step up to the plate on DTV, and what the outlook is for multichannel programming and HDTV as the road to digital progresses. "The DTV transition has clearly been slowed," said Wiley. "What we need now is vision and leadership, primarily from broadcasters but, more importantly, from the government, too."

This sentiment was reflected by several of the panelists. Representing the NAB on the panel were Valerie Schulte, Deputy General Counsel, and Lynn Claudy, Senior Vice President. "There are many pieces to the DTV puzzle that must be in place for DTV to move forward," Schulte said.

"Cable Must-Carry" was one topic the majority of the panel agreed upon as being the number one impediment to a rapid DTV transition scenario. "We need to be able to reach people," Schulte said, and "cable must-carry is a critical part of that transition."

On the regulatory side was Bob Pepper, chief of the FCC's Office of Plans and Policy in Washington, D.C. Pepper responded by saying that "broadcasters are going on the air" and that 2001 will be a "critical year" for the DTV transition.

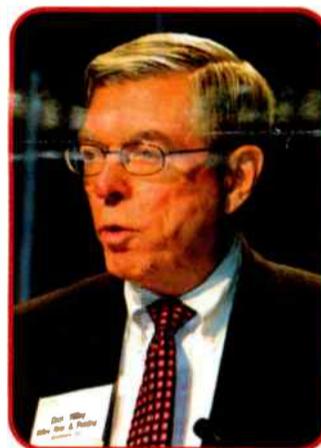
"[But] programming is a vital part of

the transition that few broadcasters are working on," he said.

"There is a supply side of creating consumer demand," said Pepper, "CBS and PBS are the only two out there experimenting with content and supplying content."

Pepper noted that "the cable industry is quite interested" in carrying broadcasters' channels, "but they want programming that is very compelling."

Gary Shapiro, presi-



Dick Wiley

must mandate."

"We have a standard now," he said, but "overall it has been a transition that has been rocky." And "asking consumers to put up a 12-foot TV antenna on their roof [to receive a DTV signal] is not practical."

Another important issue discussed was the FCC's transmission standards ruling this January, when the commission reaffirmed its commitment to the 8-VSB specifications.



From left to right: Moderator Dick Wiley, Paul Karpowicz, Joseph Kraemer, Bob Pepper, Valerie Schulte, Gary Shapiro, and Lynn Claudy

dent of the Consumer Electronics Association (CEA), appeared to agree with Peppers' position, stating that TV viewers "are watching a lot more of CBS because they are providing programming."

But he also noted that when discussing availability of content "we need to include all DTV program products," including DVD and satellite.

But panelist Paul Karpowicz, vice president of Television for LIN TV, referred back to the must-carry situation, stating that "it is the ultimate chicken and egg situation. If we are going to have a government-mandated timeline, must-carry is another thing the government

"The commission is very engaged and monitoring the issues very closely" said Pepper. And "the FCC is working with people from various industries to make the transition smoother and faster."

Joseph F. Kraemer, management consultant and director of LECG LLC in Washington, D.C., pointed out that "the speed of the transition depends on the FCC." He later said, "there is a need for congressional action" to make the transition move faster.

Claudy agreed, saying that "if you do not have forced implementation," then the road to a smooth transition will be a long one.



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From the Publisher of  
Radio World  
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Audio Media

# NAB DAILY NEWS

## THE WORLD'S LARGEST ELECTRONIC MEDIA SHOW

April 17-22, 2004 · Las Vegas, NV

**97,544**  
ATTENDEES

**1,392**  
EXHIBITS

**22,320** INTERNATIONAL ATTENDEES

## Companies Agree: NAB Is the Place to Be

By Kelly Brooks  
RADIO WORLD

In the fraternity of professional video and audio media, NAB2004 could easily be considered the must-attend event of the year, as demonstrated by over 97,000 attendees.

NAB2004 not only saw an upswing in attendance, but in the overall mood of the convention.

Chris Brown, senior vice president of NAB Conventions and Expositions could not have been happier with the convention. "The show floor was electric. The feedback that we've received from both exhibitors and attendees has been exceptional. Many exhibitors have told us that this was by far the best show — of any — they have participated in over the last three or four years," said Brown.

"Attendees from all facets of electronic media came to the show ready to buy — and our exhibitors couldn't wait to show them the goods. It's proof that the show and the industry are strong and poised once again for growth — in terms of both commerce and innovation," he added.

To attend or exhibit at the NAB convention is to establish your company as a competitive market presence. For any company — large, midsized or small; international or domestic — the convention serves as an opportunity for exposure and checking out the goods of competitors.

This was reflected in the international attendance at NAB2004, which was 22,320. World events were no



longer inhibiting international attendance and the number of international delegations that attended the convention was at its highest ever: 46.

The number of exhibits was also up at this year's show to 1,392. Many exhibitors said it's invaluable to showcase new products side-by-side with established ones.

Other exhibitors said they like the face-to-face interaction with customers and the instant feedback it provides. Plus, attendees like the 'hands-on' experience of the new products.

On the other side of the fence, attendees expressed the importance of attending NAB each year.

Some said they receive many good ideas for station improvement just by walking by the booths and seeing something innovative that fulfills a need.

The sessions, too, rate high on the priority list of attendees. The lessons are important to an engineering department's continuing education and awareness of new technologies.

The diversity of the show brings many back year after year. NAB covers broadcasting and all its diverse subsets and related industries very well in one single show.

NAB organizers presented a number of new educational offerings at this year's show, including the Worship Technology Conference and the PostProduction World Conference.

Justine McVaney, NAB vice president of convention operations for the Conventions and Expositions division, said the show doubled its educational component this year.

The newly added PostProduction World Conference featured more than 160 sessions on topics such as digital video and film editing, DVD authoring, Web design and digital imaging.

## Oprah, Fiorina Reflect on Media Character

By Deborah D. McAdams  
TV TECHNOLOGY

### AWARDS

Two of today's most influential women in media and technology were front and center at this year's NAB convention.

Oprah Winfrey, who has changed the face of daytime



Oprah Winfrey, HP Chairman & CEO Carly Fiorina and NAB President & CEO Edward Fritts on the dais to officially open NAB2004.

television, received the 2004 NAB Distinguished Service Award at the "All-Industry Opening and Keynote."

Winfrey, the first female co-anchor at WLAC-TV in Nashville, pulled in a standing ovation from the crowd assembled at the Las Vegas Hilton for the event.

She was 19 years old when she got the job at WLAC, and so distinctive was her work that she caught the attention of Baltimore and ultimately Chicago station executives.

Winfrey was introduced by Carly Fiorina, chairman and CEO of Hewlett-Packard, who appealed broadcasters to "define the character" of their medium in her keynote speech.

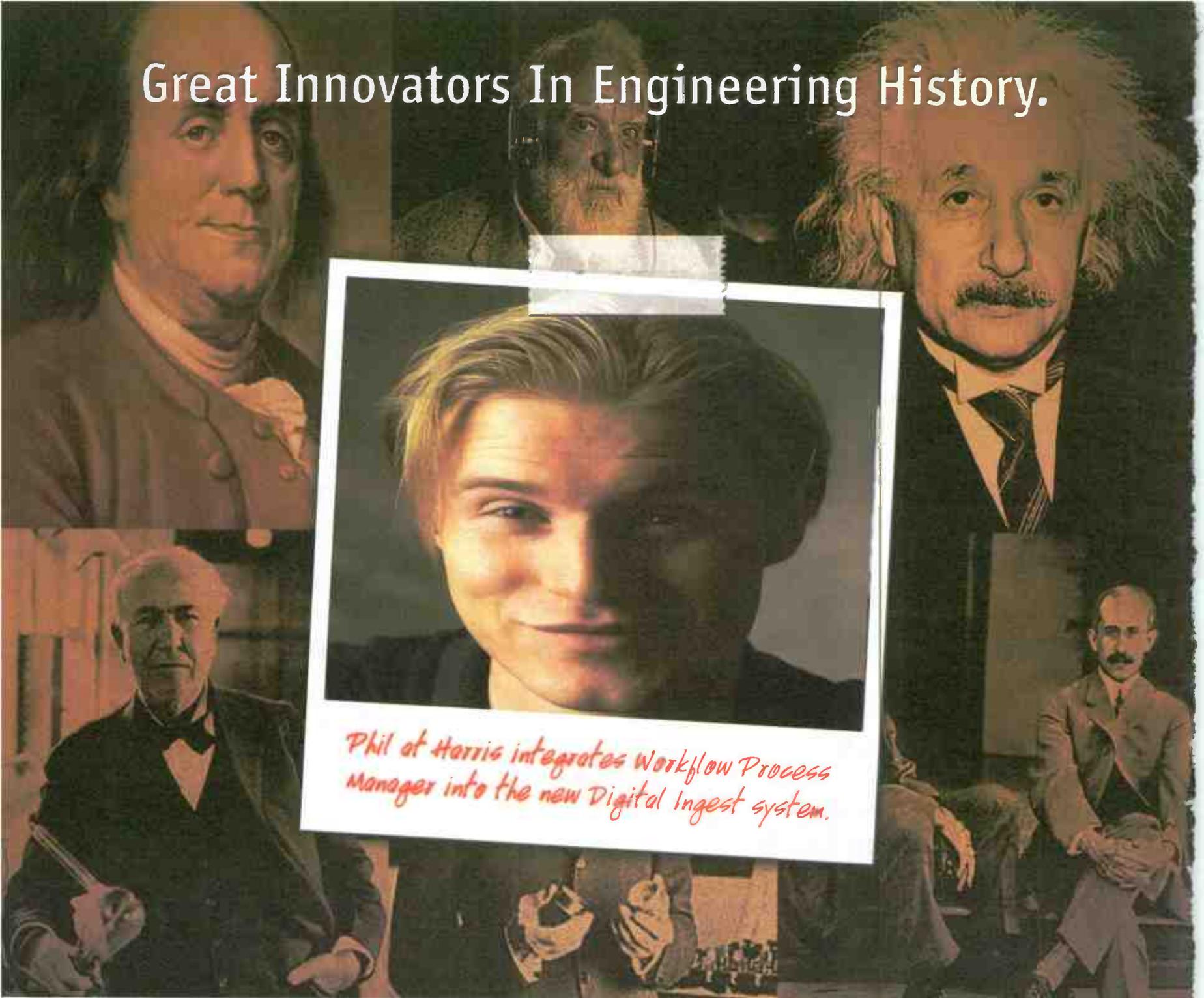
No one is in a better position to communicate globally than broadcasters, Fiorina said, and more than ever before, television images are forming people's perceptions about the world. She urged broadcasters to continue their tradition of community service and inspired them not to abandon positive, uplifting storytelling.

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BROADCAST MEDIA ENGINEER  
ESPN INC  
ESPN PLAZA  
BRISTOL CT 06010

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Paid  
Beaver Dam, WI  
Permit No. 499



# Great Innovators In Engineering History.



## Announcing a breakthrough in media ingest and transfer: New Digital Ingest from Harris.

Yes, our guy Phil was pretty excited about the whole Digital Ingest thing. But now it's your turn to discover the latest innovation from Harris, the leader in broadcast technology. **Digital Ingest completely automates your front-end media ingest and transfer process,**

**hrs** harris resource suite  
FOR INGEST-TO-BROADCAST WORKFLOW MANAGEMENT

whether you're talking about a single facility or a whole enterprise. Until now, when digital media was acquired from delivery services — such as Media DVX or DG Systems — distribution throughout the broadcast

facility required manual transfer to tape and video file servers. All of that has changed. Now, with Digital Ingest — part of the Harris Resource Suite — you eliminate the error-prone busy work of manually entering metadata, give your operation virtual “real time” ingest-to-plaintext (great for those last-minute, gotta-get-this-on-the-air requests), and better allocate your engineering resources.

Designed to integrate seamlessly with your Media Client station, Digital Ingest has intelligent and customizable “rules” to adapt workflow processes to your operation. Plus, (as Phil will proudly tell you), Digital Ingest includes Workflow Process Manager (WPM) — an integrated software module that allows the system to manage automated and manual tasks and processes. With Digital Ingest, you can even search, browse, and approve content from desktops anywhere in your enterprise (your Program Manager will love you). So go ahead. Make Phil happy. Call about Digital Ingest today.

For more information about Digital Ingest and the entire Harris Resource Suite of products, call **1-408-990-8200** or visit us online at **www.broadcast.harris.com/automation**.

[www.broadcast.harris.com/automation](http://www.broadcast.harris.com/automation)

**HARRIS**

# Powell Tackles 'Indecency,' DTV

By Leslie Stimson  
RADIO WORLD

LAW

FCC Chairman Michael Powell and ABC News host Sam Donaldson kept up a lively banter of zingers during the "FCC Chairman's Breakfast," sponsored by A.G. Edwards & Sons.

Indecency dominated the discussion between the two, now in their fourth year appearing as a duo before the NAB crowd.

Powell said it was a misconception that the FCC has only recently begun to focus on indecency enforcement. He conceded the fines have grown, and the commission has begun fining stations per indecent utterance, rather than per program.

"The increase in enforcement is in response to public complaints," Powell said. The agency received 250,000 indecency complaints in 2003 and so far in 2004, the number is nearly 540,000.

The agency is trying to be faster in resolving such cases, Powell said. But, as he did after the NAB's Responsible Programming Summit, Powell reiterated that it is better for broadcasters to control what's on their airwaves than to have government step in with a mandate.

"You do not want the government to write a 'Red Book' of what you can say and not say," stressed the chairman.

Broadcasters question whether indecency statues

should apply to cable and satellite as well. When asked his views on the issue, Powell said, "I think the government should be conservative about regulating content for anybody." He stressed that Congress needs to get involved in the issue, rather than an unelected set of commissioners.

The TV analog spectrum giveback was a big topic of discussion.

Just before the show, FCC Media Bureau Chief Ken



Michael Powell and Sam Donaldson

Ferree detailed a proposal to reach the 85 percent TV audience threshold that triggers the analog giveback. Powell said his plan two years ago to move the DTV transition forward led to the push for mandatory digital tuners for TV sets.

The commission has concerns about the 85 percent threshold, said Powell. "The law is muddy about what is the end," and how is the agency supposed to know whether every household, which has three to four TVs, has purchased a digital TV set, he asked.

Gary Shapiro  
President  
CEA



"The NAB is the most significant event in the world that presents the technologies, policies and products of interest to the group I represent, which is consumer electronics manufacturers."

## TV Increases Digital Technology Use

By Andrew Morris  
TV TECHNOLOGY

ENGINEERING

Digital technology isn't just for special occasions any more.

One of the first items of discussion during the NAB Broadcast Engineering Conference was the "State of the Art of Television 2004," with looks at large screen digital imaging, network distribution, single-frequency networks and Enhanced-VSB.

Chaired by Ted Teffner of WCAX-TV, the session cemented the perception that digital technology has become entrenched in the everyday business of television.

Joseph Flaherty of CBS discussed the application of high-definition technology to the world of public, large screen venues.

"Television is coming to the movies," Flaherty said. "High-definition television is all but behind us and large screen digital imaging or LSDI is an extended application of HDTV. Theater-sized HD screens are coming and the very nature of theaters will change with them."

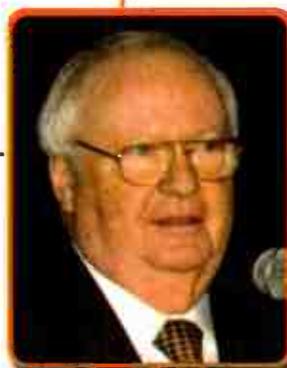
Thomas Edwards of PBS explained the planning of the PBS Next Generation Interconnection System (NGIS).

PBS needs to replace its current distribution system when its satellite leases end in 2006. It is considering a Ku-band based satellite distribution system using 16 3/4 modulation, which allows for 80 Mbps throughput.

Richard Citta of Linx Electronics presented the results of a trial in Shanghai, China, of digital mobile television systems, including the Linx Advanced Digital Television for Broadcast — Terrestrial (ADTB-T) system.

S. Merrill Weiss of the S. Merrill Weiss Group discussed the fundamental concepts behind distributed transmission systems, which use multiple transmitters to cover an area via a single-frequency network.

Zenith's Wayne Bretl focused on Enhanced-VSB applications to improvements in 8-VSB reception.



Joseph Flaherty

# Fritts Hails Broadcasting

By Deborah D. McAdams  
TV TECHNOLOGY

In his annual State of the Industry Address, NAB President and CEO Eddie Fritts implored attendees to imagine a country void of local information services,

Fritts pointed out that broadcasters generate more than \$9.9 billion a year for charities, local disaster relief and public service announcements, including Amber Alerts that helped recover 130 kidnapped children. He said that in light of

**"I call on the FCC to break down the cable industry's digital dam, and let the free broadcast signals flow."**

— Edward O. Fritts



Edward O. Fritts

broadcasting's contributions, it was "mystifying" that the FCC had not taken action on digital television must-carry of all multicast signals.

"I call on the FCC to break down the cable industry's digital dam," he said, "and let the free broadcast signals flow."

Fritts said he has a "message to [Comcast CEO] Brian Roberts and leaders of the cable cartel: Tear down that wall. Stop blocking consumer access to the best TV pictures the world has ever seen."

The NAB president called the infamous Janet Jackson incident at this year's Super Bowl "unfortunate." However, he said had a similar incident occurred on cable or satellite TV, "it would have been greeted with a collective shrug" by the public and policymakers.

"Why?" asked Fritts. "Because 'wardrobe malfunctions' are part of the cable and satellite landscape Monday through Friday, 24-7."

and then to imagine the introduction of free TV and radio into such an environment.

"If this new technology called broadcasting came along today," he said, "it would be hailed as a miracle."

# Indecency, Satellite Act Tied Up in Congress

By Leslie Stimson  
RADIO WORLD

**LAW**  
Indecency and the Satellite Home Viewer Act were some of the hot topics bandied about by Republican members of the House and Senate during the convention's "Congressional Breakfast," sponsored by Bank of America Securities. Panel Moderator Phil Lombardo, NAB joint board chair and Citadel CEO, asked Rep. Jim Sensenbrenner of Wisconsin what would be in the House Judiciary version of the Satellite Home Viewer Improvement Act.

House Judiciary Chair Sensenbrenner called the measure "a work in progress," and said he couldn't get into specifics, but he noted that due to the current "gridlock in the Senate, anything controversial" would kill the measure.

Burns joked that "everybody's bipartisan until they introduce it (a bill). Then things fall apart." He predicted such a measure would pass.

The two-dish requirement EchoStar has for some customers, especially those seeking Spanish-language programming, was discussed. Lombardo asked panelists whether Congress would stop this practice.

Rep. Bilirakis said, "Hopefully, yes." He said the role of Congress is to try and balance the needs of cable, satellite and broadcasters and to give consumers as much programming choice as possible.

He said the two-dish policy is bad and is likely to be part of any re-authorization legislation.

Of the FCC's new plan to speed up the DTV conversion process and achieve the 85 percent audience that stations need in order to give back their analog spectrum, Burns called the plan, which includes a downconverted signal to contribute to the 85 percent, "a step backwards." He said Congress would pressure the FCC about the new plan.

Switching to radio, Rep. Greg Walden of Oregon, a co-sponsor of HR 4026, the bill to forbid satellite radio from inserting local programming into their terrestrial repeater system, said the measure would help local radio stop losing market share to the satcasters.



The Congressional Breakfast focused on legislation action — and inaction.

He hopes to get a bill to Sen. Conrad Burns (Montana) of the Senate communications subcommittee by the July 4 congressional recess.

On the House side, Rep. Fred Upton of Michigan cancelled an earlier mark-up, but Rep. Joe Barton, new chair of the House Commerce Committee, said he's "optimistic we can get a bill passed this year."

Rep. Michael Bilirakis of Florida reminded attendees that congressional Democrats will have some ideas about the bill as well, but that the road to passage would be a bi-partisan effort.

**Dae-Kap Kang**  
KBS  
Seoul, South Korea



"I'm attending NAB to demonstrate ACAP (Advanced Common Application Platform) for interactive TV. We hope broadcasters will see this technology."

# AIMs Laud Innovation

By T. Carter Ross  
RADIO WORLD

**AWARDS**  
The public has spoken, and 15 products exhibited at NAB2004 were recognized for their technological innovations.

The second annual Awards for Innovation in Media (AIMs) recognize technological innovations that best address current and upcoming issues in the electronic media industry by boosting efficiency, increasing user flexibility and creativity, and lowering cost.

Show attendees selected the winners during



Representatives from the AIM-winning companies pose for a congratulatory photo.

And in the Content Delivery category: Decisionmark Guide Channel; VBrick Systems Inc. EtherneTV; Vela CineView Quad; Vyvx HD VenueNet; and Wolf Coach Inc. Sprinter.

A judging panel of editors from more than 20 key industry

and VBrick Systems Inc.'s EtherneTV in the Content Delivery class.



balloting. The top five products within each of the Content Creation, Content Management and Content Delivery categories were recognized during the NAB Technology Luncheon, sponsored by Thales Broadcast & Multimedia.

And the winners are ...

In the Content Creation category: Apple Motion; Leitch Inc. VelocityHD; LitePanels LitePanels; Panasonic Broadcast P2 Series; and TM Systems DubStation II.

In the Content Management category: BayStor/Karden Group BK-2500; ENCO Systems Guardienn; Fast Forward Video Covert DVR; Maximum Throughput Inc. Sledgehammer; and Thales Broadcast & Multimedia CRYSTAL Logo Inserter.

publications reviewed the AIM-winning technologies and other new products exhibited at the show to pick the 2004 "Editors' Choice" award winners.

Winners of the 2004 AIM Editors' Choice Awards are Apple's Motion in the Content Creation category, Fast Forward Video's Covert DVR in the Content Management grouping

CNN's daily political debate program, "Crossfire," aired live from NAB2004. Among the guests interviewed by co-hosts Paul Begala and Tucker Carlson was "Mr. Las Vegas" himself, Wayne Newton.



# Music Inspires Radio Crowd

By Scott Fybush  
RADIO WORLD

**RADIO**

"From the crossroads of the West, we welcome you to an inspirational program of music and the spoken word."

For 75 years, those words have greeted listeners to the Mormon Tabernacle Choir's "Music and the Spoken Word," the longest-running network show in broadcast history. During NAB2004's "Radio Luncheon," they greeted attendees as the program was inducted into the NAB Broadcasting Hall of Fame.

"The program has encouraged and comforted a global audience," said NAB President and CEO Eddie

Fritts as he introduced the choir to a standing ovation. Hundreds of the choir's 360 volunteer members, led by musical director Craig Jessop, organists Dr. John Longhurst and Dr. Clay Christiansen, performed five songs — including their signature "Battle Hymn of the Republic" — at the luncheon.



Mormon Tabernacle Choir

"Rain or shine, war or peace, good times, bad times, we will continue to sing," Jessop said as he accepted the award.

Since its inaugural broadcast on July 15, 1929, the choir has never skipped a Sunday morning broadcast. Today, "Music and the Spoken Word" airs on more than 500 radio stations in 20 countries, as well as

hundreds of TV stations.

"We're one of the last live music broadcasts," said Lloyd Newell, the announcer for "Music and the Spoken Word."

**NAB CRYSTAL RADIO AWARD WINNERS:**

- KDFC(FM), San Francisco
- KFOG(FM), San Francisco
- KFOR(AM), Lincoln, Neb.
- KSTP(FM), St. Paul, Minn.
- KSTZ(FM), Des Moines, Iowa
- KTCZ(FM), Minneapolis, Minn.
- WDEL(AM), Wilmington, Del.
- WDRV(FM), Chicago, Ill.
- WLUP(FM), Chicago, Ill.
- WSYR(AM), Syracuse, N.Y.



NAB President & CEO Eddie Fritts presents a Crystal Radio Award to David Kennedy, president & COO of Susquehanna Radio, which owns KFOG(FM).

# NAB Hall of Fame Crowns a King

By Mark Baechtel  
TV TECHNOLOGY

**AWARDS**

In introducing Roger King, this year's inductee into the NAB Hall of Fame, Eddie Fritts couldn't resist lunging for the laugh.

"I'm convinced," said Fritts, NAB president and CEO, during the "Television Luncheon." "When Sumner Redstone said 'Content is king,' he was talking about Roger."

Fritts' impulse was understandable; King's irreverent, bluff, larger-than-life persona called out for this kind of treatment, especially when it was considered as a facet of his dizzying success at the hard-charging game of television syndication — a sector of the industry he has shaped, if not created.



Roger King

King's career has taken him from humble beginnings, selling the Little Rascals/Our Gang comedies into syndication for his father, to his current position as CEO of CBS Enterprises and King World Productions — a post he created for himself after CBS paid \$2.5 billion in stock for the King World syndication empire he built. Along the way he has engineered the mega-success in syndication of such programming as Oprah, Wheel of Fortune, Jeopardy! and, more recently, Everybody Loves Raymond, CSI and Dr. Phil.

Testimonials for King were legion, with luminaries like Oprah, Alex Trebek, Vanna White and Merv Griffin contributing clips of praise, along with industry executives like Alan Frank, president of Post-Newsweek Stations.

"Roger invented syndication, and along the way he took our money," said Frank, one of King's oldest acquaintances and customers in the business. "He was in the right place at the right time with the right arrangement and the right product."

This combination of four "rights" has meant King has been able to parlay into solid gold products whose potential few others could see. Wheel of Fortune provides the best example: practically moribund when King took it on for a mere \$50,000, he was able through sheer determination and consummate sales acumen eventually to make it the number one program in the history of television.

# Commissioners: Play to Local Strengths

By Deborah D. McAdams  
TV TECHNOLOGY

**LAW**

During NAB2004's "Regulatory Face-Off," a local broadcaster stood before four FCC commissioners and asked them to be more aware

of how their actions affected his business.

"Every time you attack local broadcasters, you attack our ability to make money and serve the community," said Steve Babaulis, vice president and general manager of WNYT-TV in Albany, N.Y.

Babaulis was responding to an earlier discussion among the commissioners about establishing a minimum number of hours broadcasters would have to devote to public interest programming.

Commissioner Kathleen Abernathy said that with the exception of children's programming, such a statute would be a "high constitutional hurdle."

Commissioner Jonathan Adelstein displayed less ambiguity, rhetorically asking broadcasters if it was too much to ask of them to give five minutes to political candidates in the month leading up to elections.

Babaulis said that whenever he offered free airtime to candidates, "only about 25 percent said yes."

The commissioners covered several issues during the panel, including indecency, multicasting, cable content regulation, localism and the 85 percent solution that would count downconverted cable carriage of broadcast signals toward the analog shut-off threshold.

On the 85 percent formula proposed by the FCC Media Bureau, Abernathy said it was still very much in the idea stage.



Four FCC commissioners faced off to discuss, among other issues, the effect of their actions upon broadcasters.

"We haven't even been briefed yet," she said, "but I'm glad to have the dialogue. The idea of starting to think about how we get there is a good thing," she said.

Commissioner Michael Copps wondered how downconverting a digital broadcast signal for analog cable subscribers would advance the ultimate goal of the digital transition, i.e., getting a digital signal to households.

Commissioner Kevin Martin repeatedly said multicast must-carry should be resolved before the commission considered how to do the 85-percent calculation.

**David McBean**  
CVM Communications Group  
Kingston, Jamaica



"I come [to NAB] to see new technology, get new ideas and meet people in the industry. I try to get knowledge from people about the transition from analog to digital."

# Panel Addresses Scams, Indecency

By Alan R. Peterson  
RADIO WORLD

LAW

Can you lose 75 pounds in two weeks? Would you air the TV miniseries "Roots" today? Are you risking your license airing ads for on-line casinos? And should you be logging your audio?

The panel of "What's Fit to Air? Indecency, Advertising and Other Controversial Content" took on these topics as part of the Broadcast, Law & Regulation Conference.

Moderated by Jerianne Timmerman, associate general counsel for the NAB, panelists included Marci Burdick of Schurz Communications, a group owner of radio, television and cable based in South Bend, Ind.; Robert Corn-Revere, of Davis Wright Tremaine LLP of Washington, D.C.; Richard Goehler of Frost Brown Todd LLC of Cincinnati; Bob Ratcliffe of the FCC Media Bureau; David Solomon, Enforcement Bureau Chief for the FCC; and Richard Cleland, assistant director of advertising practices with the Federal Trade Commission.

The session began with weight-loss infomercial clips with testimonials that, judging from the reaction of the

attendees, were too outlandish to be believed.

"These 'exercise-in-a-bottle' products can be worth \$100 million a year," said Cleland, who added they are pitched with deceptive claims "not scientifically feasible at this time."

The FTC publishes a brochure, "Red Flag," which is a reference guide for bogus weight-loss claim detection.

Goehler added stations should decline such an ad. "We are hoping for voluntary compliance," he said, "but there will be future enforcement."

Carrying ads for offshore casinos promoting Internet gambling also treads on shaky ground. Internet gambling is a \$4 billion industry, but it violates international trade laws.

Goehler warned station owners that the Department of Justice could issue subpoenas seeking financial records associated with offshore gambling operations, while Corn-Revere offered, "Unless you want to be a test case, it's too risky."

Timmerman ran footage from the 1977 miniseries "Roots," which included topless scenes. "Could this air today?" she asked.



Jerianne Timmerman

## Leitch Acquires Videotek

By Bob Kovacs  
TV TECHNOLOGY

Leitch Technology, the Canada-based manufacturer of a broad range of television products, just expanded its portfolio with the acquisition of test equipment specialist Videotek.

Leitch President and CEO Tim Thorsteinson said Videotek test and measurement products — notably waveform monitors, vectorscopes and rasterized waveform displays — will continue to be sold under the Videotek name.

Similarities between the companies' product lines

drove the deal for Leitch.

"The Videotek test and measurement product line sells to the same customers as our products and uses the same technology," Thorsteinson said.

Videotek makes a variety of other products, including switchers, color correctors and distribution amplifiers, which will be marketed under the Leitch name in the future. The acquisition price was \$18 million, which leaves money in Leitch's coffers for future additions to the company portfolio.



Tim Thorsteinson

"We will always be looking for complementary acquisitions," Thorsteinson said.

Like many companies in the television equipment industry, Leitch has gone through a down business cycle but sees stronger business in 2004. Thorsteinson said that the company had 10 percent sales growth in the first quarter of 2004 and expects to return to profitability in the second half of the year.

One particular highlight of the company's business was its Nexio server line, which had \$6 million in sales in the first quarter of 2004.

"[Nexio] really gained steam in the last quarter," Thorsteinson said.

Carlos Henrique  
Teclar Telecomunicações  
Santa Rita do Sapucaí, Brazil

"This is the best broadcasting show. We're looking to market in Latin America and North America, and this is THE show."



## Radio Technology Embraces Digital World

By Leslie Stinson  
RADIO WORLD

From digital encoding of broadcast signals to digital cabling in radio studios, the Broadcast Engineering Conference "State of the Art of Radio 2004" session provided a good overview of current improvements in radio technology.

The session got under way with a look at a technology that is expanding the capabilities of low-bitrate encoding.

David Frerichs, vice president and U.S. general manager of Coding Technologies, outlined several uses of the Spectral Band Replication (SBR) technology the company developed, including its use with codecs such as aacPlus and iBiquity Digital's HDC.

Adding SBR technology to codecs improves audio quality and lets a wider diversity of content through the data "pipe" he said. SBR encodes at half the bitrate as normal. According to Frerichs, SBR data can be sent with the core data without affecting its ability to be decoded normally.

National Public Radio Vice President of Engineering Mike Starling followed with detailed results of the so-called "Tomorrow Radio" tests. For the tests, NPR, Harris and Kenwood experimented with an FM digital split-channel concept at four stations over a seven-week period last summer.

RADIO



David Frerichs

## HDTV Production Hits the Desktop

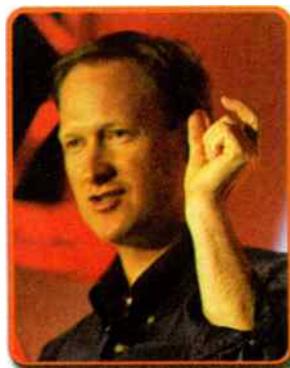
By Scott Fybush  
RADIO WORLD

SUPER SESSION

Video content producers now have nine million reasons to begin creating programming in high-definition: the nine million HDTV sets already sitting on tables and hanging on walls in consumers' homes across the United States.

"We've really broken through the chicken-and-egg problem," said David Trescot, senior director of Adobe Systems, during "The Hi-Def Desktop" Super Session.

Even though consumers didn't necessarily buy all those HDTVs specifically to see high-definition programming — "People like cool plasmas they can hang on their walls," Trescot said — there will soon be a heightened expectation for high-def content to fill those nine million screens.



David Trescot

"This is the biggest single change to hit our industry, ever," Trescot said.

That transition brings with it plenty of choices, Trescot told the audience. Among the most critical is the question of compressed versus uncompressed video. While uncompressed video may sound attractive at first, Trescot says it carries a huge price in the storage space and computing power it requires. For many high-definition production applications, it is common to spend far more on storage than on the actual computer system.

The good news, as Microsoft's general manager for Windows Media, Dave Fester, told the session, is that compression technologies are keeping pace with the demand for hi-def solutions.

Microsoft's WMV HD format, part of its Windows Media 9 family, now offers three times the compression efficiency of MPEG-2, allowing 720p or 1080p HD video streaming in as little as 5 to 8 Mbps bandwidth.

# Sony HD Targets Multiple Markets

By Susan Ashworth  
TV TECHNOLOGY

With its eyes more squarely focused on the HD market than perhaps ever before, Sony came to NAB2004 to show how the technology can be used to improve workflow and to cut costs for broadcast, production, digital cinema and film.

As a prime example, this year the equipment giant placed a new lower-cost high-definition format in front of NAB attendees.

Dubbed HDV, this entry-level system is a professional HD acquisition and post production solution aimed at entry-level producers and videographers. While not announcing shipping dates or anticipated costs, Sony showed a prototype HDV camcorder that can record 1080i high-definition video.

The company also introduced a new entry-level HD camcorder, the HDW-730S, which is designed for videographers looking to migrate to high definition, a theme echoed across the show floor that seemed to illustrate how HD is finally becoming an high-end option for even the common man.

Along those same lines, the company also complemented its line of HD acquisition products with a small but money-saving high-definition accessory: an HD triax converter that allows users to choose to connect with triax or fiber with the HDC-900 Series cameras when on location.

News also swirled around the much-discussed XDCAM line of products. Sony's IT-centric professional disc system solution includes DVCAM camcorders,

**RADIO** — From Page 6

Starling said the tests proved that by splitting the 96 kbps FM digital channel into a 64 kbps and a 32 kbps channel, the test stations achieved good signal coverage up to their 60 dBu contour.

Harris has developed its first AM transmitter specifically for HD Radio at lower power levels. Harris Engineer Ky Luu spoke about advanced pulse duration modulation.

The idea behind the new transmitter is that Harris wanted to provide the same performance as the higher-power Harris DX transmitters.

John Gardner, worldwide marketing manager for Texas Instruments, outlined the latest in receiver design for digital radio. TI has a new HD Radio chipset ready for receiver manufacturers, the DRI250 module.

Marvin Bom, director of engineering for the Dispatch Radio Group in Columbus, Ohio, detailed his rebuild of station studios.

He used Cat5 and fiber-optic cabling with Radio Systems StudioHub connectors throughout the plant. In the studios, he used products from Klotz Digital, ENCO Systems and Telos Systems.



Sony HDV Camcorder

a mobile deck for editing, an editing recorder and a compact ingest deck.

**Inna Burgela**  
Eastern Europe Broadband Convention  
Kyiv, Ukraine



“NAB is the biggest industry show. I would like to bring this technology to Eastern Europe, and I'm here to promote the EEBC show.”

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## Canon Intros Two HD Studio Lenses

By Mary Ann Melody  
NAB DAILY NEWS

With high definition on its mind, Canon came to NAB2004 armed with two new lenses designed for power and flexibility.

The DIGISUPER 22xs is a compact studio lens designed as a cost-effective approach to HD studio camera systems. Based on the industry's increasing use of portable HD and SDTV cameras for studio production, the 13.4-pound lens comes equipped with the HDxs system and the company's X-

Element and Power optical system.

The DIGISUPER 22xs offers a maximum zoom speed of 0.5 seconds and focus of 1.5 seconds. Its f-stop of 1.8 provides fast optical performance, allowing the lens to excel in low light. In addition, users are offered a choice of three different zoom and focus control systems.

"As the first-ever compact studio lens, the DIGISUPER 22xs lens provides affordable high performance to facilities equipped with portable cameras," said Gordon Tubbs,



Canon  
DIGISUPER 22xs

Canon's assistant director, broadcast and communications division.

Canon's DIGISUPER 23xs model allows facilities working in both HDTV and SDTV the option to complement Canon's DIGISUPER 25xs model. This lens, too, includes the HDxs system and offers an f 1.7 aperture. A focal length of 7~161mm is featured, with the ability to achieve a focal length of 14~322mm with a 2X extender.

Both lenses use Canon's new rotary encoder servo system for zoom, focus and iris.

Héctor Sumi  
Panasonic  
Montevideo, Uruguay



"My clients in Uruguay come to see new products and I need to be here to make sure their questions are answered."

## 'New' May Not Be 'Necessary'

By Mark Baechtel  
TV TECHNOLOGY



One would think with a title like "New Technology for Digital Media," the Super Session would have been a patchwork of bleeding-edge demos of yet more gizmos promising to shift the already well-shifted paradigms.

included session moderator Peggy Miles, president of Intervox Communications; keynoter Amir Majidimehr, Microsoft's corporate vice president for its Windows Digital Media Division; Glenn Bulycz, senior manager for QuickTime Product Marketing at Apple; Mike Cook, senior vice president and general manager of the Spaceway Business Group at Hughes Network Systems; and Gavin Schutz, executive vice president and chief technology officer for the Ascent Technology Group.

## PostProduction World Reveals Tips, Tricks

By Susan Ashworth  
TV TECHNOLOGY



Intense, fast-paced, stressful; mix them together, and you've got the main ingredients for a typical newsroom. Or, for that matter, a high-end post-production facility.

And yet, despite the tough conditions, the job manages to get done. How?

NAB2004's PostProduction World Conference delved into how professionals can use today's technology and tricks to make their workflow more efficient and productive.

The conference consisted of a group of tracks, demos and sessions that covered everything from Web design to digital video editing. Sessions took an in-depth look at how these technologies work in the real world, while providing crash courses for individuals just starting out.

"The success of the PostProduction World Conference exceeded our wildest expectations," said NAB Vice President, Science and Technology John Marino. "Attendees were enthusiastic about the myriad learning opportunities and we look forward to continuing in this tradition."

Broadcasters and post production professionals alike found the new tools and sessions integral to their everyday work life. Experts praised the speed of new DVD authoring technologies and showcased how the HD format can be used to create, manipulate and even finish a project.



Instead, a panel of experts from disparate backgrounds seemed to speak with one voice in their emphasis on the need for existing technologies to be made more interoperable, with the goal of getting content seamlessly, cheaply and legally to where it's required, when it's required and in the format required.

"There are four fundamental data points to consider here," said panelist Eric Dewannain, worldwide director of Business Development in Broadband Communications for Texas Instruments.

"The first point is the compression and decompression of content. The second is how all the appliances that manipulate the content are going to talk to each other. The third point is the rights management issue, and the fourth point is distribution."

In addition to Dewannain, speakers

If recent time has taught technological innovators anything, it is that slickness isn't enough. If the equipment isn't easy to use and mannerly, and if it doesn't answer an already acknowledged need, odds are it's not going to be adopted.

*This year's Radio and Television Career Fair was another smashing success, offering invaluable networking opportunities to broadcasting's next generation.*



# Tech Strategies for Ministries

By Sharon Rae Pettigrew  
NAB DAILY NEWS

How do industry players keep on top of the latest technology to stay relevant and competitive?

That's a question addressed annually during every NAB springtime exhibition. But this year it was

## Panasonic Introduces HD Desktop Editing

By Deborah D. McAdams  
TV TECHNOLOGY

The big news from Panasonic this year is not that its P2 serial-digital card format has legs — although it clearly does — but that hi-def content captured in the company's DVCPRO HD format can now be downloaded to a desktop or laptop via FireWire and edited with a new HD version of Apple's Final Cut Pro software.



Panasonic AJ-HD1200A

The FireWire/Final Cut Pro initiative, dubbed "HD Access," puts Panasonic VariCams in a healthy position in the arena of hi-def, end-to-end production, something that once seemed as far away as the end of a cab line at NAB.

"It wasn't many years ago that you would have snickered had I said television shows would be shot with Panasonic cameras," said John Baisley, president of Panasonic Broadcast, to the journalists assembled at the Aladdin Hotel.

Now, nearly every week, Panasonic announces a movie, documentary or TV series being shot with VariCam, including Fox's "Arrested Development" and Mark Burnett's "The Casino."

The increasing adoption of VariCam led Panasonic to take up the cause of editing, because HD post production was still complicated and costly, said Stuart English, Panasonic Broadcast vice president of marketing.

"Despite its application in Hollywood," English posed, "how do you edit VariCam material affordably?"

Hence, the introduction of the AJ-HD1200A. The heart of HD Access, the AJ-HD1200A is the industry's first HD production VTR with FireWire interface. The portable VTR supports 1080i and 720p, handles 24 and 60 fps material and costs around \$25,000.

Combined with the capabilities of a Final Cut Pro HD-equipped Apple PowerMac G4 or G5, English said, a fully outfitted HD editing suite with more than 100 hours of 24 fps HD online storage could be had for less than \$50,000.

answered in a particular way with a special conference track focusing on media technologies used in religious contexts.

The NAB2004 Worship Technology Conference, in partnership with Technologies for Worship Magazine, focused specifically on technologies designed for church and ministry programming.

Systems integration, television and video production, audio production, multimedia presentation, the Internet and webcasting and lighting for broadcast were all addressed with a specific focus on the needs of houses of worship.

"We added this conference because we had inquiries from NAB attendees who were interested in learning new techniques for producing religious media content," said NAB Vice President, Science and Technology John Marino. "The Worship Technology Conference was well-received by many new attendees excited about this niche learning opportunity."

"It's a perfect fit," said Shelagh Rogers, owner and publisher of Technologies for Worship Magazine. "Houses of worship are realizing that in order for their ministries to grow, they have to embrace today's technologies. Suppliers and manufacturers of equipment are realizing that they have to be producing products specifically for churches."

Moderator Steve Cowart of the First Baptist Church

of Raytown in Raytown, Mo., provided attendees with an insider's view of navigating the product exhibit floor. He led a panel discussion with leaders from all walks of ministry programming: church media ministers, sales personnel and manufacturing representatives.

Following this lead-off discussion were three days of technological and informational sessions, which focused on everything from "Microphones and Church Applications" to "What Every Church Does Wrong," and just about everything in between for church ministries.

Phillipe Vie  
Cam-A-Lot

Amsterdam, Netherlands



"The big reason I came to the NAB this year is hi-def. The good thing about the NAB is that there are small U.S. and Canadian companies that are only at the NAB."

## Equipment Touches on Indecency

By Craig Johnston  
TV TECHNOLOGY

There was no shortage of references at NAB2004 to the broadcast indecency issue that was launched by the supposed Superbowl costume malfunction.

NAB President and CEO Eddie Fritts mentioned it in his remarks during the "All-Industry Opening Ceremony," it was a major topic at the "Congressional Breakfast" and several RTNDA@NAB sessions looked at the indecency subject.

Station technical types scanned the exhibition floor for hardware solutions to delay a live signal for enough seconds to allow them to avoid airing indecent material. Talk radio has long had such equipment, but it is relatively new to television.

Prime Image has had its Pipeline audio and video delay product in the market for a while, with one model to handle serial digital content and another for analog material. They saw a spike in sales following Super Bowl XXXVIII.

The Pipeline allows users to configure it for a delay, from one video frame, up to 30 seconds. "If there's an incident that you do not want the public to see, you can push a button and it will go to an aux mode, a predetermined video or still frame, such as 'Please Stand By,'" said Rodney Hampton, vice president of sales and marketing for Prime Image. "And when the activity is over you release the button and it goes back to live."

Another broadcast equipment company found it had a product that could quickly be adapted to the censorship delay task.

"We already have the delay application (NEXIO Delay) that we've been selling for years," said Chris Chesley, manager of applications engineering for Leitch Servers. "What we're doing now is repurposing that to make an application specifically for censorship applications."

This led Leitch to add the Safe Feed option to its NEXIO server.

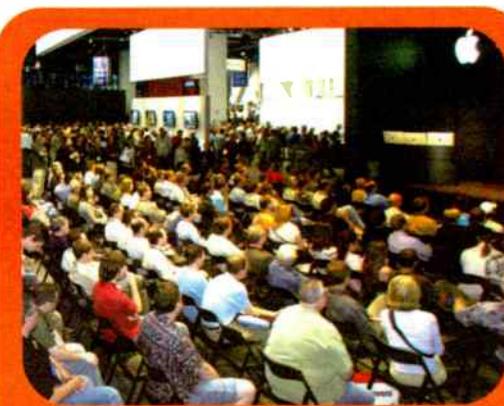
"NEXIO Safe Feed will allow you to set a definable

delay, which can be five, 10, 15 seconds, whatever that might be," Chesley said.

When FOR-A began developing its LDR-120 Live Digital Recorder, introduced at this year's NAB, it was targeted for the sports telecasting market. Then the Super Bowl happened, and FOR-A found it had a flexible product. "This very same product can be applied to the time delay application," said Hiro Tanoue, FOR-A America sales manager.

Evertz Microsystems Ltd. displayed the appropriately named Profanity Protection System. The system is designed to handle both standard and high definition video with user-definable delay. It can handle embedded audio as well as four-channel AES.

Under the theory "I'll know indecency if I hear it," ENCO Systems came to NAB with its Gardien, one of this year's AIM winners. It delays audio briefly, monitors the words spoken within the audio to detect indecent words or phrases, then mutes, bleeps or reverses them automatically in the outgoing audio.



Apple Computer played to a packed house as it introduced the newest version of its Emmy-winning editing software, Final Cut Pro HD, and other products at NAB2004.

# New Media Envisions Digital Future

By Scott Fybush  
RADIO WORLD



The next steps in the world of new media will be more than digital.

They will involve huge amounts of computing power and networking, according to some of the top executives in the business.

During the Super Session "New Media Visions for the Future," NAB attendees heard from many of the biggest companies in the world of entertainment, as well as from the computing giants who hope to be an essential part of the networked future.

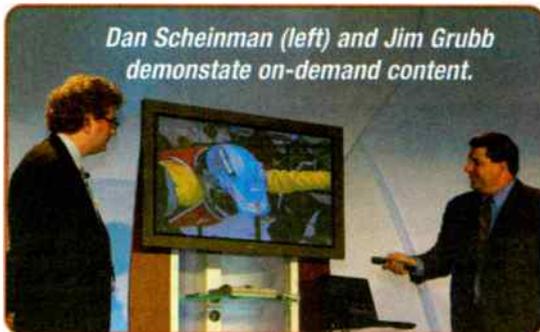
Hewlett-Packard Chief Strategy and Technology Officer Shane Robinson showed off his company's alliances with DreamWorks SKG and other big entertainment companies.

HP's expertise in providing massive processing power has made the company an essential partner in the production of animated films, such as "Shrek 2," said DreamWorks

Chief Technology Officer Ed Leonard.

HP also announced a new partnership with Warner Brothers under which HP will provide digital archiving and restoration services for Warners' vast library of TV shows and movies.

"To borrow a phrase from our film 'Casablanca,' this



could be the start of a beautiful friendship," quipped Warner Brothers Entertainment Chief Technology Officer Chris Cookson.

Another computing giant, Cisco Systems, is staking out its own spot in consumers' entertainment universe.

"Consumers want to be able to get what they want, where they want, when they want," said Dan Scheinman, Cisco senior vice president for product development.

To illustrate the new options available to media consumers, Cisco Chief Demonstration Officer Jim Grubb, showed off the many ways in which on-demand content — in this case, an ESPN snowboarding video — could be downloaded to a home HD receiver, burned to DVD or transferred to a portable video player, all with digital rights management to prevent unauthorized duplication or use.

Walt Disney Co. Senior Executive Vice President Peter Murphy said the companies that give consumers

the most choices will be the ones that succeed, citing Disney's MovieBeam video-on-demand service as an example.

Sony Electronics Senior Vice President Peter Lude said the plummeting prices of digital storage and bandwidth will make it even easier to deliver those choices.

## Academia Lures Journalists

By Kelly Brooks  
RADIO WORLD



Are you a broadcast journalist or newsroom producer looking to make a career change? Consider taking the scholarly route.

Colleges and universities are looking for instructors with field experience to educate and sufficiently prepare future journalists for the rigors of the industry. The RTNDA educational session, "From Newsroom to Classroom, Classroom to Newsroom," featured a panel of former newsroom producers and a former news director who have made the transition from the daily pressures of breaking news to the ivory tower.



Yvonne Cappe

Moderator Mary Rogus was formerly an executive producer at WTAE-TV in Pittsburgh and now teaches at Ohio University in Athens; Beth Bingham Evans, formerly a senior producer at E! Entertainment Television, currently teaches at California State University, Fullerton; Yvonne Cappe, former executive producer at WBRZ-TV in Baton Rouge, La., now teaches at the University of Kentucky in Lexington; and Mike Conway, former news director at WICU-TV in Erie, Pa., is an instructor and doctoral candidate at the University of Texas, Austin.

"Two years ago, I chaired the search committee for a broadcast journalism [instructor] job at Ohio University. And at that time, going through the apps, two things became very clear," Rogus said in her opening comments.

"Number one, there were a lot of news directors and news professionals who were interested in making the move into academia. And number two, not many of them had a clue of how to package themselves for the university, or if they got the job, what it was going to be like or what they would be getting into once they got there."

The panelists agreed they were driven by the rewarding feeling of educating others.

"The moment I knew it was time to change from the newsroom to the classroom, was when I realized that I spent a lot of my day with young reporters teaching them the basics. I said, 'Is anybody teaching them this?'" said Cappe.

"And as I have gone through this process of being a professor, I have learned that people do teach them these things, they just forget them very quickly. But still, I got great satisfaction from instructing them on just the basics, giving them the tips of the trade," she said.

Jim Wolak  
Partner  
Accenture



"I went to [NAB to] support our involvement with PBS's ACE initiative and represented Accenture's role as part of that consortium. I also wanted to network with hardware and software vendors in the industry."

# Seller's Market for TV Stations

By Mark Baechtel  
TV TECHNOLOGY



If venture capital is your game, a television station purchase is likely one of the deals you'd want to broker. But given the current regulatory picture, the hopes being pinned on the HD transition and the status of the TV broadcast sector's valuation, if anyone is selling, they're selling dear.

At least that's the message delivered by a distinguished panel of industry analysts and executives who spoke at "Big Deal, Little Deal, No Deal: Analysis and Rationale."

"Wall Street currently sees TV as a question mark," said panelist John Chachas, a managing director with Lazar Freres & Co. "There are some positives and some risks that put its valuation in the general vicinity of newspaper stocks, and on the regulatory side, no one really knows what's going to happen. But I think investors are seeing this as a darkest-before-the dawn scenario."

Joining Chachas on the dais were co-moderators Gary Chapman, chair and CEO with LIN Television, and Perry Sook, president and CEO of Nextar

Broadcasting. Panelists for the session included Elliot Evers, managing director and co-founder of Media Venture Partners; Bruce Levy, managing director of Wachovia Capital Partners; Lane MacDonald, general partner at Alta Communications; and Drew Marcus, managing director at Deutsche Banc Securities.

For the smart investor — able to look past waters still rendered choppy by the digital transition, uncertainty over the regulatory environment during an election year and some lingering doubts about the



"Big Deal, Little Deal, No Deal" Panelists

end of the recession — there are a number of reasons to believe the outlook is getting brighter.

"One positive sign we are seeing is a flow of capital from private equity funds into TV, in a big way," said Wachovia's Levy. "I think one of the reasons for this is they're attracted to the substantial free cash flow TV generates."

# Ridge, Reporting Top RTNDA Show Opener

By Kelly Brooks  
RADIO WORLD

## RTNDA@NAB

Secretary of the Department of Homeland Defense Tom Ridge took the stage at RTNDA's "Opening Session and Business Breakfast" to acknowledge and praise the cooperative relationship between the media and the Department of Homeland Security in getting important information to the public in a timely manner.

"Every single day since Sept. 11, 2001, you, [the media] have kept America informed about this century's greatest threat. America has listened, and learned about international terrorism from you," he said.

"We have sent the terrorists a clear and simple message: You are not freedom fighters. You are murderers. And on this issue, the world has come together. And as the eyes and ears of democracy, [the media] often find [themselves] on the front line of the fight."

Ridge spoke on the difficulties in simultaneously taking appropriate safety measures while relaying pertinent information to the public without causing hysteria, asking, "How do we inform the public without alarming them? [The terrorists] plan and prepare and so must we. And at this time, obviously we do not

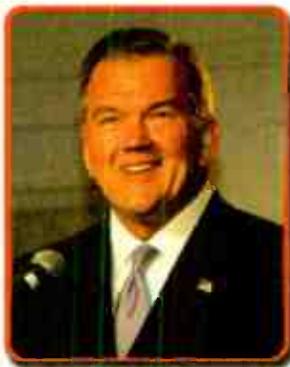
have specific threat information around [upcoming events, such as the dedication of the World War II memorial or the Summer Olympics].

"But ladies and gentlemen," he said, "we do have our common sense. We don't need to change the threat level to make us safer and more secure. With so many symbolic [events] in the next few months, we must be aggressive.

Also speaking at the event was anchorman Lester Holt, the host of MSNBC's "Lester Holt Live" and co-host of NBC's "Weekend Today." He encouraged the media to convey the exhilaration of grassroots reporting to bright-eyed journalists who only have eyes for the desks of celebrity anchorpersons such as Katie Couric or Barbara Walters.

"How many times have we seen rising young stars in this business crash because no one was mentoring them or correcting them, simply criticizing them. Are we nurturing them, sharing our experiences? Mentorship and those willing to be mentors are the keys

to building the maturity levels demanded in our newsroom today. No one should be allowed to fail due to false expectations," said Holt.



Tom Ridge



Joe Webster  
Associated Press  
Washington, D.C.

"NAB is obviously the best place to meet and talk to customers and book potential and existing business. We also have partnerships with other businesses and NAB is the ideal place to meet them."

# JVC Democratizes High Definition

By Craig Johnston  
TV TECHNOLOGY

"It is the most exciting NAB I've been involved with," said JVC Professional Products National Marketing Communication Manager Dave Walton in his opening remarks at the company's annual press luncheon.

"We're making some very bold announcements," he said. "We are opening the doors to the entire industry — and that means from the very lowest end to the very highest end — to the concept of affordable high definition."

Walton explained that he wasn't just referring to the content-creation industry. "We are opening the doors to really everyone in America to be able to see

high definition.

"[Until now], it's something that's been relegated to the very elite because of the very proprietary ideas



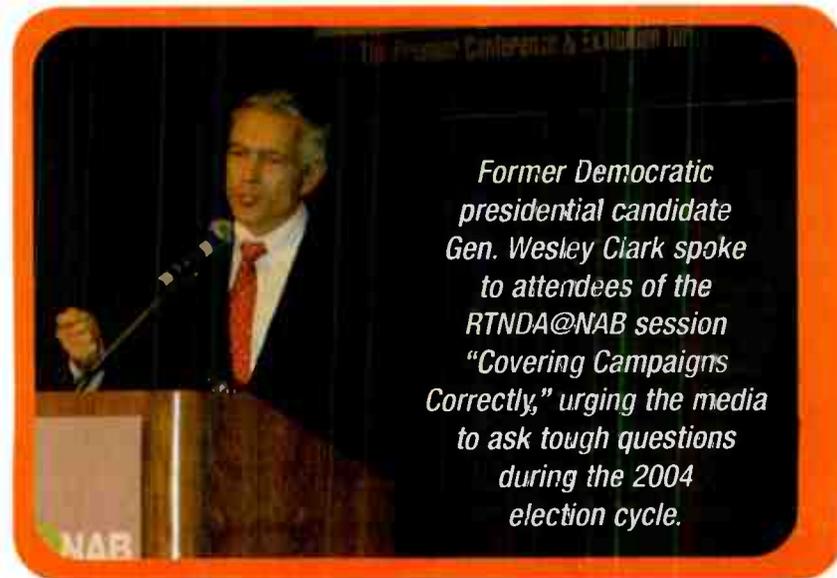
JVC DM-JV600

that other manufacturers have had. We are democratizing the whole concept."

JVC's initiatives toward affordable high definition put action behind Walton's words. Through the company's use of MPEG-2 HD compression in all of its HD products, it allows stations to save money on processing, asset management and archiving.

JVC also upgraded the single-chip high-definition ENG/EFP style camcorder it showed last year to a 3-chip model sporting CMOS imagers. It features built-in MPEG-2 encoding.

Calling it the solution to the last link of high-definition news production, JVC introduced its affordable DM-JV600 high-definition MPEG-2 encoder, which allows high-definition live and taped news video to be sent back to the station utilizing existing microwave equipment.



Former Democratic presidential candidate Gen. Wesley Clark spoke to attendees of the RTNDA@NAB session "Covering Campaigns Correctly," urging the media to ask tough questions during the 2004 election cycle.

# Future in Focus At Cinema Summit

By Geoff Poister  
NAB DAILY NEWS



Gone from the Digital Cinema Summit was the customary hype attached to the digital revolution. Instead, the media professionals focused on identifying issues that need to be resolved.

The Saturday session, produced in partnership with SMPTE, consisted of panels addressing technical standards, regulatory issues and logistical problems. They grappled with details ranging from black and white perception to global distribution models.

The prelunch sessions covered most of the technical ground, while the afternoon sessions focused primarily on digital cinema systems, represented by companies such as QuVIS and Dalsa Digital Cinema.

## CREATIVE CHALLENGES

The Sunday program, produced in partnership with the Entertainment Technology Center at the University of Southern California, focused on creative and production challenges.

The day started with a line-up of some of the motion picture industry's most esteemed ASC cinematographers: Allen Daviau, Michael Goi, Daryn Okada, Gil Hubbs and Karl Walter Lindenlaub.

There was a general consensus among all the cinematographers that the transition from film to digital processes requires caution.

Allen Daviau, known for shooting features such as "E.T." and "Empire of the Sun," urged cinematographers to monitor and manage the image from start to finish.

"Cinematographers need to see the process through digital intermediates to the end," Daviau said. He stressed that the "look" of a shot can be more easily altered anywhere in the digital process.

# TV Launches New Battle Against Cable

By Scott Fybus  
RADIO WORLD

**TELEVISION**

If Emmis Communications Chairman and CEO Jeff Smulyan has his way, the rooftops of America will once again bloom with TV antennas — all tuned to a broadcaster-provided multichannel video service offering an alternative to cable at a fraction of the price. Smulyan unveiled the "Digital Antenna System"

at NAB2004, asking fellow broadcasters to join him in pooling their digital TV spectrum to provide bandwidth for the system.

"The television industry has allowed a third party to take our product and profit from it," Smulyan said.

The Digital Antenna System, he said, would allow broadcasters to take back some of the revenue stream now owned by cable without spending much additional money on infrastructure.

"We don't have to launch a satellite for \$400 million," Smulyan said. "Our industry has already paid \$4 billion for building out the digital infrastructure."

Smulyan estimated that the startup cost to the industry for launching the Digital Antenna System would be in the \$500 million to \$700 million range over three to five years.

Smulyan cited a survey that found 27 percent of American consumers would be interested in a service that offered 30 "must-have" cable channels and local high-definition broadcasts at \$25 a month if the receiver box cost them \$99.

If broadcasters gave away the boxes for free, Smulyan said, interest in the service climbed to 49 percent of Americans.

**Lee Battle**  
BAE Systems  
Lexington Park, MD



"I came to NAB to identify equipment for a project and meet with a customer about the project."

## IBOC Drives New Radios, Extra Revenue

By Leslie Stimson  
RADIO WORLD

**RADIO**

As more stations go digital, manufacturers are devising ways to make the conversion of facilities more cost-effective. At the same time, the group of engineers in this country who've experienced an IBOC install first-hand is growing.

In the Broadcast Engineering session "IBOC and Digital Facilities Implementation," attendees heard from engineers who have put digital stations on air

this year, as well as tips about digital processing and new antenna implementations on the market.

Susquehanna's Norm Philips moderated the all-afternoon panel, while Paul Shulins, director of technical operations for Greater Media, detailed the conversion of the company's five Boston stations.

Greater Media is using transmission equipment from Broadcast Electronics and the low-level combining method for lower operating costs. Greater Media's stations are sharing an FM master antenna atop the Prudential Building.



Herb Squire

Electronics Research Inc. handled the tower work for the project.

WOR's Corporate Director of Engineering Tom Ray, whose Buckley Broadcasting-owned station went digital with iBiquity prototype equipment, said now that the station has been digital for a while, listeners are calling in and asking where they can obtain HD Radios. "We identify ourselves WOR HD. It generates calls," he said.

John Kennedy, chief engineer for Entercom's Boston stations, couldn't present his paper so Infinity Seattle Director of Engineering Tom McGinley filled in.

Entercom's conversions of Boston FM stations WQSX(FM) and WAAR(FM) took almost a year to complete. WQSX initially caused interference to some analog neighbors when it went digital. A notch filter from Shively solved the problem.

Herb Squire, vice president of engineering and operations at DSI RF Systems Inc., presented "Dueling Algorithms Meet IBOC."

He played an Edison Diamond disk from 1928 and a 1935 recording of an Ethel Merman concert to illustrate audio history.

His big tip: Do not use compressed audio storage for broadcast automation systems.

Nautel Principle Research Engineer Scott Martin and Omnia Audio Founder Frank Foti discussed "Enhancing the Digital Path."

ERI Director of Product Development Eric Wandel covered "Test Results of Dual Input Sidemount FM Antennas." The FCC allows these antennas for IBOC installations, he said.

Dalet Digital Media Product Strategy Director Nicolas Hans and Bill Whitehart, senior technical specialist with Visteon, were also panelists.

## Next-Gen Ads: More Interactivity

By Alan R. Peterson  
RADIO WORLD

**SUPER SESSION**

In 1994, Real Networks founder Rob Glaser proclaimed, "Digital media would be everywhere. Every consumer electronic product would be an IP device and all audio and video would be digitally delivered."

Ten years later, with the realization of that vision, comes the challenge of delivering

of Nestlé Purina; and Dennis Quinn, executive vice president of business development for Turner Network Sales.

Glaser set the tone of the session by defining the trends seen in consumers today and challenges faced by advertisers — notably, how to use interactive media to reach consumers where they are, and how to think beyond more than just television.

"The 'PC thing' will become the 'television thing,'" he said, "and the early adopters will be the ones to reap the benefits."



advertising messages to those consumers — a topic thoroughly covered in the Super Session "Next Generation Advertising," hosted by Ben Mendelsohn of the Interactive Television Alliance (ITA) and moderated by Allison Dollar, also of the ITA.

Keynote speaker Glaser was joined by an executive panel consisting of William Corbin, vice president of interactive production, A&E television networks; Phil Bienert, manager of e-business for Volvo; Olivier Gers, senior vice president of FremantleMedia Licensing; Ross Levinsohn, senior vice president of FoxSports.com; Maureen Posey, group media director

Glaser noted how television viewers are not as passive as they once were, that they might have the TV on while they are surfing the Web or using a cell phone.

"Programming must reach people where they are, not where they used to be."

Viewers are already involved in such shows as "American Idol," where they are able to vote by phone or online in real time for their favorite performers. In turn, advertisers like Coca-Cola and Ford use their equity in the show to promote their own products and use it across all their advertising.

# NAB Connections Builds Contacts

By Craig Johnston  
TV TECHNOLOGY

Three truisms of NAB are: So many people; So much to see; So little time.

Riding to the rescue this year was the NAB Connections system, designed to help attendees identify people and products of interest to them, to receive networking recommendations and to make and manage appointments with those individuals and vendors both during the show and after.

NAB attendees were entered into the system when they registered. Information collected during registration — such as job title, expertise and interests — helps the system create matches and provide recommendations for each attendee.

"Think of it as part search engine, part matchmaking software," said Don Mahoney, executive vice president of BDMetrics, which partnered with NAB to create and operate NAB Connections. Where prior NAB search systems concentrated on exhibited products, NAB Connections gives equal emphasis to helping an attendee find other attendees with similar interests at the convention.

He compared it to the way Amazon.com uses customers' purchases to predict and recommend other books, CDs, etc.; NAB Connections tracks the activities of an individual attendee and others who fit his or her profile to help recommend who and what to see at NAB2004. The system can modify its recommendations as it samples more users.

NAB Connections lets attendees and vendors make appointments through the system anonymously. "It's based on permissions," said BDMetrics President and CEO Rick Geritz. "Privacy is very important. We don't want someone spamming an attendee." Personal information is only shared once both parties approve a connection request.

Attendees who want to utilize the system may still do so on the NAB Web site: [www.nabshow.com](http://www.nabshow.com).

**Richard Ehrenberg**  
Technical Director  
ABC-TV's "Nightline"  
New York



"I wanted to look at new switchers and monitoring equipment, and I took two seminars on special effects and editing."



# Grass Valley Pitches HD SloMo

By Bob Kovacs  
TV TECHNOLOGY

Grass Valley, the television production equipment arm of Thomson Broadcast and Multimedia Solutions, announced the debut of a high-definition, slow-motion camera based on the company's existing LDK 6000. Marc Valentin, president, Thomson Broadcast & Multimedia, presented the new camera during a press conference at NAB2004.

The LDK 6200 HD Super SloMo uses Grass Valley 9.2-megapixel image sensors to provide native resolution at all HD formats, driving the technology at double speed for 2x slow-motion capability. The new camera will have triax and fiber-optic options, and is compatible with many

accessories used by the standard-speed LDK 6000.

"We saw that there was a missing link for HD production — a real-time, slow-motion camera," said Jan Eveleens, the general manager for the Grass Valley camera business unit. "[The LDK 6200 HD] is the world's first high-definition, slow-motion camera."

Eveleens said the first major event to use the new SloMo camera will be the UFEA Euro2004 soccer championship in Europe. It will also receive extensive use at the 2004 Olympics in Athens.

The LDK 6200 HD can be switched on-the-fly between slow-motion and standard operation, and the camera outputs HD-SDI. Although the camera's data requirements mean that it will have about 10 percent less cable reach than a similar LDK 6000 when using triax, this still accommodates cable runs up to 1,800 meters.

To record the LDK 6200 HD, the double-speed data is recorded on an EVS HD-XT digital disk recorder.



Marc Valentin

# Chyron Generates HD Graphics

By Deborah D. McAdams  
TV TECHNOLOGY

Chyron is taking a whole new approach to generating HD graphics. Instead of focusing on creating graphics in hi-def from the get-go, the company is rolling out the C-Mix HD, a mixer that upconverts SD graphics for HD output.



Chyron C-Mix

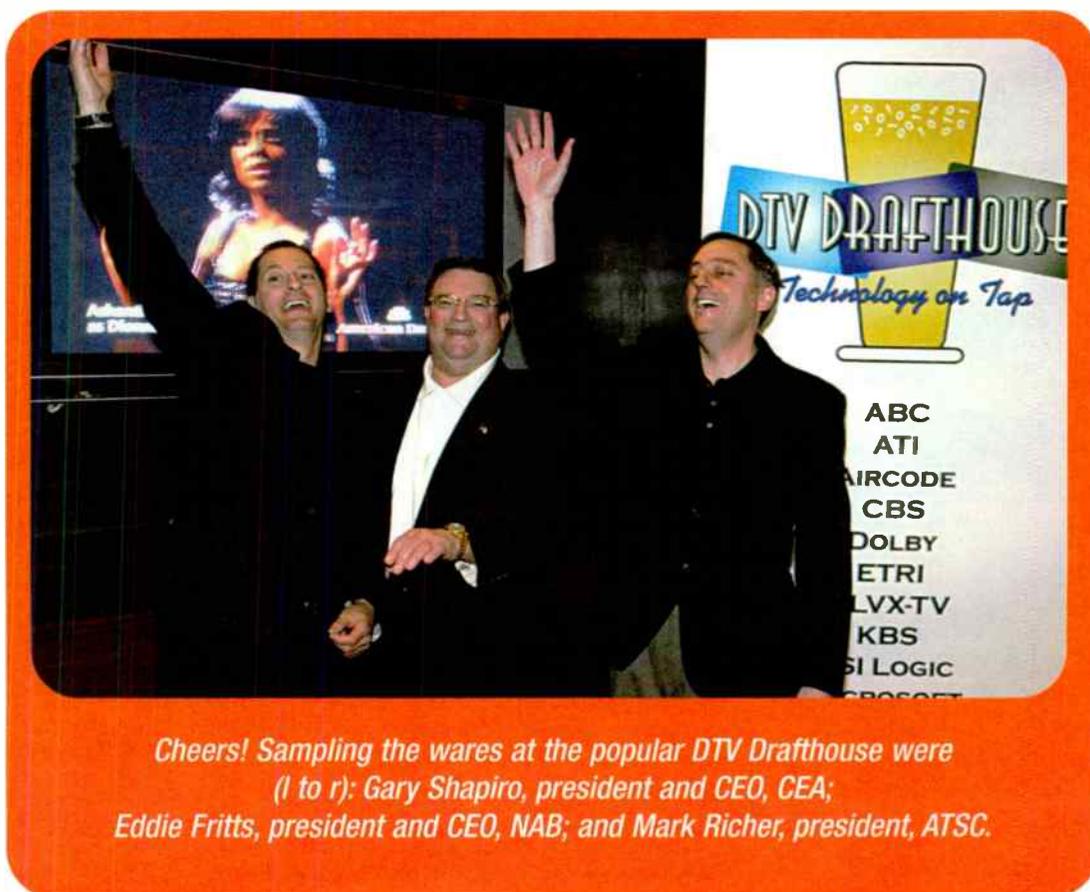
"People have bought a lot of character generators in the last two years that they're not going to replace," said Rich Hajdu, Chyron's vice president of sales and marketing. He described how Chyron has anticipated hefty mid-market demand for graphics upconversion. Case in point, he said, was WRAL in Raleigh, N.C.

"They wanted to convert their HD Duets to SD Duets," he said, because of the complications involved in doing whiz-bang graphics with current HD technology. The folks at the Raleigh station decided they would upconvert for HD, which Hajdu said would be the likely direction of the market.

The C-Mix HD can take up to four video and key input pairs and a background layer, combine them in any order for both compositing and blending, and output them in either SD or upconverted HD.

Hajdu recalled how, in 1998, Chyron and the rest of the industry focused on HD, "and it was a complete bust." Chyron expects the broadcast market to embrace native HD graphics eventually.

The company's HyperX multiformat SD/HD character generator reflects that philosophy as well as the transitory period. The \$45,000 base-priced HyperX can be deployed as SD-only or HD-only, or with simultaneous SD/HD capability. HD cards can also be added later, Hajdu said.



Cheers! Sampling the wares at the popular DTV Drafthouse were (l to r): Gary Shapiro, president and CEO, CEA; Eddie Fritts, president and CEO, NAB; and Mark Richer, president, ATSC.

# Entrenamientos de video digital y gráficos

Por Rogelio P. Ocampo

TV TECHNOLOGY AMÉRICA LATINA  
RADIO WORLD AMÉRICA LATINA

**PRODUCTION** La Conferencia Mundial de PostProducción de la NAB presentó por primera vez este año durante la convención capacitación en español sobre video digital y gráficos para los profesionales hispanohablantes.

Tituladas "Entrenamientos de video digital y gráficos en español", las sesiones fueron producidas con la empresa Future Media Concepts.

Los cursos en español fueron presentados por instructores de habla hispana — como Yossy Tessone, de Future Media Concepts; y Orlando Luna, director de Luna Studio, una organización de multimedia — y se trataron sobre una variedad de aplicaciones referentes a la postproducción.

Alejandro Delgado, presentador del Text Engine en After Effects, dijo que "en América Latina hay un hambre sobre todo lo que es edición y es por esto que estamos presentando estas sesiones en español".

"Misterios y secretos: Cómo importar y exportar gráficos y películas" fue una sesión en donde se aprendieron secretos para importar y exportar gráficos e imágenes.

También se presentó la sesión "¡Rápido, Rápido, Rápido! — 10 consejos poderosos que aumentarán tu velocidad de edición". Otras sesiones presentaron técnicas avanzadas de gráficos y efectos en movimiento sin tener que usar otras aplicaciones, y títulos para cine y televisión usando la característica Text Engine de After Effects, de Adobe.

Los asistentes a las sesiones se encontraron, por lo general, satisfechos. "Los cursos me han parecido excelentes, nos están enseñando tecnología de punta", dijo Alan Sibaja, del Tourism Channel de Costa Rica, "pero podrían ser un poco más específicos en algunos cursos".

## Harris Shifts to Systems Solutions

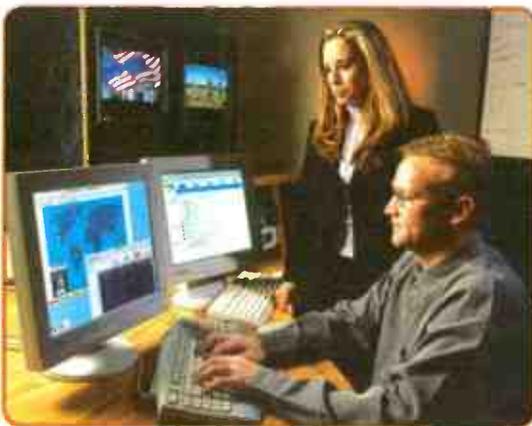
By Deborah D. McAdams

TV TECHNOLOGY

Something extraordinary for these times happened at Harris Corp. in the last year. The company added jobs.

A total of 700 jobs were added in the company's Florida facilities, where Harris's government work gets done. And while government and broadcast communications are separately reporting divisions in

the house of Harris, the segments feed off of and into each other, as was the case with the recently won contract for the Iraqi TV Network.



Harris Broadcast Presentation Manager

That contract netted Harris Corp. a \$96 million deal to overhaul and manage Iraq's media infrastructure, including two radio, two television networks, and a newspaper.

**Yetkin Kaygisiz**  
Imgeo  
Istanbul, Turkey



"I came to the NAB to see technology for motion graphics and broadcast design. This is a good show for me."



Edward O. Fritts stands with the winners of the 2004 NAB International Broadcasting Excellence Award: (from left) George Kumsiashvili, Giorgi Khaburzanian and Erosi Kitsmarishvili of Rustavi 2 in Georgia and (at right) Mir Ibrahim Rahman of Geo TV in Pakistan.

With these new jobs comes a fresh focus from Harris's newly-appointed president of the Broadcast Communications Division, Jeremy Wensinger. He had been serving as vice president and general manager of Harris' Government Communications Systems Division, which he joined in 1989.

Harris's emphasis at NAB2004 involved following "the content process from creation through the entire chain to the ultimate destination," i.e. the U.S. television household. The company introduced new components to last year's introduction, the Harris Resource Suite, a.k.a. hrs.

These include Broadcast Presentation Manager, a system with a two-way Windows-based graphical interface that allows the traffic department to track commercials that don't appear during breaking news or other interruptions.

Digital ingest software — a.k.a. Pathfire — was also rolled out for the hrs.

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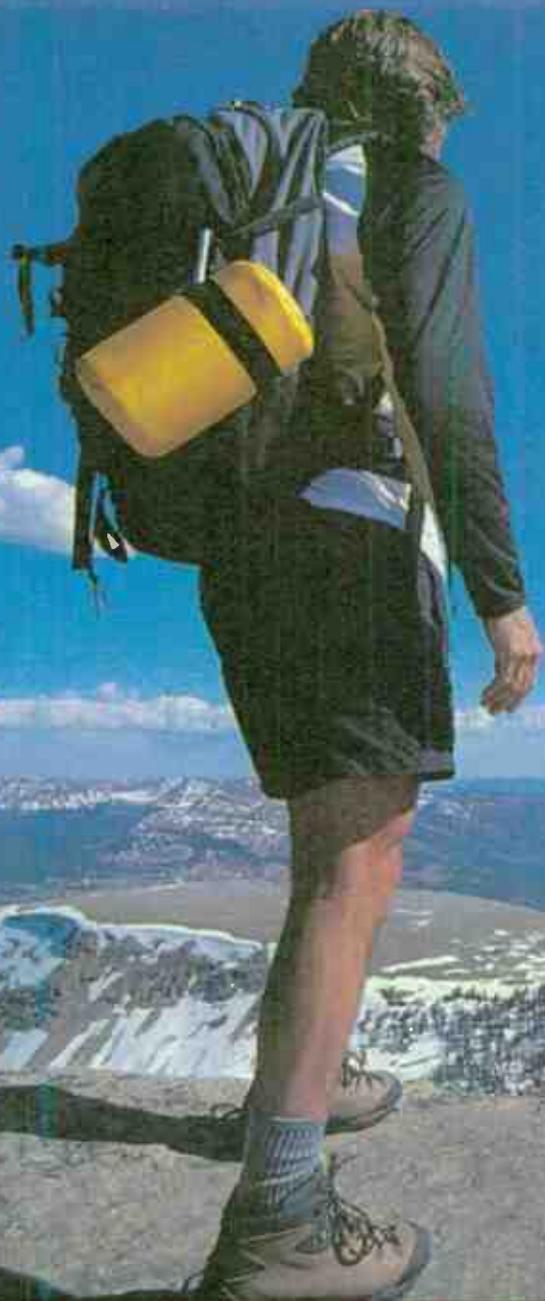
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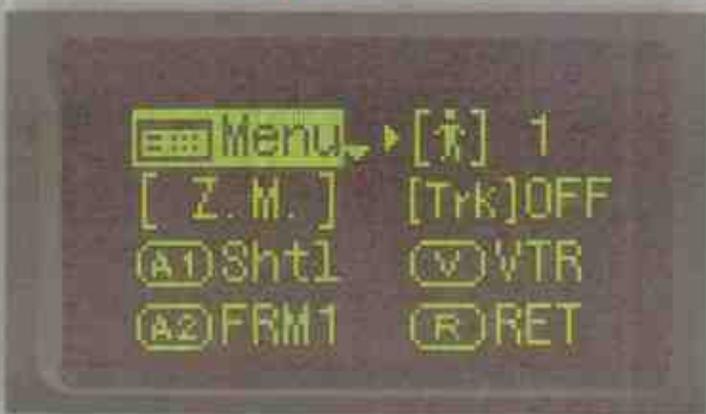


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