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A Very Happy New Year 2005


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Editor's Comments



As editor of this esteemed publication, I'm expected, at this time of year, to gaze into my normally malfunctioning "crystal ball" and take on the roll of soothsayer in an effort to predict what destiny has in store for us in the broadcast industry. If I were any good at that, I'd be rich - out spending my fortune on gadgets, toys and other kinds of things my wife yells at me for getting only a fraction of my wants and desires. You can bet that I certainly would not be laboring over this keyboard trying to meet what is already extended into a 3 week late deadline for this edition. Also let me assure you, I am no better at "saying sooth" than anyone else, so what you are about to read is purely conjecture on my part based on my observations and flights of fancy.

We all know that the bottom line in the broadcast industry is to deliver eyes and/or ears to potential advertisers. How we get to them is varied: over the air, cable and satellite. All broadcasters are involved in each of these delivery systems in one way or another.

It doesn't take a crystal ball to project that more satellites will be launched this year, but so will new products and services, including the long-awaited debut of one satellite broadband platform. Will we be ready to take advantage of this new technology? You've got to know about it to do so. Keeping ourselves educated in all areas of our industry is probably the most important thing, next to getting "the job done."

According to Michael Hopkins of SkyFiles, Here's a sampling of what will happen in 2005:

“Space-based Expansion - Expect VOOOM, EchoStar's DISH Network and DirecTV to expand orbital capacity. DirecTV's pending growth may be the most noticeable, with its highly-anticipated launch of two SpaceWay satellites next year. Those Ka-Band birds will support local/national high-def expansion plans. VOOOM plans to grow from its current slate of 39 high-def channels to more than 70 HDTV nets beginning in March, with help from SES Americom's AMC-6 satellite. DISH Network's future plans are somewhat vague (no surprise there), yet EchoStar also will have access to SES Americom capacity, and long-term the company could launch operations at recently-awarded orbital locations at 83 degrees, 109 degrees and 121 degrees. EchoStar also is expected to launch its 10th satellite in 2005.

“A New Satellite TV DVR - It's no secret that NDS Group, News Corp.'s TV technology unit, is working on a DVR for another News Corp. unit, DirecTV. The NDS/DirecTV DVR could debut to consumers this spring (with a possible early unveiling sometime this winter). If and when that happens, more critical eyes will turn towards TiVo, which at the moment gets most of its business from the satellite TV giant. Will the DVR pioneer survive the NDS challenge? Stay tuned.



More iTV - DirecTV will launch more interactive TV services, including more enhanced offerings for its NFL Sunday Ticket. And EchoStar's DISH Network will utilize more of OpenTV's mosaic iTV application, which was used by consumers with much success during the Olympics and 2004 elections.

WildBlue Debuts - The much-anticipated Ka-Band platform that will support broadband services across the country is poised to make its official debut in April. The service, which will initially use Telesat Canada's Anik F2 satellite, has been testing for several months. Company executives won't say the April unveiling is a delay in getting their service off the ground. Nonetheless, some folks in the satellite business are anxiously awaiting access to the dish-based high-speed Internet offering. Others are waiting to see if WildBlue can overcome the "niche" title that has been assigned to other satellite-based broadband services in the past.

“More Noise from NRTC - No one expected the National Rural Telecommunications Cooperative to abandon satellite after it settled years of litigation with DirecTV this past summer. Indeed the organization has made recent waves inside the industry with its work on a product that will combine WildBlue satellite broadband with DirecTV satellite TV service. NRTC also is still a strong voice for rural communications concerns inside the Beltway and thus remains a viable and important organization within the satellite business.”

Like the frog in the pan, we sometimes don't realize the heat is being applied. The one thing in life we can depend on is CHANGE! At the risk of stating the obvious, the viewing and listening habits of our society have changed, for better or worse, drastically over the span of the broadcast industry. We no longer sit around the radio and/or TV as a family. The social fabric of the family has changed to the point where it is difficult to recognize it from ten years ago, let a lone back when many of us were kids. Most of us are a “NOW” generation. We want what we want NOW and not when some high-priced network/entertainment executive says we can have it.

Hollywood has to wake up to these facts. The day of going to a theatre, experiencing a movie and taking away the memory is all but gone. Our society wants its entertainment NOW!. The days of the large movie theatres are all but gone. Most of these very ornate and beautiful edifices that once sat upwards of a thousand or more have been subdivided into movie complexes that sit in the neighborhood of a 100.

Yes, the experience of seeing something on the silvery-screen is an experience all to itself and looses something when pared down to even the largest of television sets, but there is room for both experiences. I said “even the largest of TV's, but what about getting your programming on demand on you cell phone? Projections show this as a very viable market and manufactures are pursuing it. Delivering these kinds of consumers to potential advertisers or as a pay-per-view experience fits only too well into the direction our lifestyle appears to be heading.

Until the entertainment industry is able to provide “On Demand” services for nearly everything, delaying and/or putting programs, DVDs, CDs music etc. into temporary storage is going to be a way of life, copyright laws or not.

In no way are we suggesting that anyone should break any law, but as long as the delaying process and the temporary storage is just that for personal convenience and use, the lawmakers, who probably are doing the same thing in their homes, should wake up and smell the roses, but only after the money grubbing Hollywood executives have done so also.

A good example of what I'm talking about is the recent announcement at the Consumer Electronics Show of the DISH Network's introduction of their new Video On Demand DISH Player-DVR 625. It will offer a Video On Demand (VOD) service called DISH On Demand. DISH Network will roll out the VOD service by March to new customers with

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DISH Network's new digital video recorder (DVR), the DISH Player-DVR 625. DISH Network.

To illustrate this NOW technology, if you're like most of us, you subscribe to a cable or satellite service (how much are you paying in monthly service fees?). You may have some favorite shows you capture on a personal video recorder. You probably have a couple of TVs, and a portable device like a laptop, cell phone or PDA. If you've got a high-speed Internet connection, you should be able to watch your live TV or recorded programs on your laptop, cell phone or PDA regardless of where you are. There's a device called Slingbox that does just that. This technology is called "place shifting."



What a VCR or PVR does for time, they do for location. It's all about freedom: Your TV; Any Device; Any Location. The Slingbox Personal Broadcaster redirects a TV signal from any cable box, satellite receiver, or personal video recorder to a LAN or Internet-connected notebook or desktop PC. It uses a Texas Instruments signal processor and Windows Media technologies along with its own proprietary stream optimization technology.

Despite all this portability, there comes to mind the ceaseless pursuit of those who'd thwart you being able to see or hear what you want – when you want. For example, this past July, two entertainment companies joined with six electronics manufacturers and chip makers to announce the creation of the Advanced Access Content System (AACS), the copy protection scheme designed to keep future generations safe from pirated DVDs."

The success or failure of such a device and/or technology will depend on whether consumers will be able to move videos around a home network and among multiple players right from the outset. If they can, they might be more willing to accept the new technology. Don't hold your breath or invest in this. I've lost count of the plethora of schemes that would thwart the would-be recordist in his or her attempts to make the material in question more convenient, not to mention all the would-be law-breakers who would do such a thing purely for the heck of it..

To further illustrate my contention that we live in a NOW society, even one of the major broadcast networks is considering video on demand (VOD). According to David Poltrack, executive vice president, research and planning for CBS says that within the next two years, video-on-demand (VOD) services featuring the network's most popular shows will provide a steady new revenue stream for program providers and program distributors, Poltrack says that CBS research shows some type of VOD model featuring broadcast repeats is of interest to a significant segment of the viewing audience. He added that such a service could work, even if people continue to use digital video recorders to store and replay programming on their own. This more than reinforces our contention that our society is recording, legally or illegally, for their own convenience.

Poltrack said a CBS on-demand service could either be on a pay per view basis or on a subscription service paid for at a fixed monthly fee. Confirming our editorial stance and predictions over the last eight years, he added that viewers might be charged less for programming with advertising that cannot be skipped, and more if the viewer is allowed

to bypass the ads. We've seen this kind of service from a number of cable operators that offer such content packages from premium cable nets.

All this is not without some barriers. Residual fees will have to be renegotiated with studios for programming already shown, but such fees could be worked into future deals before the programming airs on the networks. Rumor has it that in addition to CBS, ABC and NBC are also experimenting with offering news programming on-demand to various cable operators in certain markets, but those are just limited tests. VOD would seem to be a natural out growth of this.

According to the Washington Post Company, there's a good chance you or someone you know will buy a digital television set and a satellite radio and purchase a movie at home using a remote control or laptop during 2005. They also predict that you'll read more about radio and television indecency and may very well see the Supreme Court take the first step toward tossing out the federal regulations that have kept NBC from looking more like HBO. It never ceases to amaze me how our government keeps trying to legislate morality. I've yet to see a company produce a TV and or Radio receiver that didn't have an ON/OFF switch. Most receivers have the ability to be tuned to another frequency.

There's not much on the horizon for the coming year in the way of takeovers and/or mergers. About the only thing may be the eventual purchase of troubled cable company Adelphia Communications Corp., possibly by Time Warner Inc.

One thing that is coming into focus is that we can expect a lot of action in the courts that will affect our view and listening habits.

According to the CEA, there were almost 10 million digital television sets in use in U.S. households by the end of last year and most of them were high-definition televisions (HDTV). It is expected that seven million more will be shipped by the end of 2005. I would certainly expect more local and commercial production in HDTV. Don't forget that DTV is an enabling device that permits local television stations to add channels and improve the picture and sound quality of broadcasts.

As to analog TV ending by the end of this year, I wouldn't bet on that. I believe that Congress or the Federal Communications Commission will set a date for the end of the transition from analog to digital broadcasts -- a date by which all over-the-air analog signals must cease and it will be at least 2 to 3 years down the road.

The Washington Post says that cable companies such as Comcast also like the digital conversion because they hope 2005 is the year that video on demand (VOD) catches on. VOD lets cable subscribers buy movies and programs when they want and adds another revenue stream to the cable industry, which has stopped adding customers as more viewers are switching to satellite services. They go on to quote Shari Anne Brill, a media buyer with Carat USA, as saying: "Most consumers lack the awareness of VOD's existence. VOD will get a bigger push from cable systems."

Who says radio is dead? If you don't have a digital radio now, you may well be one of those who are expected to get on in 2005, as well. In addition to IBOC, pay satellite radio services offered by XM Satellite Radio Inc. and Sirius Satellite Radio Inc. passed the 3 million and 1 million subscription marks, respectively at the end of this past year. In the future of terrestrial broadcast radio expect, it, like television, to converting to digital - IBOC. The plus side for FM is the additional capacity to add channels and adding text to programming. It's hard to say what will be come of IBOC-AM. There is no question about the improved sound quality, but along with AM-IBOC are a barrel of problems.



It will almost be impossible to tell the players without a program. You will most likely see cable grudging up to compete with regional phone companies as the telcos begin to offer video service. On the flip side of that coin, you TV will become your phone and your phone will become your TV: Consumers will get more choices as cable companies offer phone service and Internet phone calls become a reality.

"Next year will bring more breakthrough technology to consumers, including more voice choices through new platforms like cable and WiFi and more video choices through phone lines, broadband and cell phones," said Michael K. Powell, chairman of the FCC. "The consumer sits at the center of the information universe as more powerful tech tools come into the home."

Expect TiVos for everything. XM already has a portable radio that will record five hours of programming. Also, hard drives will be put to greater use: Game boxes will be used to store movies and MP3 players will hold photographs. As you can imagine with things going in this direction, the sales of TiVo and other digital video recorders will continue to grow slowly but will really speed up when television manufacturers begin building them into new digital sets and yes, with the way technology is going, they should be able to record and store HDTV programs.

Taking still pictures on your cell phone is only the first step to taking full-motion videos and this should be in place by the end of this year, as wireless networks get faster, says FCC boss Powell said. Possible content: short news clips and local weather.

I'm not the only one who has tried to shake Hollywood's tree. (Yes, the mouse yelling at the elephant.) Hilary B. Rosen, former president of the Recording Industry Association of America, wonders if the movie industry will wait until piracy reaches crippling levels -- as it did in the music industry -- before licensing a significant number of movies for sale online and creating the "iTunes for movies," referring to Apple Computer Inc.'s popular online music store. So this could be a critical year for the movie industry, as it battles online and bootleg piracy. The studios' initial attempts to sell movies on the Web, at sites such as Movielink, have not caught on. This could be partly because of virtually little or no marketing: Out of sight – out of mind.

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Again, the government is trying to legislate morality. Case in point is the FCC asked for and Congress drafted legislation to increase the maximum fine for indecency to \$500,000, but it stalled before recess. The measure has bipartisan support, and lawmakers and broadcasters expect it to pass in 2005, though probably at a lower fine amount.

The Washington Post further predicts that a number of policymakers and First Amendment scholars are expecting -- and broadcasters are hoping -- that the Supreme Court will reconsider two rulings that allow the government to police the airwaves.

“The FCC can fine broadcasters for indecency and can require public-interest obligations, the court has held, because the radio and television airwaves have a limited amount of spectrum and cannot support an infinite number of stations. Also, because radio and television waves are "uninvited visitors" into homes -- meaning they can be received free -- the government is within its rights to protect children from objectionable programming.

“Both rulings, however, came before the explosion of cable and satellite networks, which gave television and radio audience members a wider variety of programming. Over-the-air television channels account for fewer than 10 of the more than 100 channels available on most pay systems. Also, now that fewer than 15 percent of television viewers do not subscribe to pay television -- cable or satellite -- few homes have "uninvited visitors."

“The government has no authority over cable or satellite networks and, late last year, Fox Broadcasting Co. argued that this double standard is unfair when asking the FCC to drop a \$1.2 million indecency fine against the network. If the FCC upholds the fine, Fox is likely to take the case to the Supreme Court.”

As stated earlier, we can expect the legal battles to head up, especially those between the technology and content industries, as film, television and music makers try to protect their copyrighted material and electronics makers and technologies (such as peer-to-peer file-sharing systems) seek to give consumers more ways to get and use content.

The Supreme Court is set to consider whether peer-to-peer services such as Grokster are liable for illegal activity -- such as downloading and sharing copyrighted work -- committed with them. Grokster argues that it is protected by the Supreme Court's 1984 "Betamax" decision, which found Sony was not responsible for bootlegged videotapes made on its machines as long as they could be used for legal activities. Perhaps the justices will go home and look at the programs they've delayed on their recorders prior to making this decision.

These things affect us all. They are important to us all. You can expect 2005 to be the year in which the Supreme Court decides whether consumers control their movies, music and the Internet or whether the cable and phone companies and the Hollywood studios control what you get to see, hear and find on the Internet.

To sum this all up, 2005 will probably be seen as the year of accountability, creativity and on-demand media. There are some interesting observations in Radio Ink on this subject from folks outside the broadcast industry. Check them out at:

<http://www.radioink.com/HeadlineEntry.asp?hid=126519&pt=todaysnews>

In conclusion, according to our American Heritage Dictionary a patent: is a grant made by a government that confers upon the creator of an invention the sole right to make, use, and sell that invention for a set period of time. According to that same dictionary, copyright is the legal right granted to an author, a composer, a playwright, a publisher, or a distributor to exclusive publication, production, sale, or distribution of a literary, musical, dramatic, or artistic work. Shouldn't this be for a set period of time also?



Letters to the Editor

Editor's Note: Unless specifically asked not to print letters to us, we will.

From: FourFresias@aol.com

RE: Glossary of Broadcast Terms on the Tech-Notes website
(<http://www.tech-notes.tv/Glossary/Title%20&%20Index.htm>)

Thank for being an endless source of information. I have been a college student for the last two years and I wouldn't be able to complete a paper without this site. (I also site all my references on my reference page) thank you again

-dfree

The Road Show - A Taste of NAB 2005



We have contacted or been contacted by over 70 locations that have asked us to bring the Road Show to them. This will extend our trip from 4 to 6 months. So long as there are folks who care enough for us to bring the latest technology to them and there are vendors who want the grassroots to see that technology, we'll go and do our thing.

We're putting the budget together and will get offers out to the underwriters soon. Since we will be doing about 50% more this year than last, it will cost us about that much more to put on the Road Show. Remember, there is no charge to any SBE, IEEE, SMPTE or other such group of us to bring the Road Show to them. All we need is a place where we don't get rained on, about 40 to 50 feet of table space, an AC outlet, folks to show up and a local vendor to help out by providing some refreshments – we'll do all the rest.



Speaking of Road Shows, according to Broadcasting and Cable, the two Federal Communications Commission Democrat members Michael Copps and Jonathan Adelstein, two of the most influential legislators regarding telecommunications policy, will be going on the road.



Inouye (D-Hawaii) told the Honolulu Star-Bulletin that he and Ted Stevens (R-Alaska.), will hold six such meetings across the country to let the public weigh in on possible changes to the Telecommunications Act.



As the ranking democrat and chairman, respectively, of the Senate Commerce Committee, Inouye and Stevens will preside over a planned rewrite of the Act. Inouye has expressed reservations about whether the new act should give cable the "breaks" it got the first time around when it was "in its infancy." Inouye also points out that the 1996 rewrite of the act does not address the internet.

Of the town hall meetings, Inouye told the paper: ""We are going to begin in January after the inauguration, and continue in February. Inouye, who has expressed reservations about loosening broadcast ownership rules, says that issue will come up in the act review as well.

"Now there are people expressing concern, and this will be one of the questions we will be inquiring into," Inouye said.

News

From: SpaceWeather.com swlist@spaceweather.com
<http://spaceweather.com>



Two coronal mass ejections (CMEs) are heading toward Earth and they could spark strong geomagnetic storms when they arrive on January 16th-17th. Sky watchers should be alert for auroras. The CMEs were blasted into space by M8- and X2-class explosions above giant sunspot 720 on Jan. 15th.

Visit <http://www.spaceweather.com> for more information and updates.



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(Editor's Note: Thanks to David Sparks for most of the following)

[DAVID J SPARKS@compuserve.com](mailto:DAVID_J_SPARKS@compuserve.com)

ACQUISITIONS & ALLIANCES:

* Leitch Technology has announced that it has entered into a definitive agreement to acquire Insciber Technology of Ontario. The total purchase price is \$18 million including the assumption of \$1.5 million in debt. The purchase will be funded through Leitch's existing cash balances. Insciber extends Leitch's position in the market with a complementary product range focused on broadcast graphics, content branding and logo generation. www.leitch.com - www.insciber.com

* PESA Switching Systems is to be acquired by the private equity group QuStream Corporation which intends to support the continued growth of the company through further investment in product development and additional acquisitions. QuStream Corporation's founder, president and CEO is industry veteran Fred Godard whose experience includes tenure as president of Leitch during its growth phase in the late 1990s. www.pesa.com

* Omneon Video Networks has announced that its Omneon Spectrum media server product line has been selected as the first server platform to be included in the Open Broadcast Initiative unveiled by Silicon Graphics (SGI). Under this initiative, Omneon systems will be sold and integrated by SGI as part of broadcast solutions that SGI will now offer to its customers. www.omneon.com - www.sgi.com

PRODUCT PREMIERE:

* Avid Technology has announced plans to begin worldwide shipments of the Media Composer Adrenaline HD 2.0 system. This major upgrade brings powerful HD editing capabilities to Media Composer Adrenaline software for the first time. In addition, customers can augment their systems with the new Avid DNxcel HD board and experience extensive HD functionality including comprehensive I/O and broad support for a range of formats and resolutions from all popular HD decks and cameras.

The company is also releasing Avid Xpress Pro HD software, the first portable HD version of their non-linear digital editing software. Avid Xpress Pro HD software delivers support for native Panasonic DVCPRO HD acquisition and editing, Avid DNxHD editing and rendering, and real time multi-camera functionality. www.avid.com

* The latest embedded audio product from Crystal Vision combines a video synchronizer with tracking of two audio groups, embedder or de-embedder and audio routing on one 100mm x 266mm module. Explained Crystal Vision's Managing Director, Philip Scofield, "SYNNER144 is the logical combination of our well-established embedder and

synchroniser technology. By combining the functionality of several boards we are reducing the cost and complexity of many installations." www.crystalvision.tv

* Leitch has launched a new solution for multi-camera editing based on the VelocityQ non-linear editing system. VelocityQ's "Live Non-Linear Multi-Camera Editing" paradigm combines VelocityQ's fully integrated, full-quality multi-camera editing capabilities with the ability to simultaneously edit and record from multiple input sources. Multi-camera programs can be edited "interactively" from the live input feeds, which are also recorded separately to disk. The editor can then make further edits and refinements to the program - including moving and changing edit points between camera angles - after the initial "live" edit is completed. www.leitch.com

* FilmLight has announced that it is now shipping its next generation of Baselight colour grading systems, Baselight Four and Baselight Eight. Announced at IBC2004, the new systems combine software-based flexibility with a brand new scalable, super-high bandwidth image processing system, delivering the ability for 4K colour grading in real time. www.filmlight.ltd.uk

* Media 100 has released the highly anticipated Media 100 HD for the Mac. The 10-bit uncompressed SD and HD editing system is claimed to be the first cost-effective solution that deals with the reality that, for the next few years, editors will need to work in both SD and HD and even mix SD and HD content in the same programs. www.media100.com



Content and Control

From: Monty Solomon monty@roscom.com

Assessing the Impact of Policy Choices on Potential Online Business Models in the Music and Film Industries – Berkman Center for Internet & Society at Harvard Law School

The online environment and new digital technologies threaten the viability of the music and film industries' traditional business models. The industries have responded by seeking government intervention, among other means, to protect their traditional models as well as by developing new models specifically adapted to the online market. Industry activity and public debate have focused on three key policy areas related to copyright holders' control of content: technical interference with and potential liability of P2P services; copyright infringers' civil and criminal liability; and legal reinforcement of digital rights management technologies (DRM).

This paper seeks to support policymakers' decision making by delineating the potential consequences of policy actions in these areas. To do so, it assesses how such action would impact relevant social values and four business models representative of current and emerging attempts to generate viable revenues from digital media. The authors

caution that government intervention is currently premature because it is unlikely to strike an appropriate balance between achieving industry goals while supporting other social values, such as consumer rights, the diversity of available content, and technological innovation.

http://cyber.law.harvard.edu/media/content_and_control




Hi-Def Is Coming Into Focus For Ad Spenders

High definition programming is the next frontier for advertisers -- both national and local -- according to HD cable networks that have been pitching the medium to agencies and clients. Says Rob Jacobson, President & CEO of INHD, which has been making presentations to the ad community for the past three months, HD "is really a blank slate for advertisers and a unique opportunity for them to reach an ideal demographic."

Why HD Matters to Advertisers:

- There are currently 8-9 million HD capable households in the U.S., with projected growth to 60 million HHs (approximately half of all TV HHs) by 2008.
- Current HD HHs are primarily affluent "entertainment mavens" who are passionate about picture quality.
- The HD audience is about 60/40 male to female.
- The plurality of HD consumers are in the 35-54 age range.
- HD HHs have an average of 3.5 TV sets compared to 2.7 sets for the typical cable home.

Age and affluence demos are expected to change as the price of HDTV sets decline. Philips and Best Buy have signed-on to sponsor ESPN HD, says the network's VP of Strategic Planning & Development Bryan Burns. "In the future, we'll be encouraging agencies and advertisers to begin shooting and producing commercials in high definition."



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TiVo Faces Threat As Options Multiply

From: Monty Solomon monty@roscom.com

By MAY WONG AP Technology Writer

TiVo has been synonymous with digital video recording since it pioneered the industry five years ago, controlling an estimated one-third of the market in 2004. That lofty perch is now beginning to crumble.

Competition in the growing and lucrative industry is intensifying as cable providers, satellite operators and consumer electronics companies push ahead with models of their own, giving consumers more choices while threatening to significantly blunt TiVo Inc.'s edge.

<http://finance.lycos.com/home/news/story.asp?story=46238975>

Federal Court Rules Command Audio Patents Enforceable; Sony Assertions of Inequitable Conduct Rejected in Digital Video Recorder Infringement Suit

From: Monty Solomon monty@roscom.com

Command Audio Corporation, a leader in the development and delivery of broadcast on-demand media, announced today that, after conducting a trial, the U.S. District Court for the Northern District of California has ruled against Sony Electronics, Inc. (NYSE:SNE), rejecting Sony's contentions that Command Audio purposely misled the U.S. Patent and Trademark Office in the early 1990s while seeking its foundation on-demand media patent (U.S. Patent No. 5,406,626). Consequently, Command Audio's lawsuit against Sony for infringing two related Command Audio patents will continue to move forward. In June 2004 the Court ruled summarily that Sony had been infringing at least one of those patents, U.S. Patent No. 6,330,334 (the "334 patent"). Sony's products held proven to infringe include digital video recorders (DVRs, also known as Personal Video Recorders, or PVRs) made under license from TiVo, Inc. (NASDAQ:TIVO) and Sony's VAIO(TM) personal computers with DVR functionality provided by Sony's GigaPocket(TM) software.

<http://finance.lycos.com/home/news/story.asp?story=46188298>

Mozilla Security Bugs Reported -- just when I thought I was safe

From: Albert albert@verbrugh.net

By Ed Raymond – Enterprise Security Today

Three new security vulnerabilities in Mozilla's Web browsers and e-mail software have been reported by security firms. The vulnerabilities include flaws in various versions of the Mozilla and Firefox browsers and the Thunderbird e-mail program.

Security firms have reported three new security Latest News about Security flaws in various versions of the Mozilla and Firefox Web browsers and Mozilla's Thunderbird e-mail client.

None of the vulnerabilities were rated as highly critical.

Polish firm iSEC Security Research reported a flaw in the way Mozilla processes the NNTP (news) protocol, creating a buffer-overflow vulnerability. The bug could enable hackers to load malicious code on users' machines. The vulnerability is found in versions of Mozilla prior to 1.7.5, iSEC says, as well as Firefox versions prior to 1.0.

Secunia Research Latest News about Secunia has discovered another vulnerability in Mozilla and Firefox that can be exploited by malicious people to spoof the source displayed in the Download Dialog box.

"The problem is that long sub-domains and paths aren't displayed correctly, which therefore can be exploited to obfuscate what is being displayed in the source field of the Download Dialog box," according to information on Secunia's Web site.

The vulnerability has been confirmed in Mozilla 1.7.3 for Linux Latest News about Linux, Mozilla 1.7.5 for Windows, and Mozilla Firefox 1.0. Other versions may also be affected, the security firm says.

Finally, security firm ptraced.net reports that temporary files in Mozilla's Thunderbird 0.8 and 0.9.3 e-mail clients are stored with predictable names in a format

http://enterprise-security-today.newsfactor.com/story.xhtml?story_title=Mozilla-Security-Bugs-Reported&story_id_558#story-start



DEFINING TECHNOLOGY'S FUTURE



Digital Imaging and Future Of Radio Panels Kick Off 2005 International CES Educational Sessions

Digital imaging proved to be a hot category on Day One of the 2005 International CES. Attendees got their first glimpse of Flash Forward 2.0: Bringing Digital Imaging Into Focus and enjoyed a SuperSession on digital still cameras and cell phone cameras. Executive Technology Editor of Popular Photography and Imaging Magazine, Mike McNamara, moderated the SuperSession titled "Digital

Cameras Get Competition," which delved into the challenges and opportunities presented by digital still camera and cell phone camera competition. Panelists representing both industries included John Prendergast, vice president of strategic business development, Photo Imaging Division, Fuji Photo Film U.S.A., Inc.; Pierre Schaeffer, vice president and director, business strategy, Eastman Kodak Company and Randy Roberts, head of create & share product category, Motorola.

The panel agreed that technological limitations currently exist for cell phone cameras, including sensors, lenses and processors and that image quality continues to set digital still cameras apart from cell phone cameras.

With hundreds of multi-faceted SuperSessions, CNET's SuperSession entitled "The Next Best Thing," presented their take on the products and trends that will move the market in the upcoming year. Focusing on three categories, the "Smart Home," "Smart Portables" and the "Smart Car," CNET editors compared consumer viewpoints with the views of industry leaders in three panels. CNET also named their "Next Big Thing" finalists in 12 categories, choosing them from over 600 submissions and stating that the winners would be announced at 4 p.m. on Friday at the CNET booth #71351 in Innovations Plus.

What technologies will attendees find on the International CES show floor 10 years from now? That was the question Forbes Columnist Stephen Manes asked industry insiders from Qualcomm, Philips, Intel and the U.S. Army's Future Force Warrior Program. They agreed that consumers will expect to consume content of their choice everywhere they go. Display screens will be pervasive in every size from ultra-large screens to tiny displays on mobile devices. Sensors will be common, the panelists agreed, in wearable clothing and in the home for fitness and health monitoring. And hybrid devices will continue to combine multiple functions. All agreed the consumer will be the one who ultimately decides what is successful on the market.

The audio shootout conference session moderated by Dave Graveline, host and executive producer of Into Tomorrow, delved into the vast array of radio options that are now available to consumers. The esteemed panel included Bob Struble, president and CEO, iBiquity Digital; Gabe Hobbs, vice-president of programming, Clear Channel; Hugh Panero, CEO, XM Satellite Radio; Joseph Clayton, chairman, Sirius Satellite Radio and Mark Lam, CEO, Live365. While the panelist may not agree on the content format, the panelists did agree that content is king and consumers are driving the development. When asked if all the diverse platforms would survive the panelist agreed, "It is like local T.V. versus HBO, consumers want both – not one or the other." The panel proved that radio re-invents itself to stay current and continues to be the most ubiquitous CE product.

Visit www.CESweb.org



Speaking of the 2005 International CES, those in attendance saw an on-going bevy of leading edge consumer electronics products and developments. Industry experts from companies including TiVo, HP and Texas Instruments joined others from cable, wireless

and broadcast to discuss the future of their industries and what's next for consumer electronics in a variety of keynote addresses and conference sessions.

Carly Fiorina, chairman and CEO of HP focused on HP's mission to deliver functional, affordable innovation made her point up front: "The digital revolution is about the democratization of technology," she said. "It's about giving power to the people."

Mike Ramsay, co-founder, chairman and CEO of TiVo, summed up TiVo's philosophy on "The Future of Personal Entertainment." Noting consumer desire for a more personalized home entertainment experience, Ramsay emphasized two trends setting the stage for easy use of entertainment for the entire family. Ramsay noted the consumer trends of digital media, personalization and mobility. The ability to connect TiVo to PC or media center is an example of this trend. He also spoke of a second trend of connecting bandwidth adoption, easier home networking and larger disk drives. While at the beginning of home entertainment, these trends create more entertainment choices for the consumer and point to the future of entertainment.

Ramsay announced TiVo's efforts to marry broadband and broadcast through new and exciting features on the TiVo menu. New menu options include the ability to select different movies similar to programs you have already watched, partnering with outside companies such as Best Buy for the ability to purchase a movie on DVD, an opportunity to view the trailer of movies in theaters and the option to find show times of the trailer just viewed. Ramsay stressed TiVo's legacy is to enhance TV forever.

Texas Instruments President and CEO Rich Templeton used a "This is Your Life" format to show the different ways that TI products have affected the guest of honor, the CE consumer. With Fox News Analyst and former pro football player Howie Long, Templeton discussed the impact that digital light processing (DLP) is having on the high-definition TV market. Over 2 million DLP TVs have been sold in the last eight months and they currently represent 40 percent of the front projection television market.

Jeffrey Katzenberg, CEO of Dreamworks Animation, spoke of how digital technology is enabling a whole new era of animated entertainment. He also discussed how DLP cinema will impact the movie industry with improved quality in movies, such as the ability to feature over 35 trillion colors. Templeton also brought out the CEO of Sling Media, Blake Krikorian, to display the Slingbox Personal Broadcaster, which allows the consumer to access the TV in their living room from anywhere in the world.

Bruce Hall, the President of Digital Audio Drive, was there and spoke of creating autonomous vehicles that drive themselves so that no human interaction is required.

All of these innovative and new designs are created through the use of various TI technologies.

In addition to all this, a panel of wireless industry heavy hitters from M-Forma, Nokia, Verizon, and Virgin Mobile took the stage to discuss upcoming

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developments for an industry that continues to deliver impressive growth and technology year after year. Key issues discussed included wireless data and improving the end-user experience. According to panelist Daniel Kranzler, chairman and CEO of M-Forma, "to make a (wireless) product work, you have to make it simple and compelling." All panelists agreed, emphasizing that immediate objectives for the industry include developing simple, effective applications, securing consumer mindshare for wireless and evolving business models that translate the success of customizable wireless ring tones into other mobile applications.

Audio industry experts, from all sectors, came together to present the state of the audio market. Experts ranging from producers to high performance audio manufacturers to distributors agreed that there has been a marked shift in the ways people enjoy audio and that convenience is currently trumping performance. Instead of proclaiming digital music the enemy, they believe it is important to tap into the lifestyle issues which have made portable compression digital audio such an explosive market. The panel argued that the industry should find ways to leverage the need for convenience while educating people on the advantages of the high performance audio experience.

Cable system, equipment and content executives appeared at an afternoon SuperSession titled, "Now, A Word From Your Cable Operator." Questions from moderator Gary Arlen, president of Arlen Communications, as well as several from the audience resulted in a session that covered a broad range of products and issues, such as HDTV and CableCARDS, DVR, video-on-demand and VoIP.

The panel agreed that HDTV has arrived and the industry is committed to its success; details of how, in what form and from which products and services resulted in greater discussion. Asked what he was doing to help move the analog-to-digital television (DTV) transition along, Robert Clasen, president and CEO of Starz Entertainment Group, held up a consumer brochure produced by StarzHD and the Consumer Electronics Association (CEA). He also pointed to consumer education initiatives. As the session's focus shifted from video to other advanced services, Michael Willner, co-founder, vice chairman, CEO and director of Insight Communications Company, Inc. characterized the industry as the "Wild West," noting the robust competition for video, voice and data services coming from cable, satellite and telecommunications companies. "VoIP is ready for primetime now," said Robert McIntyre, corporate senior vice president and CTO of Scientific-Atlanta, adding that enhanced voice services now are being added to the equation. "It's always interesting to have a debate about something that doesn't exist yet," said Pat Esser, executive vice president and COO of Cox Communications, Inc., referring to the prospect of telecommunications companies offering video services.

Arlen later asked the panel to outline the 2005 policy outlook for their industry. The CableCARD or separable security issue topped the list for inter-industry issues, followed by indecency and digital must-carry. Asked to give one word for the cable industry year ahead, panelists responded with "transitional," "expanding," "collaborative," and "competitive."



(Editor's Note: We'd like to thank Barry Mishkind, Editor of Radio Guide for allowing us to print his daily CES Reports.)

CES Day 1

Date: Thursday, January 06, 2005 6:33 PM

From: Barry Mishkind barry@broadcast.net

Probably on auto-pilot (pun intended, you'll see), I walked from the registration to the North Hall (our normal "radio hall") to find it was "auto sound central" ... with dozens of exhibits trying to "out thump" each other.

On the plus side: There was a LOT of interesting new and restored vehicles on display, with a variety of analog, digital and satellite radios being shown, plus CD and DVD players ... even one with a WiFi connection. (I think it was Delphi ... but didn't get inside today - it is supposed to rain tomorrow, so I did some outside stuff today.)

Within a stone's (ok, two stones) throw, XM, Sirius and Ibiqity. Ibiqity had a map with coverage patterns of the 2500 stations it says will "soon" be running digital audio.

Meanwhile Clear Channel announced their 65th IBOC station is on the air. They are also on in 48 or the top 50 markets with a RDS/TMC service... in connection with Audiovox, for traffic and other information by subscription.

Some VOIP advances, including one that will allow use of a dial up, as well as ethernet. Another permits use of a regular phone for both regular or VOIP... And the price is under \$100.... This may be of special use to contractors, or others who might be able to use the "network" piggybacked on the new digital STLs.

A couple of companies are now specializing in super quiet computers, cases, etc. One has little "heat pipes" to carry all the heat out of the motherboard and chips. This might find a use in control rooms... it has in other countries already.

A new laptop was shown, \$499 complete with software. A quick check and the keyboard was better than I thought it would be.

A quick stop over to the folks at Neural and they are working on their system to provide 5.1 audio with the ability to edit in 2 channel mode.

Of interest to those planning for NAB: The monorail is running.

Finally, for day 1.... How would like to have the new LG Plasma screen in your living room? At 71 inches, it is the largest Plasma TV in production. Cost? Are you sitting down? \$75,000 (Seventy Five Thousand Dollars)

CES Day 2

Las Vegas is really "jumping" and not just because of this huge show. Because of the rain makes people move a little faster, and the traffic a LOT slower.

Inside a lot of interesting little "things" ...some of the manufacturers and importers are jammed with 5.1 audio products, lots of portable gear (MP3) and combos of audio/phone/wifi etc.

Microsoft is here selling the watches and services that Lyle set up over the past year. And with watches up to \$700 or more, plus the service fee ... it will be interesting to see if MS/Seiko/Tissot/Fossil will be able to make this one work. (At least you can get a quote on your company's stock, and the start time of your favorite movie.)

I was impressed with several items, including a USB "key" that will remember all your passwords, and fill in all the browser windows, etc, with your login info... when you remove it, all the info is "gone" never put on the local computer. If you have to use lots of different computers, and/or visit different locations, this is a great buy at \$30.

In the Tchotsky department, Delphi had the best press kit. No, not paper. No, not a CD. A 64MB USB FLash Card! Although I have a larger one for use, this is a neat way to keep the Delphi name in my face. A LOT of products in the booth to run computers, etc in the car ... and connect to WiFi or, as with another company I saw, several T-Mobile or Verizon services, so you can have an entire office in the car/truck I (including printer) for \$2k or less, including GPS, two screens, and more.

I saw an AM and FM digital monitor. There is an interesting story about how a major corporation has almost single-handedly sabotaged the production of these important test items. I have a meeting with the company making the monitors (DaySequerra) tomorrow, and will share more information afterward.

One more item from last night I went to a special "show" and saw some interesting items that will be of interest.

A couple of broadcast oriented items from the show here:

1. DaySequerra is showing a prototype of an IBOC monitor. Final rx specs are not yet set due to Philips changes...

I think we are soon going to be learning the whats and hows of signal diagnosis.

2. Ibiqity was awarded the "Next Big Thing" Award from CNET in the Car Technology category.

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CES Day 3

A at this point, it appears that the radio companies are spending their money on installing transmitters... I've not yet heard of any large scale effort like this... although I'm sure some stations will do something. I suspect the major problem is the current pricing of the receivers.

I was talking to someone who attends NAB, and they commented that they really don't get out of the North Hall very much.... At CES, that is just a small part of the show.

In the Hilton and hundreds upon hundreds of Chinese, Korean, and other Asian manufacturers showing literally thousands of variations of MP3 players, wireless cameras, batteries, cables, and anything you can imagine, electronically speaking. How about a keyboard with BIG letters that can be easily seen in, even a darkened control room or remote location? If you have an idea on something you'd like to make, import, or sell, here is the place to talk to people who can produce almost anything for a few bucks. Wholesale costs (1000 lot) are often as little as 10-15% of retail pricing. One wonderful little product showed for 5% of retail, or less....

Looking around for things of interest to broadcasters, I noted several weather products, including a lot of wireless outside monitors that will feed temp/humidity, etc, into the studio without wiring.

And speaking of wiring, what do you think of speaker wires, mic cable, even a new version of Beldon Cat-5, in a FLAT, peel and stick configuration? Not a bad idea for some applications....no?

Back to weather ... there were also some new SAME receivers, at falling prices that can receive the NWS warnings ... and even include AM/FM and one even has a programmable LP-1 setting!

You want receivers? OK, sure, there are receivers for IBOC shown. The number is still too low, and even in the Ibiquity booth, it looked like they planned for more receivers than were available to fill the holes... But, there was an announcement that NPR is planning to make a bulk purchase of 10,000 or more radios, and make them available for sale through local affiliates.

Watching the CPB grants and the NPR "Tomorrow Radio" plans, which include multiple program streams on the same carriers, it is at least impressive - no matter what your opinion of IBOC is - to see the push by the non-comm sector. If IBOC succeeds, commercial operators will owe a big "thank you" to the public radio stations.

One other receiver oriented note: I'm sure you've all seen "retro radios" that look like the old units from the 30s and 40s.... There were models of ALL sorts all over the place, including one company that seemed like they were just "dropped into the Hall" from

1955. There was even a press release from Crosley, noting their re-release of some older model styles.

Well, that's enough for now!

Barry Mishkind

ATSC 5th Generation Receivers

From: Rich Peterson - AVS PRESS

I spoke directly with company insiders from Korea. Their English was very poor, but the message I got was that because of the tuner mandate they see a shrinking market for STBs and also their sales of their current line have been well below expectations. They repeatedly said they had no plans for an STB with the 5th gen chip but it would be showing up in all their new integrated sets and actually is available now in their high-end plasma. I tried to point out that the owners of the 9 million+ HDTV sets with no tuners made a pretty good potential market, but communication was difficult. I also asked about USDTV and the deal they had with them, but the folks I talked to weren't aware of them or the deal they have with them.

My impression is there is nothing wrong with the chip, but it is a business case issue.

Rich Peterson

DBS Consumer Guide Author

<http://www.avsforum.com/avs-vb/showthread.php?s=&postid=4950708#post4950708>

A tale of two towers

Not known for particularly tall radio towers, Southern California has recently had its share of tower problems. The first being the one involving a Cessna and long-time full power 50KW KFI AM 640's 750 foot guyed tower: neither the tower nor the air craft won. Both persons in the air craft were killed. At last report, KFI is back on the air from an auxiliary tower with 5 KW.



This whole issue raises the possibility of towers being lighted with strobes in the day time. Pilots have told Tech-Notes that from the ground, a tower is very visible with the international orange and white paint and the red light, but from the air, it's a whole different prospective. The towers often times blend into the terrain and horizon.

For some pictures of this tragedy, visit: www.olderadio.com/archives/warstories/640.htm

With in a few days of the KFI event, KSON's free-standing tower in San Diego came down due to hurricane force winds. For a full report on that story, visit: http://beradio.com/currents/radio_KSON_010305/index.html



What's Up At The FCC About All Digital TV?

The big question in Washington, DC is: will Federal Communications Commission chairman Michael Powell finally unveil the long-awaited plan to speed the transition to all-digital TV to fellow commissioners this week?

Agency protocol requires him to present the plan to them by Thursday so they can prepare for a vote in time for the next open meeting Feb. 10. As of this writing, colleagues were clueless about his intentions.

Media Bureau Chief Ken Ferree told reporters last week his staff has wrapped up the draft and the only obstacle was getting Powell's OK.

"We could present it in a matter of days," he said. An FCC spokesman would not comment and a Powell aide didn't return phone calls.

The commissioners, and the rest of the TV industry for that matter, want to know whether they will be asked to vote solely on a plan to accelerate the all-digital deadline to 2009 or whether they also will be asked to approve other controversial measures such as requiring cable operators to carry each of the six or so channels local TV stations will be able to squeeze into their digital allotments.

Ferree said he could include a carriage recommendation in the plan or offer one separately later.

The DTV plan, in the works for a year, would require broadcasters to go all-digital and return their old analog channels to the government by 2009, years sooner than they would otherwise be required to. The plan works by measuring very liberally how many American are receiving digital signals from their local TV stations. The 1997 DTV law requires stations to return analog channels when 85% of viewers in their market are equipped to receive local DTV programming.

Under the measurement to be recommended by Ferree, nearly all cable customers would be counted toward the 85% level, even if they don't own a DTV set or subscribe to a cable operator's digital programming tier. That's because the FCC would count any cable customer as "digitally served" if they are receiving a digital station's signal that the cable operator has downconverted to an analog format.

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Employing that standard of who's receiving a "digital" signal would make it possible for most markets to reach the 85% penetration test almost immediately. If the FCC counted only viewers with DTV sets or digital cable tiers, reaching the 85% trigger could take a half-decade or more.

The FCC is eager to end the DTV switch and turn over reclaimed TV channels to local emergency departments and auction others to wireless companies.



A Busy Year Ahead for FCC Media Bureau

From: SkyReport

In addition to working on mandates contained in the Satellite Home Viewer Extension and Reauthorization Act (SHVERA), the Media Bureau at the Federal Communications Commission will have other big issues to tackle during 2005.

During his presentation to commissioners last week, Media Bureau Chief Ken Ferree outlined the bureau's work for the year. In addition to SHVERA provisions, the bureau will work on issues related to the rollout of digital radio, studies on localism and the transition to digital TV.

Ferree said commissioners should soon see the bureau's proposal on the DTV transition.

On SHVERA, Ferree said the bureau will work on seven issues, including a ban on the delivery of local TV to two dishes, the offering of significantly-viewed TV stations and digital distant network signals.



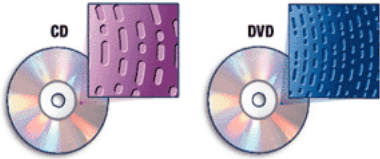
Disney Backs Sony's Blu-Ray for New DVD Format

Everyone in the broadcast industry knows that recording formats are a very transit thing. First there was the Kinescope recording followed by the 2 inch Quad machines, then the 1 inch helical scan devices. Today there are many flavors of ½ inch formats in both digital and analog. With the coming of hard drives, the DVD and large capacity storage chips, an even new era of recording has visited our industry. The changes, for the most part, were for the best: better quality, improved technology and the necessity of greater capacity.

To this end, Sony has been developing their Blu-ray technology with others in Japan developing competitive technologies. Recently the Walt Disney Co. said it would support the Blu-ray standard for next-generation DVDs backed by Sony Corp., but kept open its options for a rival format championed by Toshiba Corp. The two technologies are supported by some rather heavy hitters: Sony, Dell Inc. and several other giants of the

electronics and computer industries developed Blu-ray technology. Toshiba, with NEC Corp. and Sanyo Electric Co. Ltd., is backing a competing standard dubbed HD DVD.

The HD (high-definition) DVD and Blu-ray technologies use blue lasers, which have shorter wavelengths than conventional red lasers and allow discs to store more data, producing the clearer and sharper pictures of high-definition films and TV. The only problem is the maximum capacity that these technologies can store on one piece of media: 100 GB in current format.



But try to get a 100 GB record/playback system. It is only recently that the 50 GB machines were made available. It's not that the media isn't capable, it's the ability to write and read the greater capacities. Improvements in the technology will surely bring them up to their max in the not too distant future and, of course all will be backward compatible, but not between the two formats. What else is new?

Disney said it would start releasing movies on the Blu-ray format as soon as players became available in North America and Japan, which strategic planning chief Peter Murphy said he expected in 2006.

Disney's announcement came nearly two weeks after Toshiba said it had won support from Warner Bros, New Line Cinema, Paramount Pictures and Universal Pictures, representing about 45 percent of Hollywood's U.S. sales of prepackaged DVDs.

Support from U.S. film studios is vital in the format battle, just as it was when the VHS standard prevailed over Sony's Betamax two decades ago.

(Editor's note: For the next generation of storage technology after the Blu-ray and HD DVD, read the story from InPhase Technologies in the new technology section of this edition.)



Dual DVD, HD-DVD Disc Developed

From: Paul Kallender of IDG News Service

Memory-Tech will start mass production late next year of read-only discs that can contain data stored in both DVD and HD-DVDs (High Definition/High Density-DVDs) layers, a company executive says.

The new discs could help Hollywood studios and other content providers in their anticipated transition to the new HD-DVD format. HD-DVD is being developed to replace DVD for high-definition content.

The discs contain two layers, an upper DVD layer with a capacity of 4.7GB and a lower HD-DVD layer with a 15GB capacity, says Masato Otsuka, general manager of Memory-Tech's engineering department.

Mass production will start in October or November next year, which is about the same time as the company plans to produce read-only HD-DVDs. The company has six lines that can each produce up to 700,000 of these kinds of discs per month.

The discs will help popularize the [HD-DVD format](#) for consumers and encourage them to purchase HD-DVD players, according to Memory-Tech and Toshiba, which jointly-developed the high-capacity technology.

Last month, Paramount Pictures, Universal Pictures, Warner Bros. Pictures, and New Line Cinema all said that they would [release titles on the HD-DVD format](#). Universal pledged it would have content available during the end-of-year holiday season in 2005.

Memory-Tech has already produced prototypes of the new type of discs and tested them in about 200 DVD players, including DVD recorders and PC drives. But it will take up to six months for the specifications for the discs to be completed, says Otsuka.

Memory-Tech and Toshiba are to meet the DVD Forum, the group in charge of the DVD and HD-DVD specifications, before the end of the year to start discussions on getting the new disc's specifications settled. Because the DVD specifications are well-known, and the final specifications for HD-DVD are to be completed by the end of February 2005, finalizing the new specification should not be difficult, he says.

"We don't see any technical or political problems," says Otsuka.

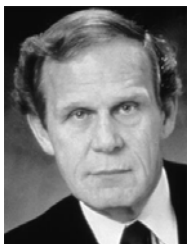
Toshiba, together with NEC and Sanyo Electric which are also backing the HD-DVD specification, all plan to have [hardware on shelves](#) at about the same time at the end of next year. These products include a sub-\$1000 HD-DVD player by Toshiba and hard drives for PCs coming from NEC.



Verbatim Begins Final Testing of New 8x DVD+RW Media

From: Andy Marken andy@markencom.com

Verbatim Corporation announced during the recent CES that it expects to begin shipping its new 8x DVD+RW media to retailers in Q1 2005. DVD burner manufacturers and their software suppliers have started using the media for drive design, read/write and compatibility testing. With the new Verbatim 8x DVD+RW media, users will be able to write or rewrite an entire 4.7GB disc in about 7 minutes.



Applications range from creating video, audio and multimedia files as

well as digital photo albums that will be edited or updated. The capacity and performance of the new media will also make it ideal for backups.

To deliver high-speed rewriteable performance, Verbatim produces the media with A-SERL (Advanced Super Eutectic Recording Layer) technology, the proprietary phase-change recording layer technology developed by Mitsubishi® Kagaku Media (MKM), Verbatim's parent company. A-SERL technology enables noise-free recording up to 1,000 times by taking the disc back to its original state with every erasure and leaving a virtually flawless disc for the next recording. With conventional rewriteable media, the recording layer deteriorates with every rewrite, causing a decrease in quality. By combining the A-SERL technology with precision stamper and precision molding technologies during the manufacturing process, Verbatim 8x DVD+RW media provides a high level of stability during storage and playback.

Backed by a limited lifetime warranty, Verbatim 8x DVD+RW media will be available through leading retailers, Internet resellers and distributors across the country late in Q1 2005.

With DVD as a possible storage device, speed in transferring program material is quite important. Many stations currently employ DVD for many on air applications.

Verbatim supplied the Tech-Notes Taste of NAB Road Show with well received door prizes last year. Visit the company's web site at www.verbatim.com.

(Editor's Note: Andy will return with his series on DVD technology in our next edition.)

New/Different Technology

InPhase Technologies Introduces The World's First Holographic Drive Prototype

Earlier this month, InPhase Technologies announced a breakthrough in data storage with the world's first prototype of a holographic storage drive. InPhase has built several prototypes that conclusively demonstrate the dawning of the next phase in digital recording and moves holographic storage from research to commercialization.

The prototype is the foundation for InPhase's family of Tapestry™ holographic drives, with data capacities that range from 200 GB to 1.6 TB on a single disk. The completion of the prototype was enabled by InPhase's development of key recording techniques and holographic media, the commercial availability of critical components, strong partnerships with leading storage innovators, and government funding.

“The InPhase prototype drive serves as the mile marker on the path to commercialization of holographic storage. This technology offers the

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highest density and performance of any optical system and will assume a prominent role in the storage landscape,” said Nelson Diaz, president and CEO of InPhase Technologies. “The development of the Tapestry prototype drive was a cooperative effort that successfully demonstrates the strength of corporate and government collaboration in the implementation of breakthrough technologies.”

The prototype drive records data into InPhase’s patented two-chemistry Tapestry™ photopolymer WORM material. The recording material is 1.5 mm thick and is sandwiched between two 130 mm diameter transmissive plastic disk substrates. The National Geospatial-Intelligence Agency’s National Technology Alliance program (NTA) partially funded the development of the holographic media and the automation of some of the manufacturing processes. Hitachi Maxell, Ltd., a key investor and development partner of InPhase, designed and developed a new cartridge that provides maximum protection for the light-sensitive recording material, while maintaining the ease of integrating the cartridge into automated libraries. In addition, Maxell is developing high-volume media manufacturing processes.

The prototype arranges more than one million bits of data into a single page, which is recorded with a single flash of a 407 nm laser beam. Multiple pages of data, referred to as a book, are recorded in one spot on the disk providing approximately 12 MB of data in a single book location.

The prototype drive includes all drive subsystems such as the auto load/unload mechanics, servo system, holographic read/write head, data channel and electronics. The media cartridge is loaded and unloaded automatically using a mechanism designed and developed for InPhase by ALPS Electric Co. Ltd., an InPhase investor and development partner.

The servo system, designed and developed by InPhase, regulates both radial and rotational movement of the media and the angle of the reference beam. During a read operation, feedback from the hologram provides information to the servo system to optimize the recovery of the data with the best signal to noise ratio.

The holographic read/write head is the heart of the system and in the past availability of high quality, yet affordable optical components was an issue. However, the 407 nm blue lasers recently available in other optical devices provide the wavelength required for high capacity holographic storage. CMOS active pixel sensor arrays used in digital cameras are also available, as are spatial light modulators used in digital TVs and projectors. InPhase’s industry partners continue to optimize these components for use in holographic storage.

Displaytech, Inc., which works in the ferroelectric liquid crystal on silicon (FLCOS) microdisplays industry, and InPhase have formed a joint venture funded by a grant from the National Institute of Standards and Technology's Advanced Technology Program (ATP) for the development of a spatial light modulator that will be used in the entire

InPhase product family ranging up to 1.6 terabytes on a single 130 mm diameter holographic disk.

The system electronics, data formats, and electronic and logical interfaces in the holographic prototype drive were also developed by InPhase and funded partially by the NTA for the eventual use in geospatial image archive applications.

InPhase Technologies is the leading developer of holographic data storage (HDS) recording media and systems. Based in Longmont, Colorado, InPhase was founded in 2000, as a Lucent Technologies (NYSE: LU) venture, and is comprised of some of the storage industry's leading executives, scientists and engineers.

For more information on InPhase, please visit the company's Web site at www.inphase-tech.com.

(Editor's note: InPhase has several beta machines available. Contact Tech-Notes for more information on this advanced technology and their availability. InPhase was also one of the underwriters of the Tech-Notes Taste of NAB Road Show in 2004 and has expressed interest in joining us again this year.)



First Look: Affordable TiVo With DVD Burning

From: Tom Mainelli, of PC World

The Humax DRT800 DVD Recorder with TiVo service doesn't break much ground in terms of new technologies, but it brings together an impressive array of capabilities in one box--at a price that won't leave you shell-shocked.



The DRT800 sells for much less than the comparably equipped [Pioneer DVR-810H](#), a groundbreaking product when it came out. The DRT800 stores up to 80 hours of content on its 80GB drive, and includes a 4X DVD-R/RW drive that lets you transfer content to disc (it won't allow direct-to-DVD recording). It also serves as a progressive-scan DVD player and plays back audio and MP3 CDs.

I had a ball using the DRT800 to burn DVDs, thanks to TiVo's friendly interface. You can squeeze up to 6 hours onto a DVD using the Basic Quality setting, but it looks pixilated and, frankly, pretty bad. It's better to record at High Quality (2 hours) and spring for extra discs. I successfully burned a dozen DVD-R and DVD-RW discs using both expensive and cheap media, and each worked fine in a variety of DVD players.

The DRT800 isn't perfect. I wish it offered some rudimentary editing tools for cutting commercials or trimming the raw home videos you can import using its various ports (including FireWire). Also, its hard drive seemed a bit noisy.

But these are minor quibbles. If you're a TiVo fan ready to start archiving your favorite recordings--or you simply want a great personal video recorder--the DRT800 is an excellent choice.

Classified

We have filled a number of positions, but Broadcast Electronics continues to expand and seeks experienced broadcast professionals for a number of anticipated positions, including:

- + RF product specialists < Analog and HD Radio transmission and STL
- + Pre-sale specialists < Analog and HD Radio end-to-end solutions
- + Post-sale customer support engineers < RF and digital studio products
- + Writers < technical and commercial

BE offers stability, competitive salary, full benefits and the chance to excel.

To apply or to obtain more information about these and other jobs at BE, please contact opportunities@bdcast.com. Some, but not all, currently open positions may be found on <http://www.bdcast.com/jobs.html>

Top Broadcasters To Recruit Job Seekers At NAB 2005

Recruiters from broadcast companies Jefferson-Pilot, Emmis, Clear Channel Radio, Radio One, and Univision Radio will meet with industry professionals, students and entry-level job seekers at the National Association of Broadcasters Education Foundation NAB2005 Career Fair Wednesday, April 20 at the Hilton Hotel in Las Vegas.

The NABEF Career Fair will move from its traditional weekend slot to a new mid-week time on Wednesday, April 20 and will be held in conjunction with the Broadcast Education Association (BEA) and the Radio-Television News Directors Association (RTNDA) annual conventions. Career opportunities will be available in sales, news, production and engineering. Admission is open to both registrants and non-registrants of NAB2005.

Job seekers may pre-register at www.nabef.org. A recruiter participation agreement form is available online to NAB member organizations by visiting the NABEF Career Center at www.nabef.org, however, space is limited and interested parties are encouraged to register early. The submission deadline for recruiters is April 6, 2005.

The Career Fair is part of NABEF's commitment to promoting diversity in the broadcast workplace. In addition to the Career Fair, NABEF hosts an online Career Center where

jobs in broadcasting are posted as well as resumes from qualified applicants interested in radio and television. For more information, recruiters and job seekers may contact Karen Hunter at khunter@nab.org or logon to the NABEF Career Center online database at www.nabef.org.

NAB2005 will take place April 16 - 21, 2005 in Las Vegas (exhibits open April 18). Complete NAB2005 details are available at www.nabshow.com.

Information & Education

VSB Seminar Announcement:

From: Gary Sgrignoli gary.sgrignoli@sbcglobal.net

Hi Everyone,



Happy New Year to all !!! Hope you all had a safe and wonderful Holiday season. As baseball's spring training is only 1 month away, things are looking up! And, of course, more VSB seminars are upon us!!!

The DTV transition continues to plod along and there are at least 1344 DTV stations on the air covering 211 markets containing about 99.7% of the TV households (88% of the households are in markets with 5 or more DTV signals). Behind us is the beginning of the FCC tuner mandate, the "plug & play" cable compatibility issue, the "broadcast flag" resolution, and the issuing of the DTV translator rules. Besides that, there is a significant increase in HD programming as well as more models of DTV sets with integrated digital tuners on showroom floors. With the advent of the 2nd periodic review setting the post-transition channel election and replication/maximization process in motion this November, the last phase of the DTV transition has begun !

As you may recall, all-day digital VSB transmission seminars have been offered around the country for the last 6 years, with more planned this year. The plan is to visit new cities as well as to revisit some of the ones where we've had seminars before.

Upcoming all-day VSB seminars this winter are scheduled for:

Date: Wednesday, January 19, 2005

Location: Harris Corporation in Mason, OH (Cincinnati suburb)

Time: 8:30 am to 5:30 pm

Hosts: Harris and SBE Chapter 33

Sponsors: Dielectric, LEA, MRC, Sencore, Triveni

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Date: Tuesday, February 22, 2005

Location: SCETV Studios, Columbia SC

Time: 8:30 am to 5:30 pm

Host: South Carolina Educational TV

Sponsors: Harris, Dielectric, Tektronix

Date: Wednesday, March 23, 2005

Location: KQED-TV in San Francisco, CA

Time: 8:30 am to 5:30 pm

Hosts: SMPTE Bay Area section, SBE 40, & KQED-TV

Sponsors: LARCAN, Katrein-Scala, & MRC, Z-Technology, and others (TBD)

Date: Thursday, March 24, 2005

Location: KUVS in Sacramento, CA (tentative location, depending on number of attendees)

Time: 8:30 am to 5:30 pm

Hosts: SBE 43 in Sacramento, SBE 139 in Reno, & (tentatively) Sacramento SMPTE section

Sponsors: TBD

As usual, the modest registration fee for these seminars covers an updated 1-1/4" thick (575-page) detailed seminar notebook as well as lunch. If you know of anyone wanting to attend such a seminar (e.g. any local station engineers or business clients in the area), please forward this information to them.

Local TV broadcasters often host these seminars in conjunction with local broadcast organizations such as SBE and SMPTE. They are meant to be "break-even" events for the hosts with the travel, shipping & speaker expenses paid by corporate sponsors (\$600 each), while the handout books and refreshments are covered by the modest (often between \$40 - \$50 per person) registration fees charged to the attendees. The seminars often draw between 30 - 60 people, and one SBE credit is given to SBE member towards re-certification.

If you know of any broadcast-related groups that would want to co-host or co-sponsor any future VSB seminars in their cities, please let me know. Right now, the Cincinnati, and Columbia sponsorships are full; however, a few more corporate sponsors are being sought for the 3/23/05 San Francisco and the 3/24/05 Sacramento seminars. The early spring seminar schedule is currently being planned. I believe that these educational seminars are well worth the time and money to attend, especially in this last phase of the DTV transition where so many requirements are in effect for broadcasters.

As the DTV transition continues to roll out, let's hope that we see continued great progress as we move through 2005.



CBNT seminar

From: Roy Trumbull

At my web page home.earthlink.net/~rhtrumbull if you click on SBE newsletter you will see a flyer on the upcoming Feb 12th CBNT seminar. Please note that the seminar outline is attached. You can click and get the CBNT application and also the flyer for the DTV seminar. They're both PDF files.

You'll have to copy and paste the above URL. Microsoft doesn't understand anything than doesn't begin with www.

Roy Trumbull

Sbe-announce@kumr.lns.com

<http://www.lns.com/mailman/listinfo/sbe-announce>



RAID Levels

There are many different ways to implement a RAID array, using some combination of [mirroring](#), [striping](#), [duplexing](#) and [parity](#) technologies. Several standardized methods were defined in the 1988 Berkeley research publication that is credited with starting the RAID phenomenon; for some (unfortunate) reason, the researchers decided to call these different techniques *levels*. This was a poor choice of words in my opinion because the word "level" implies hierarchy or revision, or that the different RAID levels are somehow "built upon each other", when in fact, that is not the case. The word "level" implies to some people that "RAID level N+1" is *better* somehow than "RAID level N". In fact, this isn't really true--the various levels are independent and different, and no strict hierarchy should be inferred from the specific number attached to a RAID level. A given RAID level that is "better" for one person may be "worse" for another.

The original 1988 paper defined RAID levels 1 through 5; since then, single RAID levels 0 and 6 have been added to the mix, and other extensions such as the proprietary RAID 7 have shown up as well. Beyond these single-level RAID designs, a number of *multiple* RAID levels have been defined, which use two or more of the single RAID levels in combination to create new array types with new capabilities (and limitations). Most of these different RAID levels are in use today in different systems, a testament to the different needs of various RAID users. Some have largely disappeared from the market as experience over time has shown them to be inferior to other levels without advantages to compensate.

In this section I take a detailed look at RAID levels. I start with a discussion of some of the key technical factors that differentiate RAID levels; these are then used to frame the coverage of the RAID levels themselves. I discuss the eight single-level RAID designs, and take a look at several common multiple-level RAID types as well. Each RAID level

is discussed in detail and information is provided about over a dozen of its various characteristics, with general recommendations provided for typical uses of each level. Finally, I show a summary comparison table that contrasts the different levels in terms of their benefits and costs.

Tip: Carefully consider *all* the factors and variables when comparing different RAID levels; sometimes, things are not what they seem. Pay careful attention to the various performance attributes, to help differentiate levels based on how you are most likely to use the array; sometimes the "common wisdom" about different RAID levels will not apply to your needs.

Warning: As I am noticing increasingly these days in all areas of computing, the RAID levels are sometimes not used consistently by manufacturers. For example, I have encountered a significant RAID controller maker that provides support for what they call "RAID 3"; when you examine the details, however, you find that this RAID level is actually implemented as block striping with dedicated parity, which is RAID 4, not 3. Why they did this, I have *no* idea. An organization called the *RAID Advisory Board* or *RAB* does maintain RAID standards and certifies hardware that meets "official" RAID level definitions, so you can look for their "seals of approval". Even so, it's still best to ask for specific technical details about any RAID system if you aren't certain of what the manufacturer has implemented.

Technical Factors Differentiating RAID Levels

The reason why there are so many different RAID levels is that there are many different ways to configure a bunch of hard disks, and many different needs of RAID users. Distinguishing between different levels isn't easy at times, because many RAID levels are similar to others in various ways. Worse, sometimes the differences between levels seem subtle, but these small discrepancies can have a huge impact on the characteristics of the array and the applications that make sense for it.

To completely and accurately portray each [single](#) and [multiple](#) RAID level, I describe each in terms of its most important characteristics, including those related to fault tolerance, capacity, performance, cost and other attributes. To avoid duplication, I have provided this section that describes what each of these technical factors or attributes are about. For each one I explain briefly what the attribute means, how it is defined, and how and why it helps differentiate between various RAID levels. In the last sub-section, I also discuss the reasons why some implementers may wish to consider creating more than one array for a system if the needs of that system can't be met by one array type.

Note that in addition to the descriptions in this section, you may also want to take a look at the more general discussions of [performance](#) and [reliability](#) issues in [the section covering general concepts and issues](#). Some of the pages that follow in this area will refer back to those or other pages in the site's coverage of RAID.

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Free software and services for securing your PC

From: Brett Smith brett@computer.org

Security Strategies:

Defense in layers - You need multiple layers of security to be safe.

At the very least, you must have:

- anti-virus software installed, and up-to-date, scheduled to run at least once/week
- firewall installed; either "residential gateway" (better), or software based (Windows XP SP2, ZoneAlarm, etc.), or both (best).
- backups (that you can restore from!) of critical files and info

Be different

- Seriously consider changing your browser to something other than IE, various very good free or cheap alternatives are available. Try Firefox or Opera (links below).
- Keep a number of email accounts; don't use your main email for everything. Set up free email on Fastmail.fm, Yahoo, or Hotmail for use on the Internet and filling out web forms.
- Try to manage your mail from a web-based service, don't use Outlook, Outlook Express or other commonly targeted software.

Be smart

- Read up on the security issues you're interested in or concerned about.
- Become informed and aware of the tools you already have.
- Keep security in mind when using your PC and/or the Internet.
- Take more classes or join a discussion or user group.
- Use more than 1 password.
- Make your passwords non-trivial (Acronyms and number for letter switches work well... "Blinded by the Light" + 2004 => Bbt12oo4, where the "L" becomes a "1" and the two "0"s in 2004 become "o"s).
- Use a "keychain"; if you need to manage more than a few passwords, make yourself a cheat list that you keep in your wallet, *not* on your computer, and don't write them down anywhere else.

If you're already in trouble and you want to fix it yourself...Check out Eric Howes excellent write-up of what to do at: http://www.spywarewarrior.com/rogue_anti-spyware.htm#online

PC Audit tools:

These are free services that look at your PC from the perspective of the Internet and provide a report about how well secured your system appears to be.

- AuditMyPC: <http://www.auditmypc.com/>
- Shields-Up: <http://www.grc.com>

Anti-spam:

- *Never* respond to spam!
- Don't post your main email on any websites and don't include it in any text that will be posted (email address in your signature).
- If you must post your email for contact purposes, modify it, specifically the "domain" portion; brett@att.com might be posted as: brett_at_att.com (this is an illegal domain and so won't every be sent).
- Choose an email address that won't show up in any dictionary, including name dictionaries; "mary@aol.com" gets more spam than "marysmcdonald@aol.com"!
- Use the bcc option on your email software when copying lots of friends, they don't all need each others addresses, and they don't need you publishing their addresses where spammers can find them (in public email archives...).

Anti-phishing:

- If it's too good to be true, it's not true...
- Never click on links in email that you didn't expect, even from a friend.
- Disable "preview" mode in your email system.
- Disable "install from web" options in your email system.

Anti-virus solutions:

The mainstream anti-virus vendors are fine, but they're not the only alternative:

- AVG Anti-virus: free.grisoft.com/freeweb.php

Anti Pop-up:

Pop-ups can be pretty well controlled given the right configuration and protection from associated spyware.

- Google toolbar for IE: toolbar.google.com/
- Switch to a different browser that includes pop-up management features by default
- Windows XP Service Pack 2 (built-in):
http://www.microsoft.com/windowsxp/using/web/sp2_popupblocker.mspx

Firewalls:

This is an absolute must, whether you have a cable modem, DSL or occasional connection via dial-up, as soon as you connect to the Internet, your machine is being probed for weak spots. The firewall is your first line of defense and needs to be there.

These are free, software based firewalls. You can buy commercial versions as well, or you can buy a "residential gateway" (<http://www.linksys.com>). If you're technically inclined, you can also convert an old PC into a firewall, check out Smoothwall (<http://www.smoothwall.org>) or IPCop (<http://www.ipcop.org>).

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- ZoneAlarm (free version): http://www.zonelabs.com/store/content/catalog/products/sku_list_za.jsp
- Windows XP SP2 firewall (built-in): http://www.microsoft.com/windowsxp/using/security/internet/sp2_wfintro.msp
- Kerio firewall (trial version): http://www.kerio.com/kpf_download.html

Spyware Removal:

- Spybot Search & Destroy: <http://spybot.safer-networking.de/en/spybotsd/index.html>
- Ad-Aware: <http://lavasoft.element5.com/software/adaware/>

Windows Security:

- Window Security Management (XP SP2): http://www.microsoft.com/windowsxp/using/security/internet/sp2_wscintro.msp
- Windows Baseline Security Analyzer: <http://www.microsoft.com/technet/security/tools/mbsahome.msp>

Alternative Browsers:

- Mozilla: <http://www.mozilla.org/products/mozilla1.x/>
- Firefox: <http://www.mozilla.org/products/firefox/>
- Opera: <http://www.opera.com>



HPA Technology Retreat 2005 (subject to change)

Tuesday, January 25, 2005

8:00 am – 5:00 pm morning (TBD)	Registration ATSC T3/S8 Transport Specialist Group meeting
2:00 pm – 6:00 pm	ATSC Seminar: Getting PSIP Right TBD
2:00 pm – 6:00 pm	Wide-Gamut Acquisition and Display Charles Poynton

Wednesday, January 26, 2005

8:00 am – 5:00 pm	Registration
9:30 am – 1:30 pm	Compression Confabulation
9:30 am – 10:15 am	JPEG2000 for Digital Cinema Overview & Results Walt Husak, Dolby

Michael Marcellin, University of Arizona

10:15 am – 10:45 am	H.264 and VC-1 from a Technical Perspective Matthew Goldman, Tandberg
10:45 am – 11:15 am	H.264/AVC FReXt Tools Overview and Applications Jiuhuai Lu, Panasonic Laboratories
11:15 am – 11:30 am	Refreshment Break
11:30 am – Noon	H.264 and VC-1 from a Market Perspective David Price, Harmonic
Noon – 12:30 pm	Patent Pools and Licensing 101 Ron Moore, Via Licensing
12:30 pm – 1:00 pm	A Consumer Electronics Perspective Adam Goldberg, Sharp Laboratories of America
1:00 pm – 1:30 pm	Compression Panel Moderator: TBD (Bob Ross? Graham Jones?), broadcast Moderator: TBD (Peter Fannon?), consumer Moderator: Charles Swartz, digital cinema Adam Goldberg, Sharp Matthew Goldman, Tandberg Walt Husak, Dolby Jiuhuai Lu, Panasonic Michael Marcellin, University of Arizona Ron Moore, Via Licensing David Price, Harmonic TBD
1:30 pm – 2:30 pm	Box Lunch provided
2:30 pm – 2:40 pm	Welcome (okay to eat) Leon Silverman, HPA (Laser Pacific)
2:40 pm – 3:00 pm	Introduction & Technology Year in Review (eat more) Mark Schubin
3:00 pm – 4:00 pm	Broadcasters Panel Moderator: Mark Schubin Mike Strein, ABC TBD (Bob Ross or Bob Seidel), CBS Jim DeFilippis, Fox Jerry Butler, PBS Mark Aitken, Sinclair Hal Protter, The WB
4:00 pm – 4:15 pm	Refreshment Break
4:15 pm – 5:15 pm	The Video Consumer Marketplace Moderator: Peter Fannon, Matsushita Michael Heiss, CEDIA TBD
5:15 pm – 5:45 pm	Digital Content Protection 2005 Status Report Brad Hunt, MPAA
5:45 pm – 6:15 pm	Demo Intros

John Luff, Dictator of Demos
TBD

6:15 pm – 8:15 pm Drinks & Demos
8:15 pm Dinner and First Quiz Prizes

Thursday, January 27, 2005

7:30 am – 8:30 am Breakfast Roundtables
Tapeless (and Filmless) Color Correction - Pete Challenger
Blended Production: Film, SD, HD, Viper - Mark Chiolis,
Thomson
Canon
Recommendations for HDTV Lens Testing - Larry Thorpe,
Canon
ISAN: International Standard Audiovisual Number -
Merrill Weiss, MWG
Improving Security & Watermarking in Digital Workflow -
Mike Wade, sgi
Fiber Facility Connectivity - Eric Fankhauser & Joe
Cirincione, Evertz
TBD (affordable HD) - TBD, JVC
7:30 am – 5:00 pm Registration
8:45 am – 9:45 am Tapeless Camcorder Acquisition
Moderator: Peter Fasciano, Avid
TBD, Ikegami
Bob Mueller, JVC
Phil Livingston, Panasonic
TBD, Sony
9:45 am – 10:15 am Uncompressed HD Recording
Don Miskowich, Plus8 Digital
10:15 am – 10:45 am Control Dailies
Kevin Manbeck, Mathematical Technologies (MTI)
10:45 am – 11:15 am Film Transfer for Digital Intermediates
Dave Bancroft, Thomson
TBD technical person, Thomson
11:15 am – 11:30 am Refreshment Break
11:30 am – Noon Lenses for HDTV and Beyond
Larry Thorpe, Canon
Noon – 12:30 pm Panavision's Genesis for Digital Cinematography
John Galt, Panavision
12:30 pm – 1:30 pm Catered Lunch
1:30 pm – 2:00 pm Optimizing Displays for Digital Dailies
Loren Nielsen, Entertainment Technology Consultants
2:00 pm – 2:45 pm X'Y'Z' Color Space for Digital Cinema
Glenn Kennel, Digital Cinema Initiatives
2:45 pm – 3:05 pm MXF Packaging for Digital Cinema

TBD (Michael Sterling of Technicolor or Kevin Wines of LP)

3:05 pm – 3:30 pm Digital Cinema Discussion - Part I
Glenn Kennel, DCI
TBD (as above)

3:30 pm – 3:45 pm Refreshment Break

3:45 pm – 4:15 pm WorldScreen - Digital Cinema in Europe
Mike Christmann, Flying Eye
(TBD Reinhold Thiel?)

4:15 pm – 4:45 pm Digital Cinema - The Studio Perspective
TBD (Chris Carey, Disney and Howard Lukk)

4:45 pm – 5:15 pm Digital Cinema Discussion - Part II
Moderator: Charles Swartz, ETC at USC
TBD

5:15 pm – 5:45 pm Consumer Displays Update
Peter Putman, Roam Consulting

5:45 pm – 6:20 pm Freshen-up-to-Get-Grungy Time

6:20 pm SHARP! Depart hotel for Big League Dreams

6:30 pm – 7:30 pm Beer & Burgers Ballpark Buffet
Hot dogs, sides, desserts, and sodas, too!

7:30 pm – 9:00 pm The Whole Ball Game - Championship Series
Production vs. Post vs. Distribution at Fenway Park

Friday, January 28, 2005

7:30 am – 8:30 am Breakfast Roundtables
Tools for Generating Worldwide Deliverables - Pete
Challinger
HD Standards Conversion - Hugh Heinsohn, Digital Vision
ISAN: International Standard Audiovisual Number -
Merrill Weiss, MWG
New HD Camera Fiber Adapter - Joe Cirincione, Evertz
TBD (affordable HD) - TBD, JVC

8:00 am – 1:00 pm Registration

8:45 am – 9:30 am Washington Update
Jim Burger, Dow, Lohnes and Albertson

9:30 am – 10:00 am Extended Content Control Information
Merrill Weiss, Merrill Weiss Group

10:00 am – 10:30 am Sound Editing Workflows and Technologies for Post
John McKay, Virtual Katy Development

10:30 am – 11:00 am Solving Real Unscripted-TV Post Problems
Keri DeWitt, Teresis

11:00 am – 11:15 am Refreshment break

11:15 am – 11:45 am Final Cut Pro and XML
Brett Halle, Apple

11:45 am – 12:15 pm	Digital Intermediate Workflow for Desktop PCs Jacob Rosenberg, Adobe
12:15 pm – 1:15 pm	Catered lunch
1:15 pm	Demos close
1:15 pm – 1:45 pm	Standards Organizations: Are They Still Relevant? Peter Symes, SMPTE (Thomson)
1:45 pm – 2:15 pm	Real-Time Device-Control Protocol Al Kovalick, MOS Group (Pinnacle)
2:15 pm – 2:45 pm	The GFX Standard Paul Collins, Mindego
2:45 pm – 3:15 pm	User Interfaces and Technology Choices in Post Pete Challenger, Pacific Media Technologies
3:15 pm – 3:30 pm	Refreshment break
3:30 pm – 4:00 pm	Why, Er – Skew! Steve Lampen, Belden
4:00 pm – 4:30 pm	Motion Comp. for Noise Reduction & Enhancement Bjorn Christensson, Digital Vision Hugh Heinsohn, Digital Vision
4:30 pm – 5:00 pm	4K File Access Without Transfer Chris Golson, sgi
5:00 pm – 5:30 pm	Networking for Production and Post Dave Scammell, Sohonet
5:30 pm – 6:15 pm	The Fabulous Fiber Future Eric Fankhauser, Evertz

Features, History & Opinions

The right tool for the right job

From: Mark Schubin tvmark@earthlink.net



I have nothing good to say about Microsoft or its operating systems. When I last shopped for a computer, I strongly considered a Mac. But I travel. The 12-inch Mac laptops are at the upper limit of my size and weight requirements, but they do not include a PCMCIA slot. So I got a Sony TR3 series, which comes loaded with more media-friendly software than I will ever use.

I recently returned from a typical one-day business trip. I arrived at the terminal before the flight and did some wireless e-mail. FYI, at a TV show recently, I had no trouble accessing a Wi-Fi node from inside the production truck, while no one with a Mac could sniff it out at all, even when we swapped positions.

On the plane, I had no trouble getting work done even as the passenger in front of me leaned the seat all the way back, because the TR3 has such a small profile.

When I got where I was going, an associate and I took lots of pictures. For mine, I just popped the Memory Stick out of my camera and popped it into my computer. For his, he stuck his Compact Flash memory into a PCMCIA-card adapter and handed it to me. A few seconds later, I had everything I needed. I worked on the pictures on the flight back, because the TR3 gives a solid five-hour battery life.

Yes, it has Firewire. It's also got a pair of USB 2.0 and a standard VGA connector. I've got CD read/write and DVD read. Had I wanted DVD writing, I could have added that option without affecting the size or weight (three pounds).

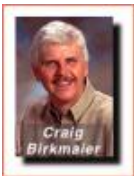
I don't like Windows any more since I got my new computer than I did before, but I could not have gotten the work done that I did on that trip if I'd had a Mac.

TTFN,
Mark



My how times have changed in the "video" business...

From: Craig Birkmaier craig@pcube.com



When I worked at Grass Valley in the early '80s, there were only a few places to go to get useful info about the directions the video industry was growing. NAB was and still is "Mecca" for video equipment manufacturers. One could go to NAB and see exactly where television was going, because Broadcasting WAS television. Cable was just starting to have an impact on broadcasters. Innovation was primarily being driven by a handful of big customers...i.e. the Networks, who had run their own R&D labs for decades. And innovations were primarily related to what one could do to manipulate a good old SDTV image, or to acquire or record these images with higher quality at lower prices.

I came to Grass Valley to develop a new market. At the time it was called Educational and Industrial TV, or business and institutional video, or corporate video. This stuff was beginning to bubble up at NAB, however if you really wanted to understand these emerging markets, you went to smaller regional shows and shows that were put together by your dealers. Or you went and visited some of the early pioneering facilities that were trying to use new lower cost gear to produce NON-Broadcast video.

One major show that was not on the "radar" was CES. Why bother with the guys who build the TVs. WE controlled innovation. THEY just provided the screens upon which we did our magic. The CE divisions of companies like Sony and Panasonic were irrelevant to us.

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We controlled the Vertical
We controlled the Horizontal

CE manufacturers operated near the Outer Limits of an industry that we - and our broadcaster customers - dominated.

We did pay attention to cable; the Western Cable Show was very much on the radar screen. The new cable networks were customers, and the Western Show was where they went to look at equipment. Now it is just a programming affair.

After I left GVG this whole HDTV thing started to bubble up, while cable continued to build its empire. And this whole Desktop Video thing started to get some traction, thanks to the rapid growth of the PC industry. To some it looked like the PC might gobble up everything.

When I got involved in the U.S. Advanced Television process in 1992 it quickly became apparent that the CE industry was making the investments to control the next generation of TV. They dominated the U.S. DTV process (they still do for that matter). Sony and Panasonic could push their agendas on two fronts, providing HD production gear for broadcasters, and HD displays for consumers. They had tremendous influence over technical decisions and standards.

When I attended my first CES in 1993, I expected to see lots of people I knew. I was wrong. Like NAB today, there were hardly ANY broadcasters to be found. The only people I recognized were the folks from the CE industry I was working with on ACATS and ATSC committees.

Within a year or two, however, that picture began to change. Innovation in video production was moving out of the hardware realm into the software realm. Desktop Video changed the way people put TV programs together; it also changed the look of TV, allowing creative types to manipulate images and to composite them in ways that were virtually impossible with a DVE and a Switcher. CES moved onto the radar screen since it was the place to go to see how people would use HDTV and all the other affordable gadgets that were transforming the CE business, including PCs. Equally important, CES is where the big boys went to pontificate about where we were headed.

Bill Gates became a keynote star, trotting out one vision of the future after another. I began to see many familiar faces from what was left of U.S. video equipment manufacturers. One year Microsoft built a "Home of the Future," demonstrating how digital media content would be shared among various CE and PC devices.

Meanwhile, as I said, the Western Cable Show became a programming forum. The cable industry was now fully entrenched, even as the old media conglomerates began to assimilate the programming that it relies upon. The cable guys had their own equipment vendors; they were effectively keeping the CE industry at bay, even as Congress and the FCC began to demand they open up the market for cable set-top boxes.

Then DBS happened.

The CE industry did an end run around cable, working with the DBS systems to build the boxes and to drive innovation. More important, they developed for themselves, and their CE retailer partners, a new source of revenue - spiffs and royalties for every consumer they could sign up for a DBS service.

They did much the same with DVD and HDTV. They controlled the MPEG-2 process and turned MPEG-2 into a huge new royalty stream. They controlled DVD and established a precedent of paying royalties for a technology, as part of the cost of the content. And CE retailers cashed in on the ability to sell DVD content, bypassing cable and broadcast distribution.

What the CE industry did NOT do was help build a market for broadcast DTV. They did not need to; the broadcasters were only too happy to let the CE industry push the HDTV ball while broadcasters continue to milk NTSC.

With help from their DBS partners, the CE industry began to drive innovation in TV. When they offered Nvod the cable industry was forced to respond. When they added PVRs to their boxes, the cable industry was forced to respond. When they started to offer interactive services the cable industry was forced to respond.

As you will learn in the story that follows, CES is NOW on the radar screens of the Cable industry. The article tells you what these folks are going to be looking for in Las Vegas. It SHOULD tell you something about where we are headed, despite all of the nay saying from some of the curmudgeons on this list that this convergence thing will never happen...

Multichannel News

Two years ago, ESPN sent four people to the Consumer Electronics Show. Last year, they sent 20. When the 2005 CES opened (Jan. 5-9), ESPN will have more than 70 people in attendance.

True, the company will be launching the HDTV feed for ESPN2, but the sharp spike in attendance is emblematic of a larger trend: cable programmers find consumer electronics a key growth area for their companies.

The interest is being returned. CES invited MTV Networks president Judith McGrath to be a keynote speaker. This is believed to be the first time a cable programming executive has delivered a major address to the CE crowd.

Cable & Telecommunications Association for Marketing has split its annual tour of the floor into two sessions for the first time this year, with a separate

programming version scheduled for Jan. 7, a day after CTAM's MSO marketing and business development types cruise the aisles. (Cable Television laboratories Inc. also will provide a tour for senior MSO and engineering executives.)

For ESPN, the CES has grown in importance because "we are becoming a retail-oriented brand," says Bryan Burns, vice president of strategy business planning and development at ESPN, "totally related to CE space."

And ESPN is pulling out all the stops. It is co-sponsoring the grand lobby stage in the main entrance to the Las Vegas Convention Center. "That's a huge message," says Burns.

As for the consumer gear at CES, ESPN has many touch points, including HDTV, direct-broadcast satellite, broadband and wireless devices, for not only programming but branded ESPN merchandise. The company recently announced a branded wireless phone venture with Sprint Corp. ESPN branded merchandise can even show up in boats, courtesy of its outdoor division, Burns says.

"We take all our various brands [to CES]," Burns says. "It's how our company is embracing consumer electronics, because it is our future."

ESPN2 launches in HD on Jan. 6, with three college basketball games. As part of the launch of ESPN2 in HD, ESPN has invited consumers to go online and vote which game they'd like basketball analyst Dick Vitale to broadcast from that day. The "Send Dick V Packing!" promotion provides three choices: the Memphis at Texas game, DePaul at Cincinnati or Gonzaga at Santa Clara. The selection was scheduled to be announced Jan. 1. ESPN2 will carry 82 HD contests in the first 83 days of 2005.

The network is also hosting a reception and screening at CES for its latest original program, the series Tilt , a behind-the-scenes look at poker, which premieres Jan. 13.

HD also is on The Weather Channel's radar. Susan Scott, the network's senior vice president of distribution, says her team will study HDTV trends, as it looks to add HD long form programming.

For the first time in several years, Scott won't attend CES due to her responsibilities as chairman of Women in Cable & Telecommunications, but she's sending a team. In addition to HD, TWC has a particular interest in home networking.

"We're trying to get an understanding what are the options for our distribution customers because of weather.com ," she says. "I've also got my people going to mobile electronics areas. And we're very interested in emerging technologies. We want to understand whether it is possible and viable to have

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voicemail delivered aurally via TV."

She adds that TWC is trying to limit where its on-demand services and interactivity can go.

Kevin Cohen, senior vice president and general manager of interactive and enhanced TV at Turner Cable Network Sales, is a CES veteran. He has a long list of items on his activity list. "We'll be seeing what's on the horizon with time-shifting devices, in the linear and nonlinear space. We'll see what types of success the Moxie folks are having and any new additions to Motorola [Inc.] set-tops, multi-tuner [digital video recorders], and the Hewlett Packard [Co.] multimedia center that runs the Microsoft media center."

Also on the list: devices with WiFi built into them, Internet protocol-based set-top boxes, TiVo Inc.'s next generation set-tops and devices that access content through broadband connections. Turner has signed a deal with one such company, Akimbo Systems. "We'll see what else is out there," Cohen says.

"We'll see what affiliates are looking at to expand their [video-on-demand] offerings, and what new types of VOD services are on the horizon," he says. Cohen says he believed it's too early to tell if telco IPTV deployments will be successful. "We're not going to know about that for quite some period of time. The telcos have a bit of an uphill battle, just getting their system set up," Cohen says.

Wireless has been a key technology at Turner for years, particularly at Cable News Network. The network has delivered content to cell phones and short message service phones for years. In the past year, it struck a deal to send video clips as part of a subscription service to Sprint subscribers.

Consumers can pay \$4.95 a month and get access to 20 to 30 video clips a day, ranging in length from 30 seconds to two minutes, says Bill Stratton, vice president at TCNS. "We're pleased with CNN on the phone," he says. The network also sells short-form content from Cartoon Network and Adult Swim, for \$3.95 a month each, on those phones.

There are 15 to 25 clips with each service, on the one-minute range. "We're very pleased with how that is doing," Stratton says.

Better wireless broadband services, including evolution data only (EVDO) and 3G, are in the offing. "At CES we'll be looking at different form functions of devices that are out there," Stratton says. "Screens on phones have certain aspect ratios. We want to begin to understand aspect ratios, because it's very different from TV. That's one of the bigger challenges."

Cohen also will take stock of interactive TV. Turner has dabbled with a number of news and entertainment ITV functions, both on the TV and with wireless devices.

"I'm very encouraged about enhanced TV and ITV," he says. "ITV gaming will be big opportunity in 2005," he says, citing Cartoon Network's gaming success in the United Kingdom. "It could become more and more a reality in this marketplace. The DBS folks are putting out set-top boxes with middleware that can do enhanced TV. There is a fair amount of experimentation with one-screen interactivity with key affiliates. It's all about finding the right content for this platform."

One idea is to provide some of the massive amounts of information on cnn.com to ITV users. On election night alone, there were 650 million page views to cnn.com, Cohen says. "We could take a relevant portion of that content and make that available while they are watching our network."

Portable video devices are another frontier. "Arcos has a portable media player," Cohen says, "although it's still a little bit kludgy. There are gaming devices that also playback video. We want to understand the portable video space."

HDTV, broadband content and VOD will be major targets for Albert Cheng, senior vice president of business strategy and development for Disney and ESPN Networks Affiliate Sales and Marketing.

"Unlike other cable shows, what CES brings for us is a view of what CE companies are trying to develop for the consumer," Cheng says.

"The main push is HD," he says, echoing Burns' sentiment with ESPN2.

They are also looking into the continued evolution of mobile content, including delivery to automobiles. "We're going to see where that's going."

"There is also broadband and home networking," he says, noting that The Walt Disney Co. has the Disney Connection, ESPN Broadband and ABC News broadband content. "We get a lot of usage," he says, across those services, all enabled by broadband."

The other CE show

CES is now over. In general it does not sound like there were any blockbuster announcements from the desert that is CES.

According to the CEA: The 2005 International CES set several major show records including number of attendees (142,585 - subject to independent audit), exhibitors

(2,550) and exhibit space (1.531 million net square feet). International attendance also grew to more than 23,028, up from 18,000 at the 2004 CES.

Also according to the CEA: Media servers, portable entertainment, hybrid white goods, innovative gaming and telematics are hot technologies to watch, according to the annual Five Technologies to Watch report issued today by the Consumer Electronics Association (CEA).

Of particular interest to this audience, the report goes on to say: "Media servers, the first technology highlighted in the 2005 Five Technologies to Watch report, contain a hard disk drive for storing digital media and allow distribution of those files to other devices located throughout the home. The publication stipulates that with more than 52 percent of U.S households expected to have home networks by 2008, the infrastructure for media servers is firmly in place. However product interconnectivity, bandwidth capacity and copyright issues remain the largest barriers to mass adoption. As these issues are resolved in the near future, the market for media servers is expected to grow rapidly, allowing consumers to store digital media, including photos, movies and music, on one device and listen to or view it on another."

And the CEA is bullish on portable media players: "While portable entertainment is not a new fad, advances in digital technology are changing not only the types of portable entertainment devices but also the way consumers use them. With the explosion of digital music and the popularity of digital music download services, shipments of portable MP3 players have topped 2.5 million units in the first half of 2004, according to CEA market research. Five Technologies to Watch also indicates that portable entertainment devices are on a convergence path with cell phones, personal digital assistants (PDAs), digital memo recorders and even cars hitting the market with MP3 capabilities. In the digital video realm, portable DVD players and installed mobile video are the hot ticket items as consumers increasingly want the ability to take their digital video content with them wherever they go."

It is not surprising that the CEA DID NOT mention that "the explosion of the digital music market and the popularity of digital music download services" had virtually NOTHING to do with their member companies. The company that created and now dominates this market was nowhere to be seen in Las Vegas, although the impact of the iPOD could be seen everywhere in the convention center, as traditional CE and PC vendors keep trying to understand what is incomprehensible (to them) - that people will pay a premium for a product and service that is properly integrated, leveraging the resources of the owners Mac or PC.

HDTV is acknowledged as being real - but the CE industry continues down the path to incompatible HD-DVD standards raising the specter of another VHS/Best war. Both U.S. DBS services announced major upgrades to their systems to support HDTV.

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Samsung won the bragging rights war for the biggest flat panel displays (plasma and LCD). The 102" plasma is more than 8 feet high, the average ceiling height for U.S. homes.

And the Wintel PC world is consumed with the belief that they can invade the family room with Media PCs and media extenders. Bill Gates made this "official" during his CES keynote, demonstrating the Microsoft seal of approval (AKA the Blue Screen of Death).

Providing their own direction to support this "trend," HP CEO Carly Fiorina announced an HD Media Center built atop Linux. HP was the standard bearer for the iPod at CES - QuickTime and iTunes ship on every HP PC, to support the HP branded iPod.

Now, the OTHER Consumer Electronics/Computing show is set to open in San Francisco. Jefferson Graham of USA Today reported from Las Vegas: "Apple Computer moves to center stage this week as the tech world shifts its attention from the desert to San Francisco for answers to two big questions: Will Apple introduce its first bargain computer - and a cheap iPod?"

"At the just-ended Consumer Electronics Show here, Microsoft, Hewlett-Packard, Dell Computer and others touted their vision for driving digital entertainment into the living room. Apple was a no-show. It holds court at its own event - Macworld - which begins in San Francisco Tuesday."

The report concluded: Gene Munster, an analyst with securities firm Piper Jaffray, predicts iPod sales for the holiday quarter could hit nearly 5 million. Munster says lower-priced iPods and an economy Mac could double Apple's sales. The company sells around 8 million computers a year; a \$500 Mac could add 5 million or 6 million to that, he says.

At CES last week, Munster surveyed the array of heavily promoted new iPod rivals from Creative Technology, Rio Audio, RCA, Panasonic and others.

"There was no iPod killer," he says. "Nothing that could take on Apple in terms of price or ease of use."

And now the press releases continue as companies scramble to figure out where the CE BEAST is really headed.

The following release caught my attention:

LaCie will release this week a portable USB hard drive with the ability to plug directly into multi-standard television sets for instant playback of stored movies, music or photos. The drive comes in 40GB or 80GB capacities.

According to LaCie, silverscreen is pre-configured to recognize and instantly play back a wide range of movie file formats, including the MPEG-2 ISO format and the compressed

DivX format. Silverscreen also supports surround sound thanks to the optical digital output that supports compressed Dolby Digital 5.1 and DTS pass through.

Other features of the silverscreen drive include:

- * Supported Video Formats: MPEG-1, MPEG-2 (ISO, AVI, VOB), MPEG-4 (AVI, DivX, XviD)

- * Supported Audio Formats: WAV, MP3, AAC, WMA, AC3

- * Supported Photo Formats: JPEG (up to 8 megapixels)

- * Video Outputs: NTSC/PAL composite and S-video, analog YPbPr video scalable up to 1920x1080i or 1280x720p, VGA scalable up to 11024x768, RGB via SCART (Europe only)

- * Audio Outputs: Dual stereo analog audio, coaxial and optical SPDIF digital audio

The Nonsense of Congress

In my January 2005 Download column for Broadcast Engineering - The Sense of Congress - I predict that Congress, NOT the FCC will act to set a date certain deadline for the DTV transition. Not this year, but next year, as part of yet another major re-write of the Telecommunications Act.

Warren Publishing's Communications Daily is now reporting that "Congress will "push" this year to "get more certainty" in the DTV transition and the turn-off of analog broadcast signals, predicted Pete Filon, minority counsel of the House Commerce Committee. Speaking here at the CES, he said Congress will consider subsidizing converter boxes to display DTV on analog sets.

"DTV-to-NTSC converters will be "very low cost" even before the final DTV conversion, said John Taylor, vp- public affairs for LG Electronics/Zenith. Depending on the volume, he said, the cost could reach \$50 per box by 2006 or 2007.

The report then points out the divergent views on the transition in Washington: There's been "a lot of progress" on the transition, Filon said, but he added that "many in Congress feel the transition has been going a lot more slowly than they had expected." He said the analog spectrum is "desperately needed" by emergency responders and innovators.

But the transition is going much faster than most expected, said Rick Chessen, head of the FCC's DTV Task Force. He said people "would have laughed" a couple of years ago at predictions that the transition would go as fast as it did: "The fact that we're even talking about what we're talking about is quite remarkable... This thing is taking off."

Yeah RIGHT!

It's being taken off the FCC agenda, as no matter what they do they will be challenged. First in the Courts, then by Congress.

Congress will settle this matter, eventually. At the moment however, the transition is a cash cow for our elected representatives, as they dial for dollars from the cloak rooms of the Nation's Capitol. By the summer of next year we should have an idea of who will win the latest bidding wars.

High Tech marketing lessons

Sorry to keep beating this drum, but there is something going on here that should serve as a lesson for anyone trying to market high tech products...like HDTV for example.

The Tuesday following Christmas we loaded the family into the Ghetto Cruiser and drove to Orlando to have an upgrade installed in the new iBook we bought my daughter for Christmas. I got the "reconditioned" G4 iBook for \$699 from Apple - it came with only a CD-ROM drive. So we added a state-of-the-art 8X Pioneer drive that records DVD-R and DVD-RW (Apple's Superdrive does not support DVD-RW). After finding the iBook under the tree, my daughter decided to accessorize it and bought an iPod Mini the Monday following Christmas.

We had to leave the iBook at an authorized Apple service center for a few hours, so we went to the Mall of the Millennia to shop and have lunch. This is one of those new upscale malls filled with top of the line stores and restaurants - they even have valet parking.

Eventually we wound up in the Apple store - a scaled down version compared to the larger store they built in a similar upscale mall in Tampa. The store was literally swarming with people; the checkout line snaked around the back of the store.

You might say that the atmosphere was electric.

The following day, my friend Dan stopped at the same Apple store, after picking up two iBooks, that he had upgraded with the new Pioneer drives. He reported the same mob scene and buzz.

Looks like that buzz is now hitting the "street," as Apple announced their first quarter results for fiscal year 2005. It is worth the time to pull out a few notable stats from the story that follows:

This was the single biggest quarter for total revenues in Apple's history.

Apple profits quadrupled for this quarter versus Q104.

Apple shipped more than a million Macintosh computers in the quarter, a 26 percent increase over last year. iMac sales nearly tripled.

Apple's chain of retail stores had revenue of \$561 million in the quarter, an average of \$5.9 million a store. That compares with \$4 million a store in the year-earlier period.

Apple's share price has increased more than 200% since this time last year. In after hours trading the stock was up about \$7 on heavy volume.

Is there ANY other large high tech company that can report results that come anywhere close to matching this performance?

Is there any other high tech company capable of matching this performance in 2005?

Apple is re-defining home entertainment computing while the rest of the PC industry seeks to embrace and extend a platform that attracts BUZZards.



Hartenstein Recalls Time Spent at DirecTV, Hughes



When thinking about launching the nation's biggest satellite TV service in 1994, DirecTV Vice Chairman Eddy Hartenstein said, "Sometimes your greatest successes are when it seems like everything is at its darkest."

The company, back then a unit of Hughes Electronics, which itself was controlled by General Motors, had its first satellite in orbit, an initial batch of set-top boxes built and the service infrastructure in place. "And we kinda told the world that we were going to launch in the spring of 1994, and we kinda soft-circled April," Hartenstein, who's leaving the company he has been with for 32 years at the end of the month, said during a phone interview recently.

However, as spring 1994 approached, "We looked at each other and we said 'this just isn't ready yet for prime time,'" he said. That led to a postponement of 10 weeks, to mid June, before DirecTV made its debut at Cowboy Maloneys in Jackson, Miss. "As disappointing as it was, it was actually one of the easiest decisions we had to make," Hartenstein said.

"You know, nobody remembers that - after four years in the making - that we launched it 10 weeks late," he said. "We decided to get it right, and it just got better after that. First thing out of the box people were happy with it."

Hartenstein, who started with the company in 1972 when it was known as Hughes Aircraft Company and became DirecTV president at its inception in 1990, recently announced his retirement plans. There are many accomplishments Hartenstein said he's proud of, including making satellite TV a serious competitor to cable.

"I think we forced everybody to be more competitive, and I think we moved progress along in that enormously, even in terms of our arch-nemeses, the cable operators," Hartenstein said.

But before DirecTV could move forward, General Motors had to be convinced it would work.

"The interesting thing is GM had a particularly diverse board, and there were a couple of people who got it," Hartenstein said. "You get one independent person, an outsider, and you build on that, and then all of a sudden during the course of a presentation you get everybody saying 'yeah, you can do that. Why not?' And then you just get the hell out of there and put your head down and start doing it."

He added, "It was easier in some ways starting it from within a company, where we didn't have to go out and raise some money. Others came along after the fact, and because we had done it, it was maybe easier for them to raise money."

Hartenstein, whose last day at DirecTV was Dec. 31, said he has no solid plans in place yet for retirement. But he said DirecTV is in good hands, with DirecTV Group CEO Chase Carey and other executives ready to guide the company into the future.

"It's a great company," Hartenstein said. "We are going to continue to make it better. We are leading the way in digital television, we are leading the way in high-def and interactive and we are going to keep moving the bar up and see who can and will follow us. We are in good shape. I feel good about things."



Top 10 Digital Entertainment Trends for 2005

Everything-but-the-kitchen-sink devices, master tones, digital entertainment centers, the death of wires and other visions of the year ahead
From: Michael Stroud michael@ihollywoodforum.com

Right now, you're either recovering from your trip to the crowd-filled halls of the Consumer Electronics Show in Las Vegas or you're trying to digest the headlines and hype about the show from your daily newspaper and magazines. To help you sort through it all, I offer my humble take on the Top 10 Digital Entertainment Trends for 2005. And because I am humble, I've compared notes with a few leading analysts on the assumption that several heads are less likely to lay some boners on you than one. Here goes:

1. The digital entertainment center will begin to become a reality. Microsoft's Media Center PCs have until now been the primary entertainment systems only for geeks and college students. In 2005, that will begin to change. Hewlett-Packard's just-released Digital Entertainment Center, which fits neatly into an AV rack, replaces a DVR, DVD, CD player and two TV tuners, and can store an entire music, video and photo collection on its massive hard drive. At \$1999, it's still way too pricy for most people, but its competitors - who will unveil their wares at CES - should lower the price bar substantially in 2005.

Analyst Tim Bajarin of Creative Strategies sees the emergence in 2005 and 2006 of cheaper, more dedicated digital entertainment centers, or DECs. They'll include key PC components such as a high-speed processor, hard drive, Tivo-like capabilities and DVD

playback, but will be available for much less than HP's product. "They will sell for under \$500 and in many cases will eventually be subsidized by cable, telecom providers and various types of entities who want to own the digital entertainment experience," Bjarin said in a recent report. He points to a new box shown by Zoran, Transmeta and ZeDeon in Japan as a sign of things to come.

2. The Baby Bells will gamble heavily on multimedia. Voice-over-IP is decimating the traditional long distance businesses of SBC, Verizon and other Baby Bells. To survive, the carriers must find new value-added services. SBC -- following up on its pledge to invest billions to take on cable operators in the living room - said this week that it will begin offering TV, video on demand, digital video recording, and Internet content over DSL and satellite service, SBC plans to invest about \$500 million this year in its multimedia rollout, and hopes to reach 18 million households by 2007. Verizon plans to invest \$800 million by the end of the year to upgrade its fiber network and begin selling TV service to as many as 3 U.S. million homes.

The Baby Bells' plans are anything but a sure thing. Historically, telco companies have failed to reap financial rewards from their multimedia plans. It's not yet clear whether this time will be different.

3. Digital music sales will surge.

Digital music downloads are still a small percentage of total music sales: the record 135 million tracks downloaded in the U.S. in 2004 are still dwarfed by CD sales, according to a report by Nielsen Soundscan released this week. But look at the rate of growth: 5.04 million tracks in the last week of December, compared with 3.9 million the week before.

A broader array of portable music devices in 2005 will help fuel consumer demand from low-cost, flash-equipped iPods to higher-end devices from Creative Labs, Sony and others that pack features such as imaging and video in addition to music downloads. New hybrid subscription/download services - some based on Microsoft's Janus - will help propel sales.

4. Mobile content will be red hot. Here's a sobering thought: new KPMG figures show 2004 ringtone sales in the U.K. hit \$228 million, more than double CD-single sales of \$55 million. Europe and Asia already have multibillion dollar ringtone markets, and the U.S. market is in the hundreds of millions of dollars and growing fast. In 2005, carriers and handset makers will begin heavily promoting "master tones", ringtones that are exact renditions of portions of songs. Images that pop up when your phone rings, "ringbacks" that call your friends with your favorite rings and other ringtone-based services will also be hot. Content rights holders will be spared, at least temporarily, the heartaches of CD creators. "There are a lot more steps to pirating a ringtone than there are to pirating an MP3," said senior analyst Rajeev Chand of Rutberg & Co.

Mobile games and text messaging will also continue to be hot tickets for wireless carriers, mobile publishers and Hollywood studios. Disney and Sony have created publishing divisions devoted to repurposing their properties; ESPN is launching a

branded mobile phone service. Jamdat's success in mobile games has made it a Wall Street darling. While not up to billions of dollars generated by mobile text messaging in Europe and Asia, the U.S. mobile text market will flourish in 2005.

You'll also see the first examples of video on mobile phones, as carriers continue to roll out mobile versions of CNN, CNBC, sports clips, comedy shorts and other multimedia material.

5. HDTV Prices will plummet. No surprise there. The first sub-\$500 HDTVs are set to hit the market, spelling the death knell of conventional television. U.S. computer companies such as Dell and Hewlett-Packard will play an increasingly important role in the market as their long ties to Asia enable them to secure high-definition flat panel displays at better prices than companies like Sony and Panasonic.

Inexpensive HDTVs will begin to feed the growth of ancillary businesses such as high-definition digital video recorders, high-capacity DVDs and the first consumer HD camcorders. Emerging high-def programmers like HDNet and Voom! will prosper, and high-definition, digital filmmaking in Hollywood will get a further boost.

6. Music piracy will remain a huge problem for record labels, and movie piracy will accelerate. Despite massive efforts by the Recording Industry Association of America to litigate music pirates out of existence, the problem will not abate in 2005. As fast as servers are shut down, new ones pop up - many of them in countries outside the reach of American law. College students are showing growing adeptness at knowing exactly how many files they can keep on their college networks before the lawyers come knocking.

The Motion Picture Association of America's newly aggressive stance on pirated movie content on the Internet will root out the worst offenders, but its efforts will be outpaced by a growing cadre of U.S. subscribers with ultra-high-speed Internet eager to test their new media centers on pristine film content. If you doubt the future, look at South Korea, where DVD sales have plummeted in the face of massive film downloads.

7. WiFi Will Reign! This year's CES will see lots and lots of WiFi announcements. "The market has realized that getting people to put Cat 5 throughout their home isn't going to happen," said analyst Patrick Mahoney of Yankee Group. "At the end of the day, there's a huge move away from wireline." And it won't be just about PCs hooking into your home stereo system. 802.11-equipped TVs, cameras, phones, video and music players, telephones and cameras will also be part of the mix - anything that helps consumers effortlessly zap content around their home. Analysts speculate that Apple plans to shortly release a WiFi enabled iPod.

The rush to WiFi could backfire, however, if manufacturers can't do better than 2004's bug-filled wireless streaming devices, which often took consumers hours of consultations with help desks to set up. Competing standards and slower wireless connections will make streaming movies a fantasy for most consumers - at least until faster ultrawideband connections begin to take hold in 2006.

8 Look for Lots More "Everything But the Kitchen Sink" devices. The ETG OnePad should give you the idea: a removable hard drive that can store up to 15 DVD movies, 802.11 connectivity for streaming your media and connecting to the Internet, a VOIP telephone, online gaming - even a GPS navigation device. And somewhere around the middle of the year, the Sony Playstation Portable device, which is expected to be able to handle video games, music, film, photographs and even TV in a package that's expected to cost about \$150. "When you combine all those things in a single device, you suddenly have something that's pretty damn scary," Mahoney said. "You have a product that is half the price of the iPod that does a lot more stuff." Not to mention that newly released Nintendo DS which retails for - surprise! - about \$150.

9. Hard drives and flash memory will turbo-charge the storage capacity of consumer electronics devices. Look for a flurry of new camcorders, cameras, cell phones and MP3 players with flash memory or hard drives to hit the market in the first quarter. Now that \$65 buys you a gigabyte of flash memory, expect to see scads of low-cost MP3 players, including a lower-cost iPod and cheaper would-be iPod killers on the market. Some mobile phones will also begin to sport tiny hard drives, making them potent competitors to MP3 players and digital cameras. Hard drive maker Cornice on Monday gave a hint of things to come with its announcement of a 3 gigabyte, \$65 microdrive. Plummeting flash prices will make flash a more potent competitor to hard drives.

Look for more hard-drive-based video cameras, led by a \$3,600, high-def Sony model expected to be announced at CES. Expect to see hard drives also become much more important features of consumers' home entertainment centers as more DVRs, media center PCs, jukeboxes and hybrid devices hit the market. Monster home hard drives will help fuel new services like Orb Networks' announcement on Tuesday of a new service that allows consumers to stream entertainment content to any Internet-enable consumer electronics device.

10. If you want to survive, you'll subsidize!

Remember Bjarin's comments about the digital entertainment center being subsidized by service providers? Well, there's going to be a lot of that going around. Sony can sell its PSP for a low price because it hopes to make a lot of money on games and other services for the device. Telcos, cable providers, and satellite providers will practically give away souped up settop boxes with hard drives and other nifty features to keep subscribers. Apple can afford to make less money on its iTunes service because it makes a killing on its iPods. You get the picture.

Happy prospecting!



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Big Blue Opens the Patent Vault – Is open source here to stay?

From: Albert albert@verbrugh.net

By Cynthia L. Webb

Does the open-source movement have a new sugar daddy, or is today's news that IBM is opening access to 500 of its patents a clever scheme aimed at increasing Big Blue's role in developing Linux as an alternative to proprietary software developed by the likes of Microsoft?

The answer to that question will only come over time. But in the short-term, there's no doubt that IBM is reaping a good bit of news coverage this morning, most of it positive.

First, the details: "The donated patents span a wide range of technologies, from data storage to networking to electronic commerce. The company said the patents could be used by any individual or entity that is developing open-source software, which grew from the work of a handful of programming enthusiasts into a potent challenger to vendors of proprietary software systems such as Microsoft Corp. and Sun Microsystems Inc.," The Washington Post explained. "IBM has long led the nation in amassing technology patents and earning billions of dollars by licensing them, but it has made open-source software a key part of its business in recent years. By selling support services to firms that deploy the Linux operating system, IBM and a handful of other companies helped make Linux viable. Today's action could provide an additional boost by addressing what open-source advocates fear is a looming battle with proprietary software companies: patent claims. "that can be read by an intruder, which could potentially expose a user to risk.

<http://www.washingtonpost.com/wp-dyn/articles/A376-2005Jan11.html?referrer=email>

How big is this news? anyone?

Albert



"We'll forever be stuck with by going ATSC"

From: Tom McMahon TLM@DelRey.Com

Another thing that came out at CES 2005 was the fact that the forced, non-market-driven, premature US jump to ATSC HD has effectively locked in US DTV terrestrial MPEG-2 for the rest of our natural lives. MPEG-2 has basically reached it's asymptotic limit in terms of what it can do at any given /quality/bitrate/framerate/resolution (especially with interlace).

Europe's delay on terrestrial HD means they can adopt more enlightened compression technologies for their HD services, thereby enabling a great deal of latitude on quality and channel capacity and business operations management. They are going to use H.264/AVC.

While the ATSC might someday offer a new standard for mobile (EVS-B) services using an advanced video codec(s), it is unlikely that can do anything for the legacy, mainstream HD part of the ATSC standard in this country. The installed base of ATSC HD receivers cannot change, and, short of terrestrial simulcasting HD using an advanced video codec (which won't make a whit of business sense), there's no way out of that MPEG-2 box.

The cable and satellite and IP companies that are gearing up to provide HD services to consumers are not tied with those ATSC handcuffs.



SBC Joins the Convergence Crowd

From: Ralph P. Manfredo rmanfredo@bbnc.com

There are two reasons for the numerous attempts by both Pacific Bell and SBC's failure to get into the video delivery business.

1. Management is dial tone oriented, and thus they are afraid to provide non-dial tone service because they might fail and loose their jobs
2. They have shareholders who are only interested in profit, so management is unwilling to spend the money to get into the video delivery business because of the cost which will affect the bottom line.

Until RBOC management gets some intestinal fortitude, they will always be bungling a video delivery solution. They will wake up when the cable companies start getting aggressive on offering dial tone to their customers. Who knows, we may see the end of the RBOCs when that happens, and it will be their own fault.

Ralph P. Manfredo - President & CEO

From: Mitch Cardwell

They need to get into the cable TV business and deliver more than the cable and sat companies. I am down to one phone line only because I have a burglar alarm and TiVo. Once that line is gone, I will probably never consider Telco service again. SBC and its predecessor Pacific Bell have started and stopped, by my count, video service at least three times and is now on its second satellite "bundle" deal after its first one with DirecTV flopped. They have wasted a decade or more and now they're losing dial tone customers left and right that will never come back. Mitch



Breaking Free of Cable's Stranglehold

From: Craig Birkmaier craig@pcube.com

Perhaps this story provides a clue as to why more cable execs are attending CES this year...

<http://www.nytimes.com/2005/01/06/technology/06cablebox.html?adxnnl=1&oref=login&adxnnlx=1105018604-HJwtQeplR+LUJbfq5BEtAA>

By SAUL HANSELL

Cable television companies are not among the exhibitors here at the Consumer Electronics Show. But their influence is everywhere, as equipment makers seek to work with - or bypass - the cable industry's bottleneck control over the way most Americans watch TV.

All the approaches address the central fact that consumers of most current versions of digital cable service - the kind with the most channels and advanced features - must now use a set-top box provided by the cable system, usually for a monthly rental fee.

Those cable company boxes make it hard for most of the devices that are on center stage here, like flashy flat-screen televisions or advanced video recorders, to truly control the signals they are receiving. Moreover, the cable companies are increasingly muscling in on the electronics makers' business by enhancing their set-top boxes with digital video recording abilities and other new features.

That cable trend has been a particular threat to TiVo, which virtually invented the digital video recorder business in the late 1990's, but has struggled lately - in large part because it is difficult for TiVo's machines to change channels on a digital cable system.

TiVo is using this week's show to announce several moves to bypass cable systems, by using the Internet and personal computers as media for television delivery and viewing. "Offering service through one of the primary cable platforms is not the best way to grow our business at this time, because the economics are not very attractive," said Michael Ramsey, TiVo's chief executive. Instead, "we have decided to embrace the PC as our friend." As the various other consumer electronics companies here weigh whether to work with or end-run the cable systems, none of their options are entirely satisfactory.

Some, like Panasonic and Hewlett-Packard, have embraced the uncomfortable industry compromise that was brokered by the Federal Communications Commission. The F.C.C., seeking to curtail cable's hegemony, has required cable companies to give subscribers the option of forgoing a cable set-top box by renting a device the size of a credit card that can be inserted into a television or video recorder and allowing it to tune into the cable system's digital channels.

But this system, called CableCard, does not yet allow users to tap into the most advanced services, like video-on-demand programming, that are among the main selling points of digital cable.

The new Media Hub that Hewlett-Packard is showing here is a computer using the Linux operating system, a machine that includes a video recorder and two high-definition television tuners. It has a CableCard slot.

Panasonic makes televisions that accept CableCards, but its slow-selling DVD-based video recorders do not. "The cable companies are heavily promoting their video recorders," said Yoshi Yamada, the chief executive of Panasonic's North American operations. "There is no question that is affecting our DVD recorder business."

A few manufacturers, though, have found ways to work more closely [Return to Index](#) industry. Samsung, for example, is announcing deals this week that will allow it to build televisions that can use advanced services from the Time Warner and Charter Communications cable systems without need of separate set-top boxes. But for now, those Samsung sets will not work with other cable systems - including those of the biggest cable company, Comcast.

TiVo is also introducing technology meant to allow users to download video programs from the Internet and watch them on their televisions with the use of their TiVo recorder.

In addition, TiVo says it plans to introduce a new line of recorders that will accept CableCards. The company has declined to say when new machines will be introduced or how much they will cost. And the company is sharply critical of what it calls the cable industry's half-hearted support of CableCard.

The cable industry, for its part, bristles at the accusations of the electronics makers. It is fighting to have one part of the current F.C.C. rules on CableCard relaxed: the requirement that, starting in mid-2006, set-top boxes provided by the cable operators must eventually use CableCards. The cable companies say that rule adds an unnecessary expense to the boxes, but the electronics makers say it is the only way to force the cable companies to properly support CableCard technology.

Moreover, the cable companies say they will support technology that would make it possible to use advanced services like video-on-demand with CableCards. But negotiations to establish technical standards have been going slowly, prompting the cable industry's critics to accuse it of deliberate delays.

Cable executives deny the charge. "The cable industry is not holding up an agreement on two-way cable cards in order to have a hold on the retail set-top box market," said Brian Dietz, a spokesman for the National Cable and Telecommunications Association. He said the complexity of the technical issues made a quick resolution difficult.

This delay, whatever its justification, may be life-threatening for TiVo. TiVo's chief, Mr. Ramsey, says the new initiatives announced here will allow the company to differentiate its offerings from those of the cable operators as well as from the features of other video recorders.

"This will allow us to position the company as a premium supplier of home entertainment and separate ourselves from generic base-level" video recorders, Mr. Ramsey said.



TK-30A KPIX

From: Chuck Pharis chuck@pharis-video.com



Hi everyone. Here is the newest addition to my collection.

Originally I was told it was a TK-10, but as soon as I saw it, I realized it was a RCA TK-30A. Donated to my collection by Frank Miller who lives



near Placerville, Ca. This camera was once used at KPIX TV 5 in the San Francisco Bay area, then to the O'Connell Radio & Television school in SF in the 60's.



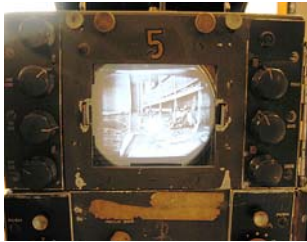
Funny how the viewfinder and lens turret have been painted blue????

I thought the VF might have come from a CBS station, but now that I have the camera, I am sure the VF might be original to the camera or was placed there sometime in the 60s. More to come on this as soon as I do some detective work.

I stayed up for almost two days and nights to "see" if I could get the camera to work. As soon as I got the camera chain home, I found a few bad tubes in the power supply and some broken wires in the camera head. The main relay in the CCU was so pitted it would not turn on, and there was a wasp next in the view finder. I was told the view finder had a blown transformer, so I put my spare TK-30 VF on the camera head.



I scrubbed and cleaned everything, at least getting the first two layers of grime off. I replaced three caps that looked bad, and checked all the tubes.



I hooked it all up, and brought the chain up with a variac. It blew the main fuse at about 75 volts. Now I really had to CHECK the & %# @ caps! I found a bad electrolytic, and just happened to have a new one in stock!!!

Back on the variac and it made it up to 120 volts. I let the chain warm up for one hour, and slowly turned up the beam. I got a weak, soft image!!!! YAY!!!! It then took about 30 more minutes of "tweaking" and I got the poor but viewable image you see in the attached photos.

The Image Orth has some bad spots on it, and a large burn in the middle. I have some new IOs, so will change the tube next week, and see if I get a better picture. I know more caps are weak, so will fix those too.



I also have received another TK-30A and a TK-31A this year. Once I get those camera heads running I will send more photos.

The CCU set up table, with a spare CCU and lots of other goodies in the background. Also the camera image on my Sony monitor. It really is a poor image, but not too bad after 1 1/2 hours of set up. I will make it much better soon. I know a new IO and a re-cap will help!



Broadcast Engineer, a dying breed

From: Greg Bates bigguy802@yahoo.com

This is actually why I have gotten out of the business, and I am sure I am not alone. I am 33 and was Assistant Engineer / IT Director for more than 7 years. I started as Assistant Engineer but as everything moved to computers, found myself building an entire system from the ground up.

We went from 4 stations, 3 FM's and 1 AM-DA, to 7 stations, 3 additional FM's by way of acquisition and creation, and from a half dozen MAC's not talking to a global WAN with over 90 local PC's and full digital automation. We also launched two satellite networks, along with an uplink and over 70 affiliates combined.

Through all of this, we (myself and the Chief) also somehow inherited the duties of shoveling snow, building walls, remodeling studios, etc. all with an increase of pay in the neighborhood of about 25% over 7 years.

With the addition of the computer networks and digital automation and studios, myself and the Chief grew more apart on our duties which ment we both were on call 24-7, only to be told that "budgets didn't allow for overtime or limited overtime". They even took away the famed "benefits" of working in radio like the free meals or t-shirts occationally and other traded out items.

Since leaving the industry, which has been about 1 1/2 years now, I have had an increase in pay from what I was making at the stations of about 60-70% and it is still going up. I also only work 40 hours a week, doing what I was originally hired to do and nothing or very little out of scope work. And no plumbing or babysitting after sales or part-time "power-surfers" and spyware, etc.

Don't get me wrong. I dearly loved what I did at the stations and do dearly miss it! But I am sure that I am not the only one who saw the writing on the wall as to what the industry is changing into. It seems it is easier to "make budgets" and "maintain profit margins" by letting experience go, not training current employees and hiring non-trained just out of high-school kids and hope that the wheels don't fall off until they have some experience.

I stayed on on a contract basis to engineer a road show and it just happened again as they decided that my job was worth 50% of what I made last year doing the same thing. When I refused the pay cut they let me go and hired a college student with no experience who was willing for the pay and "excited about radio" and would have "done it for nothing" just to get in the door.

I am sure that they will soon spoil him and when he refuses a pay cut, find someone else that fits the mold.

It seems to me, by the average age of Broadcast Engineers today, (what is it now around 55-60?) that they are a dying breed as anyone who wants to support a family has to move on to something else that actually comes with more appreciation than a pat on the back.

Just my \$.02 worth.

Sincerely, Greg Bates



WWV - a slight pause, please

From: Barry Mishkind barry@broadcast.net

One more passing you may not have heard about:

You could set your clock by his voice... and you did...



Marty Edwards, the voice of WWV, died Friday, December 10, 2004

His voice was (and still is) the one you hear announcing every minute of every day ... all time, all the time.



To hear Marty's voice, go to: <http://www.geocities.com/rontimod/wwv/> and click on the MP3 files. For more information about WWV, visit: <http://www.boulder.nist.gov/>

From: Jeff Allen jallen@kikx.com

What a perfect voice for WWV he had. I've heard his voice since I started in radio at 12 years old. I will never forget standing on an old wobbly chair in the control room setting that damn clock to WWV. Kinda miss those days.

J Allen

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From the Pen of Mendrala

By: Jim Mendrala

The Use of HDTV Gray Bars

Lately some of the major Digital Television stations have been adding “Gray Bars” when transmitting 4:3 aspect ratio images. This is not following SMPTE standards or Recommended Practices for the transmission of 4:3 aspect ratio images in a 16:9 format. Nor do we transmit 4:3 wide screen images in the letterbox mode with gray bars. So why do some DTV stations transmit 16:9 letterbox images with gray bars?



What HDTV sets and HDV Ready sets have built into them is the ability to turn on the “Gray Bars” if desired. Even the set top boxes that output HDTV Component video have the ability of turning on “Gray Bars”.

Watching 4:3 aspect ratio video which is in standard definition does not need the “Gray Bars”, as this downgrades the viewing experience on most programs. If the stations think they are doing a service, they are not. It is much better to watch a 4:3 image with black letterboxing than to have the bars lit up as Gray.

Now I know that a lot of the HDTV displays are said to burn if you don't use the Gray bars when viewing 4:3 on a 16:9 display, but really do you ever go to a theater and watch a movie with Gray lights on either side of the screen?

Most prime time programs these days originate on film. The cinematographers like to keep things low key, or in other words dark. This is how they view their films in the screening rooms. They do not have lights on either side of the screen, as the picture would then look too dark.

So why do some digital television stations transmit 4:3 images with “Gray Bars”? SMPTE doesn't recommend this and the FCC doesn't have any rule on this either.

I suggest that everyone transmitting 4:3 aspect ratio images in a 16:9 format follow the accepted SMPTE standards and recommended practices and not start creating their own set of standards for their stations only.

Once “Gray Bars” are added it is almost impossible to get rid of them at the receiving end. In other words, it is easy to add them at the display if the viewer desires but darn near impossible to remove them once they have been transmitted.

If CRT, LCD, D-ILA, Plasma and the new SED displays have such a problem, then the viewer should be the one to switch on the Gray bars -- not the station. DLP, by the way, are not subject to burning over their life time.

Personally I prefer black letterbox on my 16:9 display as well as my 4:3 display. I am not worried about image burn as program material varies all over the ball park and I haven't seen any burning on any of my displays.

What do you think the about the "Gray Bar" issue?



Parting Shots

By Larry Bloomfield



I worked with Connie Chung while she was at KNXT in Los Angeles (now KCBS-TV) I really had a great deal of respect for her professionalism and the great personality she had off camera. It was truly a pleasure. I don't think she's been dealt a fair hand at the places she's work since, but I wasn't there, so that's kind of shooting in the dark.

I do know the very strict standards we all had to learn at CBS while I was there pertaining to news. I even got in trouble once for putting some sound effects behind one of the news stories (I mixed audio on the 5 PM news for several years).

When Chung was asked about the recent Dan Rather debacle over the false information carried on the weekday version of 60 minutes, she told those present that CBS executives are unlikely to replace him with a woman because they are "cavemen." She should know. She suffered through an uncomfortable two years as co-anchor with disgraced TV newsman Dan Rather.

"I don't know when network executives will get out of the Dark Ages," Chung told the Philadelphia Inquirer. "It's long overdue."

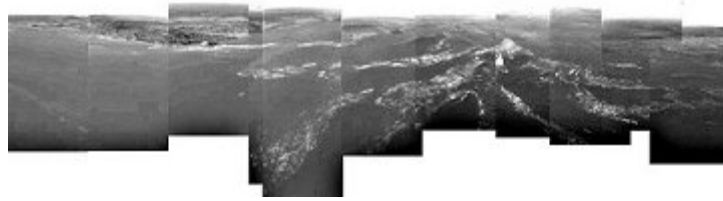
While the leading candidates to replace Rather when he steps down in March are CBS'ers John Roberts and Scott Pelly, Chung said that male anchors represent "an antiquated way of thinking."

The one-time anchorwoman said she'd like to see ABC's Diane Sawyer take Rather's place, noting, "It would be a great thing for all women." Another name floated by Chung: NBC "Today Show" host Katie Couric.

She predicted that even when a woman does eventually follow in Rather's footsteps, she'll likely to be part of another male-female team. "A man-and-woman team is utterly, predictably boring," she noted. "It's safer, and more common throughout local news."

Is Chung bitter that Rather was allowed to stay on as a solo anchor while she got that ax? "I have no hard feelings," she told the Inquirer. "I have this very strange difficulty remembering the bad times. It's OK to remember the good times." Asked what good times she recalled sharing with Rather, Chung replied, "I can't remember."

Have any ideas what this picture is?



The European Space Agency's [Huygens probe](#) landed on Saturn's moon Titan on Jan. 14th and scientists are processing hundreds of photos from the descent. The one above is a 360-degree panorama of the Huygens landing site:

The white tendrils, researchers suspect, are ground fog made not of water but ethane or methane vapors. Get the [full story](#) from Science@NASA.

I saw an interesting piece in Popular Science recently by Cory Doctorow: "Go Ask Hollywood." The story addresses you can't make backup copies of your DVDs and who is to blame. What follows is an excerpt from the piece.

The holiday shopping guides were all atwitter over the new DVD formats, Blu-Ray and HD-DVD-competing systems for recording and playing back high-definition movies. Both feature hugely increased pixel counts, more bit-depth and a surfeit of storage. But here's an important question that goes unasked in all the hype: What features won't your next-generation DVD device have?

It won't have a button for making a backup copy of the DVD you just bought, or for sending the movie to any portable video player. And if you put one of these long-awaited new discs in your PC, you won't have the option to rip it to your hard drive the way you do when you insert a CD.

No matter how pretty its picture, what you're expected to do with a DVD today is the one thing you could do in 1994: watch it on your TV. Why? Because when tech companies created the DVD, they sold you out. They let Hollywood hold its content hostage so that they could control who gets to build players and what those players can do. Tech execs have not only rolled over, they've joined the other side, advocating laws and restrictions that serve the entertainment conglomerates first and us second.

Well isn't that what we've been saying here? For the complete column: <http://www.eff.org/cgi/tiny?urlID=366>

Ever wonder who's paying the tab for The Internet? Or who the guiding force behind the technology surrounding DVDs?

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Ben Berkowitz did a story for Reuters news service that starts out: As goes pornography, so goes technology. Berkowitz says the concept may seem odd, but history has proven the adult entertainment industry to be one of the key drivers of any new technology in home entertainment. Pornography customers have been some of the first to buy home video machines, DVD players and subscribe to high-speed Internet.

You say no? Well this tainted multi-billion-dollar industry releases about 11,000 titles on DVD each year, giving it tremendous power to sway the battle between two groups of studios and technology companies competing to set standards for the next generation.

Adult film producers, like the G and PG producers, want the higher quality picture as well as extra space for creative expression -- like giving viewers choice of camera angles. OK, ,Ok I can see this may be upsetting to some, but the truth is the truth.

Just recently pornographers weighed in on the coming battle last week at the industry's Adult Entertainment Expo, which ran parallel with the largest U.S. technology fair, the Consumer Electronics Show, and had many of the same technologies -- sometimes a generation ahead.

So where's this all going? According to Adult Video News's Warren, HD-DVD production would be a "fraction of a fraction of the price" of Blu-ray, but that the latter format could not be dismissed.

Hollywood has begun lining up on both sides of the battle as they have watched the growth of DVDs slow. They will want a new standard in place soon, to accelerate again.

Despite your feeling about any sector of the industry, many are watching the porn industry to see what happens.

"That whole business has driven technology adoption of several platforms," said one major studio executive. "A better, more intense experience is a good thing for porn."

You know, I can't believe I'm reporting on this, but it is news and it does have an impact on us. Just don't go looking here for any pictures. I'm sure, if you're interested, you could find them for yourself on the Internet. For Berkowitz's complete story, visit: <http://olympics.reuters.com/audi/newsArticle.jhtml?type=technologyNews&storyID=7274001>

Do have a good new and prosperous New Year.



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Thanks.