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Tech-Note – 125

First Edition: May 18, 1997

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Editor's Comments



Time flies when you're having fun. This edition will not have all the links and pictures we normally have so we can at least get it out. I want to thank our good friend Lee Wood of KOIN-TV in Portland for his kind assistance in providing us with news items for this edition. Since our last edition, over two months ago, we've set out on our annual trek around the country with the Tech-Notes Taste of NAB

2004 Road Show and have completed about 45% of the venues.

We've received some very favorable comments about our efforts. (See the letters to the editor). Sorry it's taken so long to get this edition out, but guess your editor is getting old.

More about the Road Show later.

Several things have happened. At NAB we saw a substantial increase in attendance over last year. A good indication that the economy is turning around was the number of folks there ready to buy equipment on the floor of the show. Although there were more booths to visit than one person could possibly handle in the time given, but there did seem to be less companies showing their technology than in years past; at least there seemed to be a lot of unused floor space – especially in the radio area.

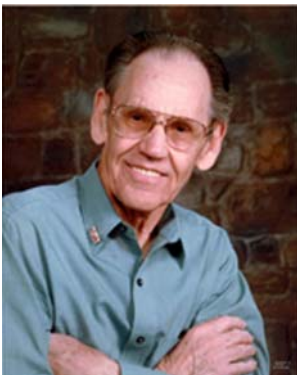
The digital cinema conference was a huge success. We have the benefit of the wealth of experience of John Silva, former Director of Engineering at KTLA in Los Angeles and inventor of the Telecopter reporting on this event in this edition. Look for it in the News section.


As has been said many times here, there is no substitute for the real NAB convention, but, for those who didn't or couldn't do the Las Vegas thing, the Road Show is at least a taste of what you missed. It's also an opportunity for those who did make it to catch some of what they may have missed or get a second look at the good stuff they did see. This year we have some technology that was at NAB 2004, but not on the show floor – it was a “by invitation only” demonstration at the Hilton next door.

To date we've secured 11 of the 12 companies who we'll be joining us on the Road Show. Just remember: these are the folks who care enough to want you to know about their technology:

[Leader](#), [LACAN USA](#), [LightningMaster](#), [ESE](#), [Quartz](#), [Cobalt Digital](#), [Sundance Digital](#), [Asaca/Shibasoku Corp. Of America](#), [RIEDEL Communications](#), [Electronics Research, Inc.](#) and [InPhase-Technologies.com](#). As of this writing, we have 1 opening remaining for the balance of the Road Show.

The Road Show is purely an educational experience – no sales.



We've confirmed no less than fifty one venues across the country with only thirty one remaining. Although the exact location for some of the venues has not been set yet, the folks in these places have said they'd like us to be there. It will all come together. The [Itinerary](#) on the website is always the most current and up to date information on the venues, etc. The  by some of the venues indicates a special presentation, in addition to the Road Show, by digital translator guru Kent Parson on the status of digital translators; a very timely subject to many in the west.

Please note: *In this edition only, all e-mail address will have to be copied into your e-mail browser. They will not automatically open it.*

Letters to the Editor

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

From: "David Joseph" w7amx@hotmail.com

Just a note to say thanks once again for bringing some of NAB to the SBE chapter 40 lunch last Wednesday (San Francisco).

Although I was able to go to NAB, you not only do a great service to those who couldn't go, but I found some products I missed and even two that one of my contract jobs employer will be interested in.

Keep up the great work Larry; look forward to next year's presentation.

Regards,
Dave Joseph, CBRE
W7AMX

+++++

From: "Joe P." Joe-P@cox.net

Joe Pietrzyk here from Phoenix. Thanks for the great road show that you had put on this year. It was better than ever, and enjoyed the MCing that you did. I guess I won 500 feet of wire from Clark. How do I proceed to get it. What are the limits as to what I can request? I'm sure they would not give out 500 feet of 6 inch heliax!!

Thank You...

Joe Pietrzyk

+++++=

From: "Ted Carr" tedc@dstech.com

I thought I'd take a moment and let you know I appreciate what you're doing with your traveling road show. This was my first year attending and I m look forward to attending next year.

Great job,
Ted Carr

Digital System Technology, Inc.

+++++

From: "Tim Bock" TBock@digitalresources.tv

I wanted to thank you for coming out to Tulsa and allowing us to help sponsor the road show. The event was a great success and I hope everyone gained some new knowledge.

Digital Resources-AMI enjoys spreading and supporting all efforts of educating our industry. Your road show continues to grow each year and offers an engineering approach to the behind the scenes look at some new technologies.

Keep up the good work and I wish you well on the rest of your show tour. I look forward to seeing you again next year!

Sincerely,

Tim Bock
President
Digital Resources-AM

+++++

From: Larry Miller CPBE KTUL-TV ACELAM@aol.com

Thanks for your informative and entertaining presentation on some of the equipment at this years NAB. Your testimonials on some of the products are helpful in understanding their applications. (Tulsa)

I also appreciate receiving the OITP pin and survival tool that you handed out.

Hope to see you next year.

Regards,
Larry Miller

+++++

From: "Bill Lee" blee@oru.edu

Thanks again for presenting A Taste of NAB.

Enjoyed your observations on engineering. The InPhase Technologies Holographic Disk is very intriguing. It will be interesting to see the development of this high capacity storage medium.

I had looked at Florical at NAB and I wish I had taken time to look at Sundance, it looks like a well thought out system. When we can no longer keep our Alamar/Philips/Thomson Automation system going, it will be first on my list to consider

(the Join In Progress software will be a life and sanity saver for my MCO's when we finally are able to take the leap).

I appreciated Leader's brief explanation of TRS. Maybe sometime they can explain CRS (just kidding). It looks like it will be a good topic for SBE.

Much thanks to Quartz, ESE, Sony, Lightning Masters and any others I might have missed for making a contribution to your show. For the members of my station unable to attend it was definitely educational.

Look forward to you presentation next year.

Regards:

Bill Lee
Director of Engineering
ORTV / KGEB / GEB

+++++

From: "Paul Brown" pbrown@calimage.com

Just wanted to send a note of thanks for your presentation last night (Sacramento). I realize it's a little difficult to put things together this close post-NAB. I found your presentation to be interesting, informative and entertaining.

Thanks again for a great job and good luck with the rest of the tour.

73, Paul - N6RME

--

Paul Brown
Engineering Manager
(916) 638-8383
<http://www.calimage.com>

+++++

From: "Turner, Webb V JR." webb.turner@us.army.mil

Thanks for an enjoyable evening at KCOS-TV in El Paso.

Richard P. Feynman gave an interesting talk in 1959 titled "There's Plenty of Room at the Bottom" including his thinking about information storage in a small space.

<http://www.zyvex.com/nanotech/feynman.html>

Enjoy
Webb

+++++

Thank you very much for an informative evening and great presentation of equipment. My son Nick and I enjoyed meeting you as well. We look forward to next year. Best of luck and stay in touch.

Mike Snyder
Chief Engineer
KGPE-TV 47/KGPE-DT 34
mikesnyder@clearchannel.com

+++++

From: "Stigler, Johnny" jstigler@wfaa.com

Subject: DALLAS SBE67

I received my door prize from Marken Communications today. It was the Verbatim DVD & CD's. I can put these to good use.

Thanks for presenting your knowledge at the BBQ place in DFW. The off normal meeting date and time did cause low attendance but those of us that made it gained and the others, well we will just tell them about what they missed. We appreciate all the sponsors that participate in your national tour.

WFAA-TV 8SD & 9DT
Johnny Stigler CPBE
SBE Chapter 67 Frequency Coordinator (DFW)

+++++

From: "Marvin Hanley" mhanley@ktsm.com
Subject: El Paso Road show

The road show was great.

Thank you

Marvin J. Hanley (mhanley@ktsm.com)
KTSM-TV Operations Supervisor



SOCIETY OF BROADCAST ENGINEERS · SAN FRANCISCO BAY AREA · CHAPTER 40

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BY E-MAIL LARRY@TECH-NOTES.TV

April 30, 2004

Mr. Larry Bloomfield
Tech-Notes
1980 25th Street
Florence, Oregon 97439

Dear Larry:

Thank you for bringing your "Taste of NAB Road Show" to the April 28 joint meeting of SBE Chapter 40 and the Bay Area Broadcast Engineers Society (BABES). Your presentation, and those of Bruce McGrew of Quartz Electronics, Scott Nix of Sundance Digital, and Pete Anderson of Leader Instruments, were all well received. The Sony and Maxell optical disk storage systems you demonstrated were awesome in their storage capacity. I also enjoyed the LightningMaster "whisk broom" lightning dissipater sample that you circulated; seems like it would take care of any pigeon problems one might have, as well.

The all-in-one Leader LV5700 was also pretty impressive. Indeed, your Road Show demos allowed me to see almost as much hardware as I did at the NAB convention itself, because I had very little time for visiting the floor displays with all of the sessions and SBE meetings on my agenda.

I am enclosing a pdf of the meeting sign-up sheet, for your information. I look forward to a repeat of your Road Show next year.

Sincerely,

Dane E. Ericksen
cb
Enclosure

cc: Mr. A. Art Lebermann - BY E-MAIL ARTLEB@EARTHLINK.NET
Mr. Paul Marks - BY E-MAIL PMARKS@KBLX.COM
Mr. Roy Trumbull - BY E-MAIL RHTRUMBULL@EARTHLINK.NET
Mr. Paul T. Black - BY E-MAIL PBLACK@KOIT.COM

From: "Sam Garfield" Sgarfield@technicalbroadcast.com
Subject: Re: The Road Show in Houston, TX

I enjoyed meeting you and being part of your audience. Thank you for letting me address everyone on behalf of the SBE. Keep up the good work and let's keep in touch.

Sincerely,

Sam Garfield

(Note: Sam is the National Vice President of SBE)
+++++

From: Tim Giesler tim@gbs-giesler.com

Good Morning:

I want to thank you for taking the time to visit us in Houston with the NAB Road Show. It was very informative and I believe very well done. Lots of good information for all of us to know.

I also want to let you know when I won that drawing for the item (TV gage gadget), the only reason I asked to put it back in the drawing was I had no idea what to do with it, being a "Radio Man". I thought a "TV" guy should have it. Thanks for the DVD/CD disc. That I know about and can use.

I am also in the process of mailing in my application for the Order of the Iron Test Patterns.

Hope the rest of your trip goes smoothly and safely.
Take care,
Tim Giesler
Ch. 105
+++++

From: "Parks, Patrick" patparks@UnivisionRadio.com
Cc: "Stewart, David" dstewart@UnivisionRadio.com
Subject: Thanks

Thanks for the hands on demo of all the equipment at the SBE Luncheon last Friday in Irving. I really enjoyed the Road Show and found it quite educational. I plan on looking into replacing my Stati-Cats with the Lightning Master products. Thanks again!

Patrick Parks CSRE CBNT
Engineering Manager

Univision Radio
Dallas/Fort Worth
KLNO/KESS/KDXX/KFZO/KFLC/KHCK

+++++

From: "ESE" ese@ese-web.com
Subject: Fwd: clocks in use

Hi Larry,
FYI, I received the included email with five very nice photos of ESE product in use.
Thanks for getting the word out!!
Brian

Delivered-To: ese@ese-web.com
Date: Sun, 30 May 2004 20:00:13 -0500
From: RICHARD BACH <WD0GIV@QSL.NET>
To: ese@ese-web.com
Subject: clocks in use

Hi,
We just had the Tech-Notes taste of NAB in town and they said you were looking for pics of your products in use. We use your master clock and slaves all over our station from engineering ,ops area, Master Control and production control room. I am enclosing some pics. For timing we are all ESE.

Richard Bach
Engineer
WNOL TV
New Orleans, LA 70112

+++++

From: "Parks, Patrick" patparks@UnivisionRadio.com
Subject: Headphones

I received my door prize today. (Sennheiser headphones) They sound great! I'll use them around the shop routinely. Is there anyone else I could thank for this gift? Some one at Sennheiser perhaps?

Patrick Parks CSRE CBNT
Engineering Manager
Dallas/Fort Worth
KLNO/KESS/KDXX/KFZO/KFLC/KHCK

+++++

From: "Cullen Watts" Cullen.Watts@mpbonline.org
Cc: "Donnie Driskell" Donnie.Driskell@mpbonline.org

Just a quick note to thank you for your presentation yesterday in our auditorium. I believe all 23 of us enjoyed the presentation and learned at least "one thing."

Cobalt, LEADER, InPhase, Quartz, Riedel, Sundance, ESE, ERI, ASACA, LARCAN and Lightning Master presentation segments were interesting and very informative. You have a wonderful way of showing these new technologies and the latest versions of proven devices.

Since we welcomed you with our liquid sunshine and pretty lights as southern hospitality I hope you don't have to install your lightning pods on your van as you continue your tour.

Thanks again and 73 de AD5PU,

Cullen Watts, Project Technician
Technical Services Department
Mississippi Public Broadcasting
Jackson, Mississippi 39211

+++++

From: "Eddie Bunkley" Eddie.Bunkley@mpbonline.org
Subject: presentation at SBE Chapter 125 in Jackson, MS.

I wish to thank Mr. Larry Bloomfield, and his sponsors for the fantastic presentation yesterday, June 1, 2004. Not only did he just present the equipment and describe its high points but he spoke from the heart with the confidence only a man of his experience can give. Each item described is a useful tool in the arsenal to combat technically inferior television. As with all tools the knowledge of how and when to use them is just as important as the tool itself. Mr. Bloomfield, I hesitate to use only his first name as he instills such awe at his depth of experience, used the occasion to espouse the virtues of each item and describe specifically how each one could be used to produce superior television.

Mr. Bloomfield had ringing endorsements for the following professional organizations and encouraged all of us to join and participate in them:

- Society of Broadcast Engineers
 - Society of Motion Picture and Television Engineering
 - Audio Engineering Society
 - Institute of Electrical and Electronic Engineers
 - Order of the Iron Test Pattern

He also displayed equipment and literature of the following companies:

- ASACA
- Cobalt Digital Inc.
- ESE
- InPhase Technologies
- Leader Instruments Corporation
- LightningMaster Corporation
- Maxell Corporation of America
- Quartz Electronics, Incorporated
- Ridel
- Sony Electronics, Incorporated
- Sundance Digital, Incorporated

Each item displayed was discussed and its strong points mentioned. This "Taste of NAB" presentation fills a great need for stations, networks and individuals who can not be present at the NAB convention. I applaud Mr. Larry Bloomfield for his commitment to excellence and education for his traveling college. With such a fountain of knowledge to share, he and his sponsors are truly to be commended. It is a great chance to see new products that a network on a limited budget may not have a chance to see otherwise.

I am sure I speak for all who attended this meeting in saying that it was truly a motivational, educational, and inspirational exhibit. I thank you Mr. Bloomfield and all of your sponsors for this opportunity to participate in this "Taste of NAB".

I am a twenty seven year veteran at Mississippi Public Broadcasting, the statewide television and radio network of the Great State of Mississippi, so I am no neophyte in awe of a master. I am rather a disciplined student in awe of a masters commitment to his profession.

Sincerely,
Eddie Bunkley
Project Technician
Mississippi Public Broadcasting

+++++

From: "Herb Jolly" hjolly@jam.rr.com

Just wanted to thank you for a really great presentation at the Chapter 125 SBE meeting on the 1st of the month. Thanks for the disks and would sure want to have you return to update all on technology advances since this meeting. Tell your sponsors their support is appreciated by all.

Herbert M. Jolly CPBE
Retired Director of Engineering
Miss. Educational Television

W5ORT Amateur Radio since 1948
Herbert M. Jolly
Retired - State of Mississippi MAETV
hjolly@jam.rr.com

+++++

From: "Larry Wilkins" larry.wilkins@cumulus.com
Subject: Montgomery meeting

The program you presented today was most information and well put together. I was most impressed with your knowledge of each piece of equipment that you presented. It is obvious that you enjoy what your are doing and put a lot of time putting it together.

Comments from others in attendance were the same....well presented and informative. All that I spoke with said they were glad they were in attendance.

Please put us down for a visit again next year.

Larry Wilkins CPBE CBNT
Cumulus Broadcasting
Montgomery AL 36104
larry.wilkins@cumulus.com

+++++

From: "Donald Hansen, Jr." hansend@fiu.edu >

I want to take this opportunity to personally thank you for bringing some of the gear you saw interesting at the NAB convention to FIU's Biscayne Bay Campus. I found your seminar entertaining and enlightening, and further explained the application of the equipment I saw at NAB. Items you brought in that were of particular interest to me for use in our student union building (Wolfe University Center) were the ESE sync clocks (our building doesn't have a master time anything), the LightningMaster lightning prevention products (I still have spikes on my roof with a 1.8m dish hanging in the breeze), and the InPhase media storage (a God send when the student union decides to add a video production unit). The Asaca/ShibaSoku and Cobalt Digital signal conversion products were interesting to the School of Journalism and Mass Communication, but I found them a little difficult to justify in a student center with mostly analog gear for the foreseeable future... I will DEFINITELY keep them in mind when we do a conversion to SDI or SDI HD, dependant upon standards at the moment of conversion. I also thank God that you brought a Sundance Digital event manager to the building. After years of pissing and moaning about how Louth would not trigger GPI events properly by missing feeds, screwing up trip tones, and failure to recognize decks, I am happy there is someone out there who makes something worthwhile "THAT WORKS!!!" I was mostly impressed with the real time timeline that moved as the media did... VERY IMPRESSIVE considering Louth will only show you an event log in the mode we were set up for where I used to work. In running events for four of Barry Diller's USA

Broadcasting stations, there wasn't a day gone by that Harris Automation didn't hose us on-air. We had the capability of running 16 full-powered UHF stations from a centralized hub in Ontario, California, but when Univision bought USAB out, they figured it was easier to have the problems with Louth spread out instead of under one roof (still can't figure that one out!?!?!).

Once again, thank you for your interest in our campus, and PLEASE come back again in the future,

Donald A. Hansen, Jr.
Assistant Director, Wolfe University Center
Executive in Charge of Production and Electronic Messaging
Florida International University - Biscayne Bay Campus
(305) 919-5294 [phone]
(305) 919-5638 [fax]

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From: "Jay Mathis" jay@mpi-itec.com
Cc: "John Theimer" jtheimer@ieee.org
Subject: SBE Miami

Thanks very much for bringing the "Taste of NAB" show to Miami. We met at Florida International University's School of Journalism and Mass Communications, and attracted some new students, and even newly graduated students, who are our replacements, but who did not have the opportunity to attend NAB. They were able to gain an insight on the newest technology which they might not otherwise ever hear about. This will certainly help them as they embark on their broadcast and production futures. You can not put a price on the value of that.

I hope you will consider coming to Miami again next year, and as SBE Pgm Chairman, I would like to take this opportunity to invite you to a Miami SBE Chapter 53 meeting that fits your itinerary in 2005. We will adjust our normal meeting date accordingly.

Thanks Again,
Jay Mathis, Pgm Chairman, CSTE
SBE-53, Miami/South FL
Admiral-OITP, W4SBE

+++++

From: "jim lotspeich" jlotspeich@entravision.com
Subject: El Paso, TX Road Show a great success

It has been awhile since you gave an outstanding show here in El Paso, Texas. We would have e-mailed you sooner but have been extremely "tied-up" with various "issues" with

our five radio stations here at Entravision Communications-Radio in El Paso. We would like to thank you and all the sponsors who gave us an opportunity to see first hand all the different types of equipment that is being introduced in broadcasting. Your show is a great asset to those of us who can not make the National N.A.B. in Vegas.

Keep up the good work!

Sincerely,

Jim Lotspeich
Chief Engineer
KBIV-AM;KHRO-FM;KINT-FM;KOFX-FM;KSVE-AM
Entravision Communications Radio
El Paso, TX
Chairman-Society of Broadcast Engineers
Chapter 38
El Paso, TX

+++++

From: "Rod Stumhofer" stumhofer@fiu.edu

Once again this year you brought an interesting show to our SBE chapter. All who attended have expressed a desire to see you again next year.

I enjoyed the entire evening with special consideration to In Phase's new storage medium, Sony's new storage medium, your Lighting Master stories, Leader's new measurement equipment, Quartz routing equipment is outstanding so I'm glad you included them, Cobalt Digital converters as well as Asaca/ShibaSoku's converters as I will be needing them shortly. ESE is the true house clock supplier and Riedel intercom systems are good, at one time or another we have all used Lacan transmitters successfully, ERI equipment for antennas and towers are the work horse of the industry worldwide I have used them for special fabrication many times successfully.

I thank Clark, Fluke, Sennheiser, Sencore, Sundance, Lighting Master, ASACA, Cobalt, SMPTE, ERI, ESE, AJA, Harris, ADS for supporting you with their Door Prizes.

I wish we could have had a deeper explanation of High Definition measurement and in speaking to George Gonos, he is willing to come back and give us a entire evening of just that.

Thanks again,

Rod Stumhofer
Director Of Technical Operations
Florida International University
School Of Journalism and Mass Communications

ACII Room 335 Biscayne Bay Campus
Miami, Florida 33181

+++++

From: "John L. Theimer" jtheimer@ieee.org

Just wanted you to know how much we at Chapter 53 enjoyed your presentation last night. As has happened in the past 2 years, your show is one of our best attended meetings all year. Keep up the great work. Let your sponsors know that we enjoy seeing and hearing about the new technology they are developing.

Thanks again,

John L. Theimer
Chairman, SBE Chapter 53
Miami, Florida.

+++++

From: Michael Millard mmillard@towerswitch.com
Cc: gminker@gate.net

I just wanted to say "Thanks" for the presentation last night. It was a pleasure to meet you.

I've attached an additional "Thank you" in the form of a puzzle. It's an executable file, so be sure to turn off your virus protection program before downloading it. (It's perfectly safe to download and run.)

It's a cute little way to promote The Road Show and the OITP.

Once the puzzle is completed, a little promo message appears giving the info that is printed on your business card. Also, clicking the banner at the top of the page will direct users to the www.Tech-Notes.TV website. For sentimental reasons, I left it in monochrome format 4:3 525 Interlaced.

(And some people say I have too much time on my hands...!)

It's only about 340 kilobytes, so you can even email it to friends and colleagues if you like, or put it on the web.

Although not a member of the OITP (and heaven knows I qualify!), I wanted to show my support for this wonderful organization.

So as a (Rank = "Viewer" or "Listener"?) I hereby donate this work of art to the Order for use as it deems appropriate.

Again, I really enjoyed the show. Hope to see you again next year!

Regards,
Michael Millard
Member IEEE BTS, AFCCE

Managing Partner
Towerswitch, LLC

Note: the puzzle will be posted soon
+++++

From: Todd R. Starks TStarks@pcomsys.com

This is just a quick line to tell you how much I enjoyed the Road Show on its most recent outing to Tampa. The information was timely, effective and persuasive. As I interface with primarily engineers through my sales efforts, it was nice to hear what is favored by a fellow engineer. You displayed the lines of equipment, (some familiar, some not) with humor and incite. Please do not stop doing the Road Show! One piece of advice: recruit someone like your son or grandson, to whom you can safely pass the torch!

PS - Great turnout, considering being less than 1 mile, the night of game 7, from the Stanley Cup winning Tampa Bay Lightning!

Thanks again and best regards.
Todd R. Starks

Media General Sales
<http://www.pcomsys.com/>

+++++

From: "Heuton, Jeffrey" Jeffry.Heuton@turner.com
Cc: "Magliocco, William" William.Magliocco@turner.com

Thank you for the Taste of NAB presentation at GPTV in Atlanta on June 16. I must say you did a fantastic job representing the various manufactures, even though most of the equipment was not powered. That is a tough task to carry off, and you did it well. The venders that you represented should be proud to have the excellent technical representation that you delivered. Normally the sales people do not provide the as good of a technical explanation. You delivered new information to me, and kept my interest with every vender you represented. You seem to be a good mentor for the engineering industry. It was a pleasure to have met you. I hope we will see you again.

Thank you,

Jeff Heuton
Turner Broadcasting
Atlanta GA 30318

+++++

From: "George Schank" gschank@ksbj.org

Please pardon me for being so remiss in not thanking you for bringing the Road Show to Houston... This is my third one to attend; and they are always very educational events... Also, please extend thanks to all of your great sponsors... Keep up the good work...

George Schank
KSBJ-FM
Houston, TX

+++++

From: Scott Trask strask@star94.com

I just wanted to say thanks for stopping in Atlanta with your Road Show, A Taste of NAB.

I thought the meeting went very well and that I was able pick up some new ideas, regarding the equipment you demonstrated.

I hope you have a chance to stop by again next year.

Thanks

Scott Trask
WSTR-FM
Asst. Chief Engineer

+++++

That's it for now and we're not even half way done.

News

Sony Demos Prototype SRX-R105/R110 4K Large Venue Projector at the ETC Lab

By: Jim Mendrala

Sony Corporation demoed their all new 4K SXRD LCos digital cinema projector to the press and members of the movie and television industry on June 3rd.



The new 4K SXRD, or Silicon X-tal (crystal) Reflective Display devices achieves a high contrast of 2000:1, supposedly tailor-made for the rigors of commercial-grade digital cinema projectors. Its resolution of 8.85 megapixels (4096H X 2160V) is greater than four Full HD images put together. HDTV, as you know has a 2 megapixel or 1920 x 1080 resolution.

This demo comes one-year after Sony's successful development of the Full HD display, which is currently featured for home use on the QUALIA 004-R1 high-resolution front projector. The new 4K SXRD device achieves four times the resolution of the original 2K SXRD display, which generates high-quality images with deep blacks and sharp crisp clarity.

Sony uses the SXRD device for each of the basic "RGB (red, green, blue)" colors, which constructs image to create pictures with 26,550,000 pixels.

According to Andrew Stucker, Sony intends to introduce this high resolution liquid crystal display device to the rapidly growing digital cinema market in January, and will attempt to commercialize this for use in cinemas and other big screens venues in the fiscal year 2005.

In addition to extending the use of 4K SXRD, Sony will actively develop 2K SXRD device for use in home rear projection TVs so that consumers can enjoy the same high-quality, big screen experience at home.

Key Features: High resolution: 8.85 mega pixels (4K - 4096H X 2160V). Sony says they were able to achieve this high-resolution by optimizing the driving circuit in each pixel. The total pixel area was reduced by 10 percent by reducing the size of each pixel from 9 μ m to 8.5 μ m, while maintaining the inter-pixel spacing of 0.35 μ m. As such, 8.85 mega pixels were integrated into the area of measuring 1.55 inches diagonally across. Furthermore, Sony has radically designed the Driving Circuit Technology and write signal technology, which enables the creation of smooth images by driving the 8,850,000 pixels accurately onto a silicon circuit. These advances facilitated a high-grade, high-resolution picture with quality previously unseen on fixed-pixel projection devices.

Brightness: four times the original: The brightness of projectors is directly proportional to the size of a panel when the luminance of the lamp is the same. The newly developed 1.55 inch panel (increased from 0.78 inch) directly aids in widening the illumination area by four times. Additionally, this succeeded in increasing the reflection rate from 65% to 72%.

High contrast 4000 to 1: By adopting vertically aligned liquid crystals material, thin liquid crystal cell gaps and inorganic alignment layer to the liquid crystal cell, SXRD achieves its high contrast. Furthermore, by optimizing the alignment layer fabrication process, it ensures the original alignment layer durability and achieves the contrast ratio of 4000 : 1.

Sony assembles the entire 8 inch wafers and glass substrate at once and splits it into pieces to produce the LCos panel afterwards. In addition, Sony developed and adopted the relatively large size 1.55 inch LCos panel. With its relatively large size SXRD projector device, Sony is still able to create the narrow space between pixels, less than 3.5 μ m, on the panel image area.

All of the people I talked to were impressed with the demo. Partly by the picture, but more so by the fact that Sony was prepared to show a prototype not yet ready for commercialization. In a Q & A after the demo, Andrew Stucker, and some of the design engineers discussed some of the projectors problems and shortcomings. The resolution was very impressive. There are several problems areas that still need to be fixed; contrast, brightness, color and the sheer scale of data pumped into the projector in order to create the 4K image.

The projector is being shown at InfoComm and by October they say that they will have most of the problems fixed. Sony is therefore promising two models for small to medium sized venues up to 30-40 feet, that are "competitively priced" by January, 2005. MSRP prices of around \$60K and \$80K with Lens were suggested.

The SRX-R110 uses a 2KW lamp and is rated at 10,000 ANSI lumens and the SRX-R105 uses a 1KW lamp and is rated at 5,000 ANSI lumens. Each Projector has two lamps, one for backup.

Preliminary Specifications: of the SXRD (Silicon X-tal Reflective Display) Display Device

- Size 1.55" Diagonal
- Resolution 4096(H) X 2160(V) Pixels
- Reflectivity 72%
- Contrast (as device) Over 4000 : 1
- Pixel Pitch 8.5 μ m
- Width (between pixels) 0.35 μ m
- Response Speed 5msec (tr + tf)

The white point of the projector is close to illuminant D6500 and is $x=0.3140$, $y=0.3510$ and is being called the Xenon White Reference.

The primaries are:

Red	x=0.6800	y=0.3200
Green	x=0.2650	y=0.6900
Blue	x=0.1400	y=0.0700

My first impression of the prototype was that it lacked brightness, the images were too contrasty, and the colors were too saturated. Even though some of the 4K STeM (Standard Test Evaluation Material) was used the images didn't look anything like the STeM film print I had seen in prior tests. They say they can fix these discrepancies in about 3 to 4 months. The resolution, however, was looking better than a typical 35mm film print. In the resolution area the STeM falls short of its goal because the cinematographers used shallow depth of field and there was a lot of camera and object motion in the STeM film. The 4K STeM material was not compressed for this demo. Other images taken with a digital still camera looked great but movies are not stills.

Sony has promised a second showing of the refined prototype in October at the ETC Lab. They think they will have most of the problems worked out by then. So it looks like the JVC/Kodak D-ILA projectors might now have some serious competition.

I know it is hard to make a 4K chip. But will Texas Instruments, the leader in digital cinema try? Hard to say at this time but for those sitting less than 2 screen heights from the screen, not one person I talked to could actually see individual pixels. A few people during the screening walked up to the screen to see how small the pixels really were.



DIGITAL CINEMA SUMMIT
NAB – SUNDAY APRIL 25, 2004

By John Silva

As a member of the SMPTE Digital Cinema DC28 Technology Committee and the SMPTE DC28.10 Mastering, DC28.20 Distribution, and DC28.30 Exhibition Digital Cinema standards committees, I took the opportunity to attend the all-day Digital Cinema Summit given at NAB 2004 in Las Vegas on Sunday, April 25, 2004. Of particular interest were the viewpoints expressed by members of the film industry who are active in the production of feature films, and who have been involved with the digital post production process. In so doing, I found it to be very informative and intensely interesting throughout.



The Summit was well organized and officiated by Charles S. Swartz, Executive Director/CEO, Entertainment Technology Center at USC. Charles also serves as governor of the Hollywood Region for the Society of Motion Picture Television Engineers (SMPTE) and co-chair of the SMPTE/Hollywood education committee.

I thought he made excellent choices of individual session program content and in the selection of moderators and panelists, all of which have extensive credentials, and others that have been actively engaged in the new feature digital post production workflow that is now becoming an integral part of both digital intermediate and digital cinema processes.

He welcomed the summit audience and provided introductory remarks for the summit program that followed. He also monitored the timing of each presentation, and advised the participants when it was time to conclude each session. As a result the entire program proceeded on schedule.

The presentations were further enhanced with large left and right-positioned viewing screens with associated PA sound. Production elements for all presentations were integrated without a hitch.

The total digital cinema summit consisted of nine separate presentations, each with a moderator and panel of well qualified experts.

In total, the many creative and production issues that digital technology presents to feature digital post production were both enumerated and discussed.

Also, the new and next generation digital tools that together will serve to create digital cinema features, e.g. cameras, color tools, scanners, editing systems, visual effects software, digital mastering processes, and film recorders, were discussed. The new and fresh opportunities and challenges that these new tools offer filmmakers were also pointed out and discussed.

The following is a list of these interesting presentations as they occurred at the Sunday Digital Cinema Summit:

1. **What Do Cinematographers Need?**

Moderator: Steven Poster, ASC (STUART LITTLE 2, DONNIE DARKO, TESTAMENT)

Panelists: Allen Daviau, ASC (VAN HELSING, BUGSY, EMPIRE OF THE SUN, E.T. THE

EXTRA TERRESTRIAL)

Michael Goi, ASC (JUDAS, CALL WAITING, WHO KILLED ATLANTA'S CHILDREN

Daryn Okada, ASC (DR. DOLITTLE 2, TEXAS RANGERS, LAKE PLACID)

Gil Hubbs, ASC (MY BIG FAT GREEK WIFE, BETTE, MURPHY BROWN)

Karl Walter Lindenlaub, ASC (MAID IN MANHATTAN, THE PRINCE DIARIES,

THE HAUNTING)

The audience was reminded that technology exists to serve creative needs, and that cinematographers use subtleties in colors, darkness and light and textures to set moods and evoke emotional responses from audiences.

The panelists discussed the capabilities they need and want in digital tools to assure the integrity of the visual nuances in the images they create. They also declared the requirement that they obtain the same predictability and accuracy from digital tools as they do from film.

2. The New Generation of Digital Cameras

Moderator: David Stump, ASC (effects Director of Photography: X2, THE ONE, X-MEN)

Panelists: Jeff Kreines, Founder and inventor of Kinetta
Mark Chiolis, Senior Marketing Manager for Thomson Grass Valley
Steven A. Stough, Technical Director & Chief Engineer for Intelligence Systems Org.
Michael Kippetz, Senior Engineer, Research and Development for Arriflex
John Coghill, General Manager, Digital Cinema for Dalsa Digital Cinema
Alfred Piffel, Co-Founder of P+S Technik
Yasu Mikami, Marketing Manager, Movie and TV Production for Sony Electronics, Inc.
Michael A. Bergeron, System Camera Engineer for Panasonic Broadcast

The panelists individually listed today's digital cameras, described some new models set for release, and prophesized as to where camera technology is headed.

3. Establishing the Look

Moderator: Leon Silverman, Executive Vice President, Laser Pacific

Panelists: Josh Pines, Vice President of Imaging Research & Development for Technicolor

Digital Intermediates

Bill Feightner, Executive VP, Technology for eFilm
Daryn Okada, ASC (DR. DOLITTLE 2, TEXAS RANGERS, LAKE PLACID)
David Stroud, Product Manager for Filmlight
Peter Postma, Systems Engineer for Kodak
Karl Walter Lindenlaub, ASC (MAID IN MANHATTEN, THE PRINCESS DIARIES,

THE HAUNTING)

The panelists discussed where the “look” is created on the set and/or in post, how it is communicated through the pipeline, how digital post provides new creative flexibility, and what the impact is with increasing use of DVD and HD dailies.

4. **Case Study 1 – Van Helsing**

Speakers: Bob Ducsay, Producer/Editor (Executive Producer: THE MUMMY RETURNS)

(Editor: CATCH ME IF YOU CAN)

Allen Daviau, ASC, Director of Photography (BUGSY, EMPIRE OF THE SUN, E.T.

THE EXTRA
TERRESTRIAL)

Steve Scott, Digital Intermediate Colorist (ANGELS IN AMERICA, THE LADYKILLERS,

AMERICAN SPLENDOR)

Using still pictures from the movie, the speakers described how digital tools were used to selectively enhance objects within individual mediocre-appearing pictures to achieve dramatic results. This was one of the summit highlights.

5 **Afternoon Keynote: The New Workflow**

Phil Feiner, President of Pacific Title & Art Studio described the new workflow as a hybrid process, accommodating both film and digital. He also related how the new production roadmap will look like, how the new digital tools will change workflow on the set and in post, and which jobs will disappear and what will replace them.

6. **The Role of the Cutting Room in the Digital Post Production Process**

Moderator: Sheigh Crabtree, features editor/technology reporter, The Hollywood Reporter

Panelists: Anton Linecker, Technical Operations Supervisor for Technicolor Creative Services

Bruce Marcoe, Executive Vice President, Feature Post Production for MGM Pictures

Norman Hollyn, Visiting Associate Professor, Editing Track Head at USC School of

Cinema /Television

Brian McKernan, Editor/Associate Publisher at Digital Cinema Magazine

The panel discussed how the cutting rooms are changing now that creative editorial, HD previews and conforms and digital film cutting are all happening at the same time. The panel also discussed how the new desktop tools such as Avid and Final Cut Pro, and editing at higher resolutions, impact the process. Panelists also discussed the reasons why editors are increasingly using visual effects software as a cutting tool.

7. Case Study 2: Digital Restoration of Classic Films

Presenters: Rob Hummel, Senior Vice President of Production Technologies at Warner Bros. Studios
Jan Yarbrough, Technical Director of Warner Bros. Video Operations

Presenters described and showed clips on the big screens of color-restored “The Wizard of Oz” and “The Adventures of Robin Hood.

8. Digital Mastering for Film & Digital Cinema Release

Moderator: Debra Kaufman, West Coast Editor, Film & Video Magazine; frequent contributor,

The Hollywood Reporter

Panelists: Stephen Nakamura, Senior Film Colorist for Technicolor Digital Intermediates

Steve Scott, Digital Intermediate Colorist on ANGELS IN AMERICA, THE LADYKILLERS,
AMERICAN SPLENDOR

Dave Bancroft, Manager of Advanced Technology for Thomson Broadcast and

Media Solutions

Rob Hummel, Senior Vice President of Production Technologies at Warner Bros. Studios

Lou Levinson, Colorist for Post Logic Studios in Los Angeles.

It was noted that once filmmakers discover the creative possibilities that digital mastering can provide, they rarely return to the traditional photochemical color timing. It was also mentioned that now, commercials and music video filmmakers who move into features, are demanding the capabilities to which they are accustomed to in the total film process.

The panelists discussed whether digital master would eventually become the norm, and what issues need to be solved, such as cost, speed, and technology, in order to make this possible.

9. Digital Archiving

Moderator: Milt Shefter, President; AMIA (Association of Moving Image Archivists)

Panelists: Laurin Herr, President of Pacific Interface

Patty Gray, VP of Product Development at eTrepid
Grover Crisp, Vice President of Asset Management and Film Preservation
at
Sony Pictures Entertainment

The point was made, that as the frequency of digital filmmaking increases, the issue of how and what to archive can no longer be ignored. On this note, the panelists discussed the issue that the data from a digital camera or digitally scanned film camera (the signal equivalent of the original camera origination) must be archived with absolute assurance that it can be retrieved and read decades from now. It was noted that the same concern exists for all elements in the pipeline used to create the final digital master.

Some resulting thoughts:

Needless to say, listening to the cinematographers and other film and digital oriented experts that are now working in the feature digital post production workflow provided considerable knowledge and insight to the audience.

Up until not too many years ago, the two camps of TV broadcast and motion picture film production chose to ignore each other, each acknowledging that the other was to be tolerated, but not to be respected.

TV-oriented people felt like who needs anything else but breaking news, sporting events, talk shows and syndicated shows recorded on videotape.

And film-oriented people concluded that the mediocre picture quality produced by television would never serve the higher quality theater markets all over the world.

Then came HDTV and digital technology, which ultimately provided TV-generated picture quality far in excess of what audiences were used to when NTSC was the TV standard.

In the years thereafter, digital technology became more and more the backbone of post production workflow, first for TV production, and then for the creation of special effects used within feature films. Time proved that digitally performed special effects for film were not only considerably less expensive but could be accomplished in far less time and with equal or improved picture quality, which again, was also an important money matter.

As the years progressed, digital cinema (electronic movies) became a viable concept, and with it, a promising future business model. Now digital projectors will replace formally used film projectors in digital cinema theaters. Feature program content will originate from both film and digital cameras, and captured digital image data signals for both will be processed through a digital pipeline prior to reaching intended theaters. Standards for

this new technology that will support the new digital cinema business model(s) are now being written.

In the meantime, the digital post production workflow, through significant technology advancements, has made giant steps forward in providing improvements in digital data signal processing, color-correction/enhancement, and working data storage network devices, which together have resulted in the elimination of multitudes of none-real-time signal processing bottlenecks as well as providing vast improvements in resultant perceived picture quality as viewed by audiences in theaters.

As a result, motion picture feature film producers have required that their cinematographers follow the new digital workflow, all the way through so as to ensure that the story-telling can be extended and/or enhanced by the use of digital color processing to produce subtleties in colors and shades of gray from dark to light, as well as textures, all of which develop moods and emotional responses in audiences.

Now meaningful dialogs are beginning to take place between film and television camps. The digital cinema summit was living proof of this.

For a complete written program run-down produced by Charles Swartz, including the individual session moderators and panelists – along with their titles and associated film credits, and the main points to be discussed, please see the accompanying document titled: [NAB DIGITAL CINEMA SUMMIT 2004 – SUNDAY PROGRAM](#)

Please note: In this edition only, the URLs in the DTV News below must be copied into your web browser. They are not automatic. Sorry

DTV News
From: Lee Wood

As of 6-18-2004, we gave 926 Days until the Scheduled End of Analog Television Broadcasting

HDTV Roundtable Dealerscope recently asked three industry executives questions about the HDTV. (Dealerscope) <http://www.dealerscope.com/doc/280767451395497.bsp>

CEA Reports April DTV Sales Up 76% Arlington, Va. - April factory sales of digital television sets and monitors grew 76 percent in unit volume and 48 percent in wholesale dollars, according to statistics released by the Consumer Electronics Association (CEA). (This Week in Consumer Electronics)

<http://www.twice.com/article/CA427256?display=Breaking+News>

Sony, Matsushita, Hitachi to expand flat-panel-TV ops abroad – report (Forbes) http://www.forbes.com/technology/feeds/infoimaging/2004/06/17/infoimagingafx_2004_06_17_AEF_0007-5474-

PRD.JPN.TWN.CSM.CMP.TLE.ENG.html?partner=yahoo&referrer

HDNet to carry MuchMusic Awards HDNet Presents Live 2004 Muchmusic Video Awards June 20 HDNet Is Exclusive U.S. Broadcast Partner Of Canada's Acclaimed Music Awards Program (TV Barn) <http://www.tvbarn.com/ticker/archives/021620.html>

HDNet to Air 'MuchMusic Video Awards' [Paid Subscription Required] Canada's "15th Annual MuchMusic Video Awards" are coming south on HDNet. (Multichannel News) <http://www.multichannel.com/article/CA427464?display=Breaking+News>

Band Pro Intros High Speed, High Definition Camera System Band Pro Film & Digital recently introduced Cine SpeedCam, the first native, true HD high-speed camera system (Videography) http://www.uemedia.net/CPC/videography/article_8725.shtml

Fox Picks Leitch's NEO LogoMotion II HD Branding Systems Comprehensive content branding solution for SD and HD (Broadcast Newsroom / HDTV Buyer) <http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=26220>
<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=26220>

Gepco Intros Ultra-Flexible VHD2000M HD Video Coax New HD coax cable for patch cord and portable video patching (Broadcast Newsroom / HDTV Buyer) <http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=26239>
<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=26239>

BBC under fire over digital channels [UK] Not distinctive enough, says SCBG (Digital TV Group) http://www.dtg.org.uk/news/uknews/-bbc_scbg.htm

Guardian knocks Freeview 4m claim [UK] Only 2.9m actually receive service, says report (Digital TV Group) http://www.dtg.org.uk/news/uknews/-bbc_guardian.htm

Four million homes have Freeview [UK] More than four million homes in the UK now have access to the free-to-air digital service Freeview, according to new figures. (BBC News) <http://news.bbc.co.uk/2/hi/entertainment/3815971.stm>

TPS to broadcast Star in high definition [France] French DTH operator 'ready for 2005 launch' (Digital TV Group) http://www.dtg.org.uk/news/world/-tpsstar_hd.htm

Digital TV makers focus on China [Taiwan and China] (Taiwan Globe) <http://www.taiwanglobe.com/p/9e/116928205438d6.html?id=WNAT8608575b8878982b10f89e81dd896cbe>

FCC Grants DTV Construction Deadlines for 29 Stations, Admonishes Two Others (TV Technology) <http://www.tvtechnology.com/dlrf/one.php?id=469>

Forbes Article Says 2010 Analog TV Switch Off Unlikely (TV Technology) <http://www.tvtechnology.com/dlrf/one.php?id=470>

Broadcasters Ask FCC to Allow Distributed Digital Transmission Systems (TV

Technology) <http://www.tvtechnology.com/dlrf/one.php?id=467>

ESPN HD to Keynote HDTV Forum 2004 DisplaySearch and Insight Media Bring Together TV Industry Leaders to Discuss the Transition to HD (Business Wire / TMCnet)

http://home.businesswire.com/portal/site/altavista/index.jsp?ndmViewId=news_view
<http://www.tmcnet.com/usubmit/2004/Jun/1048939.htm>

Voom Adds HD Channel to Satellite Service Voom added its 21st high-definition channel to its satellite service lineup Tuesday. The new offering is Equator HD, a channel that will provide pictures and stories from exotic and unique locations, a sort of travelogue eye candy for HD. (TelevisionWeek)

<http://www.tvweek.com/news/web061504.html#voom>

Tivo and HDTV are together at last., but at a big price (Orange County, CA Register via Ft. Lauderdale, FL Sun-Sentinel)

http://www.sun-sentinel.com/business/local/sfl-zvideo16jun16.0,1804191_story?coll=sfla-business-headlines

AQUOS 20" LCD TV Takes PC, TV Sources Mahwah, N.J. - Sharp introduced a new 20-inch AQUOS LCD television that will accept both video and PC signals to its line of more than 40 different AQUOS LCD TV models. (This Week in Consumer Electronics)

<http://www.twice.com/article/CA426686?display=Breaking+News>

Fifth Generation ATSC DTV Tuners Receive Praise from Sinclair (TV Technology)

<http://www.tvtechnology.com/dlrf/one.php?id=468>

WG&R Furniture Shoots Commercials with Panasonic's AJ- HDC27 VariCam WG&R Furniture Company (Green Bay, WI), the largest, fastest-growing furniture retailer in northeast Wisconsin, has made a major investment in Panasonic's AJ-HDC27 VariCam HD Cinema camera and other HD equipment to shoot its local commercials in high definition. (Videography) http://www.uemedia.net/CPC/videography/article_8679.shtml

Mammoth HD Launches Stock Footage Site (Digital Television)

http://digitaltelevision.com/articles/article_659.shtml

Troika Design Creates HD Graphics for ESPN's Sportscenter (HDTV Buyer)

<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=26170>

Thomson Reaffirms High Definition Leadership Will Provide HDTV OB Vans to HBS, Host Broadcaster of 2006 FIFA World Cup Germany (Business Wire / TMCnet)

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view
<http://www.tmcnet.com/usubmit/2004/Jun/1049057.htm>

AZCAR upgrades Turner facilities (Broadcast Engineering)

<http://broadcastengineering.com/news/highlights/azcar-turner-upgrade/>

Samsung Electronics Selects Tektronix' VM5000 for Measuring HD/SD Video Signals (PR Newswire via Silicon Valley BizInk / Stockwatch)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=SVBIZINK3.story>

http://new.stockwatch.com/swnet/newsit/newsit_newsit.aspx?bid=U-pSFW001-U:TEK-20040616

ERG Ventures Unveils HDM-EV35D HDTV Monitor ERG honored with awards at NAB Convention (Broadcast Newsroom)

<http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=26185>

ERG Ventures Unveils HDM-EV35D ERG Ventures Co., Ltd. has introduced the HDM-EV35D 6" monitor. The six-inch LCD monitor for HDTV or SDTV is similar to the HDM-EV30D, its predecessor, except its analog components have been removed. (Videography) http://www.uemedia.net/CPC/videography/article_8692.shtml

Digital TV chips scoop Mediacast award Toshiba's latest SoC for consumer electronics equipment has been named Best Silicon Innovation at the Mediacast Product of the Year Awards. (Electronicstalk) <http://www.electronicstalk.com/news/tos/tos235.html>

Advanced Digital Broadcast introduces its first MHP LCD TV at BroadcastAsia2004 [DVB] (DigiTimes)

<http://www.digitimes.com/NewsShow/Article.asp?datePublish=2004/06/16>

Mgt in 'Freesat' talks with BSkyB [UK] Tech group could provide smartcards (Digital TV Group) http://www.dtg.org.uk/news/uknews/-mgt_sky_cards.htm

French broadcasters unite to push DTT [France] Free channel line-up to launch next March (Digital TV Group) http://www.dtg.org.uk/news/world/-french_dtt_unite.htm

High Definition TV the next digital revolution to hit Singapore [Singapore] (Channel NewsAsia) <http://www.channelnewsasia.com/stories/technologynews/view/90283/1/.html>

PanAmSat Satellite/Fiber Network Showcases HD Delivery for International Customer [Japan] Japan's NHK Uses Unique Hybrid Solution to Transmit Live Sports and Breaking News in HD (PR Newswire / Stockwatch) <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104> <http://www.stockhouse.com/news/news.asp?tick=SPOT>

For Fox HD, Variety Is the Spice of Life High-Tech Strategy Will Give Affils Choice of Six NFL Games Each Week (TelevisionWeek)

<http://www.tvweek.com/technology/061404foxhd.html>

DISH Network Passes 10 Million Customer Milestone DISH Network Thanks Customers, Retailers by Giving Away 1,000 Complete High Definition Television Systems (Business Wire / TMCnet.com)

http://home.businesswire.com/portal/site/altavista/index.jsp?ndmViewId=news_view

Consumer guide to new TVs (Denver, CO Post)

<http://www.denverpost.com/Stories/0,1413,36~78~2205396,00.html>

TV of the future attracts fans today (Skieston, MO Standard Democrat)

<http://news.mywebpal.com/partners/865/public/news553900.html>

SharpVision XV-Z12000 DLP projector (Ultimate AV)

<http://www.guidetohometheater.com/videoprojectors/504sharp/>

Sharp Introduces Four New AQUOS Models (Japan Corporate News Network)

http://www.japancorp.net/Article.Asp?Art_ID=7557

Sharp rolls out 45-inch LCD TV, targets PDP market (Reuters)

http://www.reuters.com/financeQuoteCompanyNewsArticle.jhtml?duid=MTFH44545_2004-06-14_09-33-40_T212084_NEWSML&ric=JP

Sharp to launch world's largest LCD TV for digital broadcasts Sharp Corp. said Monday it will begin sales of what it claims is the world's largest liquid crystal display television set capable of receiving digital TV broadcasts on Aug. 1 in Japan.

(Troy Record)

http://www.troyrecord.com/site/news.cfm?newsid=11944415&BRD=1170&PAG=740&dept_id=226964&rfi=6

Terayon Demonstrates Triple-Play Solutions at SCTE Cable-Tec Expo FLEXable Data, Video and Voice Offerings Maximize and Extend Cable Network Services (PRNewswire via Silicon Valley BizInk)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=SVBIZINK3.story&STORY=/www/story/06-14-2004/0002192335&EDATE=MON+Jun+14+2004,+08:03+AM>

Via Licensing Calls for Essential Patents for Digital Video Broadcasting Multimedia Home Platform, GEM, Associated DVB Specifications, and CableLabs OpenCable Applications Platform Call for Essential Patents Will Lead to Formation of Joint Licensing of Patents to Enable Products and Services Implementing the Standard's Specifications (Business Wire)

http://home.businesswire.com/portal/site/altavista/index.jsp?ndmViewId=news_view&newsId=20040610005744&newsLang=en

James Murdoch's generosity comes with a secret price tag [UK] While the BBC and its allies dither, the market leader BSkyB is seizing the initiative and launching a loss-leader. (Independent) <http://news.independent.co.uk/uk/media/story.jsp?story=530869>

Analysts positive on 'Freesat' move [UK] Freeview set for lower share of 'analogue rump' (Digital TV Group) http://www.dtg.org.uk/news/uknews/-freesat_analysts.htm

SRH Launches UK-Wide Country Music Radio Channel [UK] Scottish Radio Holdings plc (SRH) will launch a UK national radio channel on the digital TV Freeview platform.

(PRNewswire) <http://www.prnewswire.co.uk/cgi/news/release?id=124841>

Finland '94% digital by autumn' [Finland] Twelve more transmitters due on in months (Digital TV Group) http://www.dtg.org.uk/news/world/-finland_94percent.htm

ASEAN representatives discuss universal digital TV receivers [Singapore] (Channel NewsAsia)

<http://www.channelnewsasia.com/stories/singaporelocalnews/view/89911/1/.html>

Ensuring DTV Is Free TV [Paid Subscription Required] Washington- Senate Commerce Committee Chairman John McCain (R-Ariz) said last Wednesday that a federal plan to end the digital-TV transition should not abandon consumers that don't subscribe to cable or satellite. A Federal Communications Commission staff plan would likely end the transition on Jan....

(Multichannel News)

<http://www.multichannel.com/article/CA425992?verticalid=316>

Senate DTV Hearing: More of the Same (TV Technology)

<http://www.tvtechnology.com/dailynews/one.php?id=2056>

Good To Go [Paid Subscription Required] In a radical departure, the Sinclair Broadcast Group is publicly singing the praises of the U.S. DTV transmission standard. The broadcaster has been testing Zenith's fifth-generation receiver chipset. The good news? The chip was able to receive DTV signals in areas it previously could not. "We have always believed that if you don't have indoor reception, you don't have an over-the-air service,"(Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA425973?verticalid=311>

HD Olympic Holdouts [Paid Subscription Required] While cable operators in major markets will be able to offer subscribers the Summer Olympics in high-definition this August, dozens of cable systems that haven't reached deals to carry the HDTV signal of their local NBC affiliate won't be able to market the Olympics in HD. Last week, NBC took the wraps off a 1,210-hour Olympics programming schedule....

(Multichannel News)

<http://www.multichannel.com/article/CA426130?verticalid=316>

Cable Operators; Still No Space 85 Billion Dollars Later [Paid Subscription Required] After spending \$85 billion rebuilding systems to deliver the vaunted "500-channel" universe, the largest cable companies in the U.S. confront an improbable dilemma: Systems are running out of space. In addition to high-speed Internet services, movies-on-demand, and new digital networks, cable operators are squeezing in the biggest bandwidth hog: HDTV channels.... (Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA426141?verticalid=311>

Cable Gets Switched On [Paid Subscription Required] The cable industry has spent the past several years promising Wall Street that operators' massive \$80 billion rebuild is its

last major capital spending effort. But in the face of bandwidth-hogging services such as HDTV, cable faces a capacity crunch that can't be remedied through significant new outlays.... (Multichannel News)

<http://www.multichannel.com/article/CA425998?verticalid=316>

18 Days to CableCARD: How Many? [Paid Subscription Required]
In 18 days - on the Thursday fronting the long weekend that is July 4 - cable providers face a deadline: Their larders must be stocked with enough removable security cards to satisfy all customers who request them. And after a thorny year of preparation, a final and pressing question remains.... (Multichannel News)

<http://www.multichannel.com/article/CA425984?verticalid=316&industry=Broadband+Week&industryid=1071>

Eyeing a new TV? New digital choices can be intimidating (Forbes Infoimaging)

<http://www.forbes.com/infoimaging/feeds/infoimaging/2004/06/11/infoimaging01086966754904-20040611-050100.html>

Editors' Top Televisions - Direct-view HDTV Sure, these direct-view sets all have flat tubes and oodles of high-tech processing, but underneath they use the same technology as the first TVs did 60-odd years ago. From 27-inch budget sets under \$700 to 34-inch wide-screen beauties to Sony's 40-inch monster, whether wide-screen or shaped like a standard TV set, all of them can bring glorious high-definition pictures into your living room. (CNET Networks via ZD Net) http://reviews-zdnet.com.com/4521-6531_16-5021476-1.html?tag=subnav

Editors' Top Televisions - Rear-projection HDTV When you want to go big, nothing beats a rear-projector. These giant boxes provide the most screen real estate for your buck, and some offer cutting-edge technology such as LCD engines. All are wide-screen, for that great cinematic picture, and our list includes slim 42-inch sets all the way up to 65-inch behemoths. HDTV was made for big screens, and a rear-projector is a great way to enjoy it. (CNET Networks via ZD Net) http://reviews-zdnet.com.com/4521-6531_16-5021476-2.html?tag=ft

Editors' Top Televisions - Plasma TV Your wife (or significant other) doesn't want to fill the living room with a boxy rear-projector, yet you still want a big picture. Welcome to the perfect compromise: an inches-thick flat plasma display. These panels can handle all your video needs, including HDTV, although many so-called EDTV versions don't have enough pixels to do high-def content justice. Then again, EDTV plasmas cost less than higher-resolution models, and most people don't watch much HDTV anyway. Sure, plasmas are pretty dang expensive regardless of how many pixels they have, but can you really put a price on domestic bliss? (CNET Networks via ZD Net)

http://reviews-zdnet.com.com/4521-6531_16-5021476-3.html?tag=subnav

Editors' Top Televisions - LCD flat panels Svelte and sexy LCD (liquid crystal display) flat panels have been replacing bulky PC monitor tubes for the past several years. It was only a matter of time before those 15- and 17-inch LCD monitors grew up into bigger flat-panel TVs. LCDs aren't a threat to bigger plasma screens yet, but they are a great

option for design-conscious TV shoppers with more extra money than extra space. (CNET Networks via ZD Net)

http://reviews-zdnet.com.com/4521-6531_16-5021476-4.html?tag=subnav

CNET Doesn't Get It [Phillip Swann] The nation's premiere site on technology doesn't have a clue about television. (TVPredictions.com)

<http://www.tvpredictions.com/cnet061104.html>

Panasonic Unveils New Projectors At INFOCOMM, Panasonic announced pricing and availability of the PT- D5500U and PT-D5500UL, one-chip mid-to-large venue DLP projectors. Panasonic also introduced the widescreen PT-DW7000U and high- resolution PT-D7700 3-chip large venue DLP projectors. In addition, Panasonic has introduced the PT-L785 portable, high-brightness XGA LCD projector. (Videography)

http://www.uemedia.net/CPC/videography/article_8652.shtml

Fights! Laughs! Bikinis! Television Pilot Launches on Cuban's HDNet Mark Cuban's All High Def Cable Network, HDNet, Will Air Irreverent Sports Comedy, 'Rumbles,' on June 19th (Kensei News & Information Services)

http://www.kensei-news.com/cetc/publish/broadcast/article_19138.shtml

HDNet airs original comedy show Mark Cuban's All High Def Cable Network, HDNet, Will Air Irreverent Sports Comedy, 'Rumbles,' on June 19th (TV Barn)

<http://www.tvbarn.com/ticker/archives/021521.html>

HDNet Gets Ready for Rumbles [Paid Subscription Required] HDNet will present some "stupid male humor." (Multichannel News)

<http://www.multichannel.com/article/CA425919?display=Breaking+News>

Rainbow Media to Launch Ultimate HD World Destination and Culture Channel Equator HD New VOOM HD Originals Channel to Present Breathtaking Documentaries, Films and Original Programming That Capture the Culture of the Planet's Most Captivating Places (Kensei News & Information Services)

http://www.kensei-news.com/cetc/publish/broadcast/article_19137.shtml

Voom debuts exotic HD channel Cablevision Systems Corp. subsidiary Rainbow Media plans next week to roll out a new high-definition channel on its VOOM satellite service that will focus on the world's more exotic locales. (CED Magazine)

<http://www.cedmagazine.com/cedailydirect/2004/0604/cedaily040611.htm#6>

Bright Lights, Big City [Paid Subscription Required] Reality never looked so good. The June 14 premiere of Fox's The Casino kicks off the HD age in reality programming. It's only fitting that TV's latest production gamble is set in Las Vegas. The production team of Mark Burnett and Conrad Riggs have chucked traditional standard-definition gear in favor of HDTV equipment, a first for reality TV.... (Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA425972?verticalid=311&industry=Technology&industryid=1030>

KUSA Flying High with HD News Upgrade Gannett's Denver NBC affiliate is Sony beta

site for digital rollout (TV Technology)

http://www.tvtechnology.com/features/news/n_KUSA_Flying_High.shtml

ESPN Flips the HD Switch(TV Technology)

<http://www.tvtechnology.com/dailynews/one.php?id=2055>

The House that HD Built ESPN Opens Digital Operation Center (TV Technology)

http://www.tvtechnology.com/features/news/n_ESPN_opens.shtml

Converting a Convoy [Paid Subscription Required] When Fox Sports kicks off its HD NFL coverage this season, it will be thanks, in part, to the hard work of its truck-vendor partners. They'll spend the rest of the summer putting the finishing touches on existing vehicles to meet demand. National Mobile Television (NMT) just rolled the first of two trucks off the assembly line.... (Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA425975?verticalid=311&industry=Technology&industryid=1030>

Cox Offering HD Ads (TV Technology)

<http://www.tvtechnology.com/dailynews/one.php?id=2059>

3 Ring Circus Completes HD Awareness Campaign (Post Magazine)

<http://www.postmagazine.com/post/article/articleDetail.jsp?id=98606>

Panavision, Sony Develop 35mm HD Camera (TV Technology)

<http://www.tvtechnology.com/dailynews/one.php?id=2066>

Cutting the Cord: Panavision Debuts Genesis and Millenium XL2 Cameras Panavision, a designer and manufacturer of 35mm cameras and lenses for filmed entertainment, made a major announcement regarding the debut of the Millenium XL2 and Genesis cameras. (Videogarphy) http://www.uemedia.net/CPC/videography/article_8655.shtml

Studios: No Rush for HD Despite continued development of the HD-DVD and Blu-ray Disc specifications and intensifying rhetoric of the consumer electronics and IT firms behind each format, the home video heads of Hollywood's leading studios are calling for a less aggressive timetable for the introduction of DVD's "next generation." (Videogarphy) http://www.uemedia.net/CPC/videography/article_8631.shtml

Gefen Announces Fiber, CAT-5 Adapters for HD Display (TV Technology)

<http://www.tvtechnology.com/dailynews/one.php?id=2069>

No analogue switch-off likely by 2010 Digital television is expected to reach 34% of global TV homes by 2010 - or 365 million households, according to a new report from Informa Media Group. Global Digital TV ? Fourth Edition states that this is triple the 2004 figure and quadruple the 2003 number. (Informa Media via Europemedia.net)

http://www.europemedia.net/NASApp/cs/ContentServer?pagename=marlin/home&siteid=30000000461&mp_channelid=30000000393&MarlinViewType=ARTICLEVIEW&mp_articleid=20017283891&mp_pubcode=IMG_press

WEEKLY COMMENT - BSKyB bridging the digital divide [UK] The Government must have thought it's digital prayers had been answered this week with BSKyB's plans to launch a free-to-air digital service. (Netimperative)
http://www.netimperative.com/cmn/viewdoc.jsp?cat=all&docid=BEP1_Feature_0000066203

Sky moves to protect its market [UK] James Murdoch's baby faces increasing competition on all sides (Guardian Unlimited)
<http://www.guardian.co.uk/online/comment/story/0,12449,1236952,00.html>

BSkyB's Freeview competitor hides time limit [UK] (Advanced Television)
http://www.advanced-television.com/2004/news_archive_2004/June14_18.htm#bskyfre

DTV Station Status per FCC CDBS: June 6, 2004 (TV Technology)
<http://www.tvtechnology.com/dlrf/one.php?id=466>

Hearing Considers FCC Plans for 2009 Analog Shutdown (TV Technology)
<http://www.tvtechnology.com/dlrf/one.php?id=461>

Sinclair Broadcast Group Pleased With Progress in DTV Receiver Technology (Kensei News & Information Services)
http://www.kensei-news.com/cetc/publish/broadcast/article_19018.shtml

Sinclair DTV Receivers Show Improved Reception Consumers should get better over-the-air reception of digital television signals, thanks to improvements in DTV receiver technology, Sinclair Broadcast Group said. (TelevisionWeek)
<http://www.tvweek.com/news/web060804.html#sinclair>

Sinclair Endorses DTV Standard [Paid Subscription Required] It took five generations of chip-set developments by Zenith, but Sinclair Broadcast Group is publicly singing the praises of the 8VSB modulation scheme integral to the digital-TV-transmission system. (Broadcasting & Cable)
<http://www.broadcastingcable.com/article/CA424617?display=Breaking+News>

2004-06-08 Twang's Tuesday Tribune (Mark's Monday Memo) (Digital Television)
<http://www.digitaltelevision.com/mondaymemo/mlist/frm02137.html>

Plenty of potential pitfalls associated with HDTV (Daytona Beach, FL News-Journal)
<http://www.news-journalonline.com/NewsJournalOnline/News/Technology/03TechTTALK060904.htm>

SES AMERICOM Enters into Lease Agreement with Rainbow DBS, AMERICOM2Home's Second Anchor Customer Agreement Expands VOOOM's High Definition Capacity (Business Wire)
http://home.businesswire.com/portal/site/altavista/index.jsp?ndmViewId=news_view&ne

[wsId=20040609005304&newsLang=en](http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-08-2004/0002189251&EDATE)

VOOM Reaches Important Distribution Milestone With Crutchfield Partnership VOOM Now Available Through Leading Online Electronics Retailer (PR Newswire)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-08-2004/0002189251&EDATE>

VOOM gets online retail 'crutch' HD-heavy DBS service VOOM notched its first online retailing partnership following a deal with Crutchfield Corp. (CED Magazine)

<http://www.cedmagazine.com/cedailydirect/2004/0604/cedaily040608.htm#8>

Crutchfield to Distribute Voom [Paid Subscription Required] Online and catalog electronics retailer Crutchfield is now offering Voom. (Multichannel News)

<http://www.multichannel.com/article/CA424254?display=Breaking+News>

Cox is now offering HDTV Cable provider also rolls out digital recording (Tucson, AZ Daily Star via Yahoo News)

http://news.yahoo.com/news?tmpl=story&u=/azstar/20040609/lo_azstar/coxisnowofferin ghdtvcableprovideralsorolloutdigitalrecording

Quantel/ESPN Launch Advanced HDTV Studio Quantel powers ESPN's SportsCenter into High Definition. (Broadcast Newsroom / HDTV Buyer)

<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=26028>

Sharp Slashes LCD TV Prices (Home Theater Magazine)

<http://www.hometheatermag.com/news/060804sharp/>

Mitsubishi Digital Electronics America Brings HDTV Home Cinema Projector to InfoComm World's Quietest HC2000 Offers Professional-Level Features for Home Cinema Enthusiasts (Business Wire)

http://home.businesswire.com/portal/site/home/index.jsp?epi-content=GENERIC&newsId=20040609005008&newsLang=en&beanID=1802668732&viewID=news_view

ViewSonic HDTV-Ready Plasma Increases Features, Not Price VPW4255 Offers Advanced Screen Technology for Theater Quality Picture Clarity (Business Wire)

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20040609005098&newsLang=en

14 TI Customers Introduce New and Innovative DLP(TM) Products at InfoComm DLP Products Continue to Gain Worldwide Marketshare (PR Newswire)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-09-2004/0002190070&EDATE>

Sourcing Report: Home LCD TVs (29-inch and above) Bigger, better and HDTV-ready (Global Sources)

[http://www.globalsources.com/am/article_id/9000000052653/page/showarticle?action=G
etArticle](http://www.globalsources.com/am/article_id/9000000052653/page/showarticle?action=G
etArticle)

Brilliant Announces Its BR1920HC Gen II Liquid-Crystal-on-Silicon (LCoS(TM))
Microdisplay High-Resolution Microdisplay Offers Highest Image Quality for High-End
HDTV and Specialty Projection Applications (PR Newswire)

[http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-08-
2004/0002189438&EDATE](http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-08-
2004/0002189438&EDATE)

Sky plans UK launch for HDTV in 2006 [UK] Sky announce plans to launch a premium
high definition TV offering in 2006. (Digital Spy)

<http://www.digitalspy.co.uk/article/ds14675.html>

Sky to offer up to 200 digital channels free [UK] Digital satellite pay-TV operator
British Sky Broadcasting is to launch a package of up to 200 subscription-free digital
channels to counter the growing threat from the BBC-backed digital terrestrial service,
Freeview, which offers around 30 channels at no charge. (Digital TV Group)

http://www.dtg.org.uk/latest/latest_sky_free.htm

BSkyB Announces Free-To-Air and High Definition Television Initiatives [UK]
(PrimeZone)

http://www.primezone.com/newsroom/news_releases.mhtml?d=58868

Job Shop

Nothing to report

Obituary

One of the Brightest Lights in Our Industry has been Dimmed

By: Jim Mendrala

One of the brightest lights in our industry, Ed DiGiulio passed away on Friday, June 4th.



In 1968 Ed DiGiulio founded Cinema Products after having worked as VP of Engineering at Mitchell camera, where he developed the first BNC reflex cameras. At Cinema Products, Ed developed crystal-control motors for film cameras which eliminated the need for a sync cable between the camera and the sound recorder. These accomplishments earned him Academy-citations for technical achievement.

In the early-to-mid 70's the company manufactured and sold thousands of CP16 & CP-16R sound sync cameras for news, documentary and some production work. The camera was the standard for TV news gathering until it was displaced by the use of ENG cameras.

While helming Cinema Products, DiGiulio also developed the Steadicam, for which he, along with inventor Garrett Brown and the Cinema Products' engineering staff, received in 1978 an Oscar. During the later stages of his career, DiGiulio developed the Showscan 65mm, 60fps motion picture camera, the Key Code Time Code reader and most recently had been working with Dalsa as a consultant on their Orgin digital cinema 4k cameras.

Edmund M. DiGiulio was a Fellow of the Society of Motion Picture and Television Engineers (SMPTE), a Fellow of the British Kinematograph Sound and Television Society (BKSTS), a long-time member, and five-time chairman, of the Academy of Motion Picture Arts and Sciences Scientific and Technical Committee and an associate member of the American Society of Cinematographers (ASC). In 2001, Ed received the Gordon E Sawyer Academy Award for recognition by the Academy Technical Committee of a lifetime of Technical Achievement.

Classified

Nothing to sell this time

Information & Education

This section of the Tech-Notes will return in-full after the Road Show

Features, History & Opinions

By Bert Weiner



Once upon a time there were two radio stations in Los Angeles called KFAC and KFAC-FM. The KFACs were fighting the ratings game. The stations knew they had a large listening audience but showed poorly in the ratings, if at all. So they decided to find out for themselves specifically who was listening. They created a "Research Department". They ran contests that required mail-in answers for free tickets to the Hollywood Bowl and other concerts. They asked questions such as "Who wrote Beethoven's 5th". "Who wrote Braham's

2nd" and so on.

This section of the Tech-Notes will return in-full after the Road Show

From the Pen of Mendrala

By: Jim Mendrala

This section of the Tech-Notes will return in-full after the Road Show

Parting Shots

By Jim Mendrala

Subject: SMPTE DC28 Notified as to What Compression System Hollywood Wants
By: Jim Mendrala

Walter Ordway, CTO, DCI (Digital Cinema Initiatives, LLC), has sent a letter to SMPTE's DC28 Technology Committee Chairperson, Wendy Aylsworth, informing the committee as to which "visually Lossless" compression system the studios, through DCI

have selected to use for the core coding system for the compression of large digital cinema image files.

DCI, is a joint venture established in 2002 by seven major Hollywood studios (Buena Vista, Fox, MGM, Paramount, Sony, Universal and Warner Bros. Pictures). They expect to define the constraints within the next four weeks that will provide for the interchangeability required for the encoders/decoders.

It is believed that an "official announcement" will be made at Cinema Expo in the last week of June.

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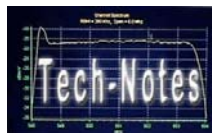
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Thanks.