

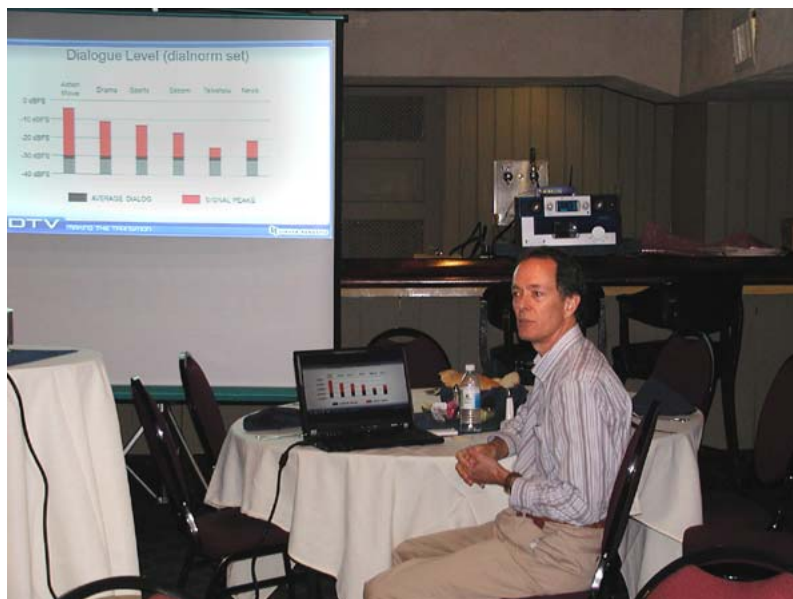


CHAPTER TWENTY NEWS

society of broadcast engineers
pittsburgh chapter

October 2008

Volume 16 Number 8



Hal explains why it is so difficult to control volume levels.



Last Meeting ...

Turn Down That Audio

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Our September 18th meeting was held at Alexander's Pasta Express in Bloomfield. We had twelve attendees and the meeting was presided over by our chapter chairman, Paul Byers.

In the business portion of the meeting a vote was taken on donating the rebate we got back from the national SBE to the Ennes Scholarships fund. The motion passed.

The speaker for the evening was Hal Buttermore from Linear Acoustics. The program was dealing with digital audio. One of the topics he discussed was problems associated in dealing with loudness. He said that it takes about three seconds to measure loudness in a digital audio signal, and by the time it can be corrected it has already gone out over the air. Metadata carried in AC3 stream is supposed to allow for proper playback levels, but does not always work.

Another issue he touched on was detection and switching between 5.1 surround sound and 2 channel stereo audio and the possibility of loosing the center channel if the switch is not made correctly. After the program he demonstrated some of Linear Acoustics' equipment and how they correct for these problems.



Next Meeting ...

Timely Topics!!

Dave Kasperek
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We made an effort at this year's Expo to have papers presented that are particularly timely to all the technology changes that are sweeping the broadcast industry. The upcoming February transition for full power TV stations is a consuming topic for those of us in TV. Likewise, radio broadcasters are involved in significant conversions, too. So we hope you will find among our list of presentations this year, at least one or two compelling reasons to come out to the Expo Mart on the 21st.

John Luff is our keynote speaker this year. John is well known locally and nationally as one of the pioneers of digital video system integrations work. He has a wealth of experience in digital television and his keynote address will surely prove insightful and thought provoking.

Bill Meintel is an expert in over the air reception issues and coverage prediction work. Bill has had direct involvement and experience with the recent early DTV conversion in Wilmington NC, so his talk will be extremely timely. This might be the single most compelling TV topic we present and one TV techs will not want to miss.

Of course the design of receive antennas has also skyrocketed in importance to us and we are fortunate to have a receive antenna designer on hand to address that vital topic. John Ross, PhD, of John Ross & Associates will discuss critical aspects of engineering design for receive antennas.

For our radio engineers, Dan Dickey of Continental Electronics will address improvements in HD Radio coverage. In the afternoon, Sam Brown of Arbitron will discuss the technology behind their new ratings measurement system rolling out soon in a radio station near you!

But we also recognize people have interest in production aspects of broadcast engineering issues

Continued on page 5



Chairman's Corner

Come to the Expo!

Paul Byers
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Don't forget that our 37th annual Expo is coming up on October 20th and 21st. The title of this year's show is "Long Live Digital!" and will once again be held at the Monroeville ExpoMart. If you haven't registered yet, please do so by visiting www.sbe20.org/expo.

The show will kick off with a cocktail reception on Monday, October 20th from 5:00 - 8:00 PM with the exhibit booths open as well. On Tuesday, October 21st, please join us for breakfast and a keynote presentation by John Luff at 7:30 AM. The exhibit floor opens at 9:00 AM and continues until 5:00 PM. Also beginning at 9:00 AM there will be many fine technical papers covering both radio and television topics of interest. Check the website for details.

This year we will once again have more than 40 exhibitors showing equipment covering all aspects of television and radio broadcasting. Come and see the latest and greatest in cameras, lenses, production switchers, tripods, graphics, editing systems, software, routing switchers, video servers, audio consoles, video displays, mobile production, transmitters, antennas, automation, test and measurement, systems integration, glue products and much, much more.

Remember that this is **THE** event of the year for Chapter 20. We depend on the revenue from this show to fund our monthly meetings and any special programs and seminars throughout the year. The only way to make it a success is to have a good turnout at the show. So please take an hour or two out of your busy schedule and come out to the ExpoMart on either day. Talk to the vendors, network with others in the industry, sit in on a paper and just enjoy some time out of the office. Better yet, tell your colleagues about the show or bring a friend with you when you come. **WE NEED YOUR SUPPORT!!!**

Also remember that there will be no monthly meeting in October because of the Expo.

Opportunity

WPXI-TV has an immediate opening for a full-time IT System Administrator to assist our Information Systems Manager. The ideal candidate would have proficiency with:

- Microsoft Windows XP
- Microsoft Windows Server 2003/2008
- Networking – LAN (Cisco), WAN, Wireless
- Active Directory
- Microsoft Office 2003/2007
- Desktop/Network Security
- Software/Hardware Installation
- Help Desk Support
- Cisco CallManager VoIP Phone Configuration / Support
- Troubleshooting all facets of desktop/network IT issues
- Windows Mobile/Blackberry Wireless Devices
- Technical Degree and Microsoft/Cisco Certification a plus

We are seeking a dynamic, self-motivated individual who can respond to the fast-paced day-to-day IT issues in an efficient and effective manner while interfacing with our employees in a friendly, professional style.

If interested please send an email with resume to Job797236@WPXI.com.

WPXI IS AN EQUAL OPPORTUNITY EMPLOYER



After last month's presentation, Hal shows the problem and solution with prerecorded examples of difficult volume changes.



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FCC Report

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OCTOBER 10, 2008 FILING DEADLINE FOR THIRD FORM 388 DTV QUARTERLY ACTIVITY STATION REPORT

Form To Be Filed Through CDBS

The third DTV Quarterly Activity Station Report Form 388 is due to be filed no later than October 10, 2008.

The report provides information on stations' DTV consumer education activities during the period July 1 - September 30, 2008. The form must be filed through CDBS.

Although many TV stations are already airing PSAs and other programming designed to educate the public about the upcoming digital television transition, the FCC released an order containing very specific requirements for these educational initiatives. These rules mandate public education efforts about the DTV transition by television broadcasters, multichannel video providers, and electronics manufacturers. In addition, the new rules require that television stations file a quarterly report on a new form, FCC Form 388, with the FCC (that is also placed in the station's public file and on its website) certifying compliance with the requirements of the rules and setting out specifics of other consumer education efforts about the DTV transition that the station has undertaken. The requirements will become effective immediately upon publication in the Federal Register, and continue through March 31, 2009, for all full power stations who complete the transition to their full DTV facilities by February 18, 2009.

The FCC has established three options for meeting the educational initiatives requirement, two of which are available to all TV stations, and one of which is available to noncommercial stations only. Each has very specific mandates as to how many PSAs about the digital transition are required, and how much additional content (crawls, various over-lays onto programming, long-form programs) are required to meet the obligations. Thus, broadcasters and others subject to these rules should review the specific requirements carefully.

Option One requires the following:

- Between the effective date of the order (upon its publication in the Federal Register) and March 31, 2008, a station must run at least one PSA and one visual crawl on both its analog and digital streams, during each quarter of the day midnight to 6 AM, 6 AM

to noon, noon to 6 PM and 6 PM to midnight (actually to be run during prime time 8 to 11 eastern and pacific, 7 to 10 central and mountain time)

- Between April 1 and September 30, 2008, a station must run at least two PSAs and two visual crawls on both its analog and digital streams, during each quarter of the day midnight to 6 AM, 6 AM to noon, noon to 6 PM and 6 PM to midnight (at least one during prime time 8 to 11 eastern and pacific, 7 to 10 central and mountain time)
- Between October 1, 2008 and March 31, 2009, a station must run at least three PSAs and three visual crawls on both its analog and digital streams, during each quarter of the day midnight to 6 AM, 6 AM to noon, noon to 6 PM and 6 PM to midnight (at least one during prime time 8 to 11 eastern and pacific, 7 to 10 central and mountain time)
- Each PSA must be at least 15 seconds long, and must contain the following information:
 - (A) After February 17, 2009, a television receiver with only an analog broadcast tuner will require a converter box to receive over-the-air broadcasts with an antenna because of the Nation's transition to digital broadcasting. Analog-only TVs should continue to work as before with cable and satellite TV services, gaming consoles, VCRs, DVD players, and similar products.
 - (B) More information is available by phone and online, and provide appropriate contact information, including means of contacting the station or the network.
- The PSAs must, during the life of the campaign, also discuss the following information:
 - (i) The steps necessary for an over-the-air viewer or a subscriber to a multichannel video programming distributor to continue viewing the station after the transition;
 - (ii) Changes in the geographic area or population served by the station during or after the transition;
 - (iii) The channel on which the station can be viewed after the transition;
 - (iv) Whether the station will be providing multiple streams of free video programming during or after the transition;
 - (v) Whether the station will be providing a High Definition signal during or after the transition;
 - (vi) The exact date and time that the station will cease analog broadcasting, if it has not already done so; and

(vii) The exact date and time that the station will begin digital broadcasting on its post-transition channel, if it has not already done so.

Option Two consists of a compromise plan offered by the NAB, that focuses on longer announcements aired in higher listening hours with a more significant publicity push in the last months of the digital transition. This option requires an average of 16 PSAs and 16 “crawls, snipes and/or tickers” per week between the hours of 5 am and 1 am. Four each of these PSAs and crawls, snipes and/or tickers must air between 6 pm and 11:35 pm Eastern/Pacific time (5 and 10:35 PM in Central and Mountain time zones). Each PSA must be at least 30 seconds long, or stations can substitute two 15 second PSAs for a 30 second spot. Option Two also requires a 30 minute infomercial on the DTV transition to be shown once prior to February 17, 2009.

Beginning November 10, 2008 (100 days prior to the transition), Option Two requires enhanced disclosure. That disclosure can take any of the following forms:

- *Graphic Display.* A graphic super-imposed during programming content that reminds viewers graphically there are “x number of days” until the full-power transition. They will be visually instructed to call a toll-free number and/or visit a Website for details. The length of time will vary from 5 to 15 seconds, at the discretion of the station.
- *Animated Graphic.* A moving or animated graphic that ends up as a countdown reminder. It would remind viewers that there are “x number of days” until the full power transition. They will be visually instructed to call a toll-free number and/or visit a Website for details. The length of time will vary from 5 to 15 seconds, at the discretion of the station.
- *Graphic and Audio Display.* Option #1 or option #2 with an added audio component. The length of time will vary from 5 to 15 seconds, at the discretion of the station.
- *Longer Form Reminders.* Stations can choose from a variety of longer form options to communicate the countdown message. Examples might include an “Ask the Expert” segment where viewers can call in to a phone bank and ask knowledgeable people their questions about the transition. The length of these segments will vary from 2 minutes to 5 minutes, at the discretion of the station (Some stations may also choose to include during newscasts DTV “experts” who may be asked questions by the anchor or reporter about the impending February 17, 2009, deadline).

Noncommercial stations may either Option One or Option Two, or they can select a special option created solely for them.

Option Three consists of 60 seconds per day of consumer education of the station’s choosing, of which 7 1/2 minutes per month must air between 6 pm and midnight. This requirement doubles on May 1, 2008 and, on November 1, 2008, it triples to 180 seconds per day, of which 22.5 minutes per month must air between 6 pm and midnight. Option Three also requires the 30 minute infomercial, which must air once between 8 am and 11:35 pm before February 17, 2009.

All of the options described above apply to both analog and primary digital stream channels and require PSAs to be closed captioned. They also require the quarterly filing by each station of a new FCC Form 388, beginning April 10, 2008 and ending April 10, 2009, detailing the station’s compliance with its chosen option as well as other (optional) station outreach efforts. That form is filed electronically with the FCC, placed in a station’s public file, and posted on a station’s website.

The FCC also established educational initiative requirements applicable to multichannel video programming distributors (MVPDs) and consumer electronics manufacturers. Briefly, MVPDs such as cable and satellite carriers must provide bill stuffers. Manufacturers of TV receivers, converter boxes, DVD players and other devices that work with TV receivers must also provide consumer notices about the digital transition with their equipment.

There are no requirements applicable to translators, Class A or low power TV stations, although the FCC encourages them to advise viewers that they may continue to receive these analog stations after February 17, 2009. They are also asked to encourage viewers buying DTV converters to get ones that will continue to pass through their analog signals.

Stations should take whatever steps are necessary to comply with the above requirements, since they become effective upon Federal Register publication, which could happen very quickly. The FCC hopes that all of these consumer education requirements will help insure that no one is taken by surprise when full power analog broadcasting ceases on February 17, 2009.



Musings of a Consultant

John Luff
Television Technology Consultant
john.luff@verizon.net

“The deadline for analog transmission looms, but as in all things one end is a new beginning. I have spent a few days at a DTV conference in Bogota, Columbia this week, where DTV is at the stage the US was at perhaps 11 years ago. Not unexpectedly technology has marched a long way in that decade. In the week that ATSC approved the inclusion of H.264 compression in their DTV standard, Columbia chose DVB-T as their transmission standard. I could not help but feel it was unfortunate that the US had to make the decision on 8-VSB and MPEG 2 so long ago. Were we afforded the advancements of the last 10 years prior to etching in stone the standard we could be making much better television for the American public, with perhaps fewer fears of disenfranchisement and angry viewers. But it is much too late to reconsider the transmission beyond the modifications to embrace mobile and handheld uses which are soon to be formally approved for the US and other ATSC countries.

I am more convinced every day that the future of local television is to return to the roots of increased localism and emphasis on programs, not technology. How the signal gets to the home may be less an issue in the US than in less developed countries like Columbia. Mobile and multichannel will in my opinion take on new meaning in the DTV future we face. In that context, to paraphrase Tip O’Neill, “...all television is local.”

Timely Topics

Continued from page 1

so we’ve included timely topics on some of those issues as well. Those include talks on Camera Imagers, Picture Quality Analysis, AVC-I and AVCHD Compression in the production environment, BXF in automation and Fiber Optics topics and others.

Hopefully the information will prove useful to our members, come out and see us, get re-acquainted with your peers and learn!



First Time Effort

John Humphrey
Director, Business Development
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For the first time, SBE 20 will be recording and putting the technical presentations from our annual Expo on our web site after the show. A big thanks to Bob Hoffman, who has agreed to manage the recording, editing and encoding required to put these presentations on our web site. Also, thanks to Viewpoint Production Services for supplying cameras, recorders and scan converters required to record the speakers and their slide presentations in the Monroe rooms at this year’s show.

Viewpoint will be showing their new VPS 38 mobile production truck outside the entrance to the Expo Mart. This mobile unit offers six cameras (capable of eight) 4 tape machines, 2 channels of DUET, and 2 channels of EVS. It includes the facilities required to cover a medium-large scale live event. Perfect for live high school sports, live college sports, minor league baseball, telethons, live motor sports, concerts, etc.



Win Big At This Year’s Expo!

Glenn Romsos
Retired

In a year ripe with challenge, you have a fantastic opportunity to be a winner by attending this years Expo!

First: You get to see and test the latest equipment that supports our endeavors as well as hearing industry experts share their insights on critical issues.

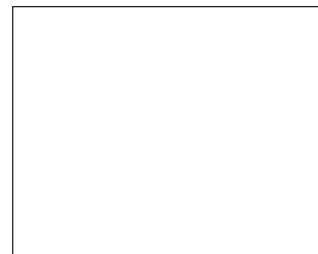
Second: There are some fantastic door prizes! This year’s prizes consist of HDTV’s, an iPod, and a GPS. The grand prize is a 1,200 watt home theater surround system!

A sage once said “The future belongs to those who prepare for it.” Begin your preparation by attending the Expo on 10/20 & 10/21 and be a winner!

(I spent a delightful 2 ½ hours one day this month with a rep from Best Buy touring their facility and kicking the tires on a lot of new gadgets. I was surprised at the personal attention I got when I told them I had \$1,500 to spend on door prizes. The first question I was asked was “How do I join the SBE!”)*

*P.S. You don’t have to be a member of SBE to attend the Expo and win a door prize!

Society of Broadcast Engineers
Pittsburgh Chapter
P.O. Box 16312
Pittsburgh, PA 15242



37th Annual Equipment Expo

October 20 & 21, 2008

Monday 5 P.M. - 8 P.M.

Tuesday 9 A.M. - 5 P.M.

Pittsburgh ExpoMart

100 Mall Drive
Monroeville, PA

Important Digital Transition Meeting Planned

An important, joint TV broadcast and cable industry meeting is being put together for late October or early November. at WPXI in Pittsburgh for the purposes of ironing out important details of the digital transition. All TV stations and cable companies in the Pittsburgh, Youngstown, Wheeling and Johnstown-Altoona markets are welcome. Annette Parks, Director of Engineering at WPXI, is coordinating and planning the meeting and would like to hear from you about your availability to attend. Call 412-237-1187 or email to aparks@wpxi.com . More info should be available at our Expo on the 20th and 21st.