CHAPTER TWENTY NEWS

society of broadcast engineers
pittsburgh chapter

Nick Paoli and Rich Bush (foreground with backs to the camera) used to work in cable at IUP. Much of the headend equipment was old stuff to them, but to the rest of us, it was mostly new.

Last Meeting

More than 20 Broadcasters showed up at the April meeting of Chapter 20 at Armstrong Cable in Zelienople. Even some from Youngstown. We had a brief meeting and enjoyed our free dinner, courtesy of Armstrong.

Roger Hughes, Operations Engineer for Amrstrong gave the presentation, which was an overview of everything Armstrong does. For maximum quality analog TV is not demodulated. DTV is demoded to ASI, multiplexed with a second station, converted to 256 QUAM and then sent back to RF as part of the digital tier. There are currently 800 HDTV subscribers.

EAS, Ad Insertion, Internet were explained in detail. We even learned what hours routinely are the heaviest use of the Internet, everyday.

Armstrong continuously monitors bandwidth demand on its digital services.

Next Meeting
Latest On HD Radio

HD Radio is IBOC for short or High Definition Radio. Dick Schumeyer of the Harris Corporation will present an overview and update of the current status of the HD Radio initiative. The presentation will cover FCC authorizations and the latest news from NAB. An overview of implementation methods and costs for both AM and FM will be included, as well as a brief look at the HD Radio products and accessories offered by Harris. Dick will also describe some of the uses for the data streams and the secondary audio channel.

Dick Schumeyer, Harris Corporation District Sales Manager-Radio (PA, NJ, Metro New York & Long Island) has been in broadcasting for over 30 years. Dick joined Harris with the acquisition of Pacific Research & Engineering where he was a Territory Manager for broadcast systems. Prior to that, Dick founded and directed Spectrum Broadcast, Inc., a systems integrator that participated in the planning, design, and installation of facilities in every size market for nearly ten years. As

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Next Meeting

Time: **Thursday, May 15**
12 noon to 1:30 P.M.

Program:

HD Radio
by Dick Schumeyer
Harris Corporation

Place: Gaetano's Restaurant
1617 Banksville Rd.
Use the Rt. 19 South (Banksville Rd) exit when coming out of town.
Use the Greentree exit when coming in.

Lunch Fee: *$7.00*

Chairman's Corner

Keep the "H" in HDTV!

R.W. Sam Zborowski
samzborowski@stargate.net

CATV distribution is an important link in the distribution of both analog and DTV program content to consumers. Various estimates of cable penetration suggest that greater than 70% of TV households in the U.S. subscribe to cable.

I recently attended a number of meetings in which CATV carriage of DTV/HDTV services were addressed. I developed a real concern that the HDTV capabilities of the ATSC system are in danger of being compromised at least in the final distribution to viewers via CATV. While attending the NAB Convention, I heard discussions about "rate-adjusting" HDTV content down to be able to accommodate three simultaneous HDTV programs in one 256 QAM channel on a CATV system. The scary part is that there are people at the big MSOs who apparently believe this is OK!

The problem with this notion is that it can appear to work in a demonstration with the right kind of "HDTV" content. With HDTV content that utilizes the full capabilities of the broadcast standard, this system will either break up with relatively frequent picture "freezes" or partial frame freezes (tiling or blockiness). The simple correction then is to rate-adjust (down-convert) the content to a lower resolution! The hope is that the three program streams do not require the peak data rate simultaneously. This is a form of statistical multiplexing. With a different set of program streams, statistical multiplexing works well to optimize the use of a given channel.

For example, with a larger number of SD program streams of lower resolution each, the probability that most of them require their peak data rate simultaneously is small. The 256 QAM CATV modulation can support 38.8 Mbps while the ATSC 8-VSB standard supports 19.39 Mbps. Even proponents of the 3 in 1 multiplex for CATV admit that live sports program in HDTV often exceeds 15 Mbps. Much of the content that is labeled "HDTV" today is relatively poor in terms of the resolution capabilities of the system.

Good HD content is capable of giving the viewer an experience that is like attending a live stage show from front row center, like looking out a window at a panoramic view of an actual outdoor scene or attending a live sports event.

There is still a shortage of available HD production equipment and production techniques are still being refined to more generally utilize the system capabilities. With the greater resolution possible, video producers need to be more concerned with maintaining greater depth-of-field as is generally done in movie production. Maintaining focus in the background elements of a scene as well as the foreground objects generates the need for higher data rates to convey the larger total amount of information. Adding a little motion to such a complex scene drives the data rate needs up to near the ATSC system limits. As advanced HD production equipment becomes more available and production techniques become more refined, average and peak program data rates will likely both go up. Basing tomorrow's systems on today's content is a bad idea.

A refreshing contrast to the above 3 in 1 "HDTV" multiplexing was described in our April SBE Chapter 20 meeting at Armstrong Cable. Armstrong is multiplexing two terrestrial DTV signals per 256 QAM channel in their digital tier. This is a bulletproof approach that will support lossless transcoding of the DTV signal even if both are transmitting complex, fast motion sporting event scenes simultaneously. The bandwidth required to do this will eventually be more than recovered following the shutdown of analog TV transmission and eventual deployment of digital set top units to all subscribers. Currently, those subscribers who have invested in HDTV displays can enjoy spectacular, no compromise HDTV service.

I wish to thank Ed Hassler, Roger Hughes and everyone who helped in hosting our April meeting at Armstrong Cable.

SBE holds a national meeting in conjunction with the NAB convention. During that meeting Chapter Certification Chairmen were recognized for their service. Tom Skubel was recognized for 10 years service-Thanks Tom!

Next Meeting

Assistant Director of Engineering for Capital Cities Communications, Dick managed the modernization of the company's radio properties. He earned his stripes in the trenches in various engineering capacities at stations in New York and Connecticut.

VMP Studio and CG Xtreme
Part 3: Use

by Steve Christiano
Senior Product Specialist
Specialized Communications
stevec@spec-comm.com

In use, VMP Studio and CG Xtreme proved to be easy to use right away, but there is also great depth to the software. There is not enough space to cover every aspect in detail so I will just mention a few highlights.

"Taking" a graphic is as simple as dragging it to the program window. In the VMP Studio are two program windows, one for each output. Alternatively a graphic can be double clicked, a shortcut key can be used, or the virtual shot box (the keyboard numeric pad) used to take graphics.

We found there are many ways of operating the unit quickly and efficiently, allowing for a wide range of operator tastes and skill levels. A feature not often considered but that the customer inquired about was security. In fact both units have extensive "user" administration. This allows you to lock out and limit access to different users. You can limit use, change, delete, and configuration privileges easily. User permissions are very customizable and are great for setting up limited access. For example the facility graphic artist can have full access for creating and changing layouts and templates while the trainee or student intern would be limited to only being able to change the text in a layout and basic functions.

The sequencer is very powerful and works hand in hand with the "job strip." The "job strip" is a column on the left of the interface that allows the operator to see icons representing the graphics they have created, in the order of playback. Of course it is easy to add, remove, copy and rearrange the graphics on the fly. As the graphics are created, they are automatically inserted into the sequencer in the same order as the "job strip." In the sequencer, other attributes are readily accessed. The graphics events can be run automatically in "on-air" mode and the operator can choose how each event is triggered. Different trigger types can be mixed and matched. Trigger types include manually, timed, PC Clock, external timecode, and GPI. The user can also set the transition type from one graphic to another. Dissolves, cuts, wipes, pushes, and more are available in real time, requiring no rendering.

The shotbox and still-store modules work closely with the CG module to allow quick access to graphics stored locally, on the network, or in a user defined database. The database, called the "store," is searchable by file attribute and keywords. The shotbox can access anything in the current sequence or the still store directly. Though they are a little confusing at first, these two modules are very powerful. Spending time learning these modules well will be rewarded with greatly increased speed and increased ease of making on-the-fly changes.

The CG and Paint modules are very familiar to anyone having used any Inscriber CG product such as Titlemotion for NLEs. The look is sharp, the options are many, and the creation of graphics is fast. The use of templates in the CG and Animation modules help insure a consistent look to all graphics. For those not familiar with Inscriber products the interface is fairly easy to use but a little unfamiliar. It incorporates many nice touches however, and it doesn't take long to be up to speed with some of the more unique key combinations. The user will be making broadcast quality graphics in no time.

The software also accepts and exports a wide range of industry standard graphic formats including Photoshop files. Imported graphics can be used as backgrounds, textures for graphic objects and text, and as logos with alpha channel intact.

Inscriber is a good company and has been around a long time. They are experienced at creating CG software and that experience shows in the deep feature set of VMP Studio and CG Xtreme. When built and configured properly, you have a good, solid product. It is easy to get started with and has many useful features and options. If you are considering replacing your on-air or production CGs, then these are definitely worth looking at.

VMP gui

The Top 5 resume mistakes
How much is your resume costing you?

With competition for good jobs at an all-time high, job seekers can't afford to make these top five job-search mistakes. Knowing how to avoid these all-too-common mistakes can save weeks and even months of frustrating effort.

#1) Sending a resume that doesn't stand out from the crowd.

Since employers and recruiters read hundreds of resumes a week, you'll catch their attention quicker with a resume that differentiates you from your competition. The best resumes target one career objective which is supported by quantifiable accomplishments relating to corporate bottom-line results. Peppering your resume with relevant accomplishments helps the employer see your value to their organization. Send an accomplishment-driven resume and keep your calendar clear for the interviews that you'll generate.

#2) Spending the majority of your job-search energy and time answering want ads and job postings. This is one of the most common job-search mistakes. Want ads and Internet job postings represent only a fraction of jobs openings available. Since these openings are public knowledge competition is very high. A good job search campaign also includes uncovering job leads in the hidden job market through networking and target marketing employers and headhunters. Look for job leads using these proactive means and you'll discover a multitude of opportunities with limited competition.

#3) Resume blasting.

While it is important to get your resume and cover letter in the hands of as many qualified employers as possible, it is useless to blast your resume indiscriminately to companies unlikely interested in your particular employment background. The secret to mass distribution of your resume is to target your efforts. Instead of investing in a resume blasting service that promises to send your resume to thousands of employers, look for a service that allows you to target employers by industry, size and geography. Target your resume distribution and you'll avoid responses from unqualified employers while discovering opportunities that fit your career objectives.

#4) Little or no networking efforts. Not enough proactive efforts.

As stated earlier, the hidden job market comprises a great percentage of job leads. These positions are uncovered through networking and other proactive efforts. Networking is simply getting your message out to others that you are interested in learning about new career opportunities. This could mean contacting former colleagues, family members, affiliation or alumni members. The easiest way to get in front of potential employers is on the recommendation of others.

#5) Lack of interview preparation.

Job seekers get better interview results if they think of it as a sales call. The best sales people spend time in pre-sales preparation. They study their potential customer's products or services. They thoroughly understand their own product and are able to articulate its benefits. They anticipate customer objections and are prepared with answers that result in closing the sale. Job seekers who employ these same tactics receive job offers quicker and for higher starting salary than those attempting to "wing it" through their interviews.

Panasonic has introduced a new broadcast camcorder with NO MOVING PARTS. The only motor on the unit is the one in the zoom lens. All video and audio (DVCPRO) is recorded on (removable) SD memory.

It's official. Ron DeBellis of the Expomart accepts a check from Kim Cannon, SBE Chapter 20 Convention Chairperson, for this year's annual convention which will be October 2.

Since these five mistakes are common, the job seeker who learns to avoid them stands head and shoulders above the competition. In a tight job market it is especially true that the best jobs go to those with the best job search skills.

Deborah Walker, CCMC Visit us on the web at www.CareerShoppingBag.com Nation's top Resume Writers and Career Coaches Online Resume Distribution FREE Resume Critique ~ FREE Article Archive Sign up for FREE job-search Tip of the Week service

Our Visit to Armstrong's Headend at the April Meeting

Armstrong employee Jake Colflesh explains how the Internet section of the headend works.

Roger Hughes was also one of those who showed us around and is shown here explaining some things to Sam Zborowski, Blake Richert and Mark Albright.
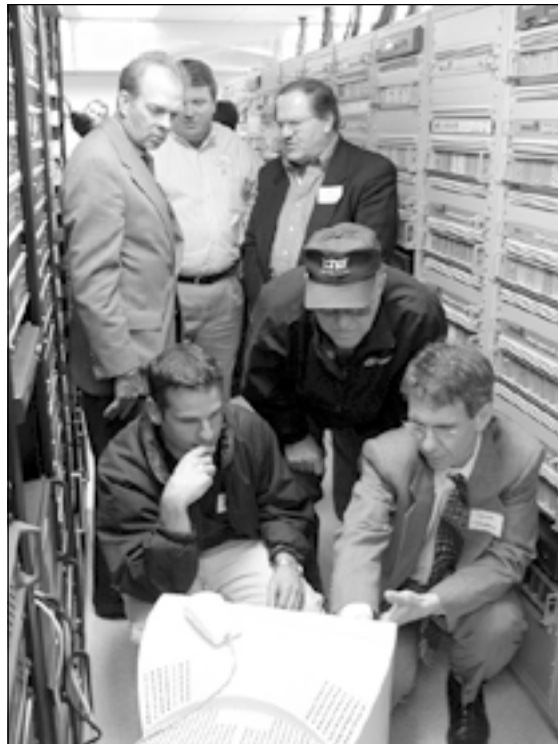
Last Meeting continued from page 1

Certain aspects of Armstrong's systems were explained by Ed Hassler, Mike Giobbi and other specialists who were present.

We arrived at the headend just as it was getting dark. Just in time to see the enormous Log Periodic Quad antennas that Armstrong uses to receive channels 2 and 4 without electrical interference. Inside we spent an hour being guided up and down the isles of equipment by various Armstrong employees who answered all our questions about everything we were looking at.

During the meeting Jerry Kalke offered unsolicited testimony about the quality of Armstrong's technical standards and the professionalism of their people. We certainly saw proof of both of those that night.

One of Armstrong's employees explains the bandwidth monitoring software.

Pittsburgh SBE Convention 2003

October 2, 2003

Pittsburgh Expo Mart, Monroeville

Now taking Pre-Registrations online!

http://www.broadcast.net/~sbe20/

Please join us for the upcoming annual Pittsburgh SBE Convention. It is the largest exhibition in the tri-state area for video, and it's local.

If you haven't been at Pittsburgh's SBE Convention, you're missing a great show. If you have been attending, just wait until you see what we have in store for you this year.

Pittsburgh's SBE convention features over 100 vendor exhibits with the latest technology. Free technical seminars focusing on today's most innovative products and hands on topics from well respected peers in our field. This year we'll have more about graphics, visual effects, editing, animation, cameras, Hi-Definition, 24p, DVD and transmission. That's just to name a few.

Who goes to the Pittsburgh SBE Convention?

♦ Television Owners, GMs and Managers
♦ Sales Managers, Producers and Reporters
♦ Cable Operators
♦ Engineers (Radio and TV)
♦ Programmers and Promotions Directors
♦ Independent Production Companies and Freelancers
♦ Students and Educators
♦ Government and Corporate A/V Departments
♦ Medical Video
♦ Ad Agencies
♦ Wedding and Event Videographers
♦ Consultants and System Designers
♦ Churches

It's all progress in the works. We are looking for stations to broadcast HDTV at the show, presenters (not sales pitches) and event sponsors. Please email kcannon@cdrsys.com if interested.

I am sad to say Brian Sales of Comstock Multimedia will not be able to participate in the convention committee.

If you are interested in being a part of the SBE Convention Committee, please email me.

Thank you. We'll see you there!

Kim Cannon
SBE Chairperson 2003

DTV Seminar

Our Zenith DTV seminar will be held July 1st at WQED. There will be a $55 charge for the seminar which includes lunch and a set of the course notes. Parking will be available at no charge at Central Catholic High School which is next door to the WQED studios. There is a $10 discount to $45 for early registrations received by 6/15/03.

Checks can be made out to "SBE 20". Send to: Paul Mastorakis Pathway Electronics/ Enterprises, 15 Round Top Drive Finleyville, PA 15332.

With the following info.
name
company
address
email address
phone number

There is a detailed description of the seminar at the Zenith web site. You can get to it by the zenith home page at www.zenith.com then select "digital broadcast" then select "tradeshows/seminars."

The direct link is: http://www.zenith.com/index.asp?url=/digitalbroadcast/tradeshows.html

Lerro Show on April Meeting Day

(It's close ... come on over!!)

Today's emerging technologies are creating high-tech options that are rapidly changing the face of videography. Lerro Corporation produces a number of shows throughout the year to help you stay current. The next one is the same day as our meeting this month. It will be real convenient to stop by before or after our meeting.

It will be on Thursday, May 15, from 9 A.M. to 5 P.M. at the Greentree Radison. Joe SeNay of Lerro says they will provide "a 'hands on' experience of the latest advances in HD, DVD, video conferencing, cameras, switchers, editors, web streaming, graphic workstations, monitors, video projectors, and more."

Some of the Corporations that will be represented at the show will be: Panasonic, Sony, Grass Valley, Hitachi, Vinten, Ross and Pinnacle. Contact Joe SeNay at 800-405-LERRO (5377) or Register On-Line at www.Lerro.com