NAB Radio TechCheck

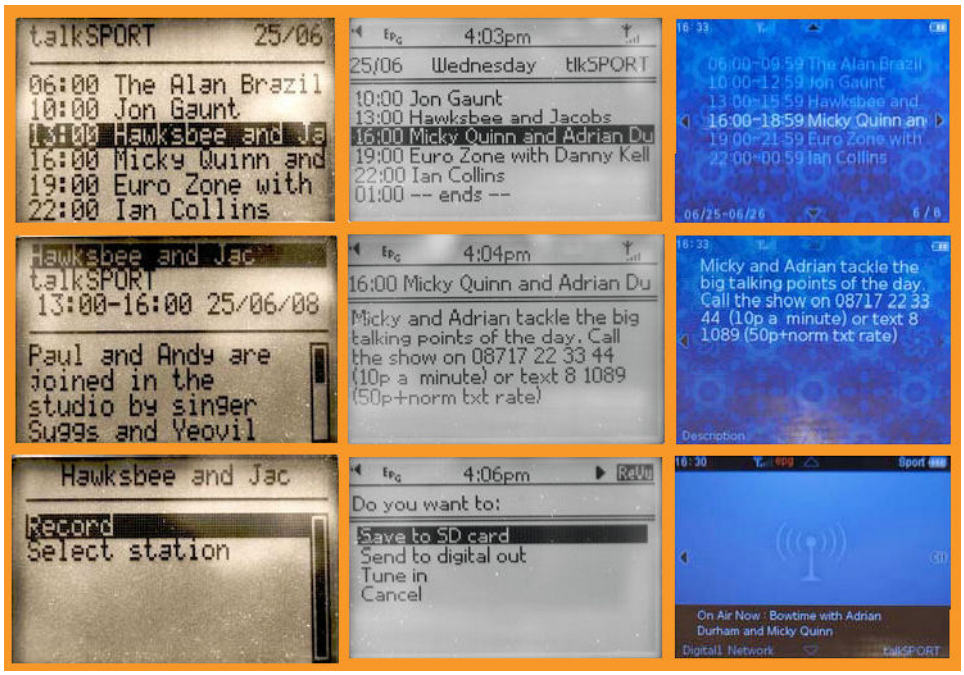
The Weekly NAB Newsletter for Radio Broadcast Engineers

September 8, 2008

NAB FASTROAD EPG Project Update at NAB Radio Show Session

One of the advanced features supported by the HD Radio system is transmission of an electronic program guide (EPG), an interactive on-screen guide to scheduled broadcast programming. Many in the industry see the advent of the EPG as potentially transforming the way that listeners use radio, giving them a way to identify and discover programming in a totally new way that is unavailable at present. A session at the upcoming NAB Radio Show (September 17-19, 2008, Austin, Texas, www.nabradioshow.com) called "The HD Radio EPG Project" will focus on the progress and results of an NAB FASTROAD-funded EPG development project currently underway.

EPGs are commonplace in the video world, but less so for radio. In Europe, EPG technology has been developed to support digital radio services using the Eureka-147 DAB system (photos shown here illustrate some screen shots of various DAB radios as they receive and display EPG information) however differences between European and U.S. radio services and digital radio technologies also result in different EPG requirements.



While considerable hardware and software design work has been done on EPGs for use with iBiquity's HD Radio technology (and demonstrations of prototype HD Radio devices utilizing an EPG have been shown at recent NAB and consumer electronics trade shows), until now little has been accomplished in the way of overall system design to determine, for example, how stations in a market can best cooperate to populate EPGs and how this data can best be transferred and managed. The overall goal of the NAB FASTROAD (Flexible Advanced Services for Television and Radio On All Devices. www.nabfastroad.org) HD Radio EPG project is to accelerate this development process by funding this system design work, with possible field trials/demonstrations of the resulting EPG system as a potential second phase of the project.

A team of technical experts from BIA Financial Network, Inc. (Chantilly, Va, www.bia.com), Broadcast Signal Lab (Cambridge, Mass, www.broadcastsignallab.com), and Unique Interactive (London, UK, www.uniqueinteractive.co.uk) were selected by NAB FASTROAD to perform this work, which at present consists of these four specific tasks:

- *Requirements*: identify and document the business and functional requirements of an EPG system suited to the U.S. commercial and non-commercial terrestrial HD Radio markets;

- *Preliminary design*: develop a preliminary EPG architecture, to include consideration of transmitter-side and receiver-side equipment and software, including availability and capability of existing and emerging hardware from various sectors;
- *Market for possible follow-on field test*: identify a radio market (from the top-50 Arbitron-rated markets) suitable for proof of concept, real-time demonstration of the EPG system;
- *Final EPG system architecture*: develop details of EPG system architecture.

The EPG engineering session will be held Friday, September 19, 2008 from 10 -11a.m. in room 17A (on level 4) of the Austin Convention Center. Rick Ducey, Chief Strategy Officer at BIA Financial Network, will serve as moderator; panelists include Adrian Cross, Software Development Team Leader, Unique Interactive; Joseph D'Angelo, Vice President Advanced Services, iBiquity Digital; David Maxson, Managing Partner, Broadcast Signal Lab; and Skip Pizzi, Contributing Editor, *Radio World* and consultant. Additional information about The NAB Radio Show engineering sessions is available online at http://www.nabradioshow.com/2008/conferences/EngineeringProgram.asp.

NAB365 TV Thought Leadership Series Videos

One of the features of NAB365 is an exclusive series of video interviews designed to provide you with expert viewpoints on technology's impact on digital media and the world of broadcast content for video, radio, broadband, and more.

With technological advancements arriving at a steady pace, it can be a challenge understanding the creative and financial impact of each technology on the world of content creation, content management, content distribution & delivery, content commerce, and content consumption.

In the latest of the NAB365 Thought Leadership series, NAB's top technical expert, Lynn Claudy, discusses digital media and the competitive media landscape, and NAB's Jonathan Collegio provides an update on the DTV transition.

Enjoy and please feel free to provide us feedback on this series through our NAB Show YouTube channel.

63rd NAB BROADCAST ENGINEERING CONFERENCE CALL FOR PAPERS

NAB Show will host the 63rd NAB Broadcast Engineering Conference on April 18 – 23 at the Las Vegas Convention Center in Las Vegas, Nevada.
The NAB Broadcast Engineering Conference is a highly technical conference where presenters deliver technical papers ranging over a variety of topics relevant to the broadcast and allied industries. We invite you to submit a proposal to present a technical paper at our conference. The deadline for submitting your proposal is **October 17, 2008**.

To submit a technical paper proposal, click here and complete the electronic form. If you have questions regarding the NAB Broadcast Engineering Conference, please contact John Marino.

NAB AM Antenna Computer Modeling Seminar
November 20-21, 2008
NAB Headquarters
Washington, D.C.
Computer Modeling Seminar

Don't miss this opportunity for broadcast engineers to learn the basics needed to utilize modeling software such as MININEC and nodal analysis for designing performance-optimized AM directional antenna phasing and coupling systems and proving the performance of directional antenna patterns.

You will learn about:

- Moment Method Modeling Basics
- DA Proofing Using Moment Method Modeling
- Overcoming Limitations of Using Field Strength Measurements for DA Proofs
- State of the Art in Phasing System Design Nodal Analysis of AM DA Phasing and Coupling Systems
- Pattern Design Considerations for Optimum Performance

AM antenna experts Ron Rackley and Ben Dawson, along with antenna modeling software specialist Jerry Westberg, will lead the seminar demonstrating how moment method modeling makes analysis of actual tower current distributions possible and how a model can be used to proof an array provided the proper criteria are considered. All instructors are well known in the radio industry as experts in the field of directional antenna design and maintenance. Their decades of experience offer station engineers an opportunity to learn techniques, tips and tricks that can be immediately useful.

Seminar fee: $395.00 (NAB members) and $495.00 (non-members). For more information on the curriculum, how to register or housing go to AM DA Seminar on the NAB Web site or call Sharon Devine at (202)-429-5338. Register now for the NAB AM Antenna Computer Modeling Seminar!