

Welcome!

Greetings from Team ENCO!

DAD 5.1b was released recently. This is a continuation of what we described in 5.1a. Most areas within DAD now have the "new look" and we're receiving a lot of nice comments about it.

We have also added some cool new features in 5.1b and soon 5.1c, all designed to make life easier.

We have tightened the bond between DAD and Gateway. Moving cuts has gotten simpler as you can now send any cut or group of cuts to any other DAD "location" in your network with a simple 'Right Click' in the Library. When you Right Click you'll see a new option "Send To Location". That SendTo is then populated with one or more "destinations" (user configurable with friendly names). You click on a destination and the cut automatically shows up in the DAD library at that location. The RightClick->SendToLocation also has a STATUS choice so you can see the results of that (or any previous) Send (like queued, processing, complete, error,

etc). This is all done by DAD creating a "one shot" rule in a Gateway (of your choice) and letting Gateway do all the hard stuff.

We have had a number of requests to have DAD tell any Gateway to Scan any rule at any time. To permit this we have added the DCL : GATEWAY SCAN RULE X in 5.1b. This is a cool way to enable the scanning of a particular rule or set of rules via a command cut.

We saw a number of you changing groups in various ways, so we've added a very simple method; drag cuts into a Group Tab to change their group.

We have also attended to the CD Ripper (including Cut Number generator), with a number of additions so it is now easy to rip entire CD's to a single DAD cut. More metadata fields are available to fill in and we've added more efficient network based normalizing as well as other improvements. Things are also improved for our ENPS users as they no longer see the legacy Library.



5.1a added preliminary support for StreamLine - ENCO's integrated Music Scheduling, Traffic/Billing and Audio Automation solution. Music is scheduled by Micropower's Powergold, Traffic/Billing by Wicks Broadcasting's Visual Traffic, and Audio Automation is DAD. 5.1b and 5.1c strengthen integration of the systems to "streamline" the process and make things more and more efficient.

Thank you for your continued support and ideas. See you online at novacek@enco.com or the ENCO Users List Server. Gene



welcome two new members. Patrick Campion (right) is our new Midwest US Sales Director and Dennis Bellavance (left) is our new Western US Sales Director.

Patrick, a former ENCO support team member, most recently spent three years as the Operations Manager for Salem Communications in Minneapolis. With over ten years experience in the radio world, he's done everything from on-air to engineering to sales. According to Patrick, "I'm excited to be able to sell a product that I've been using day in and day out for nearly seven years and truly believe in. The ENCO family is one that I'm proud to again be a part of."

Dennis comes to us from Wicks Broadcast Solutions where he was the Senior Technical Training Specialist

Introducing New Central and Western Sales Directors

The ENCO US sales team is pleased to

for seven years. Before joining Wicks he worked for Arbitron and also did a stint as an IT Manager and Broadcast Engineer for Saga Communications in Portland, Maine. Dennis will be based in Portland, Oregon, apparently fond of Portland, no matter which coast it is on! Dennis said, "expanding my broadcast experience with ENCO is a great opportunity. I look forward to forming partnerships with broadcasters and providing dynamic solutions with DAD."

Don Backus, ENCO's Vice President of Sales and Marketing commented, "a company like ENCO is only as good as our people, and we have high standards across all of our departments. I am proud that we have been able to add people of the caliber of Patrick and Dennis to our team of sales professionals."

Datacasting with DAD

Datacasting is growing in popularity as stations develop integrated strategies for their WEB sites, HD, RDS and new emerging applications like interactive radio. Since inception, DAD has enabled broadcasters to communicate with a wide variety of devices and systems as well as send "data" which might consist of commands for other equipment, or any other textual information. The transmission of data in the broadcast stream is now beginning to be used widely as stations have found need for the transmission of "meta" data along with their audio signal. Meta data might be simple descriptive information about what's playing like title and artist or other information the station wishes to communicate to their listeners as text, such as a station ID or promotional announcements. With the large variety of devices beyond traditional radios being used to receive broadcast signals, the landscape is changing and will continue to evolve rapidly. This is driving the need for sending multiple streams of text or meta data targeted at various mediums including WEB sites, RDS radios, Cell phones, PDA's and others we have yet to dream of. Here we will share the various elements and options in DAD that support datacasting.

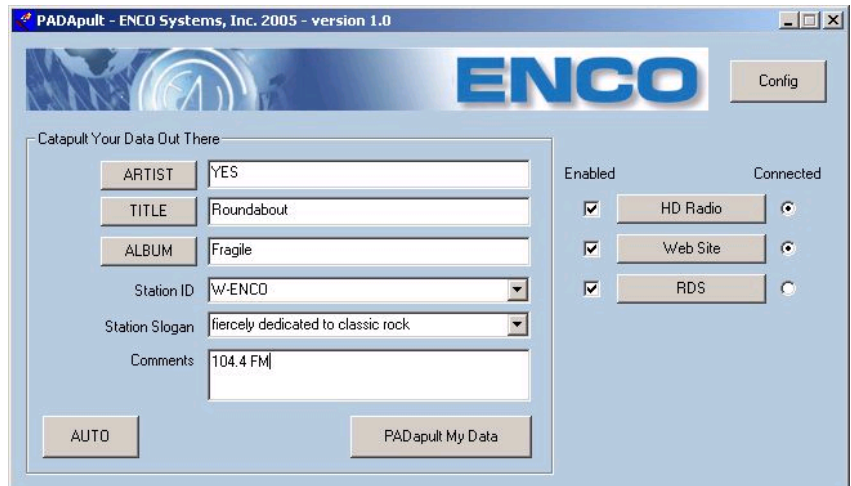
Send Text

The first method is Send Text DCL. This is offered as the "Serial I/O" option and must be enabled on your security key. Send Text supports sending out data streams from no more than 2 playlists on a single workstation. These streams can be sent over RS-232, RS-422, or UDP (which is one way "raw"

data to an IP address). The stream can be configured with a rich set of command options, including sending selective fields based on certain groups, program names, time of day, etc. The text stream is raw data (i.e. it's not formatted in any useful way), so it must be handled by an application at the other end of the communication that has some intelligence. If the text stream is to be sent simultaneously to multiple destinations like a WEB site and RDS, the additional option, "IP-Repeater" is required on your key.

Encore - Playback State

DAD's Encore option (also referred to as Playback State) supports data streams from multiple playlists on a single workstation. These streams can be sent only over fixed IP and/or UNC. As with Send Text, the stream can be configured with a rich set of command options, including sending selective fields based on certain groups, program names, time of day, etc. Encore's stream of data is formatted as XML, so it can be sent directly to a web server that has a simple bit of HTML code to display the information. A sample block of code for this is



delivered with Encore. If the XML stream is to be sent simultaneously to multiple destinations like a WEB site and RDS, an additional option, "XML-Repeater", is required on your key.

PADapult

PADapult is a new DAD option that enables operators to instantly create and send text streams that are not included as meta data in automation libraries. For example stations playing CD's on air or broadcasting live sports, news and talk, can create messages and send them just as if they were part of the programmed meta data. During automation PADapult will pass through any automated streams from DAD, but makes available a simple user interface to quickly compose and send instant text streams. PADapult supports multiple destinations, so there is no need for IP or XML Repeater when used in conjunction with Serial I/O or Encore. Which method you choose will depend on what's receiving the data, network security issues and your familiarity with manipulating text files. Send Text's advantage is that it

doesn't require fixed IP and can be sent over a serial connection, meaning network isolation is easily maintained. It's disadvantage is a requirement for something to translate data on the other end and that you can only send out 2 streams from one PC. If you use Sent Text make sure that you have an adequate number of serial ports.

Encore differs from Send Text in that data is already pre-formatted and easier to get to the other end. Not to mention the ease in setting up multiple streams of data from a single DAD. The disadvantage is network isolation may be more complicated. If using Encore make sure to take into account how you are going to route IP and maintain some security on the network.

See the Customer Quick Links on the SUPPORT section of ENCO's WEB site for details on how to use these methods.

Audio Warrants Careful Consideration in HDTV Migration Strategy

Most TV broadcasters are transmitting in HD or preparing to transmit in HD. The networks are providing an ever increasing inventory of HD programming and sales of HDTV sets are skyrocketing (albeit a little slower than early predictions). The HD transition implications for broadcasters and producers are significant and range from set construction and lighting details to new high definition, wide-format cameras and lenses, HD capable production and edit tools, and signal distribution as well. The scope of this video conversion is so vast that it often causes another essential part of the transition scenario to be overlooked: the audio portion of HDTV programming.

Multichannel audio: A different workflow requires a different process.

The HDTV specification includes 5.1 surround sound for audio. This finally allows the broadcast community to catch up in providing the enriched viewing experience available from home viewed DVD movies that include robust surround sound, designed for today's home theater systems.



Audio room for NBC's *Saturday Night Live*

Prerecorded programming and movies are often produced in surround sound and the broadcaster needs only to be able to distribute the content within their environment. Technologies like Dolby Laboratories' DolbyE® enable broadcasters to utilize existing stereo infrastructures to support the distribution and transmission of multi-channel audio. However, multi-channel audio is also finding acceptance in more than prerecorded productions. Live productions, sports coverage and even local programs are exploring use of full multi-channel audio. Sports producers are learning that creative placement of microphones and the audio mix for sports venues bring viewers right into the action. This adoption of multi-channel audio for all aspects of programming is

driving the need for a new and improved audio process. Clearly, producers or broadcasters can opt to provide traditional mono or stereo audio for many components of the broadcast stream such as station identification, effects and promos. However, broadcasters are learning that a mix of multi-channel programs with audio delivered only in mono or stereo can leave the undesirable impression of a flat or disjointed program. It is similar to the effect of jumping between widescreen program content and "banded" standard definition commercials and station announcements. As more commercial and announcement inventory moves to widescreen or HD to avoid this, audio must be given consideration also. Some producers are not only considering microphone placement for their live productions but are also re-mixing stereo and mono components on the fly to produce a continuous multi-channel audio program. Combined with dynamic visual effects introduced with computer graphics, the days of simple static presentation of stats and scores are gone. Everything is moving—

including audio. The audio for HD programming is no longer just along for the ride. It is an important and integral part of presentation. The process to support HDTV audio need not be costly nor labor intensive, but it is different. Building a process analogous to old tape based record and playout systems (even when emulated with hard disc based systems) does not provide the flexibility and speed necessary to manage live multi-channel events.

A Robust “data-driven” architecture needed

A Computer based systems approach is required to address these emerging issues. This was learned in the world of radio over 17 years ago when ENCO pioneered DAD for digital audio delivery and automation. The radio broadcaster needed computer tools to manage multiple audio program streams, commercial inserts, voice-overs, promo announcements and jingles, often for multiple stations simultaneously. Audio elements became essentially data files in a dynamically changing playlist available across the studio network. Similarly, efficient television production with multi-channel audio requires instant availability of audio elements in realtime from any location, without time consuming special handling or conversion. Production engineers must be able to simply “drag and drop” native multi-channel audio sequences to their edit suite timeline, or load multi-channel effects to a console or other device without delay. Rundowns or logs need to be automatically assembled into sequential playlists that are immediately available

to the audio operator, but still easily modified right up until air time from any network location. Producing HDTV programming with consistent multichannel sound means more is happening to audio during preparation for air and the old process, which was established in the days of tape, is just not fast or flexible enough. In live variety show formats it is not unusual to have band mixes, library music and sound effects being pulled across the network from several locations and mixed for both stereo and 5.1 just in time for air. Along with the improved workflows required, it is also becoming essential for TV broadcasters to log every element played to air. Incorporating a powerful database driven audio backbone automates the task of generating tracking reports or ASCAP/BMI rights reporting without added overhead. Some television broadcasters are implementing systems for this reason alone.

Cost, space and flexibility

The move to a data driven IT infrastructure for audio essentially separates the audio delivery, playout and management functionality, implemented in software, from device hardware, and removes dependencies on proprietary data structures or hardware components. This allows the broadcaster to realize the cost/performance benefits of the general IT marketplace. A typical master control or field production unit replacing up to 8 legacy proprietary “CART” emulating devices can be implemented in a single 1RU standard processor saving valuable rack space. And, utilization of standard PC

configurations means sources are abundant and costs are low and continue to drop. The audio functionality, implemented in software, need only be purchased one time. It will only improve over time, and is not tied to specific hardware components which may be replaced independently when necessary. The separation of application functionality from proprietary components has brought staggering cost reduction to the general IT marketplace for over two decades. It is now just beginning to impact some of the special needs in television broadcast. A further benefit is an open architecture that simplifies integration into and with other broadcast studio equipment such as audio consoles, video production switchers, edit controllers and other devices. And, the breadth of operator interface options available in general hardware can accommodate any special need from the control room to the edit suite.

Moving away from legacy systems mimicking a 40 year old process and into a modern data driven architecture will yield impressive benefits today and protect studio investments well into the future. The use of multi-channel surround sound is an aesthetic and technical journey that is only just beginning.

Things to do with DAD this Summer

Hello again from ENCO Technical Support. This summer is bringing quite a few items to the forefront. The weather is getting hotter, National Public Radios' Content Depot is getting off the ground and DAD is continuing to take on a new look and feel.

While many users might be more concerned about sunscreen and getting some vacation time this summer you should not forget your automation system. As the temperatures get warmer many equipment rooms and studios will also see an increase in temps. Now is a great time to check the cooling of your workstations and servers. Make sure that all fans are spinning freely, filters if used are free of dust and there is good unrestricted airflow out of the back of the machines. One other item everyone should do is to check their Event logs. One can do this by right clicking on My Com-

puter and selecting Manage. Under Event Viewer one should check the System and Application logs. Many times faults are logged here before they become a serious issue. You would not want a problem to interrupt your summer vacation.

Speaking of summer vacation, it can be a great time to catch up on some reading. If you have not taken time to peruse all of the information about getting setup and connected to National Public Radios' Content Depot.. now it the time. PRSS has some great documents that should answer most questions. Browse to: <http://www.prss.org/content-depot/stations.cfm> for current information. You can also visit our PRODUCTS page at www.enco.com and follow the "Take a tour" link for an overview of the Content Depot Monitor program along with help guides for DropBox and DAD.

Speaking of help, in DAD version 5.1b we have added a question mark in the title bar of most machines and screens in DAD. Click on this will open a help screen in your browser. We have been making a strong effort to keep these pages up to date with the changes in the software. There are several new sections such as details on the Setup screen. Many administrators are making a copy of the C:\DAD\Help directory and making it part of their internal training. With the new look and feel of DAD it's time take another look at what's in the Help guides. You might even learn something new and cool.

Summertime is time to keep your workstations cool, catch up on some reading and perhaps even learn some new functions within DAD.

Upcoming Events!

NAB Radio 2006

Sep. 20 2006

Dallas Texas

Booth 616

Texas Assoc. of Broadcasters

Aug. 10 2006

Austin Texas

Booth 59

Email sales@enco.com for exhibit passes or more information

Contacting ENCO Systems

ENCO Systems, Inc.
29444 Northwestern Highway
Southfield, Michigan 48034 USA

Tel: +1 (248) 827-4440
Fax: +1 (248) 827-4441
Tech Support: +1 (248) 827-4440
email: support@enco.com

Sales: 800-ENCO-SYS (800-362-6797)
email: sales@enco.com

ENCO Systems Limited
Nutbourne Business Centre
Main Road
Nutbourne
Chichester
PO18 8RL
United Kingdom

Tel: +44 (0)1243 389 222
Fax: +44 (0)1243 389 444
email: sales@encosystems.co.uk

