

# XM Satellite Radio

WASHINGTON, D.C.



## XM Rocks and Rolls with Dalet



Imagine you've found a great radio station playing lots of great stuff on a long car trip. You think you stumbled onto Audio Utopia, where the DJ is querying your brain for a playlist, where the station's reception hasn't faded and you haven't heard a commercial since you started the trip. XM Satellite Radio is rapidly revolutionizing the way Americans listen to radio with its digital satellite radio

service. From its state-of-the-art broadcast center in Washington, DC, XM beams 100 channels of digital quality audio to tens of thousands of subscribers from coast to coast. The XM service features a wide range of music genres, news, sports, comedy and talk, something for almost everyone. Since its launch in September of 2001, XM has already proven itself an innovator in what has become a predictable U.S. radio marketplace.

# SUCCESS STORY

### Dalet Welcomes the Challenge

As for the implementation of such a complex system, Turner says "the folks from Dalet were not only willing but it almost seemed that they were relishing the thought of taking a blank blackboard" and saying "We've got this great architecture, let's apply what we know, and now let's search out the unknowns as far as being able to integrate with all of these other systems". For a large broadcaster on the leading edge of technology, the tools required also had to be on the leading edge. The end result at XM has been a state-of-the-art Dalet Media Asset Management system installation, capable of managing XM's workflow, originating its audio production and delivering its media assets to the consumer.



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# Dalet Powers XM's 100 Channels

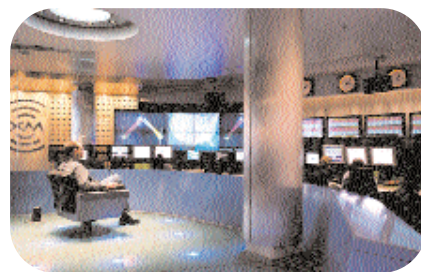


## News and Music Rolled Into One

At the heart of the XM operation beats a Dalet Media Asset Management system. The Dalet system allows XM and its partners' programmers to simultaneously produce 100 separate broadcast signals, manage more than 2 million song and audio titles, operate over 250 broadcast and production workstations and produce, schedule, play out, and publish over 75 broadcast logs every day. On top of that, the Dalet system includes a newsroom management system that allows XM and its team of journalists to produce news for its own in-house dedicated news channel as well as deliver and repurpose specialized news content for its music, sports and entertainment channels.

## It's All About Scale

"The scale of the project is enormous," says Tony Masiello, XM's Vice President of Operations. "We have 22 terabytes of storage, we have another 28 terabytes of auxiliary storage, so we have a total of 50 terabytes of storage capability for audio." Dalet's involvement in the XM project came about because of its experience with large systems. "This was not the biggest project Dalet ever tackled, with the most terminals," Masiello continues. "Maybe it ended up with the most storage, but they've done other ones like this around the world. We knew that they could do it and that was a big factor in the decision to go with Dalet."



"It doesn't hamper DJ's creativity at all which is important. I guess most of them don't realize what's behind it. And they shouldn't," says Masiello.

## Production Made Easy

In addition, all of XM's broadcast facilities including on-air studios, production studios, voice-over rooms, news talk prep areas, broadcast booths, producer areas, and central control rooms are connected to the Dalet Media Asset Management system. Just because XM built the largest and most advanced digital audio site in North America, doesn't mean it's hard for DJ's to learn and use. "The typical users don't need to understand the whole workflow process or all the integration and we don't expect them to," says Dan Turner, XM's Vice President of Programming Services. "At the

end of the day I can produce the same end result, making noise come out of a box, with a CD player or for that matter a cart machine, so the technology has to be transparent to the user."

## Every Song is a Click Away

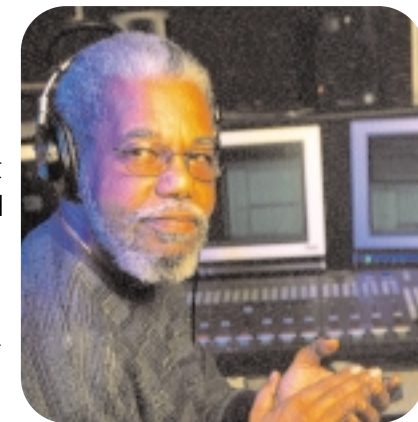
Dalet's software doesn't get in the way of the production of the on-air signal, even on such a large and complex system. "The DJs treat it as if it were an old-fashioned radio station with a bank of cart machines and CDs, able to do all kinds of drop-ins, and it's amazing to watch them do that," says Masiello. One of the highlights for XM's stable of disk jockeys is the flexibility Dalet affords in changing a playlist on the fly. "The ability of this system to react, whether it's in a live or whether it's in a pre-produced mode, is just something that really, really is a strong benefit to XM." The DJ's ability to call up any one of two million song titles is not a daunting challenge, because Dalet's integrated search engine makes it easy and quick to find what you're looking for. Immediate availability of all that material was one of the biggest challenges XM presented to Dalet. Masiello wanted "the ability to have all of the material available to all of the program directors, and all the music directors, all of the time. All of the two million song and audio titles are available to everyone." A little perspective here might be in order.



Two million song and audio titles available instantly or within five seconds, means that XM staffers have the vast majority of songs ever recorded on vinyl or compact disc available at their fingertips. The Dalet system offered a lot of technological advances and advantages of its own, according to Turner. "We were looking for certain degrees of redundancy and robustness that heretofore hadn't really been seen with too many other systems, and Dalet met all of those qualifications."

## Talking with Other Systems

Integration with 3rd party systems is essential for XM.



The Dalet system integrates with various other software systems at XM, including systems from Powergold, Encoda, and Klotz, and sharing information seamlessly and with little intervention from the end users. Masiello says powerful integration is a crucial element. "The system had to have that kind of flexibility, it had to be fast, it had to be reliable and it had to be manageable."