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## Digital Music's Next Big Battle

The arrival of software that lets you search for and record digital music off the airwaves could raise legal issues that will make the P2P skirmishes look quaint by comparison.

By Eric Hellweg  
September 7, 2004

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If you follow technology long enough, every once in awhile you'll get a jolt—the sudden This Is Big realization when you see something new and grasp its potential to change the way you go about your life. I've received these jolts when first hearing of voice over IP (VoIP), when I first set up a home wireless network, and when I used Napster and Gnutella for the first time.

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Last week, I received another jolt. This time, the shock of realizing amazing promise came when I checked out a new piece of software called TimeTrax. Created by 35-year-old Canadian programmer Scott MacLean, TimeTrax allows subscribers of XM Radio's satellite radio service to record music off the radio, appending track title and artist information to each song. Fans of indie rock could, for example, cue their satellite radio receivers to an indie rock station, click on Record in the TimeTrax software, go to sleep, and wake up the next day with eight hours' worth of music by the likes of The Fiery Furnaces and Spoon.

What's more, users can schedule the software to record a certain channel at a certain time, much the same way people can program a VCR or a TiVo to record a TV show while they're on vacation or at work. Right now the service only works with XM Radio on a device called the PCR, which the company sold so users could listen to satellite radio in their homes instead of just in their cars. Since TimeTrax came out, XM Radio discontinued the device, creating a lucrative market on eBay where the \$49 retail units are selling for more than \$350. MacLean says that the program has been downloaded about 7,000 times in the two weeks that it has been available.

TimeTrax is on the forefront of what will likely be the music and technology industry's next world war: the recording of broadcast digital audio. "We're at the beginning of the next P2P," says Jim Griffin, CEO of Cherry Lane Digital, a music and technology consultancy. "Peer-to-peer is small by comparison." What has Griffin and others interested is the concept that when radios all broadcast digital music signals, programs such as TimeTrax will allow users to search for and capture songs similar to how they do it today with programs such as Kazaa. Instead of grabbing a song from someone's hard drive, users will pluck it from the air via a digital radio signal. It's a new situation, which in part is what makes TimeTrax such an interesting case.

Already in Europe, devices have hit the market that allow users to do exactly what TimeTrax does with software, but have other built-in functionality such as the ability to rewind live radio for as long as the beginning of a song a user likes can be recorded. These devices have taken off in Europe

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standard for digital radio is already in place. In the United States, by contrast, the standard is still the rollout hasn't really started, with only satellite radio offering digital quality over the air. Europe broadcasting digitally use a standard called DAB, which stands for Digital Audio Broadcasting. It's considered in the United States is known as IBOC, for In-Band On Channel. Currently, the Federal Communications Commission is in its rule-making phase with the technology and is expected to have an audio deadline mandate soon, similar to how it ordered all television stations to broadcast digital programs by 2006. Once the FCC makes its decision, radio stations will begin their march toward digital broadcasting programs such as TimeTrax can record.

As more U.S. radio stations go digital, and as more people sign up for satellite radio, the interest in recording programs will grow. TimeTrax creator MacLean is optimistic about digital radio. "It's gathering speed," he says. "I've had interest from a few companies to partner and move TimeTrax satellite programs and streaming audio." If such partnerships come about, consumers might be able to use TimeTrax on other satellite radio providers such as Sirius, and on the car stereo instead of just a PC.

It's safe to say XM Radio isn't one of those companies. XM Radio has come out against the software music industry is "reviewing" the situation. XM Radio issued MacLean a cease-and-desist letter posting unauthorized copyrighted photos of the XM Radio PCR device, and demanded that he delete personal information of the people who have downloaded the program. MacLean promptly complied but refused both the requests. "I don't think they like the fact that it saves the stream as an MP3 file which he says he chose that file format because he needed strong compression.

TimeTrax and the emergence of digital radio recording tools in Europe are harbingers of the new music and technology industries that digital radio will introduce. MacLean, for one, sees benefit in people to record music off the radio. "I wrote XM after I received the cease-and-desist and told them out, that people are writing me telling me they're subscribing to XM now because of my to

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Eric Hellweg is a technology writer in Cambridge, MA.

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