New Steps to Protect DVDs in Piracy War

Macrovision plans to unveil technology to block 97% of software used to duplicate discs.

By Jon Healey  
Times Staff Writer  
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It took a Norwegian teenager and two Internet chat-room cohorts about a month to write a program that picked the digital locks on DVD movies and enabled them to be copied quickly and easily.

It took more than five years for someone to find a way to snap the locks shut again.

Macrovision Corp. today plans to unveil technology that it claims can block 97% of the DVD-copying software that pirates use without interfering with a DVD's playability or picture quality.

The Santa Clara, Calif.-based company is just the first of several firms expected to roll out new anti-copying technology that has been years in the making. The main challenge has been finding a way to alter discs without rendering them unplayable on the more than 200 million DVD players already in homes around the world.

For Hollywood studios, the technology could help wring even more revenue from DVDs, which have become a leading source of profit. According to Macrovision, unauthorized DVD copying costs the studios about $1 billion out of the $27.5 billion that analyst firm Screen Digest estimated they collected from worldwide DVD sales and rentals last year.

And for Macrovision and other anti-piracy companies, the potential market is huge. With hundreds of billions of DVDs pressed every year, even a small licensing fee from the major studios would generate a significant boost to the company, which reported $128 million in sales last year.

Macrovision's offering, called RipGuard, is aimed at the digital copying — or "ripping" — of DVDs by computers. Although the software used to rip discs is illegal in the United States, it has proliferated online since 15-year-old Jon Lech Johansen of Norway and his online partners wrote an early version in 1999.

Macrovision already is the leading supplier of technology to deter analog copying of Hollywood movies by VCRs, computers and other high-tech devices. That technology, which is widely but not universally deployed, renders the copied movie unwatchable.

But while analog copying methods are time consuming — it takes two hours to record a two-hour film — a DVD can be ripped in a few minutes. That's why technologies to stop digital copying, or at least make it much less efficient, would be valuable in Hollywood, said Danny Kaye, senior vice president of research and technology for News Corp.'s 20th Century Fox Home Entertainment.

"If it takes a long time and the frustration level gets too high, you're not going to prevent 100% of it, but
you can stop the casual user," Kaye said. "Why not try?"

Fox is evaluating Macrovision's technology and several competing efforts, Kaye said. Macrovision marketing executive Adam Gervin said he expected some Hollywood studios to roll out RipGuard this year, although he declined to say which ones.

Ripping is merely one of several ways that DVDs are copied, either by bootleggers or by movie fans making back-ups of the discs they've bought. Although Macrovision executives say their suite of products responds to other forms of copying, too, some studio executives remain skeptical about the impact of anti-ripping technology.

"We're always interested in another tool," said one executive who asked not to be named. "But until they fix the analog hole … it doesn't solve the problem."

The RipGuard technology would defeat the most popular of the ripping programs, Macrovision's Gervin said, by tinkering with the format of DVDs to make it impossible to extract data quickly from the discs. The technique confounds ripping programs without damaging computers, preventing the discs from playing or reducing picture quality, he said.

Consumer advocates said Hollywood had the right to put out unrippable discs. But such a move would ignore public demand for the ability to back up DVDs and take their movie collections on the road.

"It's swimming against the tide," said attorney Fred von Lohmann of the Electronic Frontier Foundation, a group that advocates civil liberties online. "Consumers one way or another tend to get what they want."