

Blu-ray Disc Association Adds New Copy Protection Features

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In a move to protect against illegal copying and large scale piracy while leaving consumers the flexibility to manage and enjoy copies of their legally purchased content, the Blu-ray Disc Association (BDA) has adopted the most comprehensive content management system ever employed on an optical disc format. The Blu-ray Disc content management system includes three primary components: Advanced Access Content System (AACS), "BD+", a Blu-ray specific enhancement for content protection renewability, and "ROM Mark", a measure unique to Blu-ray Disc to guard against mass production piracy or the mass duplication and sale of unauthorized copies of pre-recorded media.

"Content protection is a critical issue for next-generation media distribution," said Joshua Martin, Associate Research Analyst, IDC's Consumer Markets group. "Finalizing the content protection scheme is critical for the launch of blue laser optical disc technology, and new protection schemes should allow for increased consumer flexibility while better protecting prerecorded content compared to current DVD technology."

The foundation of the Blu-ray content management system, AACS(1), is a state of the art content management system that is many times more powerful than that used in DVD. Additionally, AACS enables new consumer usage models around network functionality and internet connectivity including managing copies, in an authorized and secure

manner.

In addition to AACCS, the BDA took a dramatic step in the battle against mass production piracy with the adoption of ROM Mark. ROM Mark, which is unique to Blu-ray Disc, is a new technology designed specifically to thwart large scale, mass production piracy, a problem that experts estimate costs the movie industry alone in excess of \$3 billion per year in lost revenue. To combat this, the ROM Mark technology embeds a unique and undetectable identifier in pre-recorded BD-ROM media such as movies, music and games. While invisible to consumers, this ROM Mark can only be mastered with equipment available to licensed BD-ROM manufacturers, essentially preventing unauthorized copies of a disc.

The BDA also adopted "BD+", a Blu-ray Disc specific programmable renewability enhancement that gives content providers an additional means to respond to organized attacks on the security system by allowing dynamic updates of compromised code. With these enhancements, content providers have a number of methods to choose from to combat hacks on Blu-ray players. Moreover, BD+ affects only players that have been attacked, as opposed to those that are vulnerable but haven't been attacked and therefore continue to operate properly.

"The level of unauthorized copying and industrial piracy associated with DVD not only jeopardizes studios and other content creators, but also results in increased costs and limited flexibility for consumers," said Maureen Weber, General Manager, of Hewlett Packard's Optical Storage Solutions. "It is good news for everyone that the BDA has adopted a series of measures that gets it right for the next disc format."

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