

COMMENT: Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies

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Proposed Class 1: "Digital Television/Broadcast Flag" -- Audiovisual works delivered by digital television ("DTV") transmission intended for free, over-the-air reception by anyone, which are marked with a "broadcast flag" indicator that prevents, restricts, or inhibits the ability of recipients to access the work at a time of the recipient's choosing and subsequent to the time of transmission, or using a machine owned by the recipient but which is not the same machine that originally acquired the transmission.

Argument for Proposed Class 1: "Digital Television/Broadcast Flag" -- It may seem obvious that the intended function of a technological measure covered by Section 1201 should fall into one of two categories. The measure either restricts the exercise of a copyright owner's right, or it restricts access to a work. However, prior 1201 rulemakings and precedent confronting this simple question appear to have introduced a curious problem. A single measure, whatever its intended purpose, can easily qualify as either an access-control, or a copy-control, or both.

Because of this problem, the question of whether a DTV "broadcast flag" (which functions to inhibit the user's time- and space-shifting capabilities) is intended to restrict copying and re-transmission, or alternatively is intended to grant or deny access, is not so easy to answer. It bears much in common with traditional "access controls" -- such as DVD Region Coding, which thwarts a given audiovisual performance but whose real function is to inhibit importing and exporting; and such as DVD encryption, which attempts to impede an audiovisual performance but which functionally acts to obfuscate home-made copies.

(Another trait shared with the DVD Region Coding "access" control is that the flag, by itself, does nothing. It is only when a flag-compliant device discovers and acts upon it that the flag has any effect. The presence of a Region Code on a DVD is identical in this respect.)

It must be expected that, following the complete shut-off of standard analog TV signals in 2009, broadcasters and copyright owners will do more to experiment with these copy restrictions. Users who have invested in digital television equipment will certainly experience frustration and will feel "ripped off" when they learn that their television recording privileges exist only by the grace of the broadcaster.

Proposed Class 2: "ICT" -- Audiovisual works embedded in a physical medium (such as Blu-Ray discs) which are marked for "down-conversion" or "down-resolutioning" (such as by the presence of an Image Constraint Token "ICT") when the work is to be conveyed through any of a playback machine's existing audio or visual output connectors, and therefore restricts the literal quantity of the embedded work available to the user (measured by visual resolution, temporal resolution, and color fidelity).

Argument for Proposed Class 2: "ICT" -- More factual background is necessary on this topic than I am able to provide, and reliable information is likely known only to signatories of various NDAs. But there are two general impressions among knowledgeable people. The first is that the Blu-Ray disc's data structure allows a disc publisher to assign an ICT to an audiovisual work. The second is that a licensed Blu-Ray disc player should respond to that token by "down-rezzing" the electronic video signal when conveyed over an "un-trusted" analog connection (typically, a trio of RCA cables). No such constraint occurs when the signal is conveyed over the preferred, "trusted" digital pathway (High-Definition Multimedia Interface "HDMI", incorporating High-bandwidth Digital Content Protection "HDCP").

There is evidence that ICTs are rare in today's Blu-Ray discs. But there is also evidence that a consensus was built among Blu-Ray publishers that omitting the ICT "feature" would be in their short-term interest, until HDMI connections are ubiquitous and the Blu-Ray format is stable. In the next three years, HDMI connections will be ubiquitous -- because they already are. And Blu-Ray will be stabilized as a format -- because it already is, its rival HD DVD format having disappeared earlier this year. An anticipated rise in ICT use will cause user frustration, as the promised "high definition" experience falls short in ways that are as directly measurable as they are subjective.

The question of whether ICT qualifies as a 1201 access control should be simple to answer, since the measure depends on the application of information (HDCP "handshake" and key-passing) to access the complete work. But slightly complicating the matter is that the "work" itself remains accessible; but only that portion of the work which is left when ICT down-rezzing is complete. It is arguable that ICT denies access to discarded video details until a condition is satisfied (HDMI connectivity), and therefore that ICT qualifies as a 1201 access control measure. While the discarded information might seem like a small point, marketing literature promising that a Blu-Ray experience yields "up to 6 times the video quality of standard definition" suggests that this is not a trivial issue.

It would be forward-thinking for the Register to begin considering measurements of fidelity, such as visual, temporal, and auditory resolution, not only to inform assumptions on what does and does not qualify as a 1201 access control (as I suggest here), but also in judging the substitutability of one format for another in her balancing assessments.