Michael A. Rolenz
18 February 2003
 "Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control
Technologies"

Reply comments in support and amplification to Comment #23 of Don R. Hansen

2. Descriptive Name Class : Data file formats, including but not limited to word
processing-, image- and music file types.

Summary:

The purpose of copyright is the promotion of progress. To promote progress, works are
given copyright protection so that they might be disseminated now and preserved for
future use. Access controls are antipodal to that goal since they can restrict dissemination
today and can eliminate preservation in the future. In particular how can works be
preserved and archived when distributed with access controls that cannot be
circumvented because it is not feasible or economically viable?

Facts and evidence:

It is mathematically demonstrable that without knowledge of file formats that works
stored in that file format approach cryptographic complexities and can become
inaccessible without a complete definition of the file format, contents, and processing
algorithms. This has been the situation until 1998. Works that have access controls that
include encryption are even more so. Works with strong encryption may take decades of
time to break and can provide a de-facto monopoly. Reverse engineering is not
economically viable at best and demonstrably impossible at worst.

Argument:

See Reply comments submitted by Michael A. Rolenz in support and amplification to
Comment #24 of Christopher Lewis for a discussion on file format.

The purpose of copyright is the promotion of progress. To promote progress, works are
given copyright protection so that they might be given a broad dissemination now and as
such can be preserved for future use through any surviving copies in libraries either
public or private. Access controls are antipodal to that goal since they can restrict
dissemination today and can eliminate preservation in the future simply because either
file formats are unknown, or encrypted which makes or just too difficult to be
economically viable to perform the reverse engineering. Comment #23 raises an
interesting question-do proprietary, licensed, or unknown file formats written and
accessed by copyrighted software qualify as access controls under the DMCA? If not,

then they are not subject to the DMCA. If so, then there are several solutions. One is to not allow works that have access controls to enjoy copyright protection. A less radical solution would be to require any work that is to have copyright protection and subject to the DMCA make a full disclosure of all aspects of the file format sufficient for future access. That information should be made available to the public in the event that the file format is no longer supported or after a reasonably short period so that there would still be an economic incentive for the creation of conversion utilities in (given the evolution of software, no more than 5-10 years would be adequate).