

# Current CD server limitations in the DVD support for Apple environments

A Macintosh will be able to read and open files with the following filesystems correctly from discs mounted in the StorPoint:

## CD Formats

- ? ISO9660 with apple extensions
- ? Macintosh HFS
- ? Hybrid Discs with a combination of HFS & ISO9660

## DVD Formats

- ? UDF with a ISO9660 header containing Apple extensions

The most common problems experienced related to the fact that Apple extensions is missing from the ISO 9660 header of the DVD. The StorPoint and a Macintosh handles DVDs with ISO9660 headers differently: A Macintosh mounts the UDF filesystem directly without taking notice of the ISO -header opposed to the StorPoint which mounts the disc with the help of a header, another difference is that the MAC understands "Apple Extended Attributes" in the UDF filesystem which the StorPoint doesn't recognize.

## Examples of typical complications

1. *A DVD burned with Adaptec Toast for DVD with a ISO9660 works fine when shared on a MAC but not on the StorPoint:*  
The MAC can open files without problems - The creator program along with misc. settings are identified by the Apple extended attributes in the UDF system of the disc. It's not possible to open the same files when the DVD is shared on a StorPoint, the reason for this is that no apple extensions are available in the ISO -header which the StorPoint has used to mount the disc - the client will therefore be unable to identify which program that should be used to open the file(s). A workaround for this limitation is to burn your DVD with the proper Apple Extensions (note that in some cases reported from the field the DVD has the flag for Apple extensions set in the header but no extensions exists.)
2. *A UDF DVD without ISO header works fine when shared on a MAC but it's impossible to open files when the same DVD is shared on a StorPoint:*  
The StorPoint will mount the UDF since no ISO header exists but it is unable to recognize the Apple extended attributes of the UDF that the MAC uses to open the files.
3. *A commercial DVD runs fine on a MAC but doesn't work with the StorPoint:*  
The cause could be any of the above described the DVD could have a combination of ISO/UDF or be a UDF only, either way it will be impossible to use the DVD since it probably is lacking Apple extensions in UDF.

## Solution

A solution for the above described problems this is to implement support for "Apple extended attributes" in the StorPoint code along with making it optional which filesystem to mount. a time schedule for this has not currently been set. for now these problems are regarded as known limitations.

## Glossary:

### ISO 9660 Format

The most common international standard for the logical format for files and directories on a CD-ROM. Some other common logical formats such as Joliet and Rock Ridge are extensions of ISO 9660.

### HFS

The file system used by the Macintosh operating system to organize data on hard and floppy disks. Can also be used for CD-ROMs.

## UDF

Universal Disc Format. A file system endorsed by OSTA (the Optical Storage Technology Association) for use with packet writing and other recordable optical disc technologies, such as DVD.