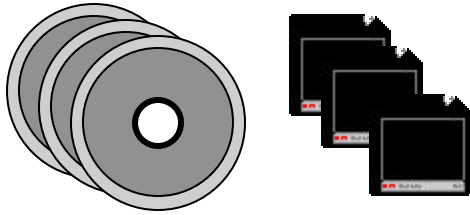
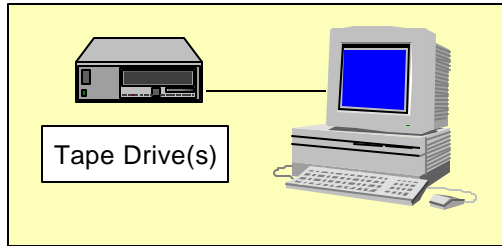


Tape Preservation via CD or DVD

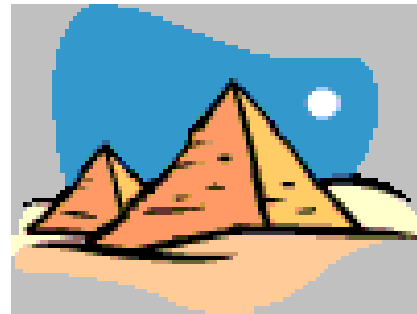
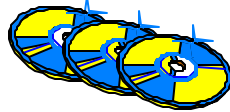
Archival Tape Holdings



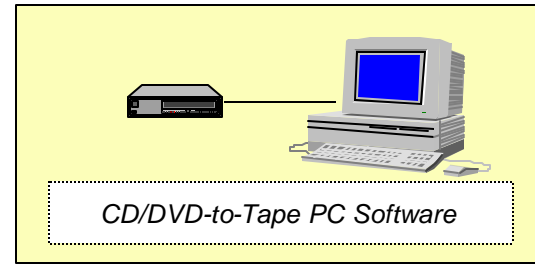
(1) MMC's APS technology is used to make exact "tape-image file" copies of tapes on durable CDs or DVDs. (See Notes page for background info.)



Each CD can hold the contents of several reels or 3480 cartridges—even more with DVD.



Ye Olde Storage Facility



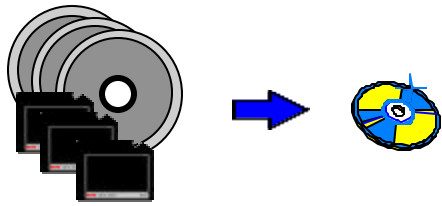
CD/DVD-to-Tape PC Software

(3) Any given tape can be regenerated on demand with bit-for-bit accuracy.

(See Notes page for other options.)

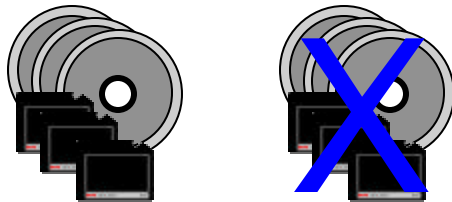
(2) Maybe they won't last quite as long as the pyramids, but CDs and DVDs are far more resistant to physical degradation than tape, and will leave lots of extra space in your storage facility.

Tape Preservation via CD/DVD - Features & Benefits



Feature: **Improve Archival Quality while Reducing Space.**

While tape makes a convenient backup medium, it is not a particularly good archival medium. Temperature, humidity, magnetic fields and gravity all affect a tape's storage reliability to a much greater degree than they would affect a CD or DVD. Since each CD or DVD can hold the contents of multiple 9-track or 3480/3490 tapes with superior archival characteristics, so you gain both in reliability and space savings.



Feature: **Eliminate Unproductive Work.**

Many users of offsite data storage will create an extra copy of their tapes just for the purpose of sending them offsite. (Often, there is no practical way to check either the original tape set or the copies for errors.) With our approach, the original tapes are processed, which saves you an extra step, and eliminates uncertainty about your tapes. (See below.)



Feature: **Eliminate Uncertainty about Original Tapes.**

With the MMC approach, you not only have your vital data copied to a more compact and stable medium, but, as a byproduct, we *confirm the readability of your original tapes*. (If you had simply shipped them to a storage facility, you could not be certain whether there were any unreadable spots to begin with--and the tapes would be further subject to deterioration on the shelf.)



Feature: **Conveniently Regenerate Any Original Tape(s).**

An ordinary PC equipped with a CD or DVD reader, a tape drive and MMC's Image-to-Tape package can reproduce any original tape bit for bit. The output need not be to the original medium--can be to DAT or DLT, for example, as you require.

Tape Preservation via CD/DVD - Notes

What is “APS Technology”?

Muller Media Conversions developed and continues to enhance the award-winning *Archival Preservation Systems* (APS) at the National Archives’ Center for Electronic Records. The contract permits MMC to use, license and extend the software for the commercial market. This system forms the basis for the Tape Preservation service described here. To see more about the APS project, go to <http://www.mullermedia.com> and select the “NARA Chronicle” page.

What is a “Tape-Image File”?

This is a file format developed by MMC prior to APS, and supported by APS. It is a disk file whose internal structure preserves the exact contents of a given tape, byte-for-byte, block-for-block, and filemark-for-filemark. Thus a tape-image file can be used to create an exact copy of the original tape on the same or different tape medium.

I like the CD/DVD approach, but...

What if I don’t want to bother with an in-house CD/DVD-to-Tape system?

- (i) MMC can copy CD/DVD tape-images to a wide variety of tape media as needed.
- (ii) The tape-image file specifications are simple, and freely shared by MMC. Clients who have written their own tape-reading software can generally tailor their programs to read directly from tape-images--without the necessity of actually creating a physical tape.