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CD-ROM: Pre-Press Considerations

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TOPIC -----

What can you tell me about storing text information on CD-ROM in High Sierra format and having retrieval engines that will allow access to the data from both MS-DOS and Macintosh platforms.

How does one go about mastering a disc like this? What are the pressing criteria? In what format does the data need to be supplied? How does one maintain Finder file attributes for applications/files in High Sierra? What quirks are there with this process and what information and tools do local pressing agents need?

DISCUSSION -----

First a note about High Sierra and ISO 9660 CD-ROM formats. High Sierra was established first. Initially, the format was presented in a working document. Several CD-ROMs were published from this "not quite" final document. These CD-ROMs may not be readable by all "High Sierra" drivers.

Next, International Standards Organization (ISO) used the High Sierra document as the basis for their standard ISO 9660 CD-ROM format. Most developers of CD-ROMs for multiple platform products now use the ISO 9660 standard. The ISO 9660 format is supported by the Apple II and Macintosh CD drivers and by MS-DOS Extensions Version 2.0 and up. As a result, you may want to use the ISO 9660 standard.

For a High Sierra/ISO 9660-type format, a decision must be made about what will be placed on the disc. This is especially important when the information will be used on a variety of different computer systems. The files that will be placed on the CD-ROM should be readable by all types of computers that are expected to read the data. The ASCII text file is one type of file that is universal to most computer systems.

Applications may not be the best thing to place on a disc that will be used in different computers. Generally, an application that runs on one type of computer will not run on another type. However, Meridian Data, Inc. has a CD-ROM which contains both Macintosh and MS-DOS applications in a ISO 9660 format while maintaining Macintosh file integrity. They have apparently worked out a method to accomplish this hybrid disc.

If the information will be read by a search and display application of the developer's design, then the type of file to be used can be designed to function as needed by the developers. This will require the developer to write individual search and display applications for each of the different computers using the CD-ROM.

Different mastering/pressing facilities request differing formats for the source materials. For ISO 9660, some facilities require that the source material be in ANSI files on a 1/2-inch, 9-track tape with 6250 bytes per inch, while others will accept ANSI image, ANSI files, IBM image, unlabeled image formats on a .5-inch, 9-track tape. Other formats and media include TK70 image or TK70 files on cartridge tape or on an AFA WORM formatted optical disc. Thus, to determine what format the data needs to be in, contact your mastering facility to find out what format they want for the source material.

Once the CD-ROM developer has agreed with the mastering/pressing facility on the format and medium, the source material is sent to the facility. Often a test pressing is provided for the developer to verify that all is correct with the transfer from source material to CD-ROM. On approval of the test pressing, the facility then presses the requested number of CD-ROM discs.

To determine when a CD-ROM pressing becomes feasible, compare the cost of alternate methods of distribution to the cost of CD-ROM distribution. People often consider the breakeven point to be 100 copies at 10-20MB per copy.

A more sophisticated method involves the use of the premastering facility. A premastering facility provides an intermediary service between the developer and the mastering/pressing plant. The service can consult with you about creating a successfully-designed CD-ROM and properly format all data destined for the CD-ROM.

Mastering and pressing facilities include 3M Optical Recording Department, Discovery Systems, and Digital Audio Disc Corporation. For premastering, contact Optical Media International and Meridian Data. For more details, search the Technical Info library under the appropriate company name.
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