CD-ROM: Standards Used (8/96)

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TOPIC ---

This article contains a list of CD-ROM Standards, or formats, and their
definition.

DISCUSSION --

You may hear or see several terms used to define CD-ROM discs and drives. These
include Red Book, Yellow Book, White Book, and Green Book. Some of these
standards, such as the White Book, are derived from previous standards, but with
added features.

Red Book

The Red Book specification is for digital audio CDs. All audio CDs use this
specification to assure that any audio CD-ROM in the world works with any audio
CD-player. The Red Book specification was developed by Phillips and Sony.

Yellow Book

The Yellow Book specification is used for computer-based CD-ROMs. The Yellow
Book specification only defines the physical arrangement of the data on the
disc. Other standards are used in conjunction with the Yellow Book to define
directory and file structures. These include ISO-9660, HFS, and Hybrid HFS-ISO.
Sector formats are defined as Mode 1, Mode 2, and CD-ROM/XA.

ISO-9660

This file system standard is a "lowest common denominator" format. It only
allows for an 8.3 filenames (EIGHT__8.TXT). There is an extended ISO-9660 file
system, called the Rock Ridge extension, used primarily for UNIX CD-ROMS that
allows for longer UNIX file names and directory structures.

HFS

This file system is designed to support Macintosh features not supported under
the ISO-9660 standard. This includes longer file names (up to 31 characters),
custom icons, and other Finder features such as comments and labels.

Hybrid HFS-ISO

This file system is a combination of ISO-9660 and HFS. This format is used by
CD-ROM developers on products designed for both the Macintosh and MS-Windows or
UNIX platforms.

Mode 1

Mode 1 CD-ROMs contain only computer data, and have 2048 byte sectors.

Mode 2

Mode 2 CD-ROMs contain compressed audio data and video/picture data, and have
2324 byte sectors. Mode 2 sectors also contain end-of-record markers, interrupt
triggers, and data type specifications.

CD-ROM/XA

CD-ROM/XA (CD-ROM Extended Architecture) is an extension of the Mode 2 format.
Like Mode 2 it contains compressed audio and video/picture data. The CD-ROM/XA
format however offers the ability to interleave the Mode 2 compressed audio and
Mode 2 data sectors.

White Book

This specification covers the Video CD format.

Green Book

This specification builds on the Red Book and the Yellow Book, and is designed
for CD-I discs (Compact Disc-Interactive).

Orange Book

This specification covers writable CDs, including CD Recordable (CD-R),
magneto-optical cartridge systems and single and multisession recordings.

CD+ (CD Plus)

This specification is still being worked on by both the computer and music
industry. It is a derivative of the CD+MM format, which combines computer
multimedia elements with a standard audio CD-ROM. With the current CD+MM format,
Track 1 contains the computer data, and when placed into an audio CD-player,
Track 1 must be skipped. The goal is to have a CD-ROM that will contain both
audio and computer data on one disc, and when placed into an audio CD-player
plays only the audio tracks. All computer data is ignored without any manual
assistance.

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