NAME

cd - CDROM driver for the CAM SCSI subsystem

DESCRIPTION

The **cd** device driver provides a read-only interface for CDROM drives (SCSI type 5) and WORM drives (SCSI type 4) that support CDROM type commands. Some drives do not behave as the driver expects. See the *QUIRKS* section for information on possible flags.

QUIRKS

Each CD-ROM device can have different interpretations of the SCSI spec. This can lead to drives requiring special handling in the driver. The following is a list of quirks that the driver recognizes.

CD_Q_NO_TOUCH This flag tells the driver not to probe the drive at attach time to see if there is a disk in the drive and find out what size it is. This flag is currently unimplemented in the CAM **cd** driver.

CD_Q_BCD_TRACKS This flag is for broken drives that return the track numbers in packed BCD instead of straight decimal. If the drive seems to skip tracks (tracks 10-15 are skipped) then you have a drive that is in need of this flag.

CD_Q_NO_CHANGER
This flag tells the driver that the device in question is not a changer. This is only necessary for a CDROM device with multiple luns that are not a part of a changer.

CD_Q_CHANGER This flag tells the driver that the given device is a multi-lun changer. In general, the driver will figure this out automatically when it sees a LUN greater than 0. Setting this flag only has the effect of telling the driver to run the initial read capacity command for LUN 0 of the changer through the changer scheduling code.

CD_Q_10_BYTE_ONLY
This flag tells the driver that the given device only accepts 10 byte MODE SENSE/MODE SELECT commands. In general these types of quirks should not be added to the cd(4) driver. The reason is that the driver does several things to attempt to determine whether the drive in question needs 10 byte commands. First, it issues a CAM Path Inquiry command to determine whether the protocol that the drive speaks typically only allows 10 byte commands. (ATAPI and USB are two prominent examples of protocols where you generally only want to send 10 byte commands.) Then, if it gets an

ILLEGAL REQUEST error back from a 6 byte MODE SENSE or MODE SELECT command, it attempts to send the 10 byte version of the command instead. The only reason you would need a quirk is if your drive uses a protocol (e.g., SCSI) that typically does not have a problem with 6 byte commands.

FILES

/sys/cam/scsi/scsi_cd.c is the driver source file.

SEE ALSO

cd(4), scsi(4)

HISTORY

The **cd** manual page first appeared in FreeBSD 2.2.

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