Rocky Enterprise Linux 9.2 Manual Pages on command 'fd.4'

$ man fd.4

FD(4)   Linux Programmer's Manual   FD(4)

NAME

    fd - floppy disk device

CONFIGURATION

    Floppy drives are block devices with major number 2. Typically they

    are owned by root:floppy (i.e., user root, group floppy) and have ei?

    ther mode 0660 (access checking via group membership) or mode 0666 (ev?

    erybody has access). The minor numbers encode the device type, drive

    number, and controller number. For each device type (that is, combina?

    tion of density and track count) there is a base minor number. To this

    base number, add the drive's number on its controller and 128 if the

    drive is on the secondary controller. In the following device tables,

    n represents the drive number.

    Warning: if you use formats with more tracks than supported by your

    drive, you may cause it mechanical damage. Trying once if more tracks

    than the usual 40/80 are supported should not damage it, but no war?

    ranty is given for that. If you are not sure, don't create device en?

    tries for those formats, so as to prevent their usage.

Drive-independent device files which automatically detect the media format and capacity:

Name	Base minor #
fdn	0

5.25 inch double-density device files:

Name	Capacity KiB	Cyl.	Sect.	Heads	Base minor #
fdnd360	360	40	9	2	4

5.25 inch high-density device files:

Name	Capacity KiB	Cyl.	Sect.	Heads	Base minor #
fdnh360	360	40	9	2	20
fdnh410	410	41	10	2	48
fdnh420	420	42	10	2	64
fdnh720	720	80	9	2	24
fdnh880	880	80	11	2	80
fdnh1200	1200	80	15	2	8
fdnh1440	1440	80	18	2	40
fdnh1476	1476	82	18	2	56
fdnh1494	1494	83	18	2	72
fdnh1600	1600	80	20	2	92

3.5 inch double-density device files:

Name	Capacity KiB	Cyl.	Sect.	Heads	Base minor #
fdnu360	360	80	9	1	12
fdnu720	720	80	9	2	16
fdnu800	800	80	10	2	120
fdnu1040	1040	80	13	2	84

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fdnu1120     1120    80   14    2     88
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3.5 inch high-density device files:

Name	Capacity KiB	Cyl.	Sect.	Heads	Base minor #
??					
fdnu360	360	40	9	2	12
fdnu720	720	80	9	2	16
fdnu820	820	82	10	2	52
fdnu830	830	83	10	2	68
fdnu1440	1440	80	18	2	28
fdnu1600	1600	80	20	2	124
fdnu1680	1680	80	21	2	44
fdnu1722	1722	82	21	2	60
fdnu1743	1743	83	21	2	76
fdnu1760	1760	80	22	2	96
fdnu1840	1840	80	23	2	116
fdnu1920	1920	80	24	2	100

3.5 inch extra-density device files:

Name	Capacity KiB	Cyl.	Sect.	Heads	Base minor #
??					
fdnu2880	2880	80	36	2	32
fdnCompaQ	2880	80	36	2	36
fdnu3200	3200	80	40	2	104
fdnu3520	3520	80	44	2	108
fdnu3840	3840	80	48	2	112

DESCRIPTION

fd special files access the floppy disk drives in raw mode.   The fol?
lowing ioctl(2) calls are supported by fd devices:

FDCLRPRM

clears the media information of a drive (geometry of disk in
drive).

FDSETPRM

sets the media information of a drive. The media information will be lost when the media is changed.

FDDEFPRM

sets the media information of a drive (geometry of disk in drive). The media information will not be lost when the media is changed. This will disable autodetection. In order to reen‐ able autodetection, you have to issue an FDCLRPRM.

FDGETDRVTYP

returns the type of a drive (name parameter). For formats which work in several drive types, FDGETDRVTYP returns a name which is appropriate for the oldest drive type which supports this for‐ mat.

FDFLUSH

invalidates the buffer cache for the given drive.

FDSETMAXERRS

sets the error thresholds for reporting errors, aborting the op‐ eration, recalibrating, resetting, and reading sector by sector.

FDSETMAXERRS

gets the current error thresholds.

FDGETDRVTYP

gets the internal name of the drive.

FDWERRORCLR

clears the write error statistics.

FDWERRORGET

reads the write error statistics. These include the total num‐ ber of write errors, the location and disk of the first write error, and the location and disk of the last write error. Disks are identified by a generation number which is incremented at (almost) each disk change.

FDTWADDLE

Switch the drive motor off for a few microseconds.   This might be needed in order to access a disk whose sectors are too close together.

FDSETDRVPRM

    sets various drive parameters.

FDGETDRVPRM

    reads these parameters back.

FDGETDRVSTAT

    gets the cached drive state (disk changed, write protected et

    al.)

FDPOLLDRVSTAT

    polls the drive and return its state.

FDGETFDCSTAT

    gets the floppy controller state.

FDRESET

    resets the floppy controller under certain conditions.

FDRAWCMD

    sends a raw command to the floppy controller.

For more precise information, consult also the <linux/fd.h> and <linux/fdreg.h> include files, as well as the floppycontrol(1) manual page.

FILES

/dev/fd*

NOTES

The various formats permit reading and writing many types of disks. However, if a floppy is formatted with an inter-sector gap that is too small, performance may drop, to the point of needing a few seconds to access an entire track. To prevent this, use interleaved formats.

It is not possible to read floppies which are formatted using GCR (group code recording), which is used by Apple II and Macintosh comput? ers (800k disks).

Reading floppies which are hard sectored (one hole per sector, with the index hole being a little skewed) is not supported. This used to be common with older 8-inch floppies.

SEE ALSO

chown(1), floppycontrol(1), getfdprm(1), mknod(1), superformat(1),

mount(8), setfdprm(8)

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at https://www.kernel.org/doc/man-pages/.

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