Rocky Enterprise Linux 9.2 Manual Pages on command 'fifo.7'

$ man fifo.7

FIFO(7)   Linux Programmer's Manual   FIFO(7)

NAME

   fifo - first-in first-out special file, named pipe

DESCRIPTION

   A FIFO special file (a named pipe) is similar to a pipe, except that it

   is accessed as part of the filesystem. It can be opened by multiple

   processes for reading or writing. When processes are exchanging data

   via the FIFO, the kernel passes all data internally without writing it

   to the filesystem. Thus, the FIFO special file has no contents on the

   filesystem; the filesystem entry merely serves as a reference point so

   that processes can access the pipe using a name in the filesystem.

   The kernel maintains exactly one pipe object for each FIFO special file

   that is opened by at least one process. The FIFO must be opened on

   both ends (reading and writing) before data can be passed. Normally,

   opening the FIFO blocks until the other end is opened also.

   A process can open a FIFO in nonblocking mode. In this case, opening

   for read-only succeeds even if no one has opened on the write side yet

   and opening for write-only fails with ENXIO (no such device or address)

unless the other end has already been opened.

Under Linux, opening a FIFO for read and write will succeed both in blocking and nonblocking mode. POSIX leaves this behavior undefined. This can be used to open a FIFO for writing while there are no readers available. A process that uses both ends of the connection in order to communicate with itself should be very careful to avoid deadlocks.

NOTES

For details of the semantics of I/O on FIFOs, see pipe(7).

When a process tries to write to a FIFO that is not opened for read on the other side, the process is sent a SIGPIPE signal.

FIFO special files can be created by mkfifo(3), and are indicated by ls -l with the file type 'p'.

SEE ALSO

mkfifo(1), open(2), pipe(2), sigaction(2), signal(2), socketpair(2), mkfifo(3), pipe(7)

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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