NAME

daemon - run in the background

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <stdlib.h>

int
daemon(*int nochdir*, *int noclose*);

int
daemonfd(*int chdirfd*, *int nullfd*);

DESCRIPTION

The **daemon**() function is for programs wishing to detach themselves from the controlling terminal and run in the background as system daemons.

If the argument *nochdir* is zero, **daemon**() changes the current working directory to the root (*/*).

If the argument *noclose* is zero, **daemon**() redirects standard input, standard output, and standard error to */dev/null*.

The **daemonfd**() function is equivalent to the **daemon**() function except that arguments are the descriptors for the current working directory and to the descriptor to */dev/null*.

If *chdirfd* is equal to (-1) the current working directory is not changed.

If *nullfd* is equals to (-1) the redirection of standard input, standard output, and standard error is not closed.

RETURN VALUES

The **daemon**() and **daemonfd**() functions return the value 0 if successful; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

The **daemon**() and **daemonfd**() function may fail and set *errno* for any of the errors specified for the library functions fork(2) open(2), and setsid(2).

SEE ALSO

fork(2), setsid(2), sigaction(2)

HISTORY

The **daemon**() function first appeared in 4.4BSD. The **daemonfd**() function first appeared in FreeBSD 12.0.

CAVEATS

Unless the *noclose* argument is non-zero, **daemon**() will close the first three file descriptors and redirect them to */dev/null*. Normally, these correspond to standard input, standard output, and standard error. However, if any of those file descriptors refer to something else, they will still be closed, resulting in incorrect behavior of the calling program. This can happen if any of standard input, standard output, or standard error have been closed before the program was run. Programs using **daemon**() should therefore either call **daemon**() before opening any files or sockets, or verify that any file descriptors obtained have values greater than 2.

The **daemon**() function temporarily ignores SIGHUP while calling setsid(2) to prevent a parent session group leader’s calls to fork(2) and then _exit(2) from prematurely terminating the child process.