

NAME

daemon – run in the background

LIBRARY

Standard C library (*libc*, *-lc*)

SYNOPSIS

```
#include <unistd.h>
```

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

Feature Test Macro Requirements for glibc (see **feature_test_macros(7)**):

daemon():

Since glibc 2.21:

```
_DEFAULT_SOURCE
```

In glibc 2.19 and 2.20:

```
_DEFAULT_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)
```

Up to and including glibc 2.19:

```
_BSD_SOURCE || (_XOPEN_SOURCE && _XOPEN_SOURCE < 500)
```

DESCRIPTION

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

If *nochdir* is zero, **daemon()** changes the process's current working directory to the root directory ("/"); otherwise, the current working directory is left unchanged.

If *noclose* is zero, **daemon()** redirects standard input, standard output, and standard error to */dev/null*; otherwise, no changes are made to these file descriptors.

RETURN VALUE

(This function forks, and if the **fork(2)** succeeds, the parent calls **_exit(2)**, so that further errors are seen by the child only.) On success **daemon()** returns zero. If an error occurs, **daemon()** returns *-1* and sets *errno* to any of the errors specified for the **fork(2)** and **setsid(2)**.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes(7)**.

Interface	Attribute	Value
daemon()	Thread safety	MT-Safe

VERSIONS

A similar function appears on the BSDs.

The glibc implementation can also return *-1* when */dev/null* exists but is not a character device with the expected major and minor numbers. In this case, *errno* need not be set.

STANDARDS

None.

HISTORY

4.4BSD.

BUGS

The GNU C library implementation of this function was taken from BSD, and does not employ the double-fork technique (i.e., **fork(2)**, **setsid(2)**, **fork(2)**) that is necessary to ensure that the resulting daemon process is not a session leader. Instead, the resulting daemon is a session leader. On systems that follow System V semantics (e.g., Linux), this means that if the daemon opens a terminal that is not already a controlling terminal for another session, then that terminal will inadvertently become the controlling terminal for the daemon.

SEE ALSO

fork(2), **setsid(2)**, **daemon(7)**, **logrotate(8)**