NAME

sigprocmask − examine and change blocked signals

SYNOPSIS

#include <signal.h>

int sigprocmask(int *how***, const sigset_t ****set***, sigset_t ****oldset***);**

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

sigprocmask(): _POSIX_C_SOURCE >= 1 || _XOPEN_SOURCE || _POSIX_SOURCE

DESCRIPTION

sigprocmask() is used to fetch and/or change the signal mask of the calling thread. The signal mask is the set of signals whose delivery is currently blocked for the caller (see also **signal**(7) for more details).

The behavior of the call is dependent on the value of *how*, as follows.

SIG_BLOCK
The set of blocked signals is the union of the current set and the *set* argument.

SIG_UNBLOCK
The signals in *set* are removed from the current set of blocked signals. It is permissible to attempt to unblock a signal which is not blocked.

SIG_SETMASK
The set of blocked signals is set to the argument *set*.

If *oldset* is non-null, the previous value of the signal mask is stored in *oldset*.

If *set* is NULL, then the signal mask is unchanged (i.e., *how* is ignored), but the current value of the signal mask is nevertheless returned in *oldset* (if it is not NULL).

The use of **sigprocmask**() is unspecified in a multithreaded process; see **pthread_sigmask**(3).

RETURN VALUE

sigprocmask() returns 0 on success and −1 on error.

ERRORS

EINVAL The value specified in *how* was invalid.

CONFORMING TO

POSIX.1-2001.

NOTES

It is not possible to block **SIGKILL** or **SIGSTOP**. Attempts to do so are silently ignored.

Each of the threads in a process has its own signal mask.

A child created via **fork**(2) inherits a copy of its parent's signal mask; the signal mask is preserved across **execve**(2).

If **SIGBUS**, **SIGFPE**, **SIGILL**, or **SIGSEGV** are generated while they are blocked, the result is undefined, unless the signal was generated by the **kill**(2), **sigqueue**(2), or **raise**(3).

See **sigsetops**(3) for details on manipulating signal sets.

SEE ALSO

kill(2), **pause**(2), **sigaction**(2), **signal**(2), **sigpending**(2), **sigqueue**(2), **sigsuspend**(2), **pthread_sigmask**(3), **sigsetops**(3), **signal**(7)

COLOPHON

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