Rocky Enterprise Linux 9.2 Manual Pages on command 'sigsuspend.2'

C:\>man sigsuspend.2

SIGSUSPEND(2) Linux Programmer's Manual SIGSUSPEND(2)

NAME

sigsuspend, rt_sigsuspend - wait for a signal

SYNOPSIS

#include <signal.h>

int sigsuspend(const sigset_t *mask);

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

sigsuspend(): _POSIX_C_SOURCE

DESCRIPTION

sigsuspend() temporarily replaces the signal mask of the calling thread with the mask given by mask and then suspends the thread until delivery of a signal whose action is to invoke a signal handler or to terminate a process.

If the signal terminates the process, then sigsuspend() does not return. If the signal is caught, then sigsuspend() returns after the signal handler returns, and the signal mask is restored to the state before the call to sigsuspend().

It is not possible to block SIGKILL or SIGSTOP; specifying these signals in mask, has no effect on the thread's signal mask.

RETURN VALUE

sigsuspend() always returns -1, with errno set to indicate the error (normally, EINTR).

ERRORS

EFAULT mask points to memory which is not a valid part of the process address

space.

EINTR The call was interrupted by a signal; signal(7).

CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

NOTES

Normally, sigsuspend() is used in conjunction with sigprocmask(2) in order to pre? vent delivery of a signal during the execution of a critical code section. The caller first blocks the signals with sigprocmask(2). When the critical code has completed, the caller then waits for the signals by calling sigsuspend() with the signal mask that was returned by sigprocmask(2) (in the oldset argument).

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

C library/kernel differences

The original Linux system call was named sigsuspend(). However, with the addition of real-time signals in Linux 2.2, the fixed-size, 32-bit sigset_t type supported by that system call was no longer fit for purpose. Consequently, a new system call, rt_sigsuspend(), was added to support an enlarged sigset_t type. The new system call takes a second argument, size_t sigsetsize, which specifies the size in bytes of the signal set in mask. This argument is currently required to have the value sizeof(sigset_t) (or the error EINVAL results). The glibc sigsuspend() wrap? per function hides these details from us, transparently calling rt_sigsuspend() when the kernel provides it.

SEE ALSO

kill(2), pause(2), sigaction(2), signal(2), sigprocmask(2), sigwaitinfo(2), sigse? tops(3), sigwait(3), signal(7)

COLOPHON

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