Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sigpending.2' command

$ man sigpending.2

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

NAME

    sigpending, rt_sigpending - examine pending signals

SYNOPSIS

    #include <signal.h>

    int sigpending(sigset_t *set);

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

    sigpending(): _POSIX_C_SOURCE

DESCRIPTION

    sigpending() returns the set of signals that are pending for delivery

    to the calling thread (i.e., the signals which have been raised while

    blocked). The mask of pending signals is returned in set.

RETURN VALUE

    sigpending() returns 0 on success and -1 on error. In the event of an

    error, errno is set to indicate the cause.

ERRORS

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

       address space.

CONFORMING TO

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

NOTES

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

    If a signal is both blocked and has a disposition of "ignored", it is

not added to the mask of pending signals when generated.

The set of signals that is pending for a thread is the union of the set of signals that is pending for that thread and the set of signals that is pending for the process as a whole; see signal(7).

A child created via fork(2) initially has an empty pending signal set; the pending signal set is preserved across an execve(2).

C library/kernel differences

The original Linux system call was named sigpending(). However, with the addition of real-time signals in Linux 2.2, the fixed-size, 32-bit sigset_t argument supported by that system call was no longer fit for purpose. Consequently, a new system call, rt_sigpending(), was added to support an enlarged sigset_t type. The new system call takes a sec‐ ond argument, size_t sigsetsize, which specifies the size in bytes of the signal set in set. The glibc sigpending() wrapper function hides these details from us, transparently calling rt_sigpending() when the kernel provides it.

BUGS

In versions of glibc up to and including 2.2.1, there is a bug in the wrapper function for sigpending() which means that information about pending real-time signals is not correctly returned.

SEE ALSO

kill(2), sigaction(2), signal(2), sigprocmask(2), sigsuspend(2), sigse‐ tops(3), signal(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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