NAME

sigwaitinfo, sigtimedwait – wait for queued signals

SYNOPSIS

cc [*flag* ...] *file* ... **–lposix4** [*library* ...]

#include <signal.h>

int sigwaitinfo(const sigset_t **set*, **siginfo_t** **info***);**

int sigtimedwait(const sigset_t **set*, **siginfo_t** **info*, **const struct timespec** **timeout***);**

```
typedef struct siginfo {
  int          si_signo;   /* signal from signal.h */
  int          si_code;    /* code from above      */
 ...
  int          si_value;
 ...
} siginfo_t;

struct timespec {
  time_t       tv_sec;     /* seconds */
  long         tv_nsec;    /* and nanoseconds */
};
```

MT-LEVEL

Async-Safe

DESCRIPTION

sigwaitinfo( ) and **sigtimedwait( )** select the pending signal from the set specified by *set*. When multiple signals are pending, the lowest numbered one will be selected. The selection order between realtime and non-realtime signals, or between multiple pending non-realtime signals, is unspecified.

If no signal in *set* is pending at the time of the call, **sigwaitinfo( )** suspends the calling process until one or more signals in *set* become pending or until it is interrupted by an unblocked, caught signal. **sigtimedwait( )**, on the other hand, suspends itself for the time interval specified in the **timespec** structure referenced by *timeout.* If the **timespec** structure pointed to by *timeout* is zero-valued, and if none of the signals specified by *set* are pending, then **sigtimedwait( )** returns immediately with the error **EAGAIN.**

If, while **sigwaitinfo( )** or **sigtimedwait( )** is waiting, a signal occurs which is eligible for delivery (i.e., not blocked by the process signal mask), that signal is handled asynchronously and the wait is interrupted.

If *info* is non-**NULL**, the selected signal number is stored in **si_signo**, and the cause of the signal is stored in the **si_code**. If any value is queued to the selected signal, the first such queued value is dequeued and, if *info* is non-**NULL**, the value is stored in the **si_value** member of *info*. The system resource used to queue the signal is released and made available to queue other signals.

If the value of the **si_code** member is **SI_NOINFO,** only the **si_signo** member of **siginfo_t** is meaningful, and the value of all other members is unspecified.

If no further signals are queued for the selected signal, the pending indication for that signal is reset.

RETURN VALUES

If one of the signals specified by *set* is either pending or generated, **sigwaitinfo( )** or **sigtimedwait( )** returns the selected signal number. Otherwise, the function returns **-1** and sets **errno** to indicate the error condition.

ERRORS

EINTR The wait was interrupted by an unblocked, caught signal.

ENOSYS **sigwaitinfo( )** or **sigtimedwait( )** is not supported by this implementation.

The following errors relate to only **sigtimedwait( ):**

EAGAIN No signal specified by *set* was delivered within the specified timeout period.

EINVAL *timeout* specified a **tv_nsec** value less than 0 or greater than 1,000,000,000.

SEE ALSO

time(2), **sigqueue**(3R), **siginfo**(5), **signal**(5)