



Linux Ubuntu 26.04 Manual Pages on command 'pthread_sigmask.3'

\$ man pthread_sigmask.3

pthread_sigmask(3) Library Functions Manual pthread_sigmask(3)

NAME _____

pthread_sigmask - examine and change mask of blocked signals

LIBRARY

POSIX threads library (libpthread, -lpthread)

SYNOPSIS

```
#include <signal.h>
```

```
int pthread_sigmask(int how, const sigset_t *set, sigset_t *oldset);
```

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

pthread_sigmask():

POSIX C SOURCE >= 199506L || XOPEN SOURCE >= 500

DESCRIPTION

The `pthread_sigmask()` function is just like `sigprocmask(2)`, with the difference that its use in multithreaded programs is explicitly specified by POSIX.1. Other differences are noted in this page.

For a description of the arguments and operation of this function, see `sigprocmask(2)`.

RETURN VALUE

On success, `pthread_sigmask()` returns 0; on error, it returns an error number.

ERRORS

See `sigprocmask(2)`.

ATTRIBUTES

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

[illegible]

[illegible]

```

/* Simple error handling functions */

static void *
sig_thread(void *arg)
{
    sigset_t *set = arg;

    int s, sig;

    for (;;) {
        s = sigwait(set, &sig);

        if (s != 0)
            errc(EXIT_FAILURE, s, "sigwait");

        printf("Signal handling thread got signal %d\n", sig);
    }
}

int
main(void)
{
    pthread_t thread;

    sigset_t set;

    int s;

    /* Block SIGQUIT and SIGUSR1; other threads created by main()
       will inherit a copy of the signal mask. */
    sigemptyset(&set);
    sigaddset(&set, SIGQUIT);
    sigaddset(&set, SIGUSR1);
    s = pthread_sigmask(SIG_BLOCK, &set, NULL);

    if (s != 0)
        errc(EXIT_FAILURE, s, "pthread_sigmask");

    s = pthread_create(&thread, NULL, &sig_thread, &set);

    if (s != 0)
        errc(EXIT_FAILURE, s, "pthread_create");

    /* Main thread carries on to create other threads and/or do
       other work. */

    pause();          /* Dummy pause so we can test program */

```

```
}
```

SEE ALSO

sigaction(2), sigpending(2), sigprocmask(2), pthread_attr_setsigmask_np(3), pthread_create(3), pthread_kill(3), sigsetops(3), pthreads(7), signal(7)

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