NAME

thr_suspend - suspend the calling thread

LIBRARY

Standard C Library (libc, -lc)

SYNOPSIS

#include <sys/thr.h>

int
thr_suspend(*struct timespec *timeout*);

DESCRIPTION

This function is intended for implementing threading. Normal applications should use pthread_cond_timedwait(3) together with pthread_cond_broadcast(3) for typical safe suspension with cooperation of the thread being suspended, or pthread_suspend_np(3) and pthread_resume_np(3) in some specific situations, instead.

The **thr_suspend**() system call puts the calling thread in a suspended state, where it is not eligible for CPU time. This state is exited by another thread calling thr_wake(2), when the time interval specified by *timeout* has elapsed, or by the delivery of a signal to the suspended thread.

If the *timeout* argument is NULL, the suspended state can be only terminated by explicit **thr_wake**() or signal.

If a wake from thr_wake(2) was delivered before the **thr_suspend** call, the thread is not put into a suspended state. Instead, the call returns immediately without an error.

If a thread previously called thr_wake(2) with its own thread identifier, which resulted in setting the internal kernel flag to immediately abort interruptible sleeps with an EINTR error (see thr_wake(2)), the flag is cleared. As with thr_wake(2) called from another thread, the next **thr_suspend** call does not result in suspension.

RETURN VALUES

The **thr_suspend**() function returns the value 0 if successful; otherwise the value -1 is returned and the global variable *errno* is set to indicate the error.

ERRORS

The **thr_suspend**() operation returns the following errors:

[EFAULT] The memory pointed to by the *timeout* argument is not valid.

[ETIMEDOUT] The specified timeout expired.

[ETIMEDOUT] The *timeout* argument specified a zero time interval.

[EINTR] The sleep was interrupted by a signal.

SEE ALSO

ps(1), thr_wake(2), pthread_resume_np(3), pthread_suspend_np(3)

STANDARDS

The **thr_suspend**() system call is non-standard.

HISTORY

The **thr_suspend**() system call first appeared in FreeBSD 5.2.