NAME

pthread_cond_timedwait - wait on a condition variable for a specific amount of time

LIBRARY

POSIX Threads Library (libpthread, -lpthread)

SYNOPSIS

#include <pthread.h>

int
pthread_cond_timedwait(*pthread_cond_t *cond, pthread_mutex_t *mutex,*
*const struct timespec *abstime*);

DESCRIPTION

The **pthread_cond_timedwait**() function atomically blocks the current thread waiting on the condition variable specified by *cond*, and releases the mutex specified by *mutex*. The waiting thread unblocks only after another thread calls pthread_cond_signal(3), or pthread_cond_broadcast(3) with the same condition variable, or if the system time reaches the time specified in *abstime*, and the current thread reacquires the lock on *mutex*.

The clock used to measure *abstime* can be specified during creation of the condition variable using pthread_condattr_setclock(3).

RETURN VALUES

If successful, the **pthread_cond_timedwait**() function will return zero. Otherwise an error number will be returned to indicate the error.

ERRORS

The **pthread_cond_timedwait**() function will fail if:

[EINVAL] The value specified by *cond*, *mutex* or *abstime* is invalid.

[ETIMEDOUT] The system time has reached or exceeded the time specified in *abstime*.

[EPERM] The specified *mutex* was not locked by the calling thread.

SEE ALSO

pthread_cond_broadcast(3), pthread_cond_destroy(3), pthread_cond_init(3), pthread_cond_signal(3), pthread_cond_wait(3), pthread_condattr_setclock(3)

STANDARDS

The **pthread_cond_timedwait**() function conforms to ISO/IEC 9945-1:1996 ("POSIX.1").