

NAME

pthread_mutex_lock - lock a mutex

LIBRARY

POSIX Threads Library (libpthread, -lpthread)

SYNOPSIS

```
#include <pthread.h>
```

int

```
pthread_mutex_lock(pthread_mutex_t *mutex);
```

DESCRIPTION

The **pthread_mutex_lock()** function locks *mutex*. If the mutex is already locked, the calling thread will block until the mutex becomes available.

RETURN VALUES

If successful, **pthread_mutex_lock()** will return zero, otherwise an error number will be returned to indicate the error.

ERRORS

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

- | | |
|-------------------|--|
| [EINVAL] | The value specified by <i>mutex</i> is invalid. |
| [EDEADLK] | A deadlock would occur if the thread blocked waiting for <i>mutex</i> . |
| [EOWNERDEAD] | The argument <i>mutex</i> points to a robust mutex and the process containing the previous owning thread terminated while holding the mutex lock. The lock was granted to the caller and it is up to the new owner to make the state consistent. |
| [ENOTRECOVERABLE] | The state protected by the <i>mutex</i> is not recoverable. |

SEE ALSO

pthread_mutex_consistent(3), pthread_mutex_destroy(3), pthread_mutex_init(3), pthread_mutex_trylock(3), pthread_mutex_unlock(3)

STANDARDS

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