



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

\$ man pthread_mutex_consistent.3

pthread_mutex_consistent(3) Library Functions Manual pthread_mutex_consistent(3)

NAME

pthread_mutex_consistent - make a robust mutex consistent

LIBRARY

POSIX threads library (libpthread, -lpthread)

SYNOPSIS

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

```
int pthread_mutex_consistent(pthread_mutex_t *mutex);
```

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

```
pthread_mutex_consistent():
```

```
    _POSIX_C_SOURCE >= 200809L
```

DESCRIPTION

This function makes a robust mutex consistent if it is in an inconsistent state. A mutex can be left in an inconsistent state if its owner terminates while holding the mutex, in which case the next owner who acquires the mutex will succeed and be notified by a return value of EOWNERDEAD from a call to pthread_mutex_lock().

RETURN VALUE

On success, pthread_mutex_consistent() returns 0. Otherwise, it returns a positive error number to indicate the error.

ERRORS

EINVAL The mutex is either not robust or is not in an inconsistent state.

STANDARDS

POSIX.1-2008.

HISTORY

glibc 2.12. POSIX.1-2008.

Before the addition of `pthread_mutex_consistent()` to POSIX, glibc defined the following equivalent nonstandard function if `_GNU_SOURCE` was defined:

[[deprecated]]

```
int pthread_mutex_consistent_np(const pthread_mutex_t *mutex);
```

This GNU-specific API, which first appeared in glibc 2.4, is nowadays obsolete and should not be used in new programs; since glibc 2.34 it has been marked as deprecated.

NOTES

`pthread_mutex_consistent()` simply informs the implementation that the state (shared data) guarded by the mutex has been restored to a consistent state and that normal operations can now be performed with the mutex. It is the application's responsibility to ensure that the shared data has been restored to a consistent state before calling `pthread_mutex_consistent()`.

EXAMPLES

See `pthread_mutexattr_setrobust(3)`.

SEE ALSO

`pthread_mutex_lock(3)`, `pthread_mutexattr_getrobust(3)`, `pthread_mutexattr_init(3)`,
`pthread_mutexattr_setrobust(3)`, `pthreads(7)`

Linux man-pages 6.17

2026-02-08

`pthread_mutex_consistent(3)`