



## ***Linux Ubuntu 26.04 Manual Pages on command 'pthread\_mutexattr\_setpshared.3'***

***\$ man pthread\_mutexattr\_setpshared.3***

pthread\_mutexattr\_getpshared(3)      Library Functions Manual      pthread\_mutexattr\_getpshared(3)

### NAME

pthread\_mutexattr\_getpshared, pthread\_mutexattr\_setpshared - get/set process-shared mutex attribute

### LIBRARY

POSIX threads library (libpthread, -lpthread)

### SYNOPSIS

```
#include <pthread.h>

int pthread_mutexattr_getpshared(
    const pthread_mutexattr_t *restrict attr,
    int *restrict pshared);

int pthread_mutexattr_setpshared(pthread_mutexattr_t *attr,
    int pshared);
```

### DESCRIPTION

These functions get and set the process-shared attribute in a mutex attributes object. This attribute must be appropriately set to ensure correct, efficient operation of a mutex created using this attributes object.

The process-shared attribute can have one of the following values:

#### PTHREAD\_PROCESS\_PRIVATE

Mutexes created with this attributes object are to be shared only among threads in the same process that initialized the mutex. This is the default value for the process-shared mutex attribute.

#### PTHREAD\_PROCESS\_SHARED

Mutexes created with this attributes object can be shared between any threads that have access to the memory containing the object, including threads in different processes.

`pthread_mutexattr_getpshared()` places the value of the process-shared attribute of the mutex attributes object referred to by `attr` in the location pointed to by `pshared`.

`pthread_mutexattr_setpshared()` sets the value of the process-shared attribute of the mutex attributes object referred to by `attr` to the value specified in `pshared`.

If `attr` does not refer to an initialized mutex attributes object, the behavior is undefined.

## RETURN VALUE

On success, these functions return 0. On error, they return a positive error number.

## ERRORS

`pthread_mutexattr_setpshared()` can fail with the following errors:

**EINVAL** The value specified in `pshared` is invalid.

**ENOTSUP**

`pshared` is `PTHREAD_PROCESS_SHARED` but the implementation does not support process-shared mutexes.

## STANDARDS

POSIX.1-2008.

## HISTORY

POSIX.1-2001.

## SEE ALSO

`pthread_mutexattr_init(3)`, `pthreads(7)`

Linux man-pages 6.17

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`pthread_mutexattr_getpshared(3)`