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.1-2001, POSIX.1-2008.

SEE ALSO

pthread_mutexattr_init(3), **pthreads**(7)