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## **Red Hat Enterprise Linux Release 9.2 Manual Pages on 'pthread\_barrierattr\_getpshared.3p' command**

### ***\$ man pthread\_barrierattr\_getpshared.3p***

PTHREAD\_BARRIERATTR\_GETPSHAPOSIXPPProgrammer'PTHREAD\_BARRIERATTR\_GETPSHARED(3P)

#### PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

#### NAME

pthread\_barrierattr\_getpshared, pthread\_barrierattr\_setpshared ? get and set the process-shared attribute of the barrier attributes object

#### SYNOPSIS

```
#include <pthread.h>

int pthread_barrierattr_getpshared(const pthread_barrierattr_t
    *restrict attr, int *restrict pshared);

int pthread_barrierattr_setpshared(pthread_barrierattr_t *attr,
    int pshared);
```

#### DESCRIPTION

The pthread\_barrierattr\_getpshared() function shall obtain the value of the process-shared attribute from the attributes object referenced by attr. The pthread\_barrierattr\_setpshared() function shall set the process-shared attribute in an initialized attributes object referenced by attr.

The process-shared attribute is set to PTHREAD\_PROCESS\_SHARED to permit a barrier to be operated upon by any thread that has access to the mem?

ory where the barrier is allocated. See Section 2.9.9, Synchronization Object Copies and Alternative Mappings for further requirements. The default value of the attribute shall be `PTHREAD_PROCESS_PRIVATE`. Both constants `PTHREAD_PROCESS_SHARED` and `PTHREAD_PROCESS_PRIVATE` are defined in `<pthread.h>`.

Additional attributes, their default values, and the names of the associated functions to get and set those attribute values are implementation-defined.

The behavior is undefined if the value specified by the `attr` argument to `pthread_barrierattr_getpshared()` or `pthread_barrierattr_setpshared()` does not refer to an initialized barrier attributes object.

## RETURN VALUE

If successful, the `pthread_barrierattr_getpshared()` function shall return zero and store the value of the process-shared attribute of `attr` into the object referenced by the `pshared` parameter. Otherwise, an error number shall be returned to indicate the error.

If successful, the `pthread_barrierattr_setpshared()` function shall return zero; otherwise, an error number shall be returned to indicate the error.

## ERRORS

The `pthread_barrierattr_setpshared()` function may fail if:

**EINVAL** The new value specified for the process-shared attribute is not one of the legal values `PTHREAD_PROCESS_SHARED` or `PTHREAD_PROCESS_PRIVATE`.

These functions shall not return an error code of `[EINTR]`.

The following sections are informative.

## EXAMPLES

None.

## APPLICATION USAGE

The `pthread_barrierattr_getpshared()` and `pthread_barrierattr_setpshared()` functions are part of the Thread Process-Shared Synchronization option and need not be provided on all implementations.

## RATIONALE

If an implementation detects that the value specified by the attr argument to `pthread_barrierattr_getpshared()` or `pthread_barrierattr_setpshared()` does not refer to an initialized barrier attributes object, it is recommended that the function should fail and report an [EINVAL] error.

#### FUTURE DIRECTIONS

None.

#### SEE ALSO

`pthread_barrier_destroy()`, `pthread_barrierattr_destroy()`

The Base Definitions volume of POSIX.1-2017, `<pthread.h>`

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