

**NAME**

**pthread\_barrierattr\_destroy**, **pthread\_barrierattr\_getpshared**, **pthread\_barrierattr\_init**,  
**pthread\_barrierattr\_setpshared** - manipulate a barrier attribute object

**LIBRARY**

POSIX Threads Library (libpthread, -lpthread)

**SYNOPSIS**

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

```
int
```

```
pthread_barrierattr_destroy(pthread_barrierattr_t *attr);
```

```
int
```

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

```
int
```

```
pthread_barrierattr_init(pthread_barrierattr_t *attr);
```

```
int
```

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

**DESCRIPTION**

The **pthread\_barrierattr\_init()** function will initialize *attr* with default attributes. The **pthread\_barrierattr\_destroy()** function will destroy *attr* and release any resources that may have been allocated on its behalf.

The **pthread\_barrierattr\_getpshared()** function will put the value of the process-shared attribute from *attr* into the memory area pointed to by *pshared*. The **pthread\_barrierattr\_setpshared()** function will set the process-shared attribute of *attr* to the value specified in *pshared*. The argument *pshared* may have one of the following values:

**PTHREAD\_PROCESS\_PRIVATE** The barrier object it is attached to may only be accessed by threads in the same process as the one that created the object.

**PTHREAD\_PROCESS\_SHARED** The barrier object it is attached to may be accessed by threads in processes other than the one that created the object.

**RETURN VALUES**

If successful, all these functions will return zero. Otherwise, an error number will be returned to

indicate the error.

None of these functions will return EINTR.

## ERRORS

The **pthread\_barrierattr\_destroy()**, **pthread\_barrierattr\_getpshared()** and **pthread\_barrierattr\_setpshared()** functions may fail if:

[EINVAL]           The value specified by *attr* is invalid.

The **pthread\_barrierattr\_init()** function will fail if:

[ENOMEM]           Insufficient memory to initialize the barrier attribute object *attr*.

The **pthread\_barrierattr\_setpshared()** function will fail if:

[EINVAL]           The value specified in *pshared* is not one of the allowed values.

## SEE ALSO

pthread\_barrier\_destroy(3), pthread\_barrier\_init(3), pthread\_barrier\_wait(3)

## HISTORY

The **pthread\_barrierattr\_\***(*n*) functions first appeared in N:M Threading Library (libkse, -lkse) in FreeBSD 5.2, and in 1:1 Threading Library (libthr, -lthr) in FreeBSD 5.3. Support for process-shared barriers appeared in FreeBSD 11.0.