

**NAME**

**pthread\_condattr\_init**, **pthread\_condattr\_destroy**, **pthread\_condattr\_getclock**, **pthread\_condattr\_setclock**, **pthread\_condattr\_getpshared**, **pthread\_condattr\_setpshared** - condition attribute operations

**LIBRARY**

POSIX Threads Library (libpthread, -lpthread)

**SYNOPSIS**

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

*int*

```
pthread_condattr_init(pthread_condattr_t *attr);
```

*int*

```
pthread_condattr_destroy(pthread_condattr_t *attr);
```

*int*

```
pthread_condattr_getclock(pthread_condattr_t * restrict attr, clockid_t * restrict clock_id);
```

*int*

```
pthread_condattr_setclock(pthread_condattr_t *attr, clockid_t clock_id);
```

*int*

```
pthread_condattr_getpshared(pthread_condattr_t * restrict attr, int * restrict pshared);
```

*int*

```
pthread_condattr_setpshared(pthread_condattr_t *attr, int pshared);
```

**DESCRIPTION**

Condition attribute objects are used to specify parameters to **pthread\_cond\_init()**.

The **pthread\_condattr\_init()** function initializes a condition attribute object with the default attributes.

The **pthread\_condattr\_destroy()** function destroys a condition attribute object.

The **pthread\_condattr\_getclock()** function will put the value of the clock attribute from *attr* into the memory area pointed to by *clock\_id*. The **pthread\_condattr\_setclock()** function will set the clock attribute of *attr* to the value specified in *clock\_id*. The clock attribute affects the interpretation of *abstime* in **pthread\_cond\_timedwait(3)** and may be set to **CLOCK\_REALTIME** (default) or **CLOCK\_MONOTONIC**.

The **pthread\_condattr\_getpshared()** function will put the value of the process-shared attribute from *attr* into the memory area pointed to by *pshared*. The **pthread\_condattr\_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 condition variable 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 condition variable it is attached to may be accessed by threads in processes other than the one that created the object.

See [libthr\(3\)](#) for details of the implementation of shared condition variables, and their limitations.

## RETURN VALUES

If successful, these functions return 0. Otherwise, an error number is returned to indicate the error.

## ERRORS

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

[ENOMEM] Out of memory.

The **pthread\_condattr\_destroy()** function will fail if:

[EINVAL] Invalid value for *attr*.

The **pthread\_condattr\_setclock()** function will fail if:

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

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

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

## SEE ALSO

[libthr\(3\)](#), [pthread\\_cond\\_init\(3\)](#), [pthread\\_cond\\_timedwait\(3\)](#)

## STANDARDS

The **pthread\_condattr\_init()** and **pthread\_condattr\_destroy()** functions conform to ISO/IEC 9945-1:1996 ("POSIX.1")