

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.

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

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")