NAME

pthread_detach − detach a thread

SYNOPSIS

#include <pthread.h>

int pthread_detach(pthread_t *thread***);**

Compile and link with *−pthread*.

DESCRIPTION

The **pthread_detach**() function marks the thread identified by *thread* as detached. When a detached thread terminates, its resources are automatically released back to the system without the need for another thread to join with the terminated thread.

Attempting to detach an already detached thread results in unspecified behavior.

RETURN VALUE

On success, **pthread_detach**() returns 0; on error, it returns an error number.

ERRORS

EINVAL

thread is not a joinable thread.

ESRCH

No thread with the ID *thread* could be found.

ATTRIBUTES

For an explanation of the terms used in this section, see **attributes**(7).

Interface	Attribute	Value
pthread_detach()	Thread safety	MT-Safe

CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

NOTES

Once a thread has been detached, it can't be joined with **pthread_join**(3) or be made joinable again.

A new thread can be created in a detached state using **pthread_attr_setdetachstate**(3) to set the detached attribute of the *attr* argument of **pthread_create**(3).

The detached attribute merely determines the behavior of the system when the thread terminates; it does not prevent the thread from being terminated if the process terminates using **exit**(3) (or equivalently, if the main thread returns).

Either **pthread_join**(3) or **pthread_detach**() should be called for each thread that an application creates, so that system resources for the thread can be released. (But note that the resources of any threads for which one of these actions has not been done will be freed when the process terminates.)

EXAMPLE

The following statement detaches the calling thread:

```
pthread_detach(pthread_self());
```

SEE ALSO

pthread_attr_setdetachstate(3), **pthread_cancel**(3), **pthread_create**(3), **pthread_exit**(3), **pthread_join**(3), **pthreads**(7)

COLOPHON

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