

NAME

pthread_once - dynamic package initialization

LIBRARY

POSIX Threads Library (libpthread, -lpthread)

SYNOPSIS

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

```
pthread_once_t once_control = PTHREAD_ONCE_INIT;
```

```
int
```

```
pthread_once(pthread_once_t *once_control, void (*init_routine)(void));
```

DESCRIPTION

The first call to **pthread_once()** by any thread in a process, with a given *once_control*, will call the **init_routine()** with no arguments. Subsequent calls to **pthread_once()** with the same *once_control* will not call the **init_routine()**. On return from **pthread_once()**, it is guaranteed that **init_routine()** has completed. The *once_control* parameter is used to determine whether the associated initialization routine has been called.

The function **pthread_once()** is not a cancellation point. However, if **init_routine()** is a cancellation point and is cancelled, the effect on *once_control* is as if **pthread_once()** was never called.

The constant *PTHREAD_ONCE_INIT* is defined by header *<pthread.h>*.

The behavior of **pthread_once()** is undefined if *once_control* has automatic storage duration or is not initialized by *PTHREAD_ONCE_INIT*.

RETURN VALUES

If successful, the **pthread_once()** function will return zero. Otherwise an error number will be returned to indicate the error.

ERRORS

None.

STANDARDS

The **pthread_once()** function conforms to ISO/IEC 9945-1:1996 ("POSIX.1").