

**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").