

NAME

pthread_getconcurrency, **pthread_setconcurrency** - get or set level of concurrency

LIBRARY

POSIX Threads Library (libpthread, -lpthread)

SYNOPSIS

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

int

```
pthread_getconcurrency(void);
```

int

```
pthread_setconcurrency(int new_level);
```

DESCRIPTION

The **pthread_setconcurrency()** function allows an application to inform the threads implementation of its desired concurrency level, *new_level*. The actual level of concurrency provided by the implementation as a result of this function call is unspecified. If *new_level* is zero, it causes the implementation to maintain the concurrency level at its discretion as if **pthread_setconcurrency()** was never called. The **pthread_getconcurrency()** function returns the value set by a previous call to the **pthread_setconcurrency()** function. If the **pthread_setconcurrency()** function was not previously called, this function returns zero to indicate that the implementation is maintaining the concurrency level. When an application calls **pthread_setconcurrency()**, it is informing the implementation of its desired concurrency level. The implementation uses this as a hint, not a requirement.

RETURN VALUES

If successful, the **pthread_setconcurrency()** function returns zero. Otherwise, an error number is returned to indicate the error. The **pthread_getconcurrency()** function always returns the concurrency level set by a previous call to **pthread_setconcurrency()**. If the **pthread_setconcurrency()** function has never been called, **pthread_getconcurrency()** returns zero.

ERRORS

The **pthread_setconcurrency()** function will fail if:

[EINVAL] The value specified by *new_level* is negative.

[EAGAIN] The value specified by *new_level* would cause a system resource to be exceeded.

APPLICATION USAGE

Use of these functions changes the state of the underlying concurrency upon which the application depends. Library developers are advised to not use the **pthread_getconcurrency()** and **pthread_setconcurrency()** functions since their use may conflict with an application's use of these functions.

STANDARDS

The **pthread_getconcurrency()** and **pthread_setconcurrency()** functions conform to Version 2 of the Single UNIX Specification ("SUSv2").