

**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").