

NAME

pthread_setschedparam, **pthread_getschedparam** - thread scheduling parameter manipulation

LIBRARY

POSIX Threads Library (libpthread, -lpthread)

SYNOPSIS

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

int

```
pthread_setschedparam(pthread_t thread, int policy, const struct sched_param *param);
```

int

```
pthread_getschedparam(pthread_t thread, int *restrict policy, struct sched_param *restrict param);
```

DESCRIPTION

The **pthread_setschedparam**() and **pthread_getschedparam**() functions set and get the scheduling parameters of individual threads. The scheduling policy for a thread can either be SCHED_FIFO (first in, first out), SCHED_RR (round-robin), or SCHED_OTHER (timesharing). Valid thread priorities (accessed via *param->sched_priority*) must be within the range returned by the `sched_get_priority_min(2)` and `sched_get_priority_max(2)` system calls.

RETURN VALUES

If successful, these functions return 0. Otherwise, an error number is returned to indicate the error.

ERRORS

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

- | | |
|-----------|---|
| [EINVAL] | Invalid value for <i>policy</i> . |
| [ENOTSUP] | Invalid value for scheduling parameters. |
| [EPERM] | The calling thread does not have sufficient privilege to perform the operation. |
| [ESRCH] | Non-existent thread <i>thread</i> . |

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

- | | |
|---------|-------------------------------------|
| [ESRCH] | Non-existent thread <i>thread</i> . |
|---------|-------------------------------------|

SEE ALSO

sched_get_priority_max(2), sched_get_priority_min(2)

STANDARDS

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