



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'pthread_attr_setschedparam.3' command

\$ man pthread_attr_setschedparam.3

PTHREAD_ATTR_SETSCHEDPARAM(Linux Programmer's ManPTHREAD_ATTR_SETSCHEDPARAM(3)

NAME

pthread_attr_setschedparam, pthread_attr_getschedparam - set/get sched?
uling parameter attributes in thread attributes object

SYNOPSIS

```
#include <pthread.h>

int pthread_attr_setschedparam(pthread_attr_t *attr,
                               const struct sched_param *param);

int pthread_attr_getschedparam(const pthread_attr_t *attr,
                               struct sched_param *param);

Compile and link with -pthread.
```

DESCRIPTION

The pthread_attr_setschedparam() function sets the scheduling parameter attributes of the thread attributes object referred to by attr to the values specified in the buffer pointed to by param. These attributes determine the scheduling parameters of a thread created using the thread attributes object attr.

The pthread_attr_getschedparam() returns the scheduling parameter at? tributes of the thread attributes object attr in the buffer pointed to by param.

Scheduling parameters are maintained in the following structure:

```
struct sched_param {
    int sched_priority; /* Scheduling priority */
```

};

As can be seen, only one scheduling parameter is supported. For details of the permitted ranges for scheduling priorities in each scheduling policy, see sched(7).

In order for the parameter setting made by pthread_attr_setschedparam() to have effect when calling pthread_create(3), the caller must use pthread_attr_setinheritsched(3) to set the inherit-scheduler attribute of the attributes object attr to PTHREAD_EXPLICIT_SCHED.

RETURN VALUE

On success, these functions return 0; on error, they return a nonzero error number.

ERRORS

pthread_attr_setschedparam() can fail with the following error:

EINVAL The priority specified in param does not make sense for the current scheduling policy of attr.

POSIX.1 also documents an **ENOTSUP** error for pthread_attr_setschedparam(). This value is never returned on Linux (but portable and future-proof applications should nevertheless handle this error return value).

ATTRIBUTES

For an explanation of the terms used in this section, see attributes(7).

??

?Interface ? Attribute ? Value ?

??

?pthread_attr_setschedparam(), ? Thread safety ? MT-Safe ?

?pthread_attr_getschedparam() ? ? ?

??

CONFORMING TO

POSIX.1-2001, POSIX.1-2008.

NOTES

See pthread_attr_setschedpolicy(3) for a list of the thread scheduling policies supported on Linux.

EXAMPLES

See `pthread_setschedparam(3)`.

SEE ALSO

`sched_get_priority_min(2)`, `pthread_attr_init(3)`,
`pthread_attr_setinheritsched(3)`, `pthread_attr_setschedpolicy(3)`,
`pthread_create(3)`, `pthread_setschedparam(3)`, `pthread_setschedprio(3)`,
`threads(7)`, `sched(7)`

COLOPHON

This page is part of release 5.10 of the Linux man-pages project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.

Linux 2020-06-09 PTHREAD_ATTR_SETSCHEDPARAM(3)