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### ***Rocky Enterprise Linux 9.2 Manual Pages on command 'pthread\_attr\_setschedparam.3'***

***\$ man pthread\_attr\_setschedparam.3***

PTHREAD\_ATTR\_SETSCHEDPARAM(3) Linux Programmer's Manual PTHREAD\_ATTR\_SETSCHEDPARAM(3)

NAME

pthread\_attr\_setschedparam, pthread\_attr\_getschedparam - set/get scheduling 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 attributes 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).

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?Interface ? Attribute ? Value ?

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?pthread\_attr\_setschedparam(), ? Thread safety ? MT-Safe ?

?pthread\_attr\_getschedparam() ? ? ?

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#### 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), pthreads(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/>.

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