



Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sched_setparam.2' command

\$ man sched_setparam.2

SCHED_SETPARAM(2) Linux Programmer's Manual SCHED_SETPARAM(2)

NAME

sched_setparam, sched_getparam - set and get scheduling parameters

SYNOPSIS

```
#include <sched.h>

int sched_setparam(pid_t pid, const struct sched_param *param);
int sched_getparam(pid_t pid, struct sched_param *param);

struct sched_param {
    ...
    int sched_priority;
    ...
};
```

DESCRIPTION

sched_setparam() sets the scheduling parameters associated with the scheduling policy for the thread whose thread ID is specified in pid.

If pid is zero, then the parameters of the calling thread are set. The interpretation of the argument param depends on the scheduling policy of the thread identified by pid. See sched(7) for a description of the scheduling policies supported under Linux.

sched_getparam() retrieves the scheduling parameters for the thread identified by pid. If pid is zero, then the parameters of the calling thread are retrieved.

sched_setparam() checks the validity of param for the scheduling policy

of the thread. The value `param->sched_priority` must lie within the range given by `sched_get_priority_min(2)` and `sched_get_priority_max(2)`.

For a discussion of the privileges and resource limits related to scheduling priority and policy, see `sched(7)`.

POSIX systems on which `sched_setparam()` and `sched_getparam()` are avail?

able define `_POSIX_PRIORITY_SCHEDULING` in `<unistd.h>`.

RETURN VALUE

On success, `sched_setparam()` and `sched_getparam()` return 0. On error, -1 is returned, and `errno` is set appropriately.

ERRORS

`EINVAL` Invalid arguments: `param` is `NULL` or `pid` is negative

`EINVAL` (`sched_setparam()`) The argument `param` does not make sense for the current scheduling policy.

`EPERM` (`sched_setparam()`) The caller does not have appropriate privileges (Linux: does not have the `CAP_SYS_NICE` capability).

`ESRCH` The thread whose ID is `pid` could not be found.

CONFORMING TO

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

SEE ALSO

`getpriority(2)`, `gettid(2)`, `nice(2)`, `sched_get_priority_max(2)`,
`sched_get_priority_min(2)`, `sched_getaffinity(2)`, `sched_getscheduler(2)`,
`sched_setaffinity(2)`, `sched_setattr(2)`, `sched_setscheduler(2)`,
`setpriority(2)`, `capabilities(7)`, `sched(7)`

COLOPHON

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