

NAME

`sched_get_priority_max`, `sched_get_priority_min` – get static priority range

SYNOPSIS

```
#include <sched.h>
```

```
int sched_get_priority_max(int policy);
```

```
int sched_get_priority_min(int policy);
```

DESCRIPTION

`sched_get_priority_max()` returns the maximum priority value that can be used with the scheduling algorithm identified by *policy*. `sched_get_priority_min()` returns the minimum priority value that can be used with the scheduling algorithm identified by *policy*. Supported *policy* values are **SCHED_FIFO**, **SCHED_RR**, **SCHED_OTHER**, **SCHED_BATCH**, **SCHED_IDLE**, and **SCHED_DEADLINE**. Further details about these policies can be found in `sched(7)`.

Processes with numerically higher priority values are scheduled before processes with numerically lower priority values. Thus, the value returned by `sched_get_priority_max()` will be greater than the value returned by `sched_get_priority_min()`.

Linux allows the static priority range 1 to 99 for the **SCHED_FIFO** and **SCHED_RR** policies, and the priority 0 for the remaining policies. Scheduling priority ranges for the various policies are not alterable.

The range of scheduling priorities may vary on other POSIX systems, thus it is a good idea for portable applications to use a virtual priority range and map it to the interval given by `sched_get_priority_max()` and `sched_get_priority_min`. POSIX.1 requires a spread of at least 32 between the maximum and the minimum values for **SCHED_FIFO** and **SCHED_RR**.

POSIX systems on which `sched_get_priority_max()` and `sched_get_priority_min()` are available define **_POSIX_PRIORITY_SCHEDULING** in `<unistd.h>`.

RETURN VALUE

On success, `sched_get_priority_max()` and `sched_get_priority_min()` return the maximum/minimum priority value for the named scheduling policy. On error, `-1` is returned, and *errno* is set appropriately.

ERRORS**EINVAL**

The argument *policy* does not identify a defined scheduling policy.

CONFORMING TO

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

SEE ALSO

`sched_getaffinity(2)`, `sched_getparam(2)`, `sched_getscheduler(2)`, `sched_setaffinity(2)`, `sched_setparam(2)`, `sched_setscheduler(2)`, `sched(7)`

COLOPHON

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