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SCHED_GET_PRIORITY_MAX(2) Linux Programmer's ManualSCHED_GET_PRIORITY_MAX(2)

NAME

top

sched_get_priority_max, sched_get_priority_min - get static priority range

SYNOPSIS

top

#include <sched.h>

int sched_get_priority_max(int *policy***);**

int sched_get_priority_min(int *policy***);**

DESCRIPTION

top

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

top

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

top

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

CONFORMING TO top

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

SEE ALSO top

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

COLOPHON top

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