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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'sched.h.0p' command

\$ man sched.h.0p

sched.h(0P) POSIX Programmer's Manual sched.h(0P)

PROLOG

This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface may not be implemented on Linux.

NAME

sched.h ? execution scheduling

SYNOPSIS

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

DESCRIPTION

The <sched.h> header shall define the pid_t type as described in <sys/types.h>.

The <sched.h> header shall define the time_t type as described in <sys/types.h>.

The <sched.h> header shall define the timespec structure as described in <time.h>.

The <sched.h> header shall define the sched_param structure, which shall include the scheduling parameters required for implementation of each supported scheduling policy. This structure shall include at least the following member:

```
int    sched_priority    Process or thread execution scheduling priority.
```

The sched_param structure defined in <sched.h> shall include the fol?

Following members in addition to those specified above:

```
int sched_ss_low_priority Low scheduling priority for
    sporadic server.
```

```
struct timespec sched_ss_repl_period Replenishment period for
    sporadic server.
```

```
struct timespec sched_ss_init_budget Initial budget for sporadic server.
```

```
int sched_ss_max_repl Maximum pending replenishments for
    sporadic server.
```

Each process or thread is controlled by an associated scheduling policy and priority. Associated with each policy is a priority range. Each policy definition specifies the minimum priority range for that policy.

The priority ranges for each policy may overlap the priority ranges of other policies.

Four scheduling policies are defined; others may be defined by the implementation. The four standard policies are indicated by the values of the following symbolic constants:

SCHED_FIFO First in-first out (FIFO) scheduling policy.

SCHED_RR Round robin scheduling policy.

SCHED_SPORADIC

Sporadic server scheduling policy.

SCHED_OTHER Another scheduling policy.

The values of these constants are distinct.

The following shall be declared as functions and may also be defined as macros. Function prototypes shall be provided.

```
int sched_get_priority_max(int);
int sched_get_priority_min(int);
int sched_getparam(pid_t, struct sched_param *);
int sched_getscheduler(pid_t);
int sched_rr_get_interval(pid_t, struct timespec *);
int sched_setparam(pid_t, const struct sched_param *);
int sched_setscheduler(pid_t, int, const struct sched_param *);
int sched_yield(void);
```

Inclusion of the <sched.h> header may make visible all symbols from the

<time.h> header.

The following sections are informative.

APPLICATION USAGE

None.

RATIONALE

None.

FUTURE DIRECTIONS

None.

SEE ALSO

<sys_types.h>, <time.h>

The System Interfaces volume of POSIX.1-2017, `sched_get_priority_max()`, `sched_getparam()`, `sched_getscheduler()`, `sched_rr_get_interval()`, `sched_setparam()`, `sched_setscheduler()`, `sched_yield()`

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