



Rocky Enterprise Linux 9.2 Manual Pages on command 'chrt.1'

C:\>man chrt.1

CHRT(1) User Commands CHRT(1)

NAME

chrt - manipulate the real-time attributes of a process

SYNOPSIS

chrt [options] priority command [argument...]

chrt [options] -p [priority] pid

DESCRIPTION

chrt sets or retrieves the real-time scheduling attributes of an existing pid, or

runs command with the given attributes.

POLICIES

-o, --other

Set scheduling policy to SCHED_OTHER. This is the default Linux scheduling policy.

-f, --fifo

Set scheduling policy to SCHED_FIFO.

-r, --rr

Set scheduling policy to SCHED_RR. When no policy is defined, the SCHED_RR is used as the default.

-b, --batch

Set scheduling policy to SCHED_BATCH (Linux-specific, supported since 2.6.16). The priority argument has to be set to zero.

-i, --idle

Set scheduling policy to SCHED_IDLE (Linux-specific, supported since 2.6.23). The priority argument has to be set to zero.

-d, --deadline

Set scheduling policy to SCHED_DEADLINE (Linux-specific, supported since 3.14). The priority argument has to be set to zero. See also --sched-run? time, --sched-deadline and --sched-period. The relation between the options required by the kernel is $\text{runtime} \leq \text{deadline} \leq \text{period}$. `chrt` copies period to deadline if --sched-deadline is not specified and deadline to runtime if --sched-runtime is not specified. It means that at least --sched-period has to be specified. See `sched(7)` for more details.

SCHEDULING OPTIONS

-T, --sched-runtime nanoseconds

Specifies runtime parameter for SCHED_DEADLINE policy (Linux-specific).

-P, --sched-period nanoseconds

Specifies period parameter for SCHED_DEADLINE policy (Linux-specific).

-D, --sched-deadline nanoseconds

Specifies deadline parameter for SCHED_DEADLINE policy (Linux-specific).

-R, --reset-on-fork

Add SCHED_RESET_ON_FORK flag to the SCHED_FIFO or SCHED_RR scheduling policy (Linux-specific, supported since 2.6.31).

OPTIONS

-a, --all-tasks

Set or retrieve the scheduling attributes of all the tasks (threads) for a given PID.

-m, --max

Show minimum and maximum valid priorities, then exit.

-p, --pid

Operate on an existing PID and do not launch a new task.

-v, --verbose

Show status information.

-V, --version

Display version information and exit.

-h, --help

Display help text and exit.

USAGE

The default behavior is to run a new command:

```
chrt priority command [arguments]
```

You can also retrieve the real-time attributes of an existing task:

```
chrt -p pid
```

Or set them:

```
chrt -r -p priority pid
```

PERMISSIONS

A user must possess `CAP_SYS_NICE` to change the scheduling attributes of a process.

Any user can retrieve the scheduling information.

NOTES

Only `SCHED_FIFO`, `SCHED_OTHER` and `SCHED_RR` are part of POSIX 1003.1b Process Scheduling. The other scheduling attributes may be ignored on some systems.

Linux' default scheduling policy is `SCHED_OTHER`.

SEE ALSO

`nice(1)`, `renice(1)`, `taskset(1)`, `sched(7)`

See `sched_setscheduler(2)` for a description of the Linux scheduling scheme.

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AVAILABILITY

The `chrt` command is part of the `util-linux` package and is available from

<https://www.kernel.org/pub/linux/utils/util-linux/>.

util-linux

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