



Linux Ubuntu 26.04 Manual Pages on command 'perf-timechart.1'

\$ man perf-timechart.1

PERF-TIMECHART(1) perf Manual PERF-TIMECHART(1)

NAME

perf-timechart - Tool to visualize total system behavior during a workload

SYNOPSIS

DESCRIPTION

There are two variants of perf timechart:

'perf timechart record <command>' to record the system level events of an arbitrary workload. By default timechart records only scheduler and CPU events (task switches, running times, CPU power states, etc), but it's possible to record IO (disk, network) activity using -I argument.

'perf timechart' to turn a trace into a Scalable Vector Graphics file, that can be viewed with popular SVG viewers such as 'Inkscape'. Depending on the events in the perf.data file, timechart will contain scheduler/cpu events or IO events.

In IO mode, every bar has two charts: upper and lower.

Upper bar shows incoming events (disk reads, ingress network packets).

Lower bar shows outgoing events (disk writes, egress network packets).

There are also poll bars which show how much time application spent in poll/epoll/select syscalls.

TIMECHART OPTIONS

-o, --output=

Select the output file (default: output.svg)

-i, --input=

Select the input file (default: perf.data unless stdin is a fifo)

-w, --width=

Select the width of the SVG file (default: 1000)

-P, --power-only

Only output the CPU power section of the diagram

-T, --tasks-only

Don't output processor state transitions

-p, --process

Select the processes to display, by name or PID

-f, --force

Don't complain, do it.

--symfs=<directory>

Look for files with symbols relative to this directory.

-n, --proc-num

Print task info for at least given number of tasks.

-t, --topology

Sort CPUs according to topology.

--highlight=<duration_nsecs|task_name>

Highlight tasks (using different color) that run more than given duration or tasks with given name. If number is given it's interpreted as number of nanoseconds. If non-numeric string is given it's interpreted as task name.

--io-skip-eagain

Don't draw EAGAIN IO events.

--io-min-time=<nsecs>

Draw small events as if they lasted min-time. Useful when you need to see very small and fast IO. It's possible to specify ms or us suffix to specify time in milliseconds or microseconds. Default value is 1ms.

--io-merge-dist=<nsecs>

Merge events that are merge-dist nanoseconds apart. Reduces number of figures on the SVG and makes it more render-friendly. It's possible to specify ms or us suffix to specify time in milliseconds or microseconds. Default value is 1us.

RECORD OPTIONS

-P, --power-only

Record only power-related events

-T, --tasks-only

Record only tasks-related events

-I, --io-only

Record only io-related events

-g, --callchain

Do call-graph (stack chain/backtrace) recording

-o, --output=

Select the output file (default: perf.data)

EXAMPLES

```
$ perf timechart record git pull
```

```
[ perf record: Woken up 13 times to write data ]
```

```
[ perf record: Captured and wrote 4.253 MB perf.data (~185801 samples) ]
```

```
$ perf timechart
```

```
Written 10.2 seconds of trace to output.svg.
```

Record system-wide timechart:

```
$ perf timechart record
```

then generate timechart and highlight 'gcc' tasks:

```
$ perf timechart --highlight gcc
```

Record system-wide IO events:

```
$ perf timechart record -I
```

then generate timechart:

```
$ perf timechart
```

SEE ALSO

perf-record(1)

perf

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