# nvtop GPU monitor

## CONCEPTS

nvtop is htop for GPUs: one screen shows every NVIDIA, AMD and Intel card, their load history and the processes using them.

**Device info rows**
**GPU and memory bars**
**History chart**
**Process list**

Main screen, top to bottom

Fields a driver cannot report show N/A. Process lists need a recent kernel on AMD and Intel.

Another user's processes may be hidden or unkillable; run as root only if you need to signal them.

## PROCESS LIST

**Up** / **Down**
Move process selection

**Left** / **Right**
Scroll process row sideways

**F6** Pick the sort field

**Plus** Sort ascending

**Minus** Sort descending

**F9** Send a signal to the process

## SCREEN AND SETTINGS

**F2** Open the setup window

**F12** Save current options

**F10** / **q** / **Esc** Quit nvtop

## SCREEN AND SETTINGS (cont.)

Change the plotted metric under Chart in setup: utilization, temperature, power, fan, clocks or PCIe load.

Encoder (ENC) and decoder (DEC) meters appear only while in use and hide after inactivity.

## COMMAND LINE

**nvtop**
Start the monitor

**nvtop -d** *<tenths>*
Update interval in tenths of a second

**nvtop -s**
Print stats once and exit

**nvtop -l**
Print stats repeatedly

**nvtop -p**
One plot for the max of all GPUs

**nvtop -P**
Hide the process list

**nvtop -C**
Monochrome output

**nvtop -i**
Show extra dynamic clock bar

**nvtop -X**
Also show static specs

**nvtop -u**
Scale process memory units

**nvtop -r**
Reverse plot time order

**nvtop -f**
Temperatures in Fahrenheit

**nvtop -E** *<seconds>*
Encode/decode meter hide timer

**nvtop -c** *<file>*
Use a custom config file

## COMMAND LINE (cont.)

**nvtop -v**
Print version

**nvtop -h**
Print help

## CONFIG AND SUPPORT

### Supported hardware

| Vendor | Driver |
|---|---|
| NVIDIA | Proprietary driver via NVML |
| AMD | amdgpu (kernel 5.14+ for processes) |
| Intel | i915 or xe (kernel 5.19+ for processes) |
| Adreno | msm (kernel 6.0+ for processes) |

### Config file location

```
# default path
~/.config/nvtop/interface.ini
# or under $XDG_CONFIG_HOME
```

Do not hand-edit interface.ini; change options with F2 and save with F12.

Intel total memory and accurate clocks need CAP_PERFMON or CAP_SYS_ADMIN.

## RECIPES

### Fast refresh, no colour

```
nvtop -d 5 -C
```

### Log stats from a script

```
nvtop -s > gpu-stats.txt
# or stream repeatedly
nvtop -l
```

### Find the GPU hog and stop it

```
# F6  pick the memory field
# Minus  largest first
# Up / Down  select it
# F9  choose a signal
```

### Compact view for many GPUs

```
nvtop -p -u
# F2, then F12 to keep the choice
```