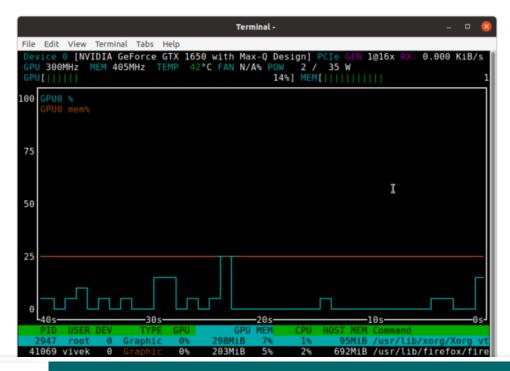


nixCraft → Hardware → nvtop - Awesome Linux task monitor for NVIDIA, AMD & Intel GPUs

nvtop – Awesome Linux task monitor for NVIDIA, AMD & Intel GPUs

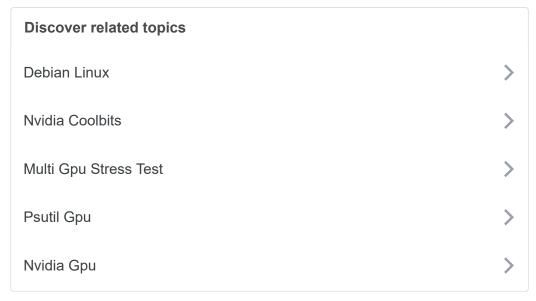
Author: Vivek Gite • Last updated: April 12, 2024 • 4 comments







he nvtop command is an excellent task monitor for Linux users for NVIDIA, AMD and Intel GPUs (Graphics Processing Units). It is just like your top command or htop command and efficiently handles multiple GPUs in your system and shows details about them in a htop format. Let us see how to install the nvtop command on your Linux distro and monitor GPU tasks.



nvtop command – Awesome Linux task monitor for NVIDIA, AMD & Intel GPUs



What is Macular Degeneration?

The nvtop command is a neurses-based (new curses lib that displays info in terminals) GPU status viewer for AMD, Intel and NVIDIA GPUs. In other words, you can use this interactive GPU process viewer for the following GPUs on Linux:

- 1. AMD GPUs using the amdgpu driver.
- 2. Intel graphic card using the i915 Linux driver.
- 3. Nvidia GPUs using NVIDIA driver and anything starting at GeForce 600, GeForce 800M and successor should work fine.

- 4. Adreno GPU by Qualcomm
- 5. Apple GPU (M series)

Installing the nvtop command on Linux

Run the pacman command as follows:

```
$ sudo pacman -Syu nvtop
```

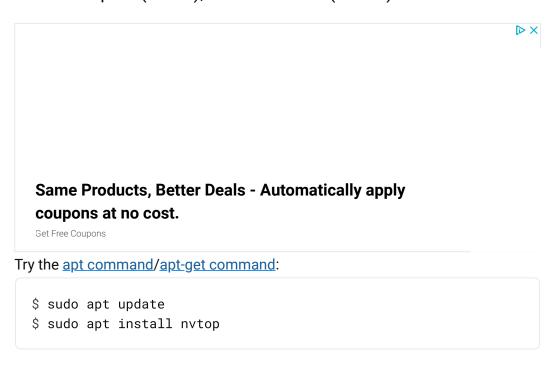
```
Synchronizing package databases...
 core is up to date
 extra is up to date
 community 7.3 MiB
: Starting full system upgrade...
                         7.3 MiB 5.03 MiB/s 00:01 [################# 100%
resolving dependencies...
looking for conflicting packages...
Packages (9) attr-2.5.1-3 gettext-0.21.1-4 ltbassuan-2.5.5-2 ltbnsl-2.0.0-3 npth-1.6-4 python-pydantic-1.10.7-2 python-validate-pyproject-0.12.2-1 python-webcolors-1.13-1
             nvtop-3.0.1-1
Total Download Size: 3.96 MiB
Total Installed Size: 15.13 MiB
                       3.96 MiB
  et Upgrade Size:
                       0.16 MLB
  Proceed with installation? [Y/n] y
  Retrieving packages...
 python-pydantic-... 1880.3 KiB 1554 KiB/s 00:01 [####################### 100%
  libassuan-2.5.5-... 104.4 KiB
                                  137 KiB/s 00:01 [##############################
 attr-2.5.1-3-x86_64
                                   176 KiB/s 00:00 [#######################]
 python-validate-...
  npth-1.6-4-x86_64
                        python-webcolors...
libnsl-2.0.0-3-x...
                       Total (9/9) 4.0 Mi
9/9) checking keys in keyring
                         100%
(9/9) checking package integrity
(9/9) loading package files
(9/9) checking for file conflicts
(9/9) checking available disk space
                                                   [ишинишинишинишинишини ] 100%
                                                   [########################
                                                                            100%
                                                   100%
                                                   [ UUNNUUNNUUNNUUNNUUNNU
:: Processing package changes...
(1/9) installing nvtop
                                                   [##################] 100%
                                                   (2/9) upgrading attr
(3/9) upgrading gettext
(4/9) upgrading libassuan
(5/9) upgrading libnsl
                                                   100%
                                                   100%
                                                   100%
(5/9) upgrading libmsi
(6/9) upgrading npth
(7/9) upgrading python-pydantic
(8/9) upgrading python-walidate-pyproject
(9/9) upgrading python-webcolors
: Running post-transaction hooks...
(1/1) Arming ConditionNeedsUpdate...
                                                   [UUNNOUNNOUNNOUNNOUNNO]
                                                   1009
                                                   [ #######################
                                                                            100%
                                                   [######### 1003
```

Click to enlarge

Use the following emerge command:

```
vivek@gentoo:~$ sudo layman -a guru
vivek@gentoo:~$ sudo emerge -av nvtop
```

Ubuntu Impish (21.10), Debian buster (stable) and more recent



Debian Linux 10+ user please enable contrib repo in the (etc/apt/sources.list:

```
deb http://deb.debian.org/debian buster main non-free contrib
deb http://deb.debian.org/debian buster-updates main non-free contrib
deb http://deb.debian.org/debian-security/ buster/updates main non-free contrib
```

```
$ sudo apt update
$ sudo apt search nvtop
$ sudo apt-cache policy nvtop
```

```
nvtop:
   Installed: (none)
   Candidate: 1.0.0-1
   Version table:
     1.0.0-1 500
     500 http://deb.debian.org/debian buster/contrib amd64 Packages
```

Fedora Linux version 36+

Try the dnf command:

```
$ sudo dnf install nvtop
```

CetOS Stream, RHEL, Rocky, and AlmaLinux version 8/9

Enable EPEL repo and install the nvtop:

```
## RHEL 8/9 ##
$ sudo dnf install -y
https://dl.fedoraproject.org/pub/epel/epel-release-
latest-$(rpm -E %{rhel}).noarch.rpm
$ sudo dnf install nvtop
## CentOS Stream, Rocky Linux, AlmaLinux ##
$ sudo dnf install -y epel-release
```

Try the snap command. For example:

\$ snap search nvtop
\$ sudo snap install nvtop

Next, add the capability to kill GPU processes inside nvtop:

\$ sudo snap connect nvtop:process-control

You can also add the capability to inspect GPU info (Fan, PCIe, Power, etc) easily as follows:

\$ sudo snap connect nvtop:hardware-observe

Here is how to add AMDGPU process list support:

\$ sudo snap connect nvtop:system-observe

You may need temporary workaround to get per-process GPU usage. For example:

\$ sudo snap connect nvtop:kubernetes-support

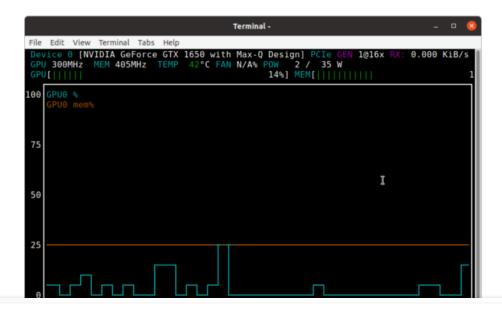
How to use Docker nvtop image

```
$ sudo docker build --tag nvtop .
$ sudo docker run -it --rm --runtime=nvidia --gpus=all --
pid=host nvtop
```

Getting started with the nvtop

Now that tool is installed, it is time to get your hands dirty. All you have to do is type the following command:

```
$ nvtop
```



nvtop command running on my Ubuntu Linux desktop with NVIDIA GPU and apps

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You can also state the delay between updates in tenths of seconds. For example:

Do you want monochrome mode? Here is how to disable colour output:

Here is how to display only one bar plot corresponding to the maximum of all GPUs:

Shortcut	Description			
Up	Select (highlight) the previous process.			
Down	Select (highlight) the next process.			
Left / Right	Scroll in the process row.			
+	Sort increasingly.			
_	Sort decreasingly.			
F2	Enter the setup utility to modify the interface options.			
F12	Save the current interface options to persistent storage.			
F9	"Kill" process: Select a signal to send to the highlighted process.			
F6	Sort: Select the field for sorting. The current sort field is highlighted inside the header bar.			
F10, q, Esc	Quit nvtop command.			

Summing up

I found nvtop very useful when I need to see what is stressing out my GPU and other critical info like GPU temperature or fan speed. You can quickly kill the process with this tool that is eating all your GPU without using the combination

of ne command/grap command or earen command and then kill the PID Most

Getting help about the nvtop

You can read the nvtop manual page offline or online at <u>the project repo</u>. For example, try the <u>man command</u> or <u>pass the -h option</u> as follows:

```
$ man nvtop
$ nvtop -h
```

See also

- Linux Find Out Graphics Card Installed In My System
- Linux Find Out Video Card GPU Memory RAM Size Command
- Linux GPU Monitoring and Diagnostic Commands Line Tools
- <u>Ubuntu Linux Install Nvidia Driver (Latest Proprietary Driver)</u>
- How to find out Raspberry Pi GPU and CPU temperature

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I'm Vivek Gite, and I write <u>about</u> Linux, macOS, Unix, IT, programming, infosec, and open source. Subscribe to my <u>RSS feed</u> or <u>email newsletter</u> for updates.

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do8pgg · Mar 29, 2023 @ 9:36

Version 3.0.1-1 on Archlinux;

This version of Nvtop is missing support for reporting Intel GPU memory, power, fan and temperature

← ∝

Vivek Gite • Mar 29, 2023 @ 10:55

Is it? Are you using Intel graphic card with the i915 Linux driver?

⇔

Rakesh Sharma • Apr 4, 2023 @ 11:56

Anonymous • Jun 28, 2023 @ 3:20

app-portage/layman is deprecated in favor of app-eselect/eselect-repository by the way. I had the same issue with my Intel Raptor Lake gpu. I think intel support is still WiP.

← ∝

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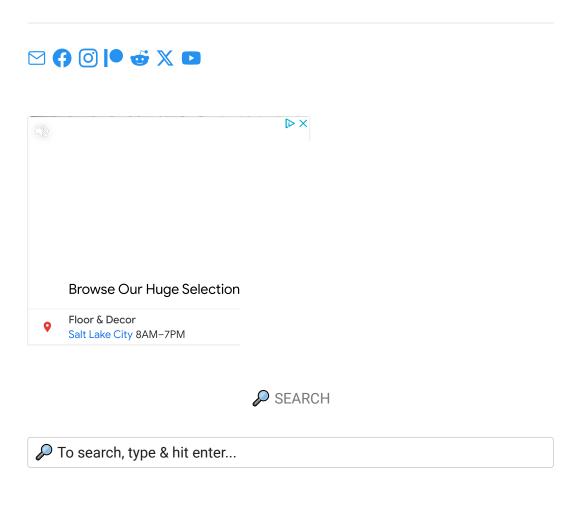
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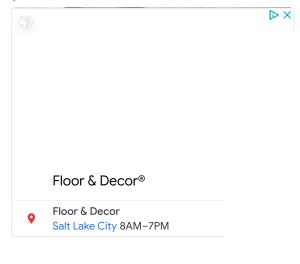
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