Linux find process by name

cyberciti.biz/faq/linux-find-process-name

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I am a new Linux user. How can I find a computer program/process by name on Linux? Is it possible to find a process by name instead of PID on a Linux?

A Linux computer program, or running a program concurrently with other applications known as a process. A child process in Linux is a process created by another process. The parent process is a process that has created one or more child processes on Linux operating system. The process identifier (process ID or PID) is a number used by Linux or Unix operating system kernels. It is used to uniquely identify an active process.

Procedure to find process by name on Linux

1. Open the terminal application.
2. Type the pidof command as follows to find PID for firefox process:
   `pidof firefox`
3. Or use the ps command along with grep command as follows:
   `ps aux | grep -i firefox`
4. To look up or signal processes based on name use:
   `pgrep firefox`

Linux find process by name using pgrep command

pgrep command looks through the currently running processes and lists the process IDs which match the selection criteria to screen. All the criteria have to match. For example, will only list the processes called sshd AND owned by root user:

```
$ pgrep -u root sshd
```

Just look up pid for firefox process:

```
$ pgrep firefox
```

How to use 'ps aux | grep command'

ps command shows information about a selection of the active processes:

```
$ ps aux
$ ps aux | grep -i 'search-term'
$ ps aux | grep 'firefox'
$ ps aux | grep 'sshd'
```

OR use the following syntax instead of using egrep command in pipes:

`$ ps -fC firefox`
`$ ps -fC chrome`

The `-C` option asks ps command to select PIDs by command name.

Using pidof command to grab PIDs for any named program on Linux

The pidof command finds the process id’s (pids) of the named programs such as sshd, firefox and more. For example:

`$ pidof sshd`
`$ pidof firefox`

Sample outputs:

```
vivek@nixcraft:~$ pgrep -a -u root sshd
1039 /usr/sbin/sshd -D
vivek@nixcraft:~$ pgrep -l -u root sshd
1039 sshd
vivek@nixcraft:~$ pgrep -a -u root sshd
1039 /usr/sbin/sshd -D
vivek@nixcraft:~$
vivek@nixcraft:~$ pgrep -a firefox
15622 /usr/lib/firefox/firefox
vivek@nixcraft:~$
vivek@nixcraft:~$ ps aux | grep firefox
vivek    12563  0.7  1.2 2063780 193232 tty2   Sl+  14:02   0:20 /usr/lib/firefox/firefox -
20|98:2|99:1|114:5000|124:0|126:0|137:10000|162:24|163:32768|165:0|166:0|174:1|178:1048576|
52:0|57:1|58:1|59:0|60:1|64:1|65:1|66:0|67:1|68:1|69:0|70:1|73:0|74:0|77:1|78:1|82:1|83:1|8
2:0|153:1|160:0|161:0|164:1|167:1|169:1|171:1|172:0|177:0|181:1|186:0|187:0|188:0|189:1|190
;|141:3;1.0|158:332;  ???!:??:-:              ???-'. ???????                      /:
a -appomni /usr/lib/firefox/browser/omni.ja -appdir /usr/lib/firefox/browser 15622 true tab
vivek    12648  4.6  2.7 2279388 434776 tty2   Sl+  14:02   2:14 /usr/lib/firefox/firefox -
20|98:2|99:1|114:5000|124:0|126:0|137:10000|162:24|163:32768|165:0|166:0|174:1|178:1048576|
52:0|57:1|58:1|59:0|60:1|64:1|65:1|66:0|67:1|68:1|69:0|70:1|73:0|74:0|77:1|78:1|82:1|83:1|8
2:0|153:1|160:0|161:0|164:1|167:1|169:1|171:1|172:0|177:0|181:1|186:0|187:0|188:0|189:1|190
;|141:3;1.0|158:332;  ???!:??:-:              ???-'. ???????                      /:
a -appomni /usr/lib/firefox/browser/omni.ja -appdir /usr/lib/firefox/browser 15622 true tab
vivek    15622  1.7  3.5 3021080 566256 tty2   Sl+  Jan06  55:23 /usr/lib/firefox/firefox
vivek    25031  0.7  1.0 2014740 166876 tty2   Sl+  14:33   0:07 /usr/lib/firefox/firefox -
20|98:2|99:1|114:5000|124:0|126:0|137:10000|162:24|163:32768|165:0|166:0|174:1|178:1048576|
52:0|57:1|58:1|59:0|60:1|64:1|65:1|66:0|67:1|68:1|69:0|70:1|73:0|74:0|77:1|78:1|82:1|83:1|8
2:0|153:1|160:0|161:0|164:1|167:1|169:1|171:1|172:0|177:0|181:1|186:0|187:0|188:0|189:1|190
;|141:3;1.0|158:332;  ???!:??:-:              ???-'. ???????                      /:
a -appomni /usr/lib/firefox/browser/omni.ja -appdir /usr/lib/firefox/browser 15622 true tab
vivek    25252  0.2  1.0 2008696 161840 tty2   Sl+  14:34   0:02 /usr/lib/firefox/firefox -
20|98:2|99:1|114:5000|124:0|126:0|137:10000|162:24|163:32768|165:0|166:0|174:1|178:1048576|
52:0|57:1|58:1|59:0|60:1|64:1|65:1|66:0|67:1|68:1|69:0|70:1|73:0|74:0|77:1|78:1|82:1|83:1|8
2:0|153:1|160:0|161:0|164:1|167:1|169:1|171:1|172:0|177:0|181:1|186:0|187:0|188:0|189:1|190
;|141:3;1.0|158:332;  ???!:??:-:              ???-'. ???????                      /:
a -appomni /usr/lib/firefox/browser/omni.ja -appdir /usr/lib/firefox/browser 15622 true tab
vivek    30948  0.0  0.0  14356  1076 pts/12   R+   14:50   0:00 grep --color=auto firefox
vivek@nixcraft:~$
```

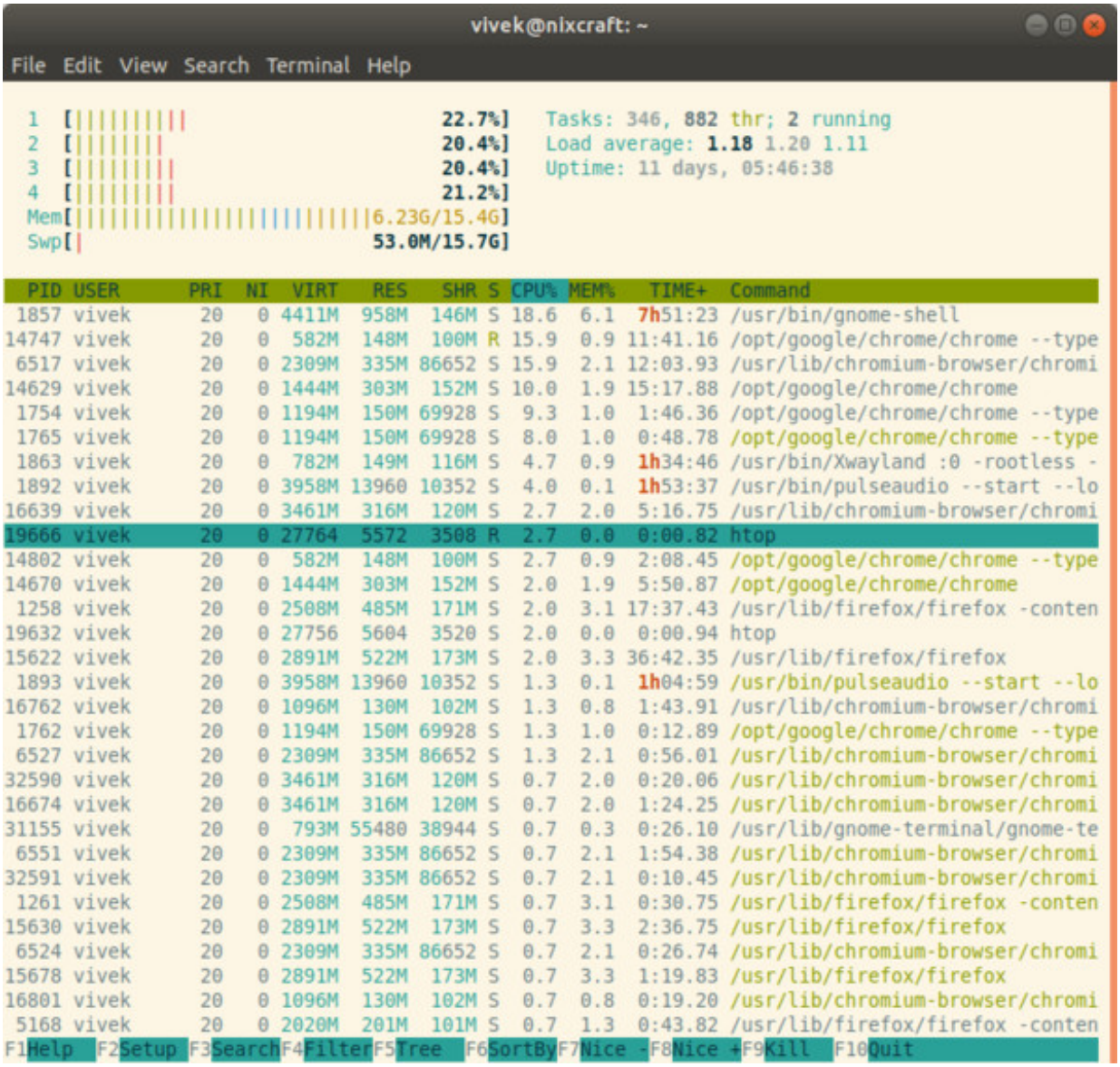
A note about top/htop command

To display Linux processes use top command or htop command:

`$ top`

OR

```
$ htop
```



See also

- Show All Running Processes in Linux
- Linux / UNIX: Find out or determine if process pid is running
- Unix / Linux: Find Information About The Process Including All Command Line Parameters
- Linux: Find Out Which Process Is Listening Upon a Port

Getting more help

Read the man pages for the following command using man command:

```
$ man pgrep
$ man pidof
$ man ps
```

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