Project: System Monitor SEARCH RESOURCES CONCEPTS 1. Introduction 2. htop 3. Starter Code 4. Project Structure 5. Build Tools 6. System Class 7. System Data

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System Data

david@david-ThinkPad-T470s: ~/src/CppND-System-Monitor-Project-Updated 🛑 📵 🗓 File Edit View Search Terminal Help OS: Ubuntu 18.04.2 LTS Kernel: version Total Processes: 14050 Running Processes: 1 Up Time: 02:14:57 38626 david 5.00 3495 00:00:00 /usr/lib/firefox/firefoxr/chromi 14136 david 5.00 2007 00:00:00 ./build/monitororgirefoxype=rend /usr/lib/firefox/firefoxype=rend 3807 david 2.00 34390 00:03:00 /usr/bin/gnome-shellefoxdaemon/g /usr/lib/chromium-browser/chromi 23846 david 2.00 3602 00:05:38

System Data

SEND FEEDBACK

Linux stores a lot of system data in files within the /proc directory. Most of the data that this project requires exists in those files.

00:06:53

12463 rootd 0.00 07472 00:00:00 /usr/lib/gnome-terminal/gnome-te

50463 davidge0.00 732 00:00:06 /usr/lib/slack/slack --type=rend

13588 david 0.00 1356 00:00:01 /usr/lib/chromium-browser/chromi

1482 00:00:14 /usr/lib/chromium-browser/chromi

1303 00:00:47 /usr/lib/slack/slackowser/chromi

### **Operating System**

3257 david 1.00

10002 david 0.00

4937 david 0.00

Information about the operating system exists outside of the proc directory, in the /etc/os-release file.

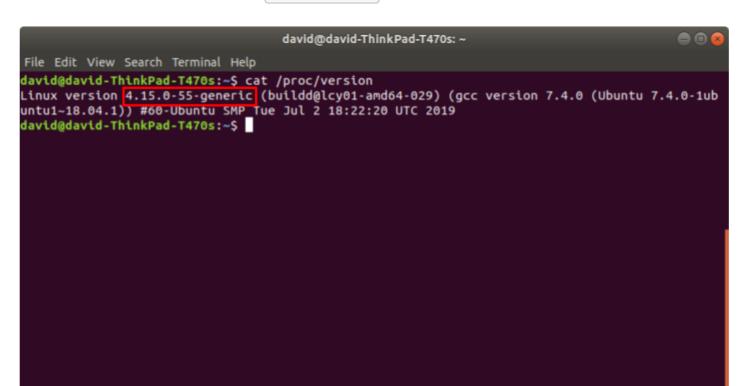
2102

david@david-ThinkPad-T470s: ~ File Edit View Search Terminal Help david@david-ThinkPad-T470s:~\$ cat /etc/os-release NAME="Ubuntu" VERSION="18.04.2 LTS (Bionic Beaver)" ID=ubuntu ID\_LIKE=debian PRETTY\_NAME="Ubuntu 18.04.2 LTS" VERSION ID="18.04" HOME\_URL="https://www.ubuntu.com/" SUPPORT\_URL="https://help.ubuntu.com/" BUG\_REPORT\_URL="https://bugs.launchpad.net/ubuntu/" PRIVACY\_POLICY\_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
VERSION\_CODENAME=bionic UBUNTU\_CODENAME=bionic lavid@david-ThinkPad-T470s:~\$

There are several strings from which to choose here, but the most obvious is the value specified by "PRETTY\_NAME".

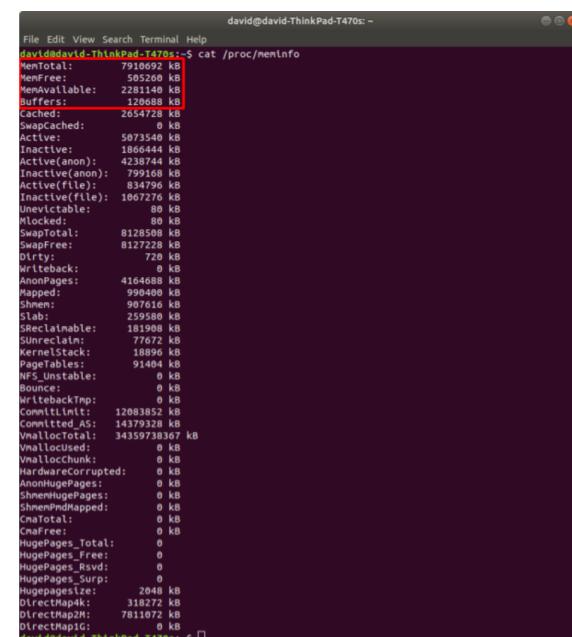
### Kernel

Information about the kernel exists /proc/version file.



## **Memory Utilization**

Information about memory utilization exists in the /proc/meminfo file.

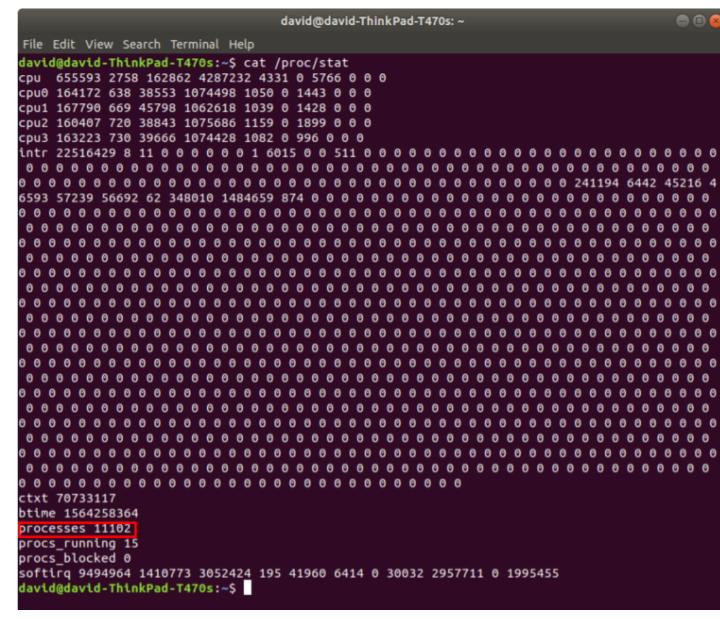


There are a variety of ways to use this data to calculate memory utilization.

Hisham H. Muhammad, the author of htop, wrote a Stack Overflow answer about how htop calculates memory utilization from the data in /proc/meminfo.

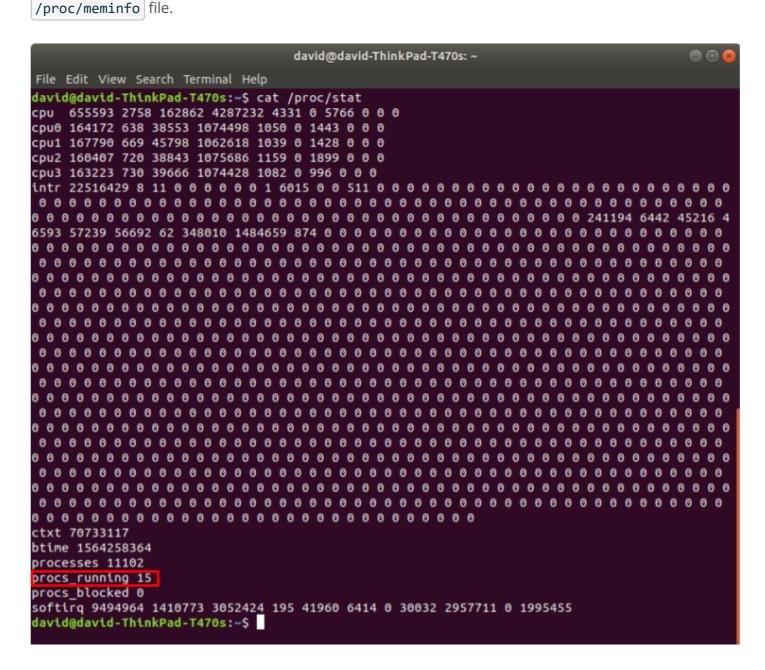
Use the formula that makes the most sense to you!

**Total Processes** Information about the total number of processes on the system exists in the /proc/meminfo file.



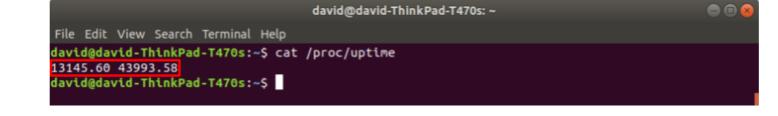
# Running Processes

Information about the number of processes on the system that are currently running exists in the



# Up Time

Information about system up time exists in the /proc/uptime file.



This file contains two numbers (values in seconds): the uptime of the system (including time spent in suspend) and the amount of time spent in the idle process.