

Commands: **grep MemTotal /proc/meminfo**
grep VmallocTotal /proc/meminfo

```
pam024@pam024-VirtualBox:~$ grep MemTotal /proc/meminfo
MemTotal:      4020468 kB
pam024@pam024-VirtualBox:~$ grep VmallocTotal /proc/meminfo
VmallocTotal:  34359738367 kB
pam024@pam024-VirtualBox:~$
```

Command: **top**

```
pam024@pam024-VirtualBox: ~
top - 17:03:48 up 10:35, 1 user, load average: 0,33, 0,18, 0,12
Tasks: 197 total, 1 running, 196 sleeping, 0 stopped, 0 zombie
%Cpu(s): 24,6 us, 3,8 sy, 0,0 ni, 71,7 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MiB Mem : 3926,2 total, 512,2 free, 1807,7 used, 1606,3 buff/cache
MiB Swap: 687,5 total, 365,0 free, 322,5 used. 1829,7 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 1416 pam024    20   0 3846612 383660 107920 S   23,2   9,5   29:00.52 gnome-s+
 1138 pam024    20   0 427124 179824  67152 S    3,3   4,5    8:49.74 Xorg
32892 pam024    20   0  14396   3836   3316 R    0,7   0,1    0:00.11 top
32353 pam024    20   0 817240 51512  38928 S    0,3   1,3    0:02.04 gnome-t+
32747 root        20   0      0      0      0  I   0,3   0,0    0:00.12 kworker+
32791 root        20   0      0      0      0  I   0,3   0,0    0:01.80 kworker+
    1 root        20   0 168676 12104   7632 S    0,0   0,3    0:03.72 systemd
    2 root        20   0      0      0      0  S   0,0   0,0    0:00.01 kthreadd
    3 root         0 -20      0      0      0  I   0,0   0,0    0:00.00 rcu_gp
    4 root         0 -20      0      0      0  I   0,0   0,0    0:00.00 rcu_par+
    6 root         0 -20      0      0      0  I   0,0   0,0    0:00.00 kworker+
    9 root         0 -20      0      0      0  I   0,0   0,0    0:00.00 mm_perc+
   10 root        20   0      0      0      0  S   0,0   0,0    0:00.00 rcu_tas+
   11 root        20   0      0      0      0  S   0,0   0,0    0:00.00 rcu_tas+
   12 root        20   0      0      0      0  S   0,0   0,0    0:02.35 ksoftir+
   13 root        20   0      0      0      0  I   0,0   0,0    0:03.61 rcu_sch+
   14 root        rt    0      0      0      0  S   0,0   0,0    0:00.64 migrati+
   15 root       -51   0      0      0      0  S   0,0   0,0    0:00.00 idle_in+
   16 root        20   0      0      0      0  S   0,0   0,0    0:00.00 cpuhp/0
   17 root        20   0      0      0      0  S   0,0   0,0    0:00.00 kdevtmp+
   18 root         0 -20      0      0      0  I   0,0   0,0    0:00.00 netns
```

Command: `cat /proc/sys/vm/overcommit_memory`

```
pam024@pam024-VirtualBox:~$ /proc/sys/vm/overcommit_memory
bash: /proc/sys/vm/overcommit_memory: Permission denied
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/overcommit_memory
0
pam024@pam024-VirtualBox:~$
```

Commands: `echo "Understanding Linux memory management" > my_file`
`sync`
`echo 3 > /proc/sys/vm/drop_caches`
`time cat my_file`
`time cat my_file`

```
pam024@pam024-VirtualBox:~$ echo "Understanding Linux memory management" > my_file
pam024@pam024-VirtualBox:~$ sync
pam024@pam024-VirtualBox:~$ echo 3 > /proc/sys/vm/drop_caches
bash: /proc/sys/vm/drop_caches: Permission denied
pam024@pam024-VirtualBox:~$ time cat my_file
Understanding Linux memory management

real    0m0,002s
user    0m0,002s
sys     0m0,000s
pam024@pam024-VirtualBox:~$ time cat my_file
Understanding Linux memory management

real    0m0,002s
user    0m0,002s
sys     0m0,000s
```

Commands: `cat /proc/sys/vm/dirty_bytes`
`cat /proc/sys/vm/dirty_ratio`
`cat /proc/sys/vm/dirty_background_*`
`cat /proc/sys/vm/dirty_background_ratio`
`cat /proc/sys/vm/dirty_writeback_centisecs`
`cat /proc/sys/vm/dirty_expire_centisecs`

```
pam024@pam024-VirtualBox:~$
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_bytes
0
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_ratio
20
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_background_*
0
10
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_background_ratio
10
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_writeback_centisecs
500
pam024@pam024-VirtualBox:~$ cat /proc/sys/vm/dirty_expire_centisecs
3000
pam024@pam024-VirtualBox:~$
```

Command: **grep -i active /proc/meminfo**

```
pam024@pam024-VirtualBox:~$ grep -i active /proc/meminfo
Active:          1246764 kB
Inactive:        2160624 kB
Active(anon):    188456 kB
Inactive(anon):  1547196 kB
Active(file):    1058308 kB
Inactive(file):  613428 kB
pam024@pam024-VirtualBox:~$
```