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## Linux display CPU information – number of CPUs and their speed

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**Q.** How do I display CPU information such as the number of CPUs and their speed?

**A.** Proc (/proc) file system provides easy information about CPU and their speed. The proc filesystem is a pseudo-filesystem which is used as an interface to kernel data structures. It is commonly mounted at /proc. Most of it is read-only, but some files allow kernel variables to be changed.

### Display the number of processors in Linux

[1]

You need to use /proc/cpuinfo file. This is a collection of CPU and system architecture dependent items, for each supported architecture a different list. Two common entries are processor which gives CPU number and bogomips; a system constant that is calculated during kernel initialization. SMP machines have information for each CPU. Type the following command:

\$ **less /proc/cpuinfo**

Output:

```
processor      : 0
vendor_id     : GenuineIntel
cpu family    : 15
model         : 4
model name    : Intel(R) Xeon(TM) CPU 3.00GHz
stepping      : 3
cpu MHz       : 2992.991
cache size    : 2048 KB
physical id   : 0
siblings      : 2
fdiv_bug      : no
hlt_bug       : no
f00f_bug      : no
coma_bug      : no
fpu           : yes
fpu_exception : yes
cpuid level   : 5
wp            : yes
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush
ss ht tm pbe nx lm pni monitor ds_cpl cid
bogomips      : 5931.00

processor      : 1
vendor_id     : GenuineIntel
cpu family    : 15
model         : 4
model name    : Intel(R) Xeon(TM) CPU 3.00GHz
stepping      : 3
cpu MHz       : 2992.991
cache size    : 2048 KB
physical id   : 0
siblings      : 2
.....
...
....
```

You can narrow down output with the following command, to display number of processors in the system:

```
$ grep processor /proc/cpuinfo
```

## See also:

- [How do I find out Linux CPU utilization?](#) <sup>[2]</sup>

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