

## **/proc/stat explained**

Various pieces of information about kernel activity are available in the `/proc/stat` file.

All of the numbers reported in this file are aggregates since the system first booted.

For a quick look, simply `cat` the file:

```
> cat /proc/stat
cpu 2255 34 2290 22625563 6290 127 456
cpu0 1132 34 1441 11311718 3675 127 438
cpu1 1123 0 849 11313845 2614 0 18
intr 114930548 113199788 3 0 5 263 0 4 [... lots more numbers ...]
ctxt 1990473
btime 1062191376
processes 2915
procs_running 1
procs_blocked 0
```

The very first "cpu" line aggregates the numbers in all of the other "cpuN" lines. These numbers identify the amount of time the CPU has spent performing different kinds of work. Time units are in `USER_HZ` or Jiffies (typically hundredths of a second).

The meanings of the columns are as follows, from left to right:

- \* user: normal processes executing in user mode
- \* nice: niced processes executing in user mode
- \* system: processes executing in kernel mode
- \* idle: twiddling thumbs
- \* iowait: waiting for I/O to complete
- \* irq: servicing interrupts
- \* softirq: servicing softirqs

The "intr" line gives counts of interrupts serviced since boot time, for each of the possible system interrupts. The first column is the total of all interrupts serviced; each subsequent column is the total for that particular interrupt.

The "ctxt" line gives the total number of context switches across all CPUs.

The "btime" line gives the time at which the system booted, in seconds since the Unix epoch.

The "processes" line gives the number of processes and threads created, which includes (but is not limited to) those created by calls to the `fork()` and `clone()` system calls.

The "procs\_running" line gives the number of processes currently running on CPUs.

The "procs\_blocked" line gives the number of processes currently blocked, waiting for I/O to complete.

copied from the kernel documentation of the `/proc` filesystem

Note: On my 2.6.18 kernel, `cpu` lines have 8 numeric fields, not 7.

Wonder what that one means...

Note:

The 8th column is called `steal_time`. It counts the ticks spent executing other virtual hosts (in virtualised environments like Xen)

Note2:

With Linux 2.6.24 there is 9th column for (virtual) guest systems. See `man 5 proc`.