NAME

vmstat – report virtual memory statistics

SYNOPSIS

vmstat [**–cisS**] [*disks*] [*interval* [*count*]]

DESCRIPTION

vmstat delves into the system and reports certain statistics kept about process, virtual memory, disk, trap and CPU activity. Note: **vmstat** statistics are only supported for certain devices.

Without options, **vmstat** displays a one-line summary of the virtual memory activity since the system was booted. If *interval* is specified, **vmstat** summarizes activity over the last *interval* seconds, repeating forever. If a *count* is given, the statistics are repeated *count* times. Note: *interval* and *count* do not apply to the **–i** and **–s** options. If *disks* are specified, they are given priority when **vmstat** chooses which disks to display (only four fit on a line). Common disk names are id, sd, xd, or xy, followed by a number, for example, sd2, xd0, and so forth. For more general system statistics, use **sar**(1), **iostat**(1M), or **sar**(1M).

See *Solaris 1.x to Solaris 2.x Transition Guide* for device naming conventions for disks.

OPTIONS

–c Report cache flushing statistics. By default, report the total number of each kind of cache flushed since boot time. The types are: user, context, region, segment, page, and partial-page.

–i Report the number of interrupts per device.

–s Display the total number of various system events since boot.

–S Report on swapping rather than paging activity. This option will change two fields in **vmstat**'s ''paging'' display: rather than the ''re'' and ''mf'' fields, **vmstat** will report ''si'' (swap-ins) and ''so'' (swap-outs).

EXAMPLES

The following command displays a summary of what the system is doing every five seconds.

```
example% vmstat 5
procs    memory              page                 disk          faults        cpu
r b w    swap free  re  mf  pi  po  fr  de  sr  s0  s1  s2  s3   in   sy   cs  us  sy  id
0 0 0   11456 4120   1  41  19   1   3   0   2   0   4   0   0   48  112  130   4  14  82
0 0 1   10132 4280   0   4  44   0   0   0   0   0  23   0   0  211  230  144   3  35  62
0 0 1   10132 4616   0   0  20   0   0   0   0   0  19   0   0  150  172  146   3  33  64
0 0 1   10132 5292   0   0   9   0   0   0   0   0  21   0   0  165  105  130   1  21  78
1 1 1   10132 5496   0   0   5   0   0   0   0   0  23   0   0  183   92  134   1  20  79
1 0 1   10132 5564   0   0  25   0   0   0   0   0  18   0   0  131  231  116   4  34  62
1 0 1   10124 5412   0   0  37   0   0   0   0   0  22   0   0  166  179  118   1  33  67
1 0 1   10124 5236   0   0  24   0   0   0   0   0  14   0   0  109  243  113   4  56  39
^C
example%
```

The fields of **vmstat**'s display are:

procs Report the number of processes in each of the three following states:
- **r** in run queue
- **b** blocked for resources (I/O, paging, and so forth)
- **w** runnable but swapped

memory Report on usage of virtual and real memory.
- **swap** amount of swap space currently available (Kbytes)
- **free** size of the free list (Kbytes)

page Report information about page faults and paging activity. The information on each of the following activities is given in units per second.
- **re** page reclaims — but see the −**S** option for how this field is modified.
- **mf** minor faults — but see the −**S** option for how this field is modified.
- **pi** kilobytes paged in
- **po** kilobytes paged out
- **fr** kilobytes freed
- **de** anticipated short-term memory shortfall (Kbytes)
- **sr** pages scanned by clock algorithm

disk Report the number of disk operations per second. There are slots for up to four disks, labeled with a single letter and number. The letter indicates the type of disk (s = SCSI, i = IPI, and so forth); the number is the logical unit number.

faults Report the trap/interrupt rates (per second).
- **in** (non clock) device interrupts
- **sy** system calls
- **cs** CPU context switches

cpu Give a breakdown of percentage usage of CPU time. On MP systems, this is an average across all processors.
- **us** user time
- **sy** system time
- **id** idle time

SEE ALSO

sar(1), **iostat**(1M), **sar**(1M)

System Administration Guide, Volume II