MPSTAT(1) Linux User's Manual MPSTAT(1)

NAME

mpstat - Report processors related statistics.

SYNOPSIS

mpstat [-A] [--dec={ 0 | 1 | 2 }] [-n] [-u] [-T] [-V] [-I { keyword[,...] | ALL }] [-N { node_list | ALL }] [-o JSON] [-P { cpu_list | ALL }] [interval [count]]

DESCRIPTION

The mpstat command writes to standard output activities for each available processor, processor 0 being the first one. Global average activities among all processors are also reported. The mpstat command can be used on both SMP and UP machines, but in the latter, only global average activities will be printed. If no activity has been selected, then the default report is the CPU utilization report.

The interval parameter specifies the amount of time in seconds between each report. A value of 0 (or no parameters at all) indicates that processors statistics are to be reported for the time since system startup (boot). The count parameter can be specified in conjunction with the interval parameter if this one is not set to zero. The value of count determines the number of reports generated at interval seconds

ter, the mpstat command generates reports continuously.

OPTIONS

-A This option is equivalent to specifying -n -u -I ALL. This op? tion also implies specifying -N ALL -P ALL unless these options are explicitly set on the command line.

--dec={ 0 | 1 | 2 }

Specify the number of decimal places to use (0 to 2, default value is 2).

-I { keyword[,...] | ALL }

Report interrupts statistics. Possible keywords are CPU, SCPU, and SUM.

With the CPU keyword, the number of each individual interrupt received per second by the CPU or CPUs is displayed. Interrupts are those listed in /proc/interrupts file.

With the SCPU keyword, the number of each individual software interrupt received per second by the CPU or CPUs is displayed. This option works only with kernels 2.6.31 and later. Software interrupts are those listed in /proc/softirqs file.

ber of interrupts per processor. The following values are dis? played:

CPU Processor number. The keyword all indicates that statis? tics are calculated as averages among all processors.

intr/s Show the total number of interrupts received per second by the CPU or CPUs.

The ALL keyword is equivalent to specifying all the keywords above and therefore all the interrupts statistics are displayed.

-N { node_list | ALL }

Indicate the NUMA nodes for which statistics are to be reported. node_list is a list of comma-separated values or range of values (e.g., 0,2,4-7,12-). Note that node all is the global average among all nodes. The ALL keyword indicates that statistics are to be reported for all nodes.

-n Report summary CPU statistics based on NUMA node placement. The following values are displayed:

NODE Logical NUMA node number. The keyword all indicates that statistics are calculated as averages among all nodes.

All the other fields are the same as those displayed with option -u (see below).

-o JSON

Display the statistics in JSON (JavaScript Object Notation) for? mat. JSON output field order is undefined, and new fields may be added in the future.

-P { cpu_list | ALL }

Indicate the processors for which statistics are to be reported. cpu_list is a list of comma-separated values or range of values (e.g., 0,2,4-7,12-). Note that processor 0 is the first proces? sor, and processor all is the global average among all proces? sors. The ALL keyword indicates that statistics are to be re? ported for all processors. Offline processors are not dis? played.

-T Display topology elements in the CPU report (see option -u be? low). The following elements are displayed:

CORE Logical core number.

SOCK Logical socket number.

-u Report CPU utilization. The following values are displayed:

CPU Processor number. The keyword all indicates that statis? tics are calculated as averages among all processors.

%usr Show the percentage of CPU utilization that occurred while executing at the user level (application).

%nice Show the percentage of CPU utilization that occurred while executing at the user level with nice priority.

%sys Show the percentage of CPU utilization that occurred while executing at the system level (kernel). Note that this does not include time spent servicing hardware and software interrupts.

%iowait
Show the percentage of time that the CPU or CPUs were idle during which the system had an outstanding disk I/O request.

%irq Show the percentage of time spent by the CPU or CPUs to service hardware interrupts.

%soft Show the percentage of time spent by the CPU or CPUs to service software interrupts.

%steal Show the percentage of time spent in involuntary wait by the virtual CPU or CPUs while the hypervisor was servic? ing another virtual processor.

%guest Show the percentage of time spent by the CPU or CPUs to run a virtual processor.

%gnice Show the percentage of time spent by the CPU or CPUs to run a niced guest.

%idle Show the percentage of time that the CPU or CPUs were idle and the system did not have an outstanding disk I/O request.

-V Print version number then exit.

ENVIRONMENT

The mpstat command takes into account the following environment vari? able:

S_COLORS

connected to a terminal. Use this variable to change the set? tings. Possible values for this variable are never, always or auto (the latter is equivalent to the default settings).
Please note that the color (being red, yellow, or some other color) used to display a value is not indicative of any kind of issue simply because of the color. It only indicates different ranges of values.

S_COLORS_SGR

Specify the colors and other attributes used to display statis? tics on the terminal. Its value is a colon-separated list of capabilities that defaults to H=31;1:I=32;22:M=35;1:N=34;1:Z=34;22. Supported capabilities are:

H= SGR (Select Graphic Rendition) substring for percentage values greater than or equal to 75%.

I= SGR substring for CPU number.

M= SGR substring for percentage values in the range from 50% to 75%.

N= SGR substring for non-zero statistics values.

Z= SGR substring for zero values.

S_TIME_FORMAT

If this variable exists and its value is ISO then the current locale will be ignored when printing the date in the report header. The mpstat command will use the ISO 8601 format (YYYY-MM-DD) instead. The timestamp will also be compliant with ISO 8601 format.

EXAMPLES

mpstat 2 5

Display five reports of global statistics among all processors at two second intervals.

mpstat -P ALL 2 5

Display five reports of statistics for all processors at two second intervals.

BUGS

/proc filesystem must be mounted for the mpstat command to work.

FILES

/proc contains various files with system statistics.

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SEE ALSO

sar(1), pidstat(1), iostat(1), vmstat(8)

https://github.com/sysstat/sysstat

http://pagesperso-orange.fr/sebastien.godard/