

NAME

pstat, **swapinfo** - display system data structures

SYNOPSIS

pstat [-Tfghkmnst] [-M *core* [-N *system*]]

swapinfo [-ghkm] [-M *core* [-N *system*]]

DESCRIPTION

The **pstat** utility displays open file entry, swap space utilization, terminal state, and vnode data structures.

If invoked as **swapinfo** the **-s** option is implied, and only the **-k**, **-m**, **-g**, and **-h** options are legal.

If the **-M** option is not specified, information is obtained from the currently running kernel via the `sysctl(3)` interface. Otherwise, information is read from the specified core file, using the name list from the specified kernel image (or from the default image).

The following options are available:

- n** Print devices out by major/minor instead of name.
- h** "Human-readable" output. Use unit suffixes when printing swap partition sizes: Byte, Kilobyte, Megabyte, Gigabyte, Terabyte and Petabyte.
- k** Print sizes in kilobytes, regardless of the setting of the `BLOCKSIZE` environment variable.
- m** Print sizes in megabytes, regardless of the setting of the `BLOCKSIZE` environment variable.
- g** Print sizes in gigabytes, regardless of the setting of the `BLOCKSIZE` environment variable.
- T** Print the number of used and free slots in several system tables. This is useful for checking to see how large system tables have become if the system is under heavy load.
- f** Print the open file table with these headings:
 - LOC The core location of this table entry.
 - TYPE The type of object the file table entry points to.
 - FLG Miscellaneous state variables encoded thus:

R open for reading
W open for writing
A open for appending
I signal pgrp when data ready

CNT Number of processes that know this open file.

MSG Number of messages outstanding for this file.

DATA

The location of the vnode table entry or socket structure for this file.

OFFSET

The file offset (see `lseek(2)`).

- s** Print information about swap space usage on all the swap areas compiled into the kernel. The first column is the device name of the partition. The next column is the total space available in the partition. The *Used* column indicates the total blocks used so far; the *Available* column indicates how much space is remaining on each partition. The *Capacity* reports the percentage of space used.

If more than one partition is configured into the system, totals for all of the statistics will be reported in the final line of the report.

- t** Print table for terminals with these headings:

LINE Device name.

INQ Number of characters that can be stored in the input queue.

CAN Number of characters in the input queue which can be read.

LIN Number of characters in the input queue which cannot be read yet.

LOW Low water mark for input.

OUTQ

Number of characters that can be stored in the output queue.

USE Number of bytes in the output queue.

LOW Low water mark for output.

COL Calculated column position of terminal.

SESS Process ID of the session leader.

PGID Process group for which this is the controlling terminal.

STATE

Miscellaneous state variables encoded thus:

I	init/lock-state device nodes present
C	callout device nodes present
O	opened
c	console in use
G	gone
B	busy in open(2)
Y	send SIGIO for input events
L	next character is literal
H	high watermark reached
X	open for exclusive use
S	output stopped (ixon flow control)
l	block mode input routine in use
Z	connection lost
s	i/o being snooped
b	busy in read(2) or write(2)

The 'i' and 'o' characters refer to the previous character, to differentiate between input and output.

-M Extract values associated with the name list from the specified core.

-N If **-M** is also specified, extract the name list from the specified system instead of the default, which is the kernel image the system has booted from.

ENVIRONMENT

BLOCKSIZE If the environment variable **BLOCKSIZE** is set, and the **-h**, **-k**, or **-m** options are not specified, the block counts will be displayed in units of that block size. If **BLOCKSIZE** is not set, and the **-h**, **-k**, or **-m** options are not specified, the block counts will be displayed in 512-byte blocks.

SEE ALSO

ps(1), systat(1), stat(2), fs(5), iostat(8), vmstat(8)

K. Thompson, *UNIX Implementation*.

HISTORY

The **pstat** utility appeared in 4.0BSD.

BUGS

Does not understand NFS swap servers.