NAME

swap – swap administrative interface

SYNOPSIS

/usr/sbin/swap –a *swapname* [*swaplow*] [*swaplen*]
/usr/sbin/swap –d *swapname* [*swaplow*]
/usr/sbin/swap –l
/usr/sbin/swap –s

AVAILABILITY

SUNWcsu

DESCRIPTION

swap provides a method of adding, deleting, and monitoring the system swap areas used by the memory manager.

OPTIONS

–a *swapname* Add the specified swap area. This option can only be used by the super-user. *swapname* is the name of the swap file: for example, **/dev/dsk/c0t0d0s1** or a regular file. *swaplow* is the offset in 512-byte blocks into the file where the swap area should begin. *swaplen* is the desired length of the swap area in 512-byte blocks. The value of *swaplen* can not be less than **16**. For example, if *n* blocks are specified, then (*n*-1) blocks would be the actual swap length. *swaplen* must be at least one page in length. One page of memory is equivalent to eight 512-byte blocks. The size of a page of memory can be determined by using the **pagesize** command. See **pagesize**(1). Since the first page of a swap file is automatically skipped, and a swap file needs to be at least one page in length, the minimum size should be a factor of 2 pagesize bytes. The size of a page of memory is machine dependent.

swaplow + *swaplen* must be less than or equal to the size of the swap file. If *swaplen* is not specified, an area will be added starting at *swaplow* and extending to the end of the designated file. If neither *swaplow* nor *swaplen* are specified, the whole file will be used except for the first page. Swap areas are normally added automatically during system startup by the **/sbin/swapadd** script. This script adds all swap areas which have been specified in the **/etc/vfstab** file; for the syntax of these specifications, see **vfstab**(4).

To use an NFS or local file-system *swapname,* you should first create a file using **mkfile**(1M). A local file-system swap file can now be added to the running system by just running the **swap -a** command. For NFS mounted swap files, the server needs to export the file. Do this by performing the following steps:

1. Add the following line to **/etc/dfs/dfstab**:
   share -F nfs -o rw=*clientname***,root=***clientname path-to-swap-file*
2. Run **shareall**(1M).

3. Have the client add the following lines to **/etc/vfstab**:
   *server***:***path-to-swap-file* **-** *local-path-to-swap-file* **nfs - - -**
   local-path-to-swap-file **- - swap - - -**
4. Have the client run **mount**:
   # **mount** *local-path-to-swap-file*
5. The client can then run **swap -a** to add the swap space:
   # **swap -a** *local-path-to-swap-file*

–d *swapname* Delete the specified swap area. This option can only be used by the super-user. *swapname* is the name of the swap file: for example, **/dev/dsk/c0t0d0s1** or a regular file. *swaplow* is the offset in 512-byte blocks into the swap area to be deleted. If *swaplow* is not specified, the area will be deleted starting at the second page. When the command completes, swap blocks can no longer be allocated from this area and all swap blocks previously in use in this swap area have been moved to other swap areas.

–l List the status of all the swap areas. The output has five columns:

path The path name for the swap area.

dev The major/minor device number in decimal if it is a block special device; zeroes otherwise.

swaplo The *swaplow* value for the area in 512-byte blocks.

blocks The *swaplen* value for the area in 512-byte blocks.

free The number of 512-byte blocks in this area that are not currently allocated.

The list does not include swap space in the form of physical memory because this space is not associated with a particular swap area.

If **swap -l** is run while *swapname* is in the process of being deleted (by **swap -d**), the string INDEL will appear in a sixth column of the swap stats.

–s Print summary information about total swap space usage and availability:

allocated The total amount of swap space (in 1024-byte blocks) currently allocated for use as backing store.

reserved The total amount of swap space (in 1024-bytes blocks) not currently allocated, but claimed by memory mappings for possible future use.

used The total amount of swap space (in 1024-byte blocks) that is either allocated or reserved.

available The total swap space (in 1024-byte blocks) that is currently available for future reservation and allocation.

These numbers include swap space from all configured swap areas as listed by the **–l** option, as well swap space in the form of physical memory.

SEE ALSO

pagesize(1), **mkfile**(1M), **shareall**(1M), **getpagesize**(3C), **vfstab**(4)

WARNINGS

No check is done to see if a swap area being added overlaps with an existing file system.