NAME

swapon, swapoff − enable/disable devices and files for paging and swapping

SYNOPSIS

swapon [options] [*specialfile*...]
swapoff [**−va**] [*specialfile*...]

DESCRIPTION

swapon is used to specify devices on which paging and swapping are to take place.

The device or file used is given by the *specialfile* parameter. It may be of the form **−L** *label* or **−U** *uuid* to indicate a device by label or uuid.

Calls to **swapon** normally occur in the system boot scripts making all swap devices available, so that the paging and swapping activity is interleaved across several devices and files.

swapoff disables swapping on the specified devices and files. When the **−a** flag is given, swapping is disabled on all known swap devices and files (as found in */proc/swaps* or */etc/fstab*).

OPTIONS

−a, **−−all**
All devices marked as ‘‘swap’’ in */etc/fstab* are made available, except for those with the ‘‘noauto’’ option. Devices that are already being used as swap are silently skipped.

−d, **−−discard**[**=***policy*]
Enable swap discards, if the swap backing device supports the discard or trim operation. This may improve performance on some Solid State Devices, but often it does not. The option allows one to select between two available swap discard policies: **−−discard=once** to perform a single-time discard operation for the whole swap area at swapon; or **−−discard=pages** to asynchronously discard freed swap pages before they are available for reuse. If no policy is selected, the default behavior is to enable both discard types. The */etc/fstab* mount options **discard**, **discard=once**, or **discard=pages** may also be used to enable discard flags.

−e, **−−ifexists**
Silently skip devices that do not exist. The */etc/fstab* mount option **nofail** may also be used to skip non-existing device.

−f, **−−fixpgsz**
Reinitialize (exec mkswap) the swap space if its page size does not match that of the current running kernel. **mkswap(2)** initializes the whole device and does not check for bad blocks.

−h, **−−help**
Display help text and exit.

−L *label*
Use the partition that has the specified *label*. (For this, access to */proc/partitions* is needed.)

−o, **−−options** *opts*
Specify swap options by an fstab-compatible comma-separated string. For example:

swapon -o pri=1,discard=pages,nofail /dev/sda2

The *opts* string is evaluated last and overrides all other command line options.

−p, **−−priority** *priority*
Specify the priority of the swap device. *priority* is a value between −1 and 32767. Higher numbers indicate higher priority. See swapon(2) for a full description of swap priorities. Add **pri=***value* to the option field of */etc/fstab* for use with **swapon -a**. When no priority is defined, it defaults to −1.

−s, **−−summary**
Display swap usage summary by device. Equivalent to "cat /proc/swaps". This output format is DEPRECATED in favour of **−−show** that provides better control on output data.

−−show[=*column*...]
Display a definable table of swap areas. See the **−−help** output for a list of available columns.

−−output−all
Output all available columns.

−−noheadings
Do not print headings when displaying **−−show** output.

−−raw Display **−−show** output without aligning table columns.

−−bytes
Display swap size in bytes in **−−show** output instead of in user-friendly units.

−U *uuid*
Use the partition that has the specified *uuid*.

−v, **−−verbose**
Be verbose.

−V, **−−version**
Display version information and exit.

NOTES

You should not use **swapon** on a file with holes. This can be seen in the system log as

swapon: swapfile has holes.

The swap file implementation in the kernel expects to be able to write to the file directly, without the assistance of the filesystem. This is a problem on preallocated files (e.g. fallocate(1)) on filesystems like **XFS** or **ext4**, and on copy-on-write filesystems like **btrfs**.

It is recommended to use dd(1) and */dev/zero* to avoid holes on XFS and ext4.

swapon may not work correctly when using a swap file with some versions of **btrfs**. This is due to btrfs being a copy-on-write filesystem: the file location may not be static and corruption can result. Btrfs actively disallows the use of swap files on its filesystems by refusing to map the file.

One possible workaround is to map the swap file to a loopback device. This will allow the filesystem to determine the mapping properly but may come with a performance impact.

Swap over **NFS** may not work.

swapon automatically detects and rewrites a swap space signature with old software suspend data (e.g. S1SUSPEND, S2SUSPEND, ...). The problem is that if we don't do it, then we get data corruption the next time an attempt at unsuspending is made.

ENVIRONMENT

LIBMOUNT_DEBUG=all
enables libmount debug output.

LIBBLKID_DEBUG=all
enables libblkid debug output.

SEE ALSO

swapoff(2), swapon(2), fstab(5), **init(8),** mkswap(8), mount(8), **rc(8)**

FILES

/dev/sd?? standard paging devices
/etc/fstab ascii filesystem description table

HISTORY

The **swapon** command appeared in 4.0BSD.

AVAILABILITY

The swapon command is part of the util-linux package and is available from https://www.kernel.org/pub/linux/utils/util-linux/.