

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

Files with 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 files with holes or on copy-on-write files on filesystems like Btrfs.

Commands like **cp**(1) or **truncate**(1) create files with holes. These files will be rejected by swapon.

Preallocated files created by **fallocate**(1) may be interpreted as files with holes too depending of the filesystem. Preallocated swap files are supported on XFS since Linux 4.18.

The most portable solution to create a swap file is to use **dd**(1) and /dev/zero.

Btrfs

Swap files on Btrfs are supported since Linux 5.0 on files with `nocow` attribute. See the **btrfs**(5) manual page for more details.

NFS

Swap over NFS may not work.

Suspend

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), fallocate(1), 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/>.