

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.

-T, --fstab path

Specifies an alternative fstab file for compatibility with **mount**(8). If *path* is a directory, then the files in the directory are sorted by **strverscmp**(3); files that start with "." or without an .fstab extension are ignored. The option can be specified more than once. This option is mostly designed for initramfs or chroot scripts where additional configuration is specified beyond standard system configuration.

-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**(8) initializes the whole device and does not check for bad blocks.

-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.

-h, --help

Display help text and exit.

-V, --version

Print version and exit.

EXIT STATUS

swapoff has the following exit status values since v2.36:

0

success

2

system has insufficient memory to stop swapping (OOM)

4

swapoff(2) syscall failed for another reason

8
non-**swapoff**(2) syscall system error (out of memory, ...)

16
usage or syntax error

32
all **swapoff** failed on **--all**

64
some **swapoff** succeeded on **--all**

The command **swapoff --all** returns 0 (all succeeded), 32 (all failed), or 64 (some failed, some succeeded).

+ The old versions before v2.36 has no documented exit status, 0 means success in all versions.

ENVIRONMENT

LIBMOUNT_DEBUG=all
enables **libmount** debug output.

LIBBLKID_DEBUG=all
enables **libblkid** debug output.

FILES

/dev/sd??
standard paging devices

/etc/fstab
ascii filesystem description table

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.

HISTORY

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

SEE ALSO

swapoff(2), swapon(2), fstab(5), init(8), fallocate(1), mkswap(8), mount(8), rc(8)

REPORTING BUGS

For bug reports, use the issue tracker at <https://github.com/util-linux/util-linux/issues>.

AVAILABILITY

The **swapon** command is part of the util-linux package which can be downloaded from [Linux Kernel Archive](https://www.kernel.org/pub/linux/utils/util-linux/) <<https://www.kernel.org/pub/linux/utils/util-linux/>>.