SWAPON(8) System Administration SWAPON(8)

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

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

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

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

--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

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.

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/>.