Red Hat Enterprise Linux Release 9.2 Manual Pages on 'swapon.8' command

$ man swapon.8

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

   -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(8) 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.

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 syscall failed for another reason

8

non-swapoff 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/karelzak/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/>.

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