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

$ man mkswap.8

MKSWAP(8)   System Administration   MKSWAP(8)

NAME

    mkswap - set up a Linux swap area

SYNOPSIS

    mkswap [options] device [size]

DESCRIPTION

    mkswap sets up a Linux swap area on a device or in a file.

    The device argument will usually be a disk partition (something like

    /dev/sdb7) but can also be a file. The Linux kernel does not look at

    partition IDs, but many installation scripts will assume that

    partitions of hex type 82 (LINUX_SWAP) are meant to be swap partitions.

    (Warning: Solaris also uses this type. Be careful not to kill your

    Solaris partitions.)

    The size parameter is superfluous but retained for backwards

    compatibility. (It specifies the desired size of the swap area in

    1024-byte blocks. mkswap will use the entire partition or file if it is

    omitted. Specifying it is unwise - a typo may destroy your disk.)

    After creating the swap area, you need the swapon command to start

    using it. Usually swap areas are listed in /etc/fstab so that they can

    be taken into use at boot time by a swapon -a command in some boot

    script.

WARNING

    The swap header does not touch the first block. A boot loader or disk

label can be there, but it is not a recommended setup. The recommended

setup is to use a separate partition for a Linux swap area.

mkswap, like many others mkfs-like utils, erases the first partition

block to make any previous filesystem invisible.

However, mkswap refuses to erase the first block on a device with a

disk label (SUN, BSD, ...).

OPTIONS

-c, --check

Check the device (if it is a block device) for bad blocks before

creating the swap area. If any bad blocks are found, the count is

printed.

-f, --force

Go ahead even if the command is stupid. This allows the creation of

a swap area larger than the file or partition it resides on.

Also, without this option, mkswap will refuse to erase the first

block on a device with a partition table.

-L, --label label

Specify a label for the device, to allow swapon by label.

--lock[=mode]

Use exclusive BSD lock for device or file it operates. The optional

argument mode can be yes, no (or 1 and 0) or nonblock. If the mode

argument is omitted, it defaults to "yes". This option overwrites

environment variable $LOCK_BLOCK_DEVICE. The default is not to use

any lock at all, but it?s recommended to avoid collisions with

udevd or other tools.

-p, --pagesize size

Specify the page size (in bytes) to use. This option is usually

unnecessary; mkswap reads the size from the kernel.

-U, --uuid UUID

Specify the UUID to use. The default is to generate a UUID.

-v, --swapversion 1

Specify the swap-space version. (This option is currently

pointless, as the old -v 0 option has become obsolete and now only

-v 1 is supported. The kernel has not supported v0 swap-space

format since 2.5.22 (June 2002). The new version v1 is supported

since 2.1.117 (August 1998).)

--verbose

Verbose execution. With this option mkswap will output more details

about detected problems during swap area set up.

-h, --help

Display help text and exit.

-V, --version

Display version information and exit.

ENVIRONMENT

LIBBLKID_DEBUG=all

enables libblkid debug output.

LOCK_BLOCK_DEVICE=<mode>

use exclusive BSD lock. The mode is "1" or "0". See --lock for more

details.

NOTES

The maximum useful size of a swap area depends on the architecture and

the kernel version.

The maximum number of the pages that is possible to address by swap

area header is 4294967295 (32-bit unsigned int). The remaining space on

the swap device is ignored.

Presently, Linux allows 32 swap areas. The areas in use can be seen in

the file /proc/swaps.

mkswap refuses areas smaller than 10 pages.

If you don?t know the page size that your machine uses, you may be able

to look it up with cat /proc/cpuinfo (or you may not - the contents of

this file depend on architecture and kernel version).

To set up a swap file, it is necessary to create that file before

initializing it with mkswap, e.g. using a command like

dd if=/dev/zero of=swapfile bs=1MiB count=$((8*1024))

to create 8GiB swapfile.

Please read notes from swapon(8) about the swap file use restrictions

(holes, preallocation and copy-on-write issues).

SEE ALSO

fdisk(8), swapon(8)

REPORTING BUGS

For bug reports, use the issue tracker at

https://github.com/karelzak/util-linux/issues.

AVAILABILITY

The mkswap 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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