



Rocky Enterprise Linux 9.2 Manual Pages on command 'lvreduce.8'

\$ man lvreduce.8

LVREDUCE(8) System Manager's Manual LVREDUCE(8)

NAME

lvreduce ? Reduce the size of a logical volume

SYNOPSIS

lvreduce option_args position_args

[option_args]

DESCRIPTION

lvreduce reduces the size of an LV. The freed logical extents are re? turned to the VG to be used by other LVs. A copy-on-write snapshot LV can also be reduced if less space is needed to hold COW blocks. Use lv? convert(8) to change the number of data images in a RAID or mirrored LV.

Be careful when reducing an LV's size, because data in the reduced area is lost. Ensure that any file system on the LV is resized before run? ning lvreduce so that the removed extents are not in use by the file system.

Sizes will be rounded if necessary. For example, the LV size must be an exact number of extents, and the size of a striped segment must be a

multiple of the number of stripes.

In the usage section below, --size Size can be replaced with --extents Number. See both descriptions the options section.

USAGE

```
lvreduce -L|--size [-]Size[m|UNIT] LV
[ -l|--extents [-]Number[PERCENT] ]
[ -A|--autobackup y|n ]
[ -f|--force ]
[ -n|--nofsck ]
[ -r|--resizefs ]
[ --noudevsync ]
[ --reportformat basic|json|json_std ]
[ --fs String ]
[ --fsmode String ]
[ COMMON_OPTIONS ]
```

Common options for lvm:

```
[ -d|--debug ]
[ -h|--help ]
[ -q|--quiet ]
[ -t|--test ]
[ -v|--verbose ]
[ -y|--yes ]
[ --commandprofile String ]
[ --config String ]
[ --devices PV ]
[ --devicesfile String ]
[ --driverloaded y|n ]
[ --journal String ]
[ --lockopt String ]
[ --longhelp ]
[ --nohints ]
[ --nolocking ]
[ --profile String ]
```

[--version]

OPTIONS

-A|--autobackup y|n

Specifies if metadata should be backed up automatically after a change. Enabling this is strongly advised! See `vgcfgbackup(8)` for more information.

--commandprofile String

The command profile to use for command configuration. See `lvm.conf(5)` for more information about profiles.

--config String

Config settings for the command. These override `lvm.conf(5)` settings. The String arg uses the same format as `lvm.conf(5)`, or may use section/field syntax. See `lvm.conf(5)` for more information about config.

-d|--debug ...

Set debug level. Repeat from 1 to 6 times to increase the detail of messages sent to the log file and/or syslog (if configured).

--devices PV

Restricts the devices that are visible and accessible to the command. Devices not listed will appear to be missing. This option can be repeated, or accepts a comma separated list of devices. This overrides the devices file.

--devicesfile String

A file listing devices that LVM should use. The file must exist in `/etc/lvm/devices/` and is managed with the `lvmdisks(8)` command. This overrides the `lvm.conf(5)` `devices/devicesfile` and `devices/use_devicesfile` settings.

--driverloaded y|n

If set to no, the command will not attempt to use device-mapper. For testing and debugging.

-l|--extents [-]Number[PERCENT]

Specifies the new size of the LV in logical extents. The `--size` and `--extents` options are alternate methods of specifying size.

The total number of physical extents used will be greater when redundant data is needed for RAID levels. An alternate syntax allows the size to be determined indirectly as a percentage of the size of a related VG, LV, or set of PVs. The suffix %VG denotes the total size of the VG, the suffix %FREE the remaining free space in the VG, and the suffix %PVS the free space in the specified PVs. For a snapshot, the size can be expressed as a percentage of the total size of the origin LV with the suffix %ORIGIN (100%ORIGIN provides space for the whole origin). When expressed as a percentage, the size defines an upper limit for the number of logical extents in the new LV. The precise number of logical extents in the new LV is not determined until the command has completed. When the plus + or minus - prefix is used, the value is not an absolute size, but is relative and added or subtracted from the current size.

`-f|--force ...`

Override various checks, confirmations and protections. Use with extreme caution.

`--fs String`

Control file system resizing when resizing an LV. `checksize:` Check the fs size and reduce the LV if the fs is not using the reduced space (fs reduce is not needed.) If the reduced space is used by the fs, then do not resize the fs or LV, and return an error. (`checksize` only applies when reducing, and does nothing for extend.) `resize:` Resize the fs by calling the fs-specific `resize` command. This may also include mounting, unmounting, or running `fsck`. See `--fsmode` to control mounting behavior, and `--nofsck` to disable `fsck`. `resize_fsadm:` Use the old method of calling `fsadm` to handle the fs (deprecated.) Warning: this operation does not prevent `lvreduce` from destroying file systems that are unmounted (or mounted if prompts are skipped.) `ignore:` Resize the LV without checking for or handling a file system.

Warning: using `ignore` when reducing the LV size may destroy the

file system.

`--fsmode String`

Control file system mounting behavior for `fs` `resize`. `manage`: Mount or unmount the `fs` as needed to resize the `fs`, and attempt to restore the original mount state at the end. `nochange`: Do not mount or unmount the `fs`. If mounting or unmounting is required to resize the `fs`, then do not resize the `fs` or the `LV` and fail the command. `offline`: Unmount the `fs` if it is mounted, and resize the `fs` while it is unmounted. If mounting is required to resize the `fs`, then do not resize the `fs` or the `LV` and fail the command.

`-h|--help`

Display help text.

`--journal String`

Record information in the `systemd` journal. This information is in addition to information enabled by the `lvm.conf log/journal` setting. `command`: record information about the command. `output`: record the default command output. `debug`: record full command debugging.

`--lockopt String`

Used to pass options for special cases to `lvmlockd`. See `lvmlockd(8)` for more information.

`--longhelp`

Display long help text.

`-n|--nofsck`

Do not perform `fsck` when resizing the file system with `--resizefs`.

`--nohints`

Do not use the hints file to locate devices for `PVs`. A command may read more devices to find `PVs` when hints are not used. The command will still perform standard hint file invalidation where appropriate.

`--nolocking`

Disable locking. Use with caution, concurrent commands may produce incorrect results.

`--noudevsync`

Disables udev synchronisation. The process will not wait for notification from udev. It will continue irrespective of any possible udev processing in the background. Only use this if udev is not running or has rules that ignore the devices LVM creates.

`--profile String`

An alias for `--commandprofile` or `--metadataprofile`, depending on the command.

`-q|--quiet ...`

Suppress output and log messages. Overrides `--debug` and `--verbose`. Repeat once to also suppress any prompts with answer 'no'.

`--reportformat basic|json|json_std`

Overrides current output format for reports which is defined globally by the `report/output_format` setting in `lvm.conf(5)`. `basic` is the original format with columns and rows. If there is more than one report per command, each report is prefixed with the report name for identification. `json` produces report output in JSON format. `json_std` produces report output in JSON format which is more compliant with JSON standard. See `lvmreport(7)` for more information.

`-r|--resizefs`

Resize the fs using the fs-specific resize command. May include mounting, unmounting, or running `fsck`. See `--fsmode` to control mounting behavior, and `--nofsck` to disable `fsck`. See `--fs` for more options (`--resizefs` is equivalent to `--fs resize`.)

`-L|--size [-]Size[m|UNIT]`

Specifies the new size of the LV. The `--size` and `--extents` options are alternate methods of specifying size. The total number of physical extents used will be greater when redundant data is needed for RAID levels. When the plus + or minus - prefix is

used, the value is not an absolute size, but is relative and added or subtracted from the current size.

`-t|--test`

Run in test mode. Commands will not update metadata. This is implemented by disabling all metadata writing but nevertheless returning success to the calling function. This may lead to unusual error messages in multi-stage operations if a tool relies on reading back metadata it believes has changed but hasn't.

`-v|--verbose ...`

Set verbose level. Repeat from 1 to 4 times to increase the default of messages sent to stdout and stderr.

`--version`

Display version information.

`-y|--yes`

Do not prompt for confirmation interactively but always assume the answer yes. Use with extreme caution. (For automatic no, see `-qq.`)

VARIABLES

LV Logical Volume name. See `lvm(8)` for valid names. An LV positional arg generally includes the VG name and LV name, e.g. VG/LV.

String See the option description for information about the string content.

Size[UNIT]

Size is an input number that accepts an optional unit. Input units are always treated as base two values, regardless of capitalization, e.g. 'k' and 'K' both refer to 1024. The default input unit is specified by letter, followed by |UNIT. UNIT represents other possible input units: b|B is bytes, s|S is sectors of 512 bytes, k|K is KiB, m|M is MiB, g|G is GiB, t|T is TiB, p|P is PiB, e|E is EiB. (This should not be confused with the output control `--units`, where capital letters mean multiple of 1000.)

ENVIRONMENT VARIABLES

See `lvm(8)` for information about environment variables used by `lvm`.

For example, `LVM_VG_NAME` can generally be substituted for a required `VG` parameter.

EXAMPLES

Reduce the size of an LV by 3 logical extents:

```
lvreduce -l -3 vg00/lvol1
```

SEE ALSO

`lvm(8)`, `lvm.conf(5)`, `lvmconfig(8)`, `lvmdevices(8)`,
`pvchange(8)`, `pvck(8)`, `pvcreate(8)`, `pvdisplay(8)`, `pvmove(8)`,
`pvremove(8)`, `pvresize(8)`, `pvs(8)`, `pvscan(8)`,
`vgcfgbackup(8)`, `vgcfgrestore(8)`, `vgchange(8)`, `vgck(8)`, `vgcreate(8)`,
`vgconvert(8)`, `vgdisplay(8)`, `vgexport(8)`, `vgextend(8)`, `vgimport(8)`,
`vgimportclone(8)`, `vgimportdevices(8)`, `vgmerge(8)`, `vgmknodes(8)`,
`vgreduce(8)`, `vgremove(8)`, `vgrename(8)`, `vgs(8)`, `vgscan(8)`, `vgsplit(8)`,
`lvcreate(8)`, `lvchange(8)`, `lvconvert(8)`, `lvdisplay(8)`, `lvextend(8)`,
`lvreduce(8)`, `lvremove(8)`, `lvrename(8)`, `lvresize(8)`, `lvs(8)`, `lvscan(8)`,
`lvm-fullreport(8)`, `lvm-lvpoll(8)`, `blkdeactivate(8)`, `lvmdump(8)`,
`dmeventd(8)`, `lvmpolld(8)`, `lvmlckd(8)`, `lvmlckctl(8)`, `cmirrord(8)`,
`lvmdbusd(8)`, `fsadm(8)`,
`lvmsystemid(7)`, `lvmreport(7)`, `lvraid(7)`, `lvthin(7)`, `lvmdcache(7)`

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