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

$ man lvmdevices.8

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

NAME

lvmdevices ? Manage the devices file

SYNOPSIS

lvmdevices option_args

[option_args]

--adddev PV

--addpvid String

--check

--commandprofile String

--config String

-d|--debug

--deldev String

--delpvid String

--deviceidtype String

--devices PV

--devicesfile String

--driverloaded y|n

-h|--help

--journal String

--lockopt String

--longhelp

--nohints

--nolocking

--profile String

-q|--quiet

-t|--test

--update

-v|--verbose

--version

-y|--yes

DESCRIPTION

The LVM devices file lists devices that lvm can use. The default file is /etc/lvm/devices/system.devices, and the lvmdevices(8) command is used to add or remove device entries. If the file does not exist, or if lvm.conf includes use_devicesfile=0, then lvm will not use a devices file.

To use a device with lvm, add it to the devices file with the command lvmdevices --adddev, and to prevent lvm from seeing or using a device, remove it from the devices file with lvmdevices --deldev. The vgim? portdevices(8) command adds all PVs from a VG to the devices file, and updates the VG metadata to include device IDs of the PVs.

Commands that add new devices to the devices file necessarily look out? side the existing devices file to find the devices being added. pvcre? ate, vgcreate, and vgextend also look outside the devices file to cre? ate new PVs and add those PVs to the devices file.

LVM records devices in the devices file using hardware-specific IDs, such as the WWID, and attempts to use subsystem-specific IDs for vir? tual device types (which also aim to be as unique and stable as possi? ble.) These device IDs are also written in the VG metadata. When no hardware or virtual ID is available, lvm falls back using the unstable device name as the device ID. When devnames are used as IDs, lvm per? forms extra scanning to find devices if their devname changes, e.g. af? ter reboot.

When proper device IDs are used, an lvm command will not look at de? vices outside the devices file, but when devnames are used as a fall?

back, lvm will scan devices outside the devices file to locate PVs on renamed devices. A config setting search_for_devnames can be used to control the scanning for renamed devname entries.

Related to the devices file, the new command option --devices <dev? names> allows a list of devices to be specified for the command to use, overriding the devices file. The listed devices act as a sort of de? vices file in terms of limiting which devices lvm will see and use. Devices that are not listed will appear to be missing to the lvm com? mand.

Multiple devices files can be kept /etc/lvm/devices, which allows lvm to be used with different sets of devices. For example, system devices do not need to be exposed to a specific application, and the applica? tion can use lvm on its own devices that are not exposed to the system. The option --devicesfile <filename> is used to select the devices file to use with the command. Without the option set, the default system devices file is used.

Setting --devicesfile "" causes lvm to not use a devices file.

With no devices file, lvm will use any device on the system, and ap? plies the filter to limit the full set of system devices. With a de? vices file, the regex filter is not used, and the filter settings in lvm.conf or the command line are ignored. The vgimportdevices command is one exception which does apply the regex filter when looking for a VG to import.

If a devices file exists, lvm will use it, even if it's empty. An empty devices file means lvm will see no devices.

If the system devices file does not yet exist, the pvcreate or vgcreate commands will create it if they see no existing VGs on the system. lvmdevices --addev and vgimportdevices will always create a new devices file if it does not yet exist.

It is recommended to use lvm commands to make changes to the devices file to ensure proper updates.

The device ID and device ID type are included in the VG metadata and can be reported with pvs -o deviceid,deviceidtype. (Note that the

lvmdevices command does not update VG metadata, but subsequent lvm com?

mands modifying the metadata will include the device ID.)

Possible device ID types are:

? sys_wwid uses the wwid reported by sysfs. This is the first choice

for non-virtual devices.

? sys_serial uses the serial number reported by sysfs. This is the

second choice for non-virtual devices.

? mpath_uuid is used for dm multipath devices, reported by sysfs.

? crypt_uuid is used for dm crypt devices, reported by sysfs.

? md_uuid is used for md devices, reported by sysfs.

? lvmlv_uuid is used if a PV is placed on top of an lvm LV, reported by

sysfs.

? loop_file is used for loop devices, the backing file name repored by

sysfs.

? devname the device name is used if no other type applies.

The default choice for device ID type can be overriden using lvmdevices

--addev --deviceidtype <type>. If the specified type is available for

the device it will be used, otherwise the device will be added using

the type that would otherwise be chosen.

USAGE

Print devices in the devices file.

lvmdevices

[COMMON_OPTIONS]

?

Check the devices file and report incorrect values.

lvmdevices --check

[COMMON_OPTIONS]

?

Update the devices file to fix incorrect values.

lvmdevices --update

[COMMON_OPTIONS]

?

Add a device to the devices file.

lvmdevices --adddev PV

[--deviceidtype String]

[COMMON_OPTIONS]

?

Remove a device from the devices file.

lvmdevices --deldev String|PV

[--deviceidtype String]

[COMMON_OPTIONS]

?

Find the device with the given PVID and add it to the devices file.

lvmdevices --addpvid String

[--deviceidtype String]

[COMMON_OPTIONS]

?

Remove the devices file entry for the given PVID.

lvmdevices --delpvid 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

--adddev PV

Add a device to the devices file.

--addpvid String

Find a device with the PVID and add the device to the devices file.

--check

Checks the content of the devices file. Reports incorrect de? vice names or PVIDs for entries.

--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) set? tings. The String arg uses the same format as lvm.conf(5), or may use section/field syntax. See lvm.conf(5) for more informa? tion 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).

--deldev String

Remove a device from the devices file. When used alone, --deldev specifies a device name. When used with --deviceid? type, --deldev specifies a device id.

--delpvid String

Remove a device with the PVID from the devices file.

--deviceidtype String

The type of device ID to use for the device. If the specified type is available for the device, then it will override the de?

fault type that lvm would use.

--devices PV

Restricts the devices that are visible and accessible to the command. Devices not listed will appear to be missing. This op? tion can be repeated, or accepts a comma separated list of de? vices. 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 lvmdevices(8) com? mand. 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.

-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. out? put: record the default command output. debug: record full com? mand debugging.

--lockopt String

Used to pass options for special cases to lvmlockd. See lvm? lockd(8) for more information.

--longhelp

Display long help text.

--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 pro?
duce incorrect results.

--profile String

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

-q|--quiet ...

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

-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 un?
usual error messages in multi-stage operations if a tool relies on reading back metadata it believes has changed but hasn't.

--update

Update the content of the devices file.

-v|--verbose ...

Set verbose level. Repeat from 1 to 4 times to increase the de?
tail 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

String See the option description for information about the string con?
tent.

Size[UNIT]

Size is an input number that accepts an optional unit. Input units are always treated as base two values, regardless of capi?
talization, e.g. 'k' and 'K' both refer to 1024. The default

input unit is specified by letter, followed by |UNIT. UNIT rep?
resents 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.

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), lvmlockd(8), lvmlockctl(8), cmirrord(8),
lvmdbusd(8), fsadm(8),
lvmsystemid(7), lvmreport(7), lvmraid(7), lvmthin(7), lvmcache(7)