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

\$ 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 `vgimportdevices(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 outside the existing devices file to find the devices being added. `pvcreate`, `vgcreate`, and `vgextend` also look outside the devices file to create 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 virtual device types (which also aim to be as unique and stable as possible.) 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 performs extra scanning to find devices if their devname changes, e.g. after reboot.

When proper device IDs are used, an lvm command will not look at devices outside the devices file, but when devnames are used as a fallback, 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 <devnames>` 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 devices 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 command.

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 application 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 applies the filter to limit the full set of system devices. With a devices 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 commands 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 reported by `sysfs`.

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

The default choice for device ID type can be overridden 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 device 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)` 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).

--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 default 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 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 `lvmdevices(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.

-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.

--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.

`--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'.

`-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.

`--update`

Update the content of the devices file.

`-v|--verbose ...`

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

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)`, `cmirror(8)`,
`lvmdbusd(8)`, `fsadm(8)`,
`lvmsystemid(7)`, `lvmreport(7)`, `lvmraid(7)`, `lvmthin(7)`, `lvmcache(7)`

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