NAME

pvscan − List all physical volumes

SYNOPSIS

pvscan *option_args*
[*option_args*]
[*position_args*]

DESCRIPTION

When called without the −−cache option, pvscan lists PVs on the system, like **pvs**(8) or **pvdisplay**(8).

When the −−cache and −aay options are used, pvscan records which PVs are available on the system, and activates LVs in completed VGs. A VG is complete when pvscan sees that the final PV in the VG has appeared. This is used by event-based system startup (systemd, udev) to activate LVs.

The four main variations of this are:

pvscan −−cache *device*

If device is present, lvm adds a record that the PV on device is online. If device is not present, lvm removes the online record for the PV. In most cases, the pvscan will only read the named devices.

pvscan −−cache −aay *device...*

This begins by performing the same steps as above. Afterward, if the VG for the specified PV is complete, then pvscan will activate LVs in the VG (the same as vgchange −aay vgname would do.)

pvscan −−cache

This first clears all existing PV online records, then scans all devices on the system, adding PV online records for any PVs that are found.

pvscan −−cache −aay

This begins by performing the same steps as pvscan −−cache. Afterward, it activates LVs in any complete VGs.

To prevent devices from being scanned by pvscan −−cache, add them to **lvm.conf**(5) **devices/global_filter.**
For more information, see:
lvmconfig −−withcomments devices/global_filter

Auto-activation of VGs or LVs can be enabled/disabled using:
lvm.conf(5) **activation/auto_activation_volume_list**

For more information, see:
lvmconfig −−withcomments activation/auto_activation_volume_list

To disable auto-activation, explicitly set this list to an empty list, i.e. auto_activation_volume_list = [ ].

When this setting is undefined (e.g. commented), then all LVs are auto-activated.

USAGE

Display PV information.

pvscan
[**−e**|**−−exported**]

[**−n|−−novolumegroup**]
[**−s|−−short**]
[**−u|−−uuid**]
[COMMON_OPTIONS]

Autoactivate a VG when all PVs are online.

pvscan −−cache
[**−a|−−activate ay**]
[**−j|−−major** *Number*]
[**−−minor** *Number*]
[**−−noudevsync**]
[COMMON_OPTIONS]
[*String|PV* ...]

Common options for command:
[**−−ignorelockingfailure**]
[**−−reportformat basic|json**]

Common options for lvm:
[**−d|−−debug**]
[**−h|−−help**]
[**−q|−−quiet**]
[**−t|−−test**]
[**−v|−−verbose**]
[**−y|−−yes**]
[**−−commandprofile** *String*]
[**−−config** *String*]
[**−−driverloaded y|n**]
[**−−lockopt** *String*]
[**−−longhelp**]
[**−−nolocking**]
[**−−profile** *String*]
[**−−version**]

OPTIONS

−a|−−activate y|n|ay
Auto-activate LVs in a VG when the PVs scanned have completed the VG. (Only **ay** is applicable.)

−−cache
Scan one or more devices and record that they are online.

−−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 settings. The String arg uses the same format as lvm.conf, 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).

−−driverloaded y|n
If set to no, the command will not attempt to use device-mapper. For testing and debugging.

−e|−−exported
Only show PVs belonging to exported VGs.

−h|−−help
Display help text.

−−ignorelockingfailure
Allows a command to continue with read-only metadata operations after locking failures.

−−lockopt *String*
Used to pass options for special cases to lvmlockd. See **lvmlockd**(8) for more information.

−−longhelp
Display long help text.

−j|−−major *Number*
The major number of a device.

−−minor *Number*
The minor number of a device.

−−nolocking
Disable locking.

−−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.

−n|−−novolumegroup
Only show PVs not belonging to any VG.

−−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
Overrides current output format for reports which is defined globally by the report/output_format setting in lvm.conf. **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. See **lvmreport**(7) for more information.

−s|−−short
Short listing format.

−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.

−u|−−uuid
Show UUIDs in addition to device names.

−v|−−verbose ...
Set verbose level. Repeat from 1 to 4 times to increase the detail 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

PV

Physical Volume name, a device path under /dev. For commands managing physical extents, a PV positional arg generally accepts a suffix indicating a range (or multiple ranges) of physical extents (PEs). When the first PE is omitted, it defaults to the start of the device, and when the last PE is omitted it defaults to end. Start and end range (inclusive): *PV*[**:***PE***−***PE*]... Start and length range (counting from 0): *PV*[**:***PE***+***PE*]...

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: **bBsSkKmMgGtTpPeE**. b|B is bytes, s|S is sectors of 512 bytes, k|K is kilobytes, m|M is megabytes, g|G is gigabytes, t|T is terabytes, p|P is petabytes, e|E is exabytes. (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)

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) **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) **lvm2−activation−generator**(8) **blkdeactivate**(8) **lvmdump**(8)

dmeventd(8) **lvmpolld**(8) **lvmlockd**(8) **lvmlockctl**(8) **cmirrord**(8) **lvmdbusd**(8)

lvmsystemid(7) **lvmreport**(7) **lvmraid**(7) **lvmthin**(7) **lvmcache**(7)