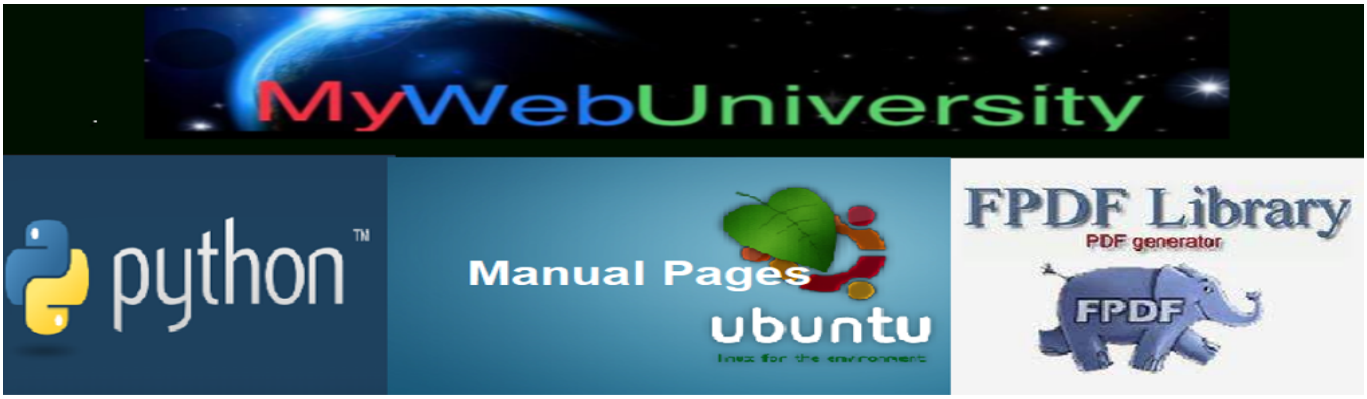

Rocky Enterprise Linux 9.2 Manual Pages on command 'lsblk.8'

$ man lsblk.8

LSBLK(8) System Administration LSBLK(8)

NAME

lsblk - list block devices

SYNOPSIS

lsblk [options] [device...]

DESCRIPTION

lsblk lists information about all available or the specified block devices. The lsblk command reads the sysfs filesystem and udev db to gather information. If the udev db is not available or lsblk is compiled without udev support, then it tries to read LABELs, UUIDs and filesystem types from the block device. In this case root permissions are necessary.

The command prints all block devices (except RAM disks) in a tree-like format by default. Use lsblk --help to get a list of all available columns.

The default output, as well as the default output from options like --fs and --topology, is subject to change. So whenever possible, you should avoid using default outputs in your scripts. Always explicitly define expected columns by using --output columns-list and --list in environments where a stable output is required.

Note that lsblk might be executed in time when udev does not have all information about recently added or modified devices yet. In this case it is recommended to use udevadm settle before lsblk to synchronize with udev.

The relationship between block devices and filesystems is not always one-to-one. The filesystem may use more block devices, or the same filesystem may be accessible by more paths. This is the reason why lsblk provides MOUNTPOINT and MOUNTPOINTS (pl.) columns. The

column MOUNTPOINT displays only one mount point (usually the last mounted instance of the filesystem), and the column MOUNTPOINTS displays by multi-line cell all mount points associated with the device.

OPTIONS

-a, --all

Also list empty devices and RAM disk devices.

-b, --bytes

Print the SIZE column in bytes rather than in a human-readable format.

-D, --discard

Print information about the discarding capabilities (TRIM, UNMAP) for each device.

-d, --nodeps

Do not print holder devices or slaves. For example, lsblk --nodeps /dev/sda prints information about the sda device only.

-E, --dedup column

Use column as a de-duplication key to de-duplicate output tree. If the key is not available for the device, or the device is a partition and parental whole-disk device provides the same key than the device is always printed.

The usual use case is to de-duplicate output on system multi-path devices, for example by -E WWN.

-e, --exclude list

Exclude the devices specified by the comma-separated list of major device numbers. Note that RAM disks (major=1) are excluded by default if --all is not specified. The filter is applied to the top-level devices only. This may be confusing for --list output format where hierarchy of the devices is not obvious.

-f, --fs

Output info about filesystems. This option is equivalent to -o NAME,FSTYPE,FSVER,LABEL,UUID,FSAVAIL,FSUSE%,MOUNTPOINTS. The authoritative information about filesystems and raids is provided by the blkid(8) command.

-h, --help

Display help text and exit.

-I, --include list

Include devices specified by the comma-separated list of major device numbers. The filter is applied to the top-level devices only. This may be confusing for --list

output format where hierarchy of the devices is not obvious.

-i, --ascii

Use ASCII characters for tree formatting.

-J, --json

Use JSON output format. It?s strongly recommended to use --output and also --tree if necessary.

-l, --list

Produce output in the form of a list. The output does not provide information about relationships between devices and since version 2.34 every device is printed only once if --pairs or --raw not specified (the parsable outputs are maintained in backwardly compatible way).

-M, --merge

Group parents of sub-trees to provide more readable output for RAIDs and Multi-path devices. The tree-like output is required.

-m, --perms

Output info about device owner, group and mode. This option is equivalent to -o NAME,SIZE,OWNER,GROUP,MODE.

-n, --noheadings

Do not print a header line.

-o, --output list

Specify which output columns to print. Use --help to get a list of all supported columns. The columns may affect tree-like output. The default is to use tree for the column 'NAME' (see also --tree).

The default list of columns may be extended if list is specified in the format +list (e.g., lsblk -o +UUID).

-O, --output-all

Output all available columns.

-P, --pairs

Produce output in the form of key="value" pairs. The output lines are still ordered by dependencies. All potentially unsafe value characters are hex-escaped (\x<code>).

-p, --paths

Print full device paths.

-r, --raw

Produce output in raw format. The output lines are still ordered by dependencies. All potentially unsafe characters are hex-escaped (\x<code>) in the NAME, KNAME, LABEL, PARTLABEL and MOUNTPOINT columns.

-S, --scsi

Output info about SCSI devices only. All partitions, slaves and holder devices are ignored.

-s, --inverse

Print dependencies in inverse order. If the --list output is requested then the lines are still ordered by dependencies.

-T, --tree[=column]

Force tree-like output format. If column is specified, then a tree is printed in the column. The default is NAME column.

-t, --topology

Output info about block-device topology. This option is equivalent to -o NAME,ALIGNMENT,MIN-IO,OPT-IO,PHY-SEC,LOG-SEC,ROTA,SCHED,RQ-SIZE,RA,WSAME.

-V, --version

Display version information and exit.

-w, --width number

Specifies output width as a number of characters. The default is the number of the terminal columns, and if not executed on a terminal, then output width is not restricted at all by default. This option also forces lsblk to assume that terminal control characters and unsafe characters are not allowed. The expected use-case is for example when lsblk is used by the watch(1) command.

-x, --sort column

Sort output lines by column. This option enables --list output format by default. It is possible to use the option --tree to force tree-like output and than the tree branches are sorted by the column.

-z, --zoned

Print the zone model for each device.

--sysroot directory

Gather data for a Linux instance other than the instance from which the lsblk command is issued. The specified directory is the system root of the Linux instance to be inspected. The real device nodes in the target directory can be replaced by text files

with udev attributes.

EXIT STATUS

0

success

1

failure

32

none of specified devices found

64

some specified devices found, some not found

ENVIRONMENT

LSBLK_DEBUG=all

enables lsblk debug output.

LIBBLKID_DEBUG=all

enables libblkid debug output.

LIBMOUNT_DEBUG=all

enables libmount debug output.

LIBSMARTCOLS_DEBUG=all

enables libsmartcols debug output.

LIBSMARTCOLS_DEBUG_PADDING=on

use visible padding characters.

NOTES

For partitions, some information (e.g., queue attributes) is inherited from the parent device.

The lsblk command needs to be able to look up each block device by major:minor numbers, which is done by using /sys/dev/block. This sysfs block directory appeared in kernel 2.6.27 (October 2008). In case of problems with a new enough kernel, check that CONFIG_SYSFS was enabled at the time of the kernel build.

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SEE ALSO

ls(1), blkid(8), findmnt(8)

REPORTING BUGS

For bug reports, use the issue tracker at https://github.com/karelzak/util-linux/issues.

AVAILABILITY

The lsblk 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/>.