

<http://fibrevillage.com/storage/53-lsblk-command-examples>

lsblk command examples

lsblk lists information about all or the specified block devices. The lsblk command reads the sysfs filesystem to gather information.

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.

If you want to check block device attributes, use [blkid command](#).

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

Default output, list all block devices

It clearly shows the block devices of your system

lsblk

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sda	8:0	0	931.5G		disk	
└─sda1	8:1	0	500M		part	/boot
└─sda2	8:2	0	931G		part	
└─vg_xldesk-lv_root (dm-0)	253:0	0	50G		lvm	/
└─vg_xldesk-lv_swap (dm-1)	253:1	0	17.7G		lvm	[SWAP]
└─vg_xldesk-lv_home (dm-2)	253:2	0	1.8T		lvm	/home
sdc	8:32	0	232.9G		disk	
└─sdc1	8:33	0	232.9G		part	
└─md1	9:1	0	232.9G		raid10	/data
sdb	8:16	0	931.5G		disk	
└─sdb1	8:17	0	931.5G		part	
└─vg_xldesk-lv_home (dm-2)	253:2	0	1.8T		lvm	/home
sdd	8:48	0	232.9G		disk	
└─sdd1	8:49	0	232.9G		part	
└─md1	9:1	0	232.9G		raid10	/data
sr0	11:0	1	1024M		rom	

lsblk with option '-a' and '-b', print size in bytes

-a, --all

lsblk does not list empty devices by default. This option disables this restriction.

-b, --bytes

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

Example:

lsblk -a -b

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
loop0	7:0	0		0	loop	
...						
loop7	7:7	0		0	loop	
sr0	11:0	1	1073741312	0	rom	
sdb	8:16	1	299892736000	0	disk	
-sdb1	8:17	1	213825024	0	part	/boot
-sdb2	8:18	1	1579253760	0	part	/
-sdb3	8:19	1	2155023360	0	part	[SWAP]
-sdb4	8:20	1	1024	0	part	
-sdb5	8:21	1	4203085824	0	part	/usr
-sdb6	8:22	1	26222160384	0	part	/opt
-sdb7	8:23	1	26222160384	0	part	/var
-sdb8	8:24	1	551061504	0	part	/tmp
`-sdb9	8:25	1	238736637952	0	part	/home
sdC	8:32	1	299891687424	0	disk	
`-sdC1	8:33	1	299877225984	0	part	/data
sda	8:0	0	4806320062464	0	disk	
`-dcSunit07_lun4_5 (dm-0)	253:0	0	4806320062464	0	mpath	/dcSunit07_lun4_5

Lsblk with option '-e', '-I', '-d'

-d, --nodeps

Don't print device holders or slaves. For example "lsblk --nodeps /dev/sda" prints information about the sda device only.

-e, --exclude list

Exclude the devices specified by a comma-separated list of major device numbers. Note that RAM disks (major=1) are excluded by default. The filter is applied to the top-level devices only.

-I, --include list

Include devices specified by a comma-separated list of major device numbers only. The filter is applied to the top-level devices.

Example

Note: when use -e, you need to specify 1, otherwise, ram device will show up

Example:

lsblk -d -e 11,1

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sdb	8:16	1	279.3G	0	disk	
sdcc	8:32	1	279.3G	0	disk	
sda	8:0	0	4.4T	0	disk	

Lsblk with option '-f', '-i', output info about filesystem

-f, --fs

Output info about filesystems. This option is equivalent to "-o NAME,FSTYPE,LABEL,MOUNTPOINT".

The authoritative information about filesystems and raids is provided by the blkid(8) command.

-i, --ascii

Use ASCII characters for tree formatting.

lsblk -f -i -e 11,1

NAME	FSTYPE	LABEL	UUID	MOUNTPOINT
sda				
sda1	ext4	1a76dd6f-233b-4ff1-9b49-b930ef58a740	/boot	
`sda2	LVM2_member	exBAbr-UdPA-ObTp-nMCa-dJ2U-VUrm-4F9iVx		
vg_xldesk-lv_root (dm-0)	ext4	9026d7cf-d76a-4634-8bd9-84f34d6023f0	/	
vg_xldesk-lv_swap (dm-1)	swap	eda12489-4e0f-4f6b-a403-d427dafaee73	[SWAP]	
`vg_xldesk-lv_home (dm-2)	ext4	87bab36e-c72a-48d1-a12d-4dcfc1736545	/home sdc	
`sdc1	linux_raid_member	a0d44a20-b41d-da0a-e9c5-48a1a3e98bee		
`md1	ext3	957e1766-4723-420e-b942-a5dfe67c661	/data sdb	
`sdb1	LVM2_member	hTUUoY-i7R9-zAsh-CqCp-5lqp-h1qw-uU0nQV		
`vg_xldesk-lv_home (dm-2)	ext4	87bab36e-c72a-48d1-a12d-4dcfc1736545	/home sdd	
`sdd1	linux_raid_member	a0d44a20-b41d-da0a-e9c5-48a1a3e98bee		
`md1	ext3	957e1766-4723-420e-b942-a5dfe67c661	/data	

lsblk with option -l, -t

-l, --list

Use the list output format.

-t, --topology

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

Example:

lsblk -t -e 11,1

NAME	ALIGNMENT	MIN-IO	OPT-IO	PHY-SEC	LOG-SEC	ROTA	SCHED	RQ-SIZE	RA
sda	0	512	0	512	512	1	cfq	128	128
└─sda1	0	512	0	512	512	1	cfq	128	128
└─sda2	0	512	0	512	512	1	cfq	128	128
└─vg_xldesk-lv_root (dm-0)	0	512	0	512	512	1		128	128
└─vg_xldesk-lv_swap (dm-1)	0	512	0	512	512	1		128	128
└─vg_xldesk-lv_home (dm-2)	0	512	0	512	512	1		128	128
sdg	0	512	0	512	512	1	cfq	128	128
└─sdg1	0	512	0	512	512	1	cfq	128	128
└─md1	0	65536	65536	512	512	1		128	128
sdb	0	512	0	512	512	1	cfq	128	128
└─sdb1	0	512	0	512	512	1	cfq	128	128
└─vg_xldesk-lv_home (dm-2)	0	512	0	512	512	1		128	128
sdd	0	512	0	512	512	1	cfq	128	128
└─sdd1	0	512	0	512	512	1	cfq	128	128
└─md1	0	65536	65536	512	512	1		128	128

lsblk -l -e 11,1

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sda	8:0	0	931.5G	0	disk	
sda1	8:1	0	500M	0	part	/boot
sda2	8:2	0	931G	0	part	
vg_xldesk-lv_root (dm-0)	253:0	0	50G	0	lvm	/
vg_xldesk-lv_swap (dm-1)	253:1	0	17.7G	0	lvm	[SWAP]
vg_xldesk-lv_home (dm-2)	253:2	0	1.8T	0	lvm	/home
sdg	8:32	0	232.9G	0	disk	
sdg1	8:33	0	232.9G	0	part	
md1	9:1	0	232.9G	0	raid10	/data
sdb	8:16	0	931.5G	0	disk	
sdb1	8:17	0	931.5G	0	part	
vg_xldesk-lv_home (dm-2)	253:2	0	1.8T	0	lvm	/home
sdd	8:48	0	232.9G	0	disk	
sdd1	8:49	0	232.9G	0	part	
md1	9:1	0	232.9G	0	raid10	/data

lsblk with option '-o'

custom your own output format if you want.

-o, --output list

Specify which output columns to print. Use --help to get a list of all supported columns.

Available columns (for --output):

NAME	device name
KNAME	internal kernel device name
KNAME	internal kernel device name
MAJ:MIN	major:minor device number
FSTYPE	filesystem type
MOUNTPOINT	where the device is mounted
LABEL	filesystem LABEL
UUID	filesystem UUID
RA	read-ahead of the device
RO	read-only device
RM	removable device
MODEL	device identifier
SIZE	size of the device
STATE	state of the device
OWNER	user name
GROUP	group name
MODE	device node permissions
ALIGNMENT	alignment offset
MIN-IO	minimum I/O size
OPT-IO	optimal I/O size
PHY-SEC	physical sector size
LOG-SEC	logical sector size
ROTA	rotational device
SCHED	I/O scheduler name
RQ-SIZE	request queue size
TYPE	device type
DISC-ALN	discard alignment offset
DISC-GRAN	discard granularity
DISC-MAX	discard max bytes
DISC-ZERO	discard zeroes data

See also:

- [fdisk command examples](#)
- [How to list disk partition in different ways](#)
- [Using parted to create large disk partition on Linux](#)
- [blkid useful examples](#)
- [Linux lsscsi - list SCSI devices \(or hosts\) and their attributes](#)
- [Sysfs Fibre Channel Tools\(updated for RHEL6\)](#)
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- [A disk replacement example for Linux software array](#)
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- [Create filesystem on filesystem/partition existing disk](#)
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