lsblk Block device inspection

CONCEPTS

lsblk, findmnt and blkid only read. The tools that change disks (wipefs without -n, mkfs, fdisk) are separate: check the device name first.

Disk sda, nvme0n1
↓ partition table
Partition sda1, nvme0n1p1
↓ mkfs
Filesystem UUID, LABEL
↓ mount
Mount point /, /mnt/data

Kernel names like sda change between boots. Refer to disks by UUID, LABEL or /dev/disk/by-* in fstab and scripts.

LIST DEVICES

lsblk
Tree of block devices

lsblk -f
Filesystem type, label, UUID, usage

lsblk -d
Disks only, no partitions

lsblk -p
Print full /dev/... paths

lsblk *<disk>*
Show only this disk and its children

lsblk -e7
Hide loop devices (major 7)

CHOOSE COLUMNS

lsblk -o NAME,SIZE,TYPE,MOUNTPOINTS
Pick output columns

lsblk -o +UUID,LABEL
Add columns to the default set

lsblk -o NAME,SERIAL,MODEL,TRAN
Identify a physical disk

OUTPUT FOR SCRIPTS

lsblk -J
JSON output

lsblk -dno NAME,SIZE
Bare disk list, no header

OUTPUT FOR SCRIPTS (cont.)

lsblk -Q 'TYPE=="part"'
Filter rows by expression

BLKID

sudo blkid
UUID, LABEL and TYPE of every device

sudo blkid *<dev>*
Probe one device

sudo blkid -s UUID -o value *<dev>*
Print just the UUID

blkid -U *<uuid>*
Device name for a UUID

blkid -L *<label>*
Device name for a label

FINDMNT

findmnt
Mounted filesystems as a tree

findmnt *<path>*
Mount that serves this mount point or device

findmnt -T *<path>*
Mount that contains this path

findmnt -no SOURCE *<path>*
Just the device behind a path

findmnt --real
Hide pseudo filesystems (proc, sysfs)

findmnt -o TARGET,SOURCE,FSTYPE,OPTIONS
Choose columns

findmnt -s
Read /etc/fstab instead of live mounts

findmnt --verify
Check fstab for mistakes

STABLE NAMES

ls -l /dev/disk/by-uuid
Filesystem UUID to device

ls -l /dev/disk/by-label
Filesystem label to device

ls -l /dev/disk/by-id
Model and serial based names

readlink -f /dev/disk/by-uuid/ *<uuid>*
Resolve a link to sdX