NAME
>   lsys – list system devices and attributes

SYNOPSIS
>   device tree for a single device:
>
>   **lsys** *device*
>
>   list and optionally filter devices:
>
>   **lsys** [-t *devicetype*] [-f *fields*]
>
>   show help:
>
>   **lsys** -h

OPTIONS
>   **–t**   limit the type of device listed by specifying a *devicetype*
>
>   **–f**   specify *fields*. each field may be followed by either a '=' and a regular expression to select, or a '-'
>   and regular expression to filter out.
>
>   **–v**   show lsys version.

>   **Exit status:**
>   0   if OK,
>
>   1   error.
>
>   2   more serious error.

DESCRIPTION
>   **lsys** either shows the device tree for a single device, or lists devices based on a *devicetype* or a variety of fil-
>   ters through *fields*.
>
>   In single device mode, when the *device* is not a full sysfs (/sys) path, lsys tries to find *device* in these loca-
>   tions:
>
>   /sys/devices
>
>   /sys/class/block
>
>   /sys/class/net
>
>   /sys/bus/pci/devices
>
>   /sys/bus/usb/devices
>
>   so **lsys** would understand objects such as 'sda', 'sda1', 'eth0', 'usb1' and so on.
>
>   In list mode, either all *devicetype* device types are listed, or limited to a specific *devicetype* through -t. The
>   *fields* allow selection of which fields to display, what data to select or negate, for example
>
>   lsys -t pci -f driver-^$
>
>   would show all pci devices, including their driver, but skipping (-) pci devices without a driver (regexp ^$).

>   **devicetype**
>   ata   ATA devices with fields speed, sysfs.
>
>   bcache   bcache devices with field sysfs.

block   all block devices, including specific block devices such as scsi or mapper, with fields dev_t, driver, model, read, sched, size, svctm, sysfs, written.

iscsi   iSCSI block devices with fields dev_t, driver, iqn, model, read, sched, size, svctm, sysfs, target, written, wwn.

mapper devicemapper block devices with fields dev_t, read, size, svctm, sysfs, uuid, written.

metadisk
        MetaDisk (software RAID) block devices with fields dev_t, read, size, sysfs, written.

mmc   MMC block devices with fields dev_t, driver, model, read, sched, size, svctm, sysfs, written.

net   network interface devices with fields ip4, ip6, read, speed, sysfs, written.

nvme   NVMe block devices with fields dev_t, driver, model, read, sched, size, svctm, sysfs, written.

part   partition block devices with fields dev_t, read, size, svctm, sysfs, written.

pci   PCI devices with fields class, driver, irq, model, sysfs, vendor.

pcibus PCI bus devices with fields driver, irq.

rport   SCSI remote ports with field sysfs.

scsi   SCSI block devices with fields dev_t, driver, model, read, sched, size, svctm, sysfs, written, wwn.

usb   USB devices with fields class, driver, model, sysfs, vendor.

usbbus USB bus devices with fields class, sysfs.

usbiface
        USB interface devices with fields class, sysfs.

virtioblk
        virtio block devices with fields dev_t, driver, model, read, sched, size, svctm, sysfs, written.

virtionet
        virtio network devices with fields driver, model, read, sched, size, sysfs, written.

vport   SCSI vport devices with field sysfs.

fields

class   the class for devicetype pci, usbbus, usbiface, usb.

dev_t   the major:minor pair for devicetype block, iscsi, mapper, mmc, nvme, part, pci, scsi, virtioblk, virtionet.

driver   the driver for devicetype block, iscsi, mmc, nvme, pcibus, pci, scsi, usb, virtioblk, virtionet.

ip4   the ip4 addresses assigned for devicetype net.

ip6   the ip6 addresses assigned for devicetype net.

iqn   the iqn of a iSCSI, devicetype iscsi.

irq   the irq assigned to devicetype pcibus, pci.

model   the device model for devicetype block, iscsi, mmc, nvme, pci, scsi, usb, virtioblk, virtionet.

read   total number of bytes read for devicetype block, iscsi, mapper, metadisk, mmc, net, nvme, part, pci, scsi, virtioblk, virtionet.

sched   the IO scheduler used for the devicetype block, iscsi, mmc, nvme, pci, scsi, virtioblk, virtionet.

size   the size of the block devicetype block, iscsi, mapper, metadisk, mmc, nvme, part, pci, scsi, virtioblk, virtionet.

speed   the speed in MiB/s for devicetype ata, net.

svctm   the service time in ms for devicetype block, iscsi, mapper, mmc, nvme, part, pci, scsi, virtioblk, virtionet.

sysfs   the sysfs path for any devicetype.

target   the iSCSI target for devicetype iscsi.

uuid   the UUID for devicetype mapper.

vendor   the vendor devicetype pci, usb.

written   total number of bytes written for devicetype block, iscsi, mapper, metadisk, mmc, net, nvme, part, pci, scsi, virtioblk, virtionet.

wwn   the world wide name for devicetype iscsi, scsi.

EXAMPLES

list all network devices.

        lsys -t net -f ip4,speed,read,written

list all pci devices with a driver.

        lsys -t pci -f driver-ˆ$,vendor,model

MORE INFORMATION

For more information and examples, see https://jmspit.github.io/leanux.

BUGS

Report bugs, documentation errors and suggestions at https://github.com/jmspit/leanux/issues.

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SEE ALSO

lard(1), lblk(1), lmon(1), lrep(1)