










Terminal

Terminal Commands




|  Command |  Funktion |  information |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <u>apt list —installed</u> | List of all packages | |
| <u>sudo dislocker /dev/nvme0n1p4 -p685179-682770-664499-287221-065846-568744-446556-463661 -- /media/bitlocker</u> | Unlock Bitlockpartition | |
| <u>sudo mount -t ntfs-3g -o loop /media/bitlocker/dislocker-file /media/bitlockermount</u> | mount the Bitlockpartition | |
| <u>setxkbmap -option caps:swapescape</u> | swaps escape and capslock | |
| <u>dconf write "/org/gnome/desktop/input-sources/xkb-options" "['caps:swapescape']"</u> | " " permamently | |
| <u>cat /proc/asound/card*/codec* _grep Codec</u> | shows microphone infos or somtething alike | |
| <u>./"Programm"</u> | führt das programm aus | |
| <u>mv "oldName" "newName"</u> | change name | |
| <u>mv+"path where it should be"+"where it goes"</u> | move files | |
| <u>touch</u> | creates new file | |
| <u>systemctl</u> | systemcontroll | |
| <u>man</u> | shows what i can do with the following programm | |
| <u>du</u> | gibt speicherinformationen a | diskusage |
| <u>df</u> | zeigt speicher aller devices an | |
| <u>cat</u> | shows what is in file | |



|  Command |  Funktion |  information |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <u>echo</u> | gibt aus | ähnlich wie System.out.println |
| <u>gedit + "filename.java" + &</u> | erstellt file und lässt im hintergrund laufen | |
| <u>lsblk</u> | shows mount point and drives | |
| <u>whereis + "programmname"</u> | shows fullpath of a Programm | |
| <u>pwd</u> | shows path you're in | |
| <u>git clone</u> <u>https://github.com/noahvogt/gkg.git</u> | cloned the stuff from git in this file | |
| <u>rmdir</u> | remove directory if empty | |
| <u>xdg-open + file</u> | search for Programm which can open file | |
| <u>programm + file</u> | opens file with the programm | z.b texmaker protokoll-2.tex |
| <u>strg + l</u> | clears the terminal history | alternativ clear as a command |
| <u>pdflatex + "texdatei"</u> | compiled the document | |
| <u>sudo find / -name "filename"</u> | shows where the file is / where to start - name it is a file with name .. | find . -name "pattern" -print |
| <u>mkdir</u> | creates folders | |
| <u>rm</u> | remove files and (directories) | |
| <u>enable</u> | lets a programm start at evry boot | |
| <u>sudo+apt+list+"packagename"</u> | finds package | |
| <u>sudo apt remove "programmname"</u> | removes programm | |
| <u>sudo+cheese</u> | test camera and opens a camera window | |
| <u>!!</u> | command from befor | |

|  Command |  Funktion |  information |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <u>sudo hdparm -Tt /dev/sda</u> | shows speed of ssd | |
| <u>pkill +...</u> | kills pocesses | |
| <u>cp</u> | copie file | |
| <u>cp -r</u> | wenn ordner kopie fèr sicherheit | |
| <u>img2pdf file.jpg -o file.pdf</u> | convert jpg to pdf | |
| <u>top</u> | shows cpu usage etc. | |
| <u>rm</u> | delets files | |
| <u>pgrep -f "[programmname]"</u> | To see the PID of a programm to make killall [PID] | |
| <u>Ctl + w</u> | removes last word | |
| <u>~/</u> | = /home/liquid | |
| <u>.././</u> | | |
| <u>pandoc</u> | documents converter | |
| <u>pandoc -s "inputfile.docx" -o "outputfile.pdf"</u> | converts ins latex converts textfiles oder simialar | |
| <u>convert</u> | | |
| <u>alsamixer</u> | for audio mix | |
| <u>uname -r</u> | gives kernelversion out | |
| <u>Untitled</u> | | |
| <u>export</u> <u>CLASSPATH=\$CLASSPATH:+libs/flanagan.jar</u> | importiert \+libs in flanagan oder so um zu kompilen | |
| <u>sudo arecord -l</u> | list avaiable microphones | |
| <u>cat /proc/asound/card*/codec* _grep Codec</u> | infos about graphiccard and speaker/microphone | |
| <u>uname -m</u> | x86_64 indicates a running 64-bit kernel. | |
| <u>neofetch</u> | display ubuntu logo and informations about software | |

|  Command |  Funktion |  information |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <u>sudo apt-get purge <package-name></u> | removes a software completely | |
| <u>history</u> | displays all of your previous commands up to the history limit. | |
| <u>df</u> | displays information about the disk space usage of all mounted filesystems. | (display filesystem) |
| <u>top</u> | Displays the processes using the most system resources at any given time. | |
| <u>for f in *.jpg; do mv "\$f" "new.\$f"; convert "new.\$f" -background white -alpha remove -alpha off "\${f%.*}.jpg"; rm "new.\$f"; done</u> | To apply the convertcommand to several files, can be use for diffrent commands | |
| <u>for f in *.png; do mv "\$f" "new.\$f"; sleep 3; img2pdf "new.\$f" -o "\${f%.*}.pdf"; rm "new.\$f"; done</u> | converts multiple png files to pdf files | |
| <u>pdfunite file.pdf file2.pdf mergefile.pdf</u> | merges pdf files together | |
| <u>for i in *.log; do mv -- "\$i" "\${i%.log}.txt"; done</u> | to change the names | |
| <u>Untitled</u> | | |



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|  Command |  Funktion |  information |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <u>command1;command2</u> | does the commands in order | |
| <u>unzip</u> | is the programm to unzip files | |
| <u>sudo update-alternatives --display java</u> | to se awalable jaba versions | |

|  Command |  Funktion |  information |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <u>sudo update-alternatives --config java</u> | to change default java version | |
| <u>./sdkmanager --licenses</u> | to accept all sdk licens | in ~/Android/Sdk/bin |
| <u>sudo shutdown -r</u> | to reboot | |
| <u>identify filename</u> | show size of picture etc | |
| <u>convert -crop 20%x100% rose.jpg rose2.jpg</u> | to crop a picture in to pieces | |
| <u>lsmod grep snd</u> | to se where snd is used as driver or something | |
| <u>aplay -l</u> | list of Playback hardware devices | |
| <u>pacmd list-sources</u> | list information about speaker and microphone i guess | |
| <u>lsmod</u> | shows which moduls are currently loaded | |
| <u>lscpu</u> | informations about cpu hardware etc | |
| <u>systemctl suspend</u> | suspend the system | similar to alt+l |
| <u>gsettings set org.gnome.desktop.background picture-uri file:"filepath"</u> | to set Wallpaper of desktop | |
| <u>zsh</u> | to change in zsh | |
| <u>exit</u> | to exit shell | |
| <u>bash</u> | to change to bash | |
| <u>java -jar FILENAME</u> | to run jar file with java | |
| <u>sudo apt install openjdk-8-jdk</u> | to install java version 8 | |
| <u>javac</u> | to compile java programm | |
| <u>zip -r filename.zip folder</u> | to zip a folder | |
| <u>Untitled</u> | | |

Termianl shortcuts

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|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|  Ctrl + Shift + T |  Open new tab on current terminal |  info |
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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <u>Aa</u> Ctrl + Shift + T |  Open new tab on current terminal |  info |
| https://www.gnu.org/savannah-checkouts/gnu/bash/manual/bash.html#Pattern-Matching | | |
| <u>Ctrl + Shift + W</u> | Close the current tab | |
| <u>Untitled</u> | | |
| <u>Ctrl + A</u> | Move cursor to beginning of line | |
| <u>Ctrl + E</u> | Move cursor to end of line | |
| <u>Ctrl + U</u> | Clears the entire current line | |
| <u>Ctrl + K</u> | Clears the command from the cursor right | |
| <u>Ctrl + W</u> | Delete the word before the cursor | |
| <u>Ctrl + R</u> | Allows you to search your history for commands matching what you have typed | |
| <u>Ctrl + C</u> | Kill the current process | |
| <u>Ctrl + Z</u> | Suspend the current process by sending the signal SIGSTOP | |
| <u>Ctrl + L</u> | Clears the terminal output | |
| <u>Alt + F</u> | Move forward one word | |
| <u>Alt + B</u> | Move backward one word | |
| <u>Ctrl + Shift + C</u> | Copy the highlighted command to the clipboard | |
| <u>Ctrl + Shift + V or Shift + Insert</u> | Paste the contents of the clipboard | |
| <u>Up/Down Arrow keys</u> | To scroll through your command history, allowing you to quickly execute the same command multiple times | |

modprobe

6 source(s) available.

index: 1

name: <alsa_output.pci-0000_00_1f.3-platform-skl_hda_dsp_generic.HiFi__hw_sofhdadsp_5__sink.monitor>

driver: <module-alsa-card.c>

flags: DECIBEL_VOLUME LATENCY DYNAMIC_LATENCY

state: RUNNING

suspend cause: (none)

priority: 1030

volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB

balance 0.00

base volume: 65536 / 100% / 0.00 dB

volume steps: 65537

muted: no

current latency: 0.00 ms

max rewind: 7 KiB

sample spec: s16le 2ch 48000Hz

channel map: front-left,front-right

Stereo

used by: 1

linked by: 1

configured latency: 40.00 ms; range is 0.50 .. 341.00 ms

monitor_of: 1

card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>

module: 23

properties:

device.description = "Monitor of Cannon Point-LP High Definition Audio Controller HDMI3/DP3 Output"

device.class = "monitor"

alsa.card = "0"

alsa.card_name = "sof-hda-dsp"

alsa.long_card_name = "HP-HPEliteDragonfly--861F"

alsa.driver_name = "snd_soc_skl_hda_dsp"

```
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "0"
module-udev-detect.discovered = "1"
device.icon_name = "audio-card-pci"
index: 2
name: <alsa_output.pci-0000_00_1f.3-platform-
skl_hda_dsp_generic.HiFi__hw_sofhdadsp_4__sink.monitor>
driver: <module-alsa-card.c>
flags: DECIBEL_VOLUME LATENCY DYNAMIC_LATENCY
state: RUNNING
suspend cause: (none)
priority: 1030
volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB
balance 0.00
base volume: 65536 / 100% / 0.00 dB
volume steps: 65537
muted: no
current latency: 0.00 ms
max rewind: 7 KiB
sample spec: s16le 2ch 48000Hz
channel map: front-left,front-right
Stereo
used by: 1
linked by: 1
configured latency: 40.00 ms; range is 0.50 .. 341.00 ms
monitor_of: 2
card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>
module: 23
properties:
device.description = "Monitor of Cannon Point-LP High Definition Audio
Controller HDMI2/DP2 Output"
device.class = "monitor"
```



```
alsa.card = "0"
alsa.card_name = "sof-hda-dsp"
alsa.long_card_name = "HP-HPEliteDragonfly--861F"
alsa.driver_name = "snd_soc_skl_hda_dsp"
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "0"
module-udev-detect.discovered = "1"
device.icon_name = "audio-card-pci"
index: 3
name: <alsa_output.pci-0000_00_1f.3-platform-
skl_hda_dsp_generic.HiFi__hw_sofhdadsp_3__sink.monitor>
driver: <module-alsa-card.c>
flags: DECIBEL_VOLUME LATENCY DYNAMIC_LATENCY
state: RUNNING
suspend cause: (none)
priority: 1030
volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB
balance 0.00
base volume: 65536 / 100% / 0.00 dB
volume steps: 65537
muted: no
current latency: 0.00 ms
max rewind: 7 KiB
sample spec: s16le 2ch 48000Hz
channel map: front-left,front-right
Stereo
used by: 1
linked by: 1
configured latency: 40.00 ms; range is 0.50 .. 341.00 ms
monitor_of: 3
card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>
module: 23
```

properties:
device.description = "Monitor of Cannon Point-LP High Definition Audio
Controller HDMI1/DP1 Output"
device.class = "monitor"
alsa.card = "0"
alsa.card_name = "sof-hda-dsp"
alsa.long_card_name = "HP-HPEliteDragonfly--861F"
alsa.driver_name = "snd_soc_skl_hda_dsp"
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "0"
module-udev-detect.discovered = "1"
device.icon_name = "audio-card-pci"
index: 4
name: <alsa_output.pci-0000_00_1f.3-platform-
skl_hda_dsp_generic.HiFi__hw_sofhdadsp__sink.monitor>
driver: <module-alsa-card.c>
flags: DECIBEL_VOLUME LATENCY DYNAMIC_LATENCY
state: RUNNING
suspend cause: (none)
priority: 1030
volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB
balance 0.00
base volume: 65536 / 100% / 0.00 dB
volume steps: 65537
muted: no
current latency: 0.00 ms
max rewind: 0 KiB
sample spec: s16le 2ch 48000Hz
channel map: front-left,front-right
Stereo
used by: 5
linked by: 5

configured latency: 40.00 ms; range is 4.00 .. 341.00 ms
monitor_of: 4
card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>
module: 23
properties:
device.description = "Monitor of Cannon Point-LP High Definition Audio
Controller Speaker + Headphones"
device.class = "monitor"
alsa.card = "0"
alsa.card_name = "sof-hda-dsp"
alsa.long_card_name = "HP-HPEliteDragonfly--861F"
alsa.driver_name = "snd_soc_skl_hda_dsp"
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "0"
module-udev-detect.discovered = "1"
device.icon_name = "audio-card-pci"
index: 5
name: <alsa_input.pci-0000_00_1f.3-platform-
skl_hda_dsp_generic.HiFi__hw_sofhdadsp__source>
driver: <module-alsa-card.c>
flags: HARDWARE HW_MUTE_CTRL HW_VOLUME_CTRL DECIBEL_VOLUME
LATENCY DYNAMIC_LATENCY
state: RUNNING
suspend cause: (none)
priority: 9032
volume: front-left: 65536 / 100% / 0.00 dB, front-right: 65536 / 100% / 0.00 dB
balance 0.00
base volume: 20724 / 32% / -30.00 dB
volume steps: 65537
muted: no
current latency: 0.43 ms
max rewind: 0 KiB

sample spec: s16le 2ch 48000Hz
channel map: front-left,front-right
Stereo
used by: 1
linked by: 1
configured latency: 40.00 ms; range is 0.50 .. 341.00 ms
card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>
module: 23
properties:
alsa.resolution_bits = "16"
device.api = "alsa"
device.class = "sound"
alsa.class = "generic"
alsa.subclass = "generic-mix"
alsa.name = ""
alsa.id = "HDA Analog (*)"
alsa.subdevice = "0"
alsa.subdevice_name = "subdevice #0"
alsa.device = "0"
alsa.card = "0"
alsa.card_name = "sof-hda-dsp"
alsa.long_card_name = "HP-HPEliteDragonfly--861F"
alsa.driver_name = "snd_soc_skl_hda_dsp"
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "hw:sofhdadsp"
device.buffering.buffer_size = "65472"
device.buffering.fragment_size = "16320"
device.access_mode = "mmap+timer"
device.profile.name = "HiFi: hw:sofhdadsp: source"
device.profile.description = "Headphones Stereo Microphone"
alsa.mixer_device = "hw:sofhdadsp"
device.description = "Cannon Point-LP High Definition Audio Controller"

Headphones Stereo Microphone"

module-udev-detect.discovered = "1"

device.icon_name = "audio-card-pci"

ports:

[In] Mic2: Headphones Stereo Microphone (priority 200, latency offset 0 usec,
available: no)

properties:

```
active port: <[In] Mic2>
```

- index: 6
name: <alsa_input.pci-0000_00_1f.3-platform-skl_hda_dsp_generic.HiFi__hw_sofhdadsp_6__source>
driver: <module-alsa-card.c>
flags: HARDWARE HW_MUTE_CTRL HW_VOLUME_CTRL DECIBEL_VOLUME
LATENCY DYNAMIC_LATENCY
state: RUNNING
suspend cause: (none)
priority: 9031
volume: front-left: 45776 / 70% / -9.35 dB, front-right: 45776 / 70% / -9.35
dB, rear-left: 45776 / 70% / -9.35 dB, rear-right: 45776 / 70% / -9.35 dB
balance 0.00
base volume: 30419 / 46% / -20.00 dB
volume steps: 65537
muted: no
current latency: 0.37 ms
max rewind: 0 KiB
sample spec: s16le 4ch 48000Hz
channel map: front-left,front-right,rear-left,rear-right
Surround 4.0
used by: 1
linked by: 1
configured latency: 40.00 ms; range is 0.50 .. 170.50 ms
card: 0 <alsa_card.pci-0000_00_1f.3-platform-skl_hda_dsp_generic>
module: 23
properties:
alsa.resolution_bits = "16"
device.api = "alsa"

```

device.class = "sound"
alsa.class = "generic"
alsa.subclass = "generic-mix"
alsa.name = ""
alsa.id = "DMIC (*)"
alsa.subdevice = "0"
alsa.subdevice_name = "subdevice #0"
alsa.device = "6"
alsa.card = "0"
alsa.card_name = "sof-hda-dsp"
alsa.long_card_name = "HP-HPEliteDragonfly--861F"
alsa.driver_name = "snd_soc_skl_hda_dsp"
device.bus_path = "pci-0000:00:1f.3-platform-skl_hda_dsp_generic"
sysfs.path =
"/devices/pci0000:00/0000:00:1f.3/skl_hda_dsp_generic/sound/card0"
device.bus = "pci"
device.vendor.id = "8086"
device.vendor.name = "Intel Corporation"
device.product.id = "9dc8"
device.product.name = "Cannon Point-LP High Definition Audio Controller"
device.string = "hw:sofhdadsp,6"
device.buffering.buffer_size = "65472"
device.buffering.fragment_size = "16320"
device.access_mode = "mmap+timer"
device.profile.name = "HiFi: hw:sofhdadsp,6: source"
device.profile.description = "Digital Microphone"
alsa.mixer_device = "hw:sofhdadsp"
device.description = "Cannon Point-LP High Definition Audio Controller
Digital Microphone"
module-udev-detect.discovered = "1"
device.icon_name = "audio-card-pci"
ports:
[In] Mic1: Digital Microphone (priority 100, latency offset 0 usec, available:
unknown)
properties:
active port: <[In] Mic1>

```

Codec: Realtek ALC285
Codec: Intel Kabylake HDMI
sof-hda-dsp

- *** List of PLAYBACK Hardware Devices ****
card 0: PCH [HDA Intel PCH], device 0: ALC285 Analog [ALC285 Analog]
Subdevices: 0/1
Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 3: HDMI 0 [HDMI 0]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 7: HDMI 1 [HDMI 1]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 8: HDMI 2 [HDMI 2]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 9: HDMI 3 [HDMI 3]
Subdevices: 1/1
Subdevice #0: subdevice #0
card 0: PCH [HDA Intel PCH], device 10: HDMI 4 [HDMI 4]
Subdevices: 1/1
Subdevice #0: subdevice #0