ARCH LINUX INSTALLATION AND CONFIGURATION

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Contents

1   BASIC SYSTEM INSTALL

1.1   Load keyboard

```
loadkeys de_CH-latin1
```

1.2   set time

```
timedatectl status
timedatectl set-ntp true
```

1.3   Disk partitioning and mounting

(gpt -> gdisk, mbr -> fdisk)

```
gdisk /dev/sdx
# code efi: ef00 (UEFI)
# code efi: ef02 (BIOS)
# code root: 8300
# code home: 8300
# code swap: 8200

(mkfs.fat -F 32 -n EFIBOOT /dev/sdx#)
mkfs.ext4 -L arch_root /dev/sdx#
mkfs.ext4 -L arch_home /dev/sdx#
mkswap -L arch_swap /dev/sdx#

mount -L arch_root /mnt
mkdir /mnt/boot
mkdir /mnt/home
mount -L arch_home /mnt/home
mount -L arch_boot /mnt/boot
swapon -L swap
```

1.4   setup network connection (wifi-menu)

```
wifi-menu
```

1.5   choose mirror

```
cp /etc/pacman.d/mirrorlist /etc/pacman.d/mirrorlist.bak
vim /etc/pacman.d/mirrorlist
```

1.6   install base system

```
pacstrap /mnt base base-devel intel-ucode networkmanager vim

genfstab -U /mnt >> /mnt/etc/fstab

arch-chroot /mnt/
ln -sf /usr/share/zoneinfo/Europe/Zurich /etc/localtime
```

```
echo myhostname > /etc/hostname
vim /etc/locale.gen   # uncomment all en_US, de_CH, de_DE
locale-gen
echo LANG=en_US.UTF-8 > /etc/locale.conf   # (or: de_CH.UTF-8)

add the following to /etc/vconsole.conf
KEYMAP=sg-latin1
FONT=Lat2-Terminus16
Lang=en_US

vim /etc/hosts
#
# /etc/hosts: static lookup table for host names
#
#<ip-address>   <hostname.domain.org>   <hostname>
127.0.0.1   localhost.localdomain   localhost arch
::1     localhost.localdomain   localhost arch


mkinitcpio -p linux
passwd
```

1.7   Install grub (boot loader)

```
pacman -S grub os-prober efibootmgr dosfstools gptfdisk

grub-install --target=x86_64-efi --efi-directory=/boot --bootloader-id=grub --recheck --debug
grub-mkconfig -o /boot/grub/grub.cfg
```

1.8   exit chroot and boot into new system

```
exit
umount -R /mnt
reboot

useradd -m -g users -s /bin/bash user_name
passwd user_name

vim /etc/sudoers
%wheel ALL=(ALL) ALL

gpasswd -a user_name wheel

pacman -S acpid dbus avahi cronie
```

2   CUSTOMIZE SYSTEM

2.1   install configs

```
pacman -S git
mkdir .dotfiles
```

```
git clone https://github.com/Veit96/dotfiles.git .dotfiles
cd .dotfiles
./install
```

2.2   install packages

```
pacman -S $(< my_packages.txt)
```

2.3   install yay (aur helper)

```
git clone https://aur.archlinux.org/yay.git
cd yay
makepkg -si
cd ..
rm -rf yay
```

2.4   aur packages

- urxvt-resize-font-git
- polybar
- mons
- spotify
- popcorntime
- arch-silence-grub-theme

2.5   switch capslock and escape:

```
add "XkbOptions" "terminate:ctrl_alt_bksp,caps:swapescape" in /etc/X11/xorg.conf.d/00-keyboard.con
```

2.6   install lightdm greeter

```
systemctl enable lightdm.service
```

```
/etc/lightdm/lightdm.conf
[Seat:*]
...
greeter-session=lightdm-webkit2-greeter
...
```

```
/etc/lightdm/lightdm-webkit2-greeter.conf
...
webkit-theme = litarvan
...
```

3   DUAL BOOTING WITH WINDOWS

3.1   setting windows to UTC instead of localtime:

```
reg add "HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\TimeZoneInformation"
/v RealTimeIsUniversal /d 1 /t REG_DWORD /f
```

3.2   disable fast startup

1. go to windows power settings
2. go to additional settings
3. go to what power buttons do
4. uncheck fast startup

3.3   Mount Windows partition on boot

Add the following to your /etc/fstab, where /dev/sdxy is the ntfs windows partition to be mounted: `# /dev/sdxy UUID=... LABEL=share`   `/home/veit/share`   `ntfs-3g` `utf8,uid=1000,gid=1000,dmask=027,fmask=137  0 2`

4   ADDITIONAL SETTINGS

4.0.1   pacman stuff:

uncomment "#Color" for color pacman add aur

4.0.2   vim stuff:

- install vundle
- vim-jedi
- vim-jellybeans
- vim-latexsuite
- vim-spell-de
- vim-supertab

4.0.3   have a look at tlp

4.0.4   pywal:

`wal -i image.png`

4.0.5   Fixing Invalid MIT-MAGIC-COOKIE-1:

This was needed to launch the graphical matlab installer from terminal with sudo privileges uncomment `Defaults env_keep += "HOME"` in `/etc/sudoers`

5   PROGRAMMS FOR CERTAIN TASKS

- display manager / login manager -> lightdm
- window manager -> i3
- shell -> zsh
- terminal -> rxvt-unicode
- app launcher -> rofi, dmenu
- aur helper -> yay
- file manager -> ranger
- browser -> qutebrowser
- wallpaper setter -> nitrogen, wal
- image viewer -> sxiv

- pdf viewer -> zathura, okular
- office ->
- video/audo player -> smplayer, mpv
- system monitoring -> deepin-system-monitor
- offline docs browser -> zeal
- firewall -> ufw
- BitTorrent client -> transmission
- Screenshot -> deepin-screenshot

6   USEFULL COMMANDS

6.1   connect to ethernet:

```
sudo systemctl enable dhcpcd@enp3s0.service
```

```
sudo systemctl enable netctl-auto@wlo1.service
```

```
sudo systemctl stop/disable netctl/NetworkManager/...
```

6.2   this app handles monitor setup

```
mons
```

i3lock-blur replaced i3lock as a screenlocker

wicd connman wpa_supplicant_gui

6.3   search disk an list memory usage

```
ncdu -x
```

6.4   list packages sorted by size

```
expac -H M "%011m\t%-20n\t%10d" $(comm -23 <(pacman -Qqen | sort) <(pacman -Qqg
base base-devel | sort)) | sort -n
```

6.5   remove orphant packages

```
sudo pacman -Rns $(pacman -Qtdq)
```

6.6   check for errors

```
sudo systemctl --failed sudo journalctl -p 3 -xb
```

6.7   wifi settings with nmcli

```
nmcli radio wifi on/off nmcli con nmcli dev
```