arch-post-install

An Arch Linux post-installation script and dotfiles to automate the setup process for the XFCE desktop environment.

1. Download Arch Installation ISO and verify its integrity (on Arch Linux)

- Open `utilities/downloadArch.sh` and goto https://archlinux.org/download/.
- Copy and paste the latest links from the website into `TORRENT_MAGNET`, `SHA_SIGNATURE` and `PGP_SIGNATURE` variables in the `utilities/downloadArch.sh` script.
- Run `utilities/downloadArch.sh` to download and verify the latest Arch Linux ISO (this script is designed to work on Arch Linux).
- For other operating systems, torrent the Arch ISO and verify its integrity manually.

2. Flash USB Drive with Arch Linux ISO (on Arch Linux)

Format and flash the USB drive with this utility:

```
# READ the following and run with caution
lsblk # Determine the USB drive (of=/dev/sda for example)
cd ~/Downloads/
sudo dd status=progress if=archlinux-2024.04.01-x86_64.iso of=/dev/sda bs=4M
sync
```

3. Install Arch

"Keep as much of the defaults as possible, unless you have a good reason"

- Arch Wiki: https://wiki.archlinux.org/title/Installation_guide

- Boot from the USB
- Connect to the internet (WIFI)

```
iwctl
[iwd]# device list
[iwd]# station wlan0 scan
[iwd]# station wlan0 get-networks
[iwd]# station wlan0 connect [SSID name]
exit
```

- Start the installer for Arch Linux

```
archinstall
```

- Load installer with predefined config (users and passwords are not saved):

```
archinstall --config user_configuration.json
```

- Sample settings:

```
Achinstall language:        English
Mirrors:                    Canada, United States, Worldwide
Locales:                    us, en_US, UTF-8
Disk:                       Use a best-effort default partition layout
                            btrfs, subvolumes (yes), compression (yes)
Disk encryption:            Yes, type in a password
Bootloader:                 Systemd-boot
Unified kernel images:      False
Swap:                       False (we will create later)
Hostname:                   Enter machine name
Rooot password:             Enter password
User account:               Add a user, enter username,
                            enter password, make it superuser
Profile:                    Type: Desktop, Xfce4
                            Graphics driver: Nvidia (open kernel module)
                            Greeter: SDDM has more theme selection
                                                https://www.youtube.com/watch?v
Audio:                      Pipewire
Kernels:                    linux
Additional packages:        firefox
Network Configuration:      Use NetworkManager
Timezone:                   America/Toronto
Automatic time sync (NTP):  True
Optional repositories:      multilib
```

4. Perform Swapfile Setup for Hibernation

Do Swapfile Setup to enable hibernation.

5. Run Post Installer

```
./postinstall.sh
```

SDDM Login Manager Modes - How to go into the newly installed system to fix

issues:

- SDDM Login Manager
- `Ctrl + Alt + F6` - Terminal Mode
- `Ctrl + Alt + F2` - GUI Mode

Chroot into partition to edit files and fix the computer

```
# https://www.youtube.com/watch?v=bHGNkp7mYMc
lsblk # To see what disk to unencrypt
cryptsetup open /dev/vda2 cryptroot
mount /dev/mapper/cryptroot /mnt
nano /mnt/@/etc/fstab # To see the the mount points, which the following commands are cr
mount -o subvol=@ /dev/mapper/cryptroot /mnt
mount -o subvol=@home /dev/mapper/cryptroot /mnt/home
mount -o subvol=@pkg /dev/mapper/cryptroot /mnt/var/cache/pacman/pkg
mount -o subvol=@log /dev/mapper/cryptroot /mnt/var/log
mount /dev/vda1 /mnt/boot
arch-chroot /mnt

# The fix is usually reinstall Linux and Nvidia Drivers, Version numbers will differ
cd /var/cache/pacman/pkg
sudo pacman -U linux-6.15.3.arch1-1-x86_64.pkg.tar.zst
sudo pacman -U linux-headers-6.15.3.arch1-1-x86_64.pkg.tar.zst
sudo pacman -U nvidia-open-575.64-2-x86_64.pkg.tar.zst
```

Connect to the Internet After Install (if Network Manager is not present)

- Guide: https://www.youtube.com/watch?v=loJKf1zr1bU

```
nmcli r wifi on
nmcli d wifi list
nmcli connections show
nmcli d wifi connect '[SSID name]' password '[WIFI password]'
```