

QUICK NAVIGATION

1. Basic install
2. Partitioning
3. Installing packages onto the system
4. Continuing the install from the system
5. Post install
 1. Optimization before installing apps
 2. Installing apps of choice
 3. Enabling services
 4. Kernel
 1. Tweak kernel settings
 2. Using different kernels
 5. Modify GRUB settings
 6. Customizing .bashrc
 7. Comfort zone & setting the look
 8. Custom scripts
 9. System maintaining
 10. Troubleshooting
6. Useful commands
7. Unsafe commands
8. Gaming
9. Security
10. Saving & reloading the system
11. Extra productiveness

Before updating or upgrading the system, check [the arch news](#) (could save your system)!

BASIC INSTALL

Setting keymap

```
loadkeys hu
```

Enable and connect to wifi (Optional)

```
rfkill unblock wifi  
iwctl  
device list  
station **device** scan  
station **device** get-networks  
station **device** connect **SSID**
```

Sync time

```
pacman -Syyy  
timedatectl set-ntp true
```

Set fastest mirrorlist

```
pacman -Syyy  
pacman -S reflector  
reflector -c Hungary -a 10 --sort rate --save /etc/pacman.d/mirrorlist  
pacman -Syyy
```

PARTITIONING

Check if running UEFI or BIOS

```
ls /sys/firmware/efi/efivars
```

If writes what's inside the folder: UEFI

If folder doesn't exist: BIOS

UEFI INSTALL

Creating partitions

```
fdisk /dev/sda
```

EFI g → n → ENTER → ENTER → +512M → t → 1
ROOT n → ENTER → ENTER → ENTER → w

Formatting the created partitions

```
mkfs.fat -F32 /dev/sda1  
mkfs.ext4 /dev/sda2
```

Mounting formatted partitions

```
mount /dev/sda2 /mnt  
mkdir /mnt/boot  
mount /dev/sda1 /mnt/boot
```

BIOS INSTALL

Creating partition

```
fdisk /dev/sda
```

n → ENTER → ENTER → ENTER → ENTER → w

Formatting the created partitions

```
mkfs.ext4 /dev/sda1
```

Mounting formatted partitions

```
mount /dev/sda1 /mnt
```

INSTALLING PACKAGES ONTO THE SYSTEM

Basic packages

```
pacstrap /mnt base linux linux-firmware nano
```

Fstab

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

Configuring the system

```
arch-chroot /mnt
```

Time zone

```
ln -sf /usr/share/zoneinfo/Europe/Budapest /etc/localetime  
hwclock --systohc
```

Localization

```
nano /etc/locale.gen  
uncomment en_US.UTF-8 UTF-8  
↓  
sed -i '177s/^#/' /etc/locale.gen  
  
locale-gen  
nano /etc/locale.conf  
LANG=en_US.UTF-8  
nano /etc/vconsole.conf  
KEYMAP=hu  
localectl set-keymap --no-convert hu
```

Setting the system hostname

```
nano /etc/hostname  
arch
```

```
nano /etc/hosts  
127.0.0.1 localhost  
::1 localhost  
127.0.1.1 arch.localedomain arch
```

Setting the root password

```
passwd
```

Installing packages

```
pacman -S grub efibootmgr networkmanager network-manager-applet  
wireless_tools wpa_supplicant dialog os-prober base-devel linux-headers reflector  
git bluez bluez-utils xdg-utils xdg-user-dirs
```

Enable SSH connection (optional)

```
pacman -S openssh sshpass openssl  
systemctl enable sshd
```

Setting up GRUB (UEFI)

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

Setting up GRUB (BIOS)

```
grub-install --target=i386-pc /dev/sda  
grub-mkconfig -o /boot/grub/grub.cfg
```

Enabling internet

```
systemctl enable NetworkManager
```

Enabling bluetooth (optional)

```
systemctl enable bluetooth
```

Adding a new user

```
useradd -mG wheel hakszi  
passwd hakszi
```

EDITOR=nano visudo, and uncomment:

```
%wheel ALL=(ALL:ALL) ALL
```

```
↓
```

```
sudo sed -i '/%wheel ALL=(ALL:ALL) ALL/s/^#//g' /etc/sudoers
```

Finish initial setup

```
exit  
umount -a  
reboot
```

CONTINUING THE INSTALL FROM THE SYSTEM

(unplug USB)

Setting up wifi (optional)

```
sudo nmtui
```

Installing graphics drivers

For AMD

```
sudo pacman -S xf86-video-amdgpu
```

For NVIDIA (open source) (recommended)

```
sudo pacman -S xf86-video-nouveau
```

NVS 310, GT & GTX 3xx 4xx 5xx series (proprietary)

```
yay -S nvidia-340xx
```

GTX 6xx 7xx 9xx series (proprietary)

```
yay -S nvidia-390xx
```

RTX 2060, GTX 10xx series (proprietary)

```
yay -S nvidia-418xx
```

Setting up an AUR

Install display driver

```
sudo pacman -S xorg xorg-drivers
```

Install desktop environment (of personal choice)

XFCE

```
sudo pacman -Syu  
sudo pacman -S xfce4 xfce4-goodies
```

↓

Cinnamon

```
sudo pacman -Syu  
sudo pacman -S cinnamon gnome-terminal nemo-fileroller
```

#Note that the firewall, no-disturb toggle and auto-login script will only work with XFCE
See here: Firewall, no disturb mode and auto-login quick settings

Installing login manager

```
sudo pacman -S lightdm lightdm-gtk-greeter lightdm-gtk-greeter-settings  
sudo systemctl enable lightdm
```

Set extra keyboard settings

```
localectl set-x11-keymap hu $USER  
reboot
```

OPTIMIZATION BEFORE INSTALLING APPS

Mount NTFS hard disk

```
su  
pacman -S ntfs-3g  
ntfs-3g /dev/your_NTFS_partition /mount/point
```

Enable 32-bit applications (recommended)

```
sudo sed -i '93s/^#/' /etc/pacman.conf  
sudo sed -i '94s/^#/' /etc/pacman.conf  
pacman -Sy
```

Check to make sure [multilib] and include = /etc/pacman.d/mirrorlist are uncommented

```
cat /etc/pacman.conf
```

Optimize package making (caching, using all cores, compression, etc...)

```
su  
sudo pacman -S wget  
cd /etc  
rm -rf makepkg.conf  
wget https://pastebin.com/raw/9KVnvpbQ  
mv 9KVnvpbQ makepkg.conf
```

*Note: Comment BUILDDIR=/tmp/makepkg on older computers with <8 GB of ram

Restore the original makepkg.conf file:

```
su  
cd /etc  
rm -rf makepkg.conf  
wget https://pastebin.com/raw/RYEuK9ND  
mv RYEuK9ND makepkg.conf
```

Enable parallel downloads (recommended)

```
sudo sed -i '/ParallelDownloads/s/^#/g' /etc/pacman.conf
```

Setting up an AUR manager

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

Setting up SNAP

```
yay -S snapd  
sudo systemctl enable --now snapd.socket  
sudo ln -s /var/lib/snapd/snap/snap
```

Installing GUI package manager:

```
yay -S octopi
```

Clean system & update & upgrade & reboot before installing apps:

System maintaining

INSTALLING APPS OF CHOICE

Essentials:

```
sudo pacman -S pavucontrol alsafirmware alsauutils alsaplugins pulseaudio-alsa
pulseaudio libcanberra a52dec dvdauthor dvgrab faac faad2 gstdbav libdca
libdvcss libdvdnav libmad libmpeg2 exfat-utils fuse-exfat wget ifplugd python tar
rsync zip unzip rmlint fdupes bat curl youtube-dl bc htop pciutils xfce4-
whiskermenu-plugin xf86-input-synaptics viewnior ccache neofetch rust
```

```
yay -S update-grub timeshift zramswap xfce4-mixer balena-etcher woeusb-ng safe-rm
mkinitcpio-numlock
```

Most used apps:

```
sudo pacman -S virtualbox virtualbox-sdk virtualbox-host-dkms virtualbox-guest-iso
kdeconnect xflux libreoffice gnome-disk-utility gparted clamav krita qbittorrent
vlc ufw ufw-extras okular firefox engrampa torbrowser-launcher putty obs-studio
discord
```

```
yay -S rider podman docker dotnet-sdk-5.0-bin spotify qdirstat electronmail github-
desktop-bin pyakm stacer
```

```
snap install teams-for-linux jpg2pdf pdfmixtool
```

Laptop-only:

```
yay -S slimbookbattery auto-cpufreq
```

For gaming:

```
yay -S dxvk-bin mesa vulkan-radeon mesa-libgl ttf-ms-fonts
```

```
pacman -S dotnet-runtime jre-openjdk lib32-alsa-plugins lib32-dbus lib32-freetype2
lib32-gnutls lib32-libgcrypt lib32-libgpg-error lib32-libldap lib32-libxml2 lib32-
mesa lib32-sdl2 lib32-vulkan-radeon libgcrypt lutris steam vulkan-icd-loader wine
wine-gecko wine-mono winetricks
```

Wallpapers

```
curl https://pastebin.com/raw/0EScRV8M
```

Themes

```
yay -S papirus-maia-icon-theme-git matcha-gtk-theme cantarell-static-fonts
capitaine-cursors
pacman -S noto-fonts-emoji adobe-source-code-pro-fonts adobe-source-han-sans-
hk-fonts adobe-source-han-sans-jp-fonts adobe-source-han-sans-kr-fonts adobe-
source-han-sans-otc-fonts adobe-source-han-sans-tw-fonts adobe-source-han-sans-cn-
fonts ttf-carlito ttf-droid gsffonts ttf-liberation xorg-fonts-misc
```

Theme: Matcha-dark-aliz [GTK2/3]
Cursor theme: Capitaine Cursors
Icons: Papirus-Adapta-Maia [GTK2]

Font: Cantarell Bold 10

Terminal font: Source Code Pro Medium 14

See downloaded looks here: Themes

Other apps:

<i>ncdu</i>	- <i>Disk usage analyzer</i>
<i>lyx-git</i>	- <i>LaTeX editor</i>
<i>vim neovim</i>	- <i>Nano alternative for text editing</i>
<i>pkgbuild-watch</i>	- <i>Monitor upstream for updates</i>
<i>firejail firetools</i>	- <i>Linux namespaces sandbox program & GUI</i>
<i>calibre</i>	- <i>Ebook management application</i>
<i>transmission-makepkg</i>	- <i>makepkg download agent for magnet URIs</i>
<i>aur-out-of-date</i>	- <i>Determines out-of-date AUR packages</i>
<i>net-tools</i>	- <i>Configuration tools for Linux networking</i>
<i>nmap</i>	- <i>Utility for network discovery and security auditing</i>
<i>ntop</i>	- <i>A network traffic probe that shows the network usage.</i>
<i>archlinux-contrib</i>	- <i>useful scripts</i>
<i>pacman-contrib</i>	- <i>useful scripts</i>

ENABLING SERVICES

Start and enable RAM swap at boot

```
sudo systemctl enable zramswap.service  
sudo systemctl start zramswap.service
```

Start and enable CPU frequency modifying

```
sudo systemctl enable auto-cpufreq.service  
sudo systemctl start auto-cpufreq.service
```

Enabling TLP

```
sudo systemctl enable tlp.service  
sudo systemctl start tlp.service
```

Enabling Trimming

```
sudo systemctl enable fstrim.timer  
sudo systemctl start fstrim.timer
```

TWEAK KERNEL SETTINGS

```
#paste into /etc/sysctl.conf

net.ipv6.conf.all.disable_ipv6 = 1
vm.swappiness = 80
vm.vfs_cache_pressure = 300
vm.dirty_background_ratio = 5
vm.dirty_ratio = 10
vm.dirty_background_bytes = 4194304
vm.dirty_bytes = 4194304
vm.min_free_kbytes = 8192
kernel.sysrq = 1

#Network tweaks
net.ipv4.tcp_slow_start_after_idle = 0
net.core.default_qdisc = cake
net.ipv4.tcp_congestion_control = bbr
#Receive queue
net.core.netdev_max_backlog = 16384
#Max connections
net.core.somaxconn = 16384
#Max memory
net.core.rmem_default = 1048576
net.core.rmem_max = 16777216
net.core.wmem_default = 1048576
net.core.wmem_max = 16777216
net.core.optmem_max = 65536
net.ipv4.tcp_rmem = 4096 1048576 2097152
net.ipv4.tcp_wmem = 4096 65536 16777216
#UDP Limit
net.ipv4.udp_rmem_min = 8192
net.ipv4.udp_wmem_min = 8192
#TCP FastOpen feature
net.ipv4.tcp_fastopen = 1
```

USING DIFFERENT KERNELS

[Comparing hardened, original, LTS, and zen kernels](#)

[Harden kernel \(more stable\)](#)

```
su
pacman -S linux-hardened linux-hardened-headers
mkinitcpio -p linux-hardened
grub-mkconfig -o /boot/grub/grub.cfg
reboot
```

[Zen kernel \(for performance\)](#)

```
su
sudo pacman -S linux-zen linux-zen-headers
mkinitcpio -p linux-zen
grub-mkconfig -o /boot/grub/grub.cfg
reboot
```

[LTS kernel \(for long term support\)](#)

```
su
sudo pacman -S linux-lts
mkinitcpio -p linux-zen
grub-mkconfig -o /boot/grub/grub.cfg
reboot
```

[Remember last boot entry](#)

```
nano /etc/default/grub
modify:
    GRUB_DEFAULT=saved
add new line:
    GRUB_SAVEDEFAULT=true
```

MODIFY GRUB SETTINGS

Using Octopi download "grub-customizer"

Download distro theme of choice

<https://www.gnome-look.org/p/1482847>

Open grub customizer

Go into General settings

Set Boot default entry to 1 second

Set kernel parameters to:

quiet apparmor=1 security=apparmor udev.log_priority=3

Go into Appearance settings

Set theme to arch

CUSTOMIZING .BASHRC

```
#PS1="\[\033[38;5;1m\]\u\[$(tput sgr0)\] \[$(tput bold)\]\W\[$(tput sgr0)\] \\$ \[$(tput sgr0)\]"
PS1="\[\033[38;5;51m\]\u\[$(tput sgr0)\] \W \\$ \[$(tput sgr0)\]"

neofetch --ascii_distro archmerge --color_blocks off --cpu_temp C --refresh_rate on --os_arch on --
package_managers on --cpu_brand on --cpu_cores on --cpu_speed on --cpu_temp C --speed_type
current
#neofetch --ascii_distro blackarch --color_blocks off --cpu_temp C --refresh_rate on --os_arch on --
package_managers on --cpu_brand on --cpu_cores on --cpu_speed on --cpu_temp C --speed_type
current
#Actual used aliases
alias calculator='bc -l'
alias yaystat='sudo yay -Ps'
alias pacman='sudo pacman'
alias boot='systemd-analyze'
alias error='sudo journalctl -p 3 -xb'
alias firewall='sudo ufw status verbose'
alias bashrc='nano ~/.bashrc && source ~/.bashrc'
alias disk='ncdu'
alias shut='shutdown -h now'

#More readable / nicer look / better usability
alias vi='nvim'
alias vim='nvim'
alias mv='mv -vv'
alias ping='prettyping'
alias ls='ls --color=auto'
alias df='df -h'
alias diff='diff --color=auto'
alias free='free -m'
alias grep='grep --color=auto'
alias ip='ip -color=auto'
alias ls='ls --color=auto'
alias more='less'
alias nano='sudo nano'
alias lsblk='lsblk -e 7'
alias cat='bat'

#Are you sure?
#copy
alias cp='cp -i'
#move / rename
alias mv='mv -i'
#delete
alias rm='rm -i'
untar='tar zxf'

#Firewall, no disturb mode and autologin quick settings:
alias home='bash ~/.config/home.sh'
alias work='bash ~/.config/work.sh'
```

COMFORT ZONE & SETTING THE LOOK

Enable night light at SESSION AND STARTUP:

```
xflux -l 47.719742 -g 18.728781
```

Enable auto-login:

```
su  
cd /etc/lightdm/  
rm -rf lightdm.conf  
wget https://pastebin.com/raw/R3UqReib  
mv R3UqReib lightdm.conf
```

Revert to original lightdm config file:

```
su  
cd /etc/lightdm/  
rm -rf lightdm.conf  
wget https://pastebin.com/raw/n8THjn0u  
mv n8THjn0u lightdm.conf
```

Also for autologin:

```
sudo groupadd -r autologin  
sudo gpasswd -a $USER autologin
```

Improve look of fonts

[Improve look of fonts](#)

[Stop beep sound:](#)

```
rmmmod pcspkr  
su -c 'modprobe -r pcspkr && echo "blacklist pcspkr" >> /etc/modprobe.d/50-blacklist.conf'
```

Session and Startup → Application autostart → + → Add these:

```
xset b off  
xset b 0 0 0
```

Disable F1 for help and F11 for fullscreen for terminal

```
nano ~/.config/xfce4/terminal/accels.scm
```

add these lines:

```
(gtk_accel_path "<Actions>/terminal-window/fullscreen" "F11")  
(gtk_accel_path "<Actions>/terminal-window/contents" "F1")
```

[Set keyboard shortcut to launch whisker menu](#)

[One wallpaper across multihead](#)

[Set all java apps to use GTK theme settings](#)

[Activate numlock on startup](#)

[Dualboot arch with windows](#)

CUSTOM SCRIPTS

Firewall, no disturb mode and auto-login quick settings
curl <https://pastebin.com/raw/Vna6dNRz>
Alias them on page 12

Custom neofetch

```
rm -rf ~/.config/neofetch/config.conf
cd ~/.config/neofetch/
wget https://pastebin.com/raw/dWnPDBaX
mv dWnPDBaX config.conf
```

[Custom polkit](#)

```
su
mkdir /etc/polkit-1/rules.d/
cd /etc/polkit-1/rules.d/
wget https://pastebin.com/raw/144dRAbP
mv 144dRAbP 99-manjaro.rules
```

[Auto-cpufreq config](#)

```
cd /etc/
wget https://pastebin.com/raw/4ChzT2Tm
mv 4ChzT2Tm auto-cpufreq.conf
```

SYSTEM MAINTAINING

Automate cache clearing

```
find ~/cache/ -type f -atime +100 -delete
```

Remove all journalctl older than 2 weeks:

```
sudo journalctl --vacuum-time=2weeks  
sudo journalctl --vacuum-size=50M  
SystemMaxUse=50M
```

Set automatic paccache clearing

```
sudo nano /etc/systemd/system/paccache.timer  
[Unit]  
Description=Clean-up old pacman pkg  
  
[Timer]  
OnCalendar=monthly  
Persistent=true  
  
[Install]  
WantedBy=multi-user.target  
  
sudo systemctl enable paccache.timer  
sudo systemctl start paccache.timer  
sudo systemctl status paccache.timer  
  
sudo nano /usr/share/libalpm/hooks/paccache.hook  
[Trigger]  
Operation = Upgrade  
Operation = Install  
Operation = Remove  
Type = Package  
Target = *  
  
[Action]  
Description = Cleaning pacman cache with paccache ...  
When = PostTransaction  
Exec = /usr/bin/paccache -r
```

Check for duplicates

```
rmlint /home/hakszi
```

Clearing cache

```
rm -rf ~/cache/*
```

Remove temporary files

```
rm -rf /tmp/*
```

Remove broken symlinks

```
find . -xtype l -delete
```

Remove orphan packages:

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

Update, upgrade and clear cache

```
sudo pacman -Syu --noconfirm -q &&  
sudo pacman -Syyu --noconfirm -q &&  
paccache -rvk1 &&  
yay -Syu --noconfirm -q &&  
yay --clean -Sc --noconfirm -q &&  
sudo snap refresh &&
```

reboot

TROUBLESHOOTING

If bluetooth is not working

```
sudo systemctl enable bluetooth && sudo systemctl start bluetooth
```

Have boot messages stay on screen

```
su  
mkdir /etc/systemd/system/getty@tty1.service.d  
nano /etc/systemd/system/getty@tty1.service.d/noclear.conf  
[Service]  
TTYVTDisallocate=no
```

Unable to make AUR packages

Is /tmp full?

```
df -h /tmp
```

Clear it if it's full

```
rm -rf /tmp/*
```

Note: you can do a restart as well to clear this.

Failed services:

```
systemctl --failed
```

Logfiles:

```
journalctl -p 3 -b
```

Check packages that were installed but no packages depend on them now:

```
pacman -Qtd
```

Manually installed packages that no package depend on:

```
pacman -Qm
```

List installed packages:

```
pacman -Ql  
yay -Ql
```

Touchpad not working:

```
yay -S xf86-input-libinput
```

Check connected usb devices:

```
yay -S xorg-xinput  
xinput
```

Windows unmountable due to hibernation

Screen tearing

[Using compton](#)

[Using dmenu](#)

[Fixes specifically for NVIDIA](#)

Volume stuck on mute

Reactivating the screen backlight (BIOS ONLY)

```
sudo sed -i "s/\(GRUB_CMDLINE_LINUX=\)\\""/\1\"acpi_osi=Linux  
acpi_backlight=vendor\"/" /etc/default/grub -i  
sudo update-grub
```

Enable crontab

```
sudo pacman -S cronie  
sudo systemctl enable cronie.service  
sudo systemctl start cronie.service
```

USEFUL COMMANDS

Using SED to uncomment

Uncomment when text matches:

```
sudo sed -i '/SEARCH_FOR_THIS/s/^#/g' WHERE_TO_UNCOMMENT  
sudo sed -i '/autologin-user=hakszi/s/^#/g' /etc/lightdm/lightdm.conf
```

Uncomment at line X:

```
sed '*line_number*s/^#/' /etc/pacman.conf  
sed '93s/^#/' /etc/pacman.conf
```

Setup alias SSH connection with password

```
sshpass -p *PASSWORD_HERE* ssh *username@*ip_address*  
sshpass -p hakszi ssh pi@pi.hole
```

Run the last command with sudo

```
sudo !!
```

UNSAFE COMMANDS

(without thinking)

- **pacman -Sy**
 - Note that this is essential when installing the system.
 - The bash script checkupdates, included with the pacman package, provides a safe way to check for upgrades to installed packages without running a system update at the same time.
 - TLDR: Refreshes package list, without upgrading the system, and this could lead to dependency issues.
- **rm -rf**
 - Doesn't ask, whether you want to uninstall the files, or not and deletes everything recursively. You can delete essential system files with this. Use safe-rm (yay -S safe-rm).
- **dd**
 - Informally known as disk destroyer (be very careful when using this)
- **chmod 777**
 - [What does chmod 777 mean?](#)
 - TLDR: Setting 777 permissions to a file or directory means that it will be readable, writable and executable by all users and may pose a huge security risk.

[Other dangerous commands](#)

GAMING

Getting steam set up:

```
sudo mkdir ~/.fonts/ && cd ~/.fonts/  
wget https://support.steampowered.com/downloads/1974-YFKL-4947/SteamFonts.zip  
unzip SteamFonts.zip && rm SteamFonts.zip
```

Mouse latency

```
sudo nano /etc/default/grub  
add:      usbhid.mousepoll=1  
to:      GRUB_CMDLINE_LINUX_DEFAULT  
update-grub
```

STEAM

Steam configuration

Enable game mode scheduling (performance improvement)

Enable saving the Shader Cache

Laggy screen updates

using environment variables

Set-up an AMD GPU for daily usage (Graphics,Gaming,Compute,etc) in Arch Linux.:

```
sudo nano /etc/environment  
AMD_VULKAN_ICD=RADV
```

Compiled for certain games:

```
yay -S wine-ge-custom
```

Java (if another version is needed):

Find all available versions

```
sudo pacman -ss java | grep jdk
```

Install the one you want.

32 bit wine

origin

origin on linux #2

Simsity

Lutris install

SECURITY

[Block list for qbittorrent & original list can be found here](#)

cd ~/ .config/qBittorrent/
download files from [here](#) into this folder.

[Microcode](#)

AMD

```
sudo pacman -Syy amd-ucode  
yay -S iucode-tool  
sudo update-grub
```

Intel

```
sudo pacman -Syy intel-ucode  
yay -S iucode-tool  
sudo update-grub
```

[Enforcing strong passwords](#)

[Running apps in sandbox \(firejail\)](#)

[Firejail \(manjaro\)](#)

[Running apps in sandbox \(polkit\)](#)

SAVING & RELOADING THE SYSTEM

Save:

Before saving, clear the system: `System maintaining`

```
fstrim /  
dd if=/partition/to/be/written/on bs=64M status=progress | zstd -q3T2c --adapt - > NAME.img.zst  
dd if=/dev/sda bs=64M status=progress | zstd -q3T2c --adapt - > arch.img.zst  
dd if=/dev/nvme0n1 bs=64M status=progress | zstd -q3T2c --adapt - > arch.img.zst
```

Reload previous save (from a live system):

```
zstd -vkdc /backup/file.img.zst | dd of=/dev/sdX bs=4M status=progress  
zstd -vkdc arch.img.zst | dd of=/dev/sda bs=4M status=progress  
zstd -vkdc arch.img.zst | dd of=/dev/nvme0n1 bs=4M status=progress
```

Speed up save and reload:

```
su  
cd /where/you/save/or/load/backup/from
```

Troubleshooting:

Problem #1: Terminal kills program, ram usage at 100%

Solution to #1: Extend ram, or (slower method):

```
sudo nano /etc/makepkg.conf  
MAKEFLAGS="-j2"
```

EXTRA PRODUCTIVENESS

[Control 2 PC with one mouse and keyboard](#)

[Set up virtualbox on arch](#)

Useful things to take a look at later (guessed right, procrastination)

https://wiki.archlinux.org/title/Frequently_asked_questions

https://wiki.archlinux.org/title/Improving_performance

https://wiki.archlinux.org/title/Improving_performance/Boot_process

https://wiki.archlinux.org/title/Security#Enforcing_strong_passwords_with_pam_pwquality

https://wiki.archlinux.org/title/Lenovo_V15_G2-ALC

https://wiki.archlinux.org/title/System_maintenance

<https://wiki.archlinux.org/title/Security>

https://wiki.archlinux.org/title/Domain_name_resolution#Privacy_and_security

https://wiki.archlinux.org/title/Power_management#Power_management_with_systemd

https://wiki.archlinux.org/title/CPU_frequency_scaling

https://wiki.archlinux.org/title/Solid_state_drive

https://wiki.archlinux.org/title/Uniform_look_for_Qt_and_GTK_applications

https://wiki.archlinux.org/title/Backlight

https://wiki.archlinux.org/title/Webcam_setup

https://wiki.archlinux.org/title/Hardware_video_acceleration#NVIDIA

https://wiki.archlinux.org/title/Acpid

https://wiki.archlinux.org/title/Extra_keyboard_keys

https://wiki.archlinux.org/title/Network_configuration/Wireless

https://wiki.archlinux.org/title/Display_Power_Management_Signaling

https://wiki.archlinux.org/title/CPU_frequency_scaling

https://github.com/theo546/my-arch-setup

https://askubuntu.com/questions/1015701/display-turns-off-too-soon

https://forum.endeavouros.com/t/screen-brightness-diminishes-after-attaching-ac-adapter/15726