



archlinux™

™ *A simple, lightweight distribution*

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The Arch History

- Inspired by CRUX/BSD - Minimalism
 - Only officially support x86_64
- Initially released March 11, 2002 by Judd Vinet
 - Arch is an angsty teen! Almost 16. Wow.
 - Now maintained by Aaron Griffin and The Arch Community



The Arch Philosophy

- KISS - Keep It Simple, Stupid
- Be Versatile - Suits any role
- Stay Bleeding Edge - Offer latest stable package versions
- Pragmatism over Ideology - Design Decisions made on case-by-case basis
 - Developer consensus, evidence based analysis, debate

Focus on Simplicity, Minimalism, Code Correctness, Elegance



The Arch Design/Principles

Relying on complex tools to manage and build your system is going to hurt the end users. [...] "If you try to hide the complexity of the system, you'll end up with a more complex system". Layers of abstraction that serve to hide internals are never a good thing. Instead, the internals should be designed in a way such that they NEED no hiding. — Aaron Griffin (Phraktur)

- Focuses on creating an environment that is straightforward and relatively easy for the user to understand directly. No polishing point-and-click style management tools.
 - Clean configs
 - No official package manager front-end
- For “Intermediate and advanced Linux users who aren’t afraid of the command line”



The Arch Difference

- Package manager
 - Pacman
- Rolling Release Model
 - Regular system updates ensure latest software. Keeps patching to a minimum(see code correctness)
- ArchWiki/Community/AUR
- Minimal installation images released by the team
 - Latest main system components

The Arch Package Manager

- Pacman was created for Arch
 - Antergos
 - Manjaro
- Easter Egg
 - ILoveCandy
- Signed packages is default

```
Terminal - carl@manjaro:~
File Edit View Terminal Go Help
(1/1) checking package integrity [#####] 100%
(1/1) loading package files [#####] 100%
(1/1) checking for file conflicts [#####] 100%
(1/1) checking available disk space [#####] 100%
(1/1) installing leafpad [#####] 100%
[carl@manjaro ~]$ sudo leafpad /etc/pacman.conf
[carl@manjaro ~]$ sudo pacman -S openbox obconf oblogout
[sudo] password for carl:
resolving dependencies...
looking for inter-conflicts...

Targets (9): intltool-0.50.2-1 pygobject2-devel-2.28.6-8 pygtk-2.24.0-3
python2-distutils-extra-2.37-1 python2-gobject2-2.28.6-8
python2-imaging-1.1.7-5 obconf-2.0.3.git20100309-3
oblogout-0.2-14 openbox-3.5.0-7

Total Download Size: 2.87 MiB
Total Installed Size: 27.19 MiB

Proceed with installation? [Y/n] y
:: Retrieving packages from extra-testing...
pygobject2-devel-2.... 100.7 KiB 390K/s 00:00 [-----] 100%
python2-gobject2-2.... 266.3 KiB 432K/s 00:01 [-----] 100%
pygtk-2.24.0-3-x86_64 774.6 KiB 414K/s 00:02 [-----C o o o ] 46%
```



The Arch Package Manager

- **Pacman**

- Core - Everything needed to set up base system
- Extra - DEs, Programs, etc not necessary for base system
- Community - Build/Voted on by community
 - ↑ Votes & Trusted User Adoption
- Multilib - repo to support 32-bit apps in 64-bit env

- **Testing repos**

- Testing - Core + Extra
- Community-Testing
- Multilib-testing

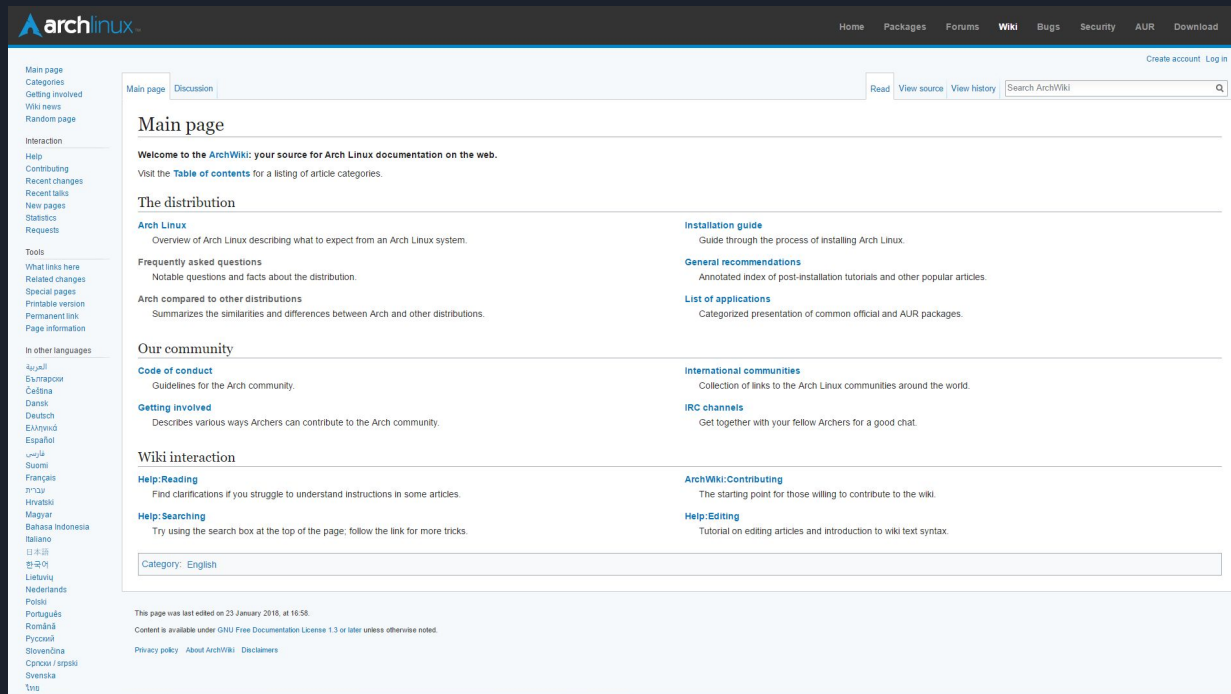


The Arch Release Model

- Rolling Releases
 - Gentoo, Manjaro, Sid, Solus, Void
- Release Based
 - Debian/Ubuntu, Fedora,
- Packages are available quickly after upstream releases
- Gentoo builds packages from source
 - Very customizable
- Arch builds packages using the ABS(Arch Build System)
 - Ports-like system for building packages from source
 - Src tarballs -> Binary -> pacman
 - Quicker/easier to build/update

The Arch Wiki

- Comprehensive
- Most recent information on specific topics
- Applicable beyond arch linux
- Lots of examples and bug reports



The screenshot shows the Arch Linux Wiki main page. At the top, there is a navigation bar with links for Home, Packages, Forums, Wiki, Bugs, Security, AUR, and Download. Below this is a search bar and a 'Create account / Log in' link. The main content area is titled 'Main page' and contains several sections: 'Welcome to the ArchWiki', 'The distribution', 'Our community', and 'Wiki interaction'. Each section has a brief description and links to related content. On the left side, there is a sidebar with various navigation options like 'Main page', 'Categories', and 'Tools'. At the bottom, there is a footer with the date 'This page was last edited on 23 January 2018, at 16:58' and a license notice.

archlinux

Home Packages Forums **Wiki** Bugs Security AUR Download

Create account / Log in

Main page Discussion

Read View source View history Search ArchWiki

Main page

Welcome to the **ArchWiki**: your source for Arch Linux documentation on the web.
Visit the **Table of contents** for a listing of article categories.

The distribution

Arch Linux
Overview of Arch Linux describing what to expect from an Arch Linux system.

Installation guide
Guide through the process of installing Arch Linux.

Frequently asked questions
Notable questions and facts about the distribution.

General recommendations
Annotated index of post-installation tutorials and other popular articles.

Arch compared to other distributions
Summarizes the similarities and differences between Arch and other distributions.

List of applications
Categorized presentation of common official and AUR packages.

Our community

Code of conduct
Guidelines for the Arch community.

International communities
Collection of links to the Arch Linux communities around the world.

Getting involved
Describes various ways Archers can contribute to the Arch community.

IRC channels
Get together with your fellow Archers for a good chat.

Wiki interaction

Help:Reading
Find clarifications if you struggle to understand instructions in some articles.

ArchWiki:Contributing
The starting point for those willing to contribute to the wiki.

Help:Editing
Tutorial on editing articles and introduction to wiki text syntax.

Try using the search box at the top of the page; follow the link for more tricks.

Category: English

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Magyar
Bahasa Indonesia
Italiano
日本語
한국어
Lietuvių
Nederlands
Polski
Português
Română
Pycckий
Slovenčina
Cрпски / Srpski
Svenska
Türkçe



The Arch Wiki

Fonts

Tip: If you set the *Scaling factor* to a value above 1.00, the Accessibility menu will be automatically enabled.

Fonts can be set for Window titles, Interface (applications), Documents and Monospace. See the Fonts tab in the Tweak Tool for the relevant options.

For hinting, RGBA will likely be desired as this fits most monitors types, and if fonts appear too blocked reduce hinting to *Slight* or *None*.

Startup applications

To start certain applications on login, copy the relevant `.desktop` file from `/usr/share/applications/` to `~/.config/autostart/`.

The `gnome-tweak-tool` allows managing autostart-entries.

Tip: If the plus sign button in the Tweak Tool's Startup Applications section is unresponsive, try start the Tweak Tool from the terminal using the following command: `gnome-tweak-tool .`

Note: The deprecated `gnome-session-properties` dialog can be added by **installing** the `gnome-session-propertiesAUR` package.

Power

When you are using a laptop you might want to alter the following settings:

```
$ gsettings set org.gnome.settings-daemon.plugins.power sleep-inactive-ac-timeout 3600
$ gsettings set org.gnome.settings-daemon.plugins.power sleep-inactive-ac-type hibernate
$ gsettings set org.gnome.settings-daemon.plugins.power sleep-inactive-battery-timeout 1800
$ gsettings set org.gnome.settings-daemon.plugins.power sleep-inactive-battery-type hibernate
$ gsettings set org.gnome.settings-daemon.plugins.power power-button-action suspend
$ gsettings set org.gnome.desktop.lockdown disable-lock-screen true
```



The Arch Wiki

- “Most Comprehensive Distribution Wiki”
 - End-user knowledge base
 - Learn new programs
 - See example configs
- Other distros - Classic definition of Wiki
 - Issue tracker
 - Corporate wiki

1. CORE INSTALLATION

- boot Arch ISO & be online

BIOS / MBR

UEFI / GPT

- create a single partition and mark it bootable
`fdisk /dev/sda`
- build ext4 filesystem on it
`mkfs.ext4 /dev/sda1`
- mount the new partition
`mount /dev/sda1 /mnt`

- create 512M partition, Type: EFI system
create second partition for the rest
`fdisk /dev/sda`
- build FAT32 on 512MB one
`mkfs.fat -F32 /dev/sda1`
- build ext4 on the other
`mkfs.ext4 /dev/sda2`
- mount the large ext4 partition
`mount /dev/sda2 /mnt`
- create directory boot on it
`mkdir /mnt/boot`
- mount 512MB one in to boot
`mount /dev/sda1 /mnt/boot`

- (optional) set geographically close mirror top
`nano /etc/pacman.d/mirrorlist`
- install the base system
`pacstrap /mnt base base-devel`
- generate fstab
`genfstab -U /mnt > /mnt/etc/fstab`
- chroot in to the new system
`arch-chroot /mnt`

BIOS / MBR

UEFI / GPT

- install and configure GRUB
`pacman -S grub os-prober`
`grub-install --recheck /dev/sda`
`grub-mkconfig -o /boot/grub/grub.cfg`

- install systemd bootloader
`bootctl install`
- create new boot entry
`nano /boot/loader/entries/arch.conf`

```
title Arch linux
linux /vmlinuz-linux
initrd /initramfs-linux.img
options root=dev/sda2 rw
```

- set the default entry
`nano /boot/loader/loader.conf`

```
timeout 3
default arch
```

- remove the bootable media, restart PC
`exit`
`reboot`

2. BASIC SETTINGS

- login as root
- set password for root
`passwd`
- set hostname
`echo whatever > /etc/hostname`
- add new user & set password
`useradd -m -G wheel bastard`
`passwd bastard`
- edit sudoers to allow new user to sudo
`EDITOR=nano visudo`
Uncomment to allow members of group..
`%wheel ALL=(ALL) ALL`
- check the name of your network interface
`ip link`
- enable acquiring dynamic IP
`systemctl enable dhcpcd@enp0s3.service`
`systemctl start dhcpcd@enp0s3.service`
- uncomment desired locales in locale.gen
`nano /etc/locale.gen`
- generate new locales & set one system wide
`locale-gen`
- select timezone and set it permanent
`timedatectl set-timezone 'Europe/Berlin'`
- set hardware clock and sync using ntp
`hwclock --systohc --utc`
`timedatectl set-ntp true`
- setup a swap file if RAM < 2GB
`fallocate -l 2G /swapfile`
`chmod 600 /swapfile`
`mkswap /swapfile`
`nano /etc/fstab`

```
/swapfile none swap defaults 0 0
```


`nano /etc/sysctl.d/99-sysctl.conf`

```
vm.swappiness=10
```
- enable color and x86 repo in pacman.conf
`nano /etc/pacman.conf`
Misc options
Color
[multilib]
Include = /etc/pacman.d/mirrorlist
- synchronize repositories and reboot
`pacman -Sy && reboot`

3. DESKTOP ENV.

- log in as regular user and use sudo
- install the default video driver
`# pacman -S xf86-video-vesa`
- install OpenGL support
`# pacman -S mesa`
- install video driver specific for your hardware

Brand	Type	Driver	Multilib
AMD	Open source	<code>xf86-video-amdgpu</code>	<code>lib32-mesa-libgl</code>
		<code>xf86-video-ati</code>	
	Proprietary	<code>catalyst^{AUR}</code>	<code>lib32-catalyst-libgl^{AUR}</code>
Intel	Open source	<code>xf86-video-intel</code>	<code>lib32-mesa-libgl</code>
	Open source	<code>xf86-video-nouveau</code>	<code>lib32-mesa-libgl</code>
Nvidia	Proprietary	<code>nvidia</code>	<code>lib32-nvidia-libgl</code>
		<code>nvidia-340xx</code>	<code>lib32-nvidia-340xx-libgl</code>
		<code>nvidia-304xx</code>	<code>lib32-nvidia-304xx-libgl</code>

- install Xorg packages
`# pacman -S xorg-server xorg-utils`
`xorg-xinit xterm`

- install desktop environment of your choice

DE	Packages	DL size	Inst. Size
Xfce	<code>xfce4, xfce4-goodies</code>	90 MB	400 MB
GNOME	<code>gnome, gnome-extra</code>	550 MB	2 300 MB
KDE	<code>plasma, kde-applications</code>	715 MB	2 760 MB
Cinnamon	<code>cinnamon</code>	150 MB	750 MB
MATE	<code>mate, mate-extra</code>	270 MB	1 120 MB
LVDE	<code>lvde</code>	30 MB	140 MB
LiQt	<code>lxqt</code>	65 MB	360 MB

- Xfce as an example
`# pacman -S xfce4 xfce4-goodies`
- install & enable login manager LightDM
`# pacman -S lightdm-gtk-greeter`
`# systemctl enable lightdm.service`
- unmute master volume channel
`$ amixer sset Master unmute`
- reboot PC
`# reboot`

4. AUR & FONTS

- add archlinuxfr repo to pacman.conf
`# nano /etc/pacman.conf`

```
[archlinuxfr]
SigLevel = Never
Server = http://repo.archlinux.fr/$arch
```
- synchronize repositories databases
`# pacman -Sy`
- install yaourt to access AUR packages
`# pacman -S yaourt`

- initialize pacman keyring and add infinity key
`# pacman-key --init`
`# dirmngr ctrl+c`
`# pacman-key -r 962DDE58`
`# pacman-key --lsign-key 962DDE58`

- add infinity repos to pacman.conf
`# nano /etc/pacman.conf`

```
[infinity-bundle]
Server = http://bohoomil.com/repo/$arch
[infinity-bundle-multilib]
Server = http://bohoomil.com/repo/multilib/$arch
[infinity-bundle-fonts]
Server = http://bohoomil.com/repo/fonts
```

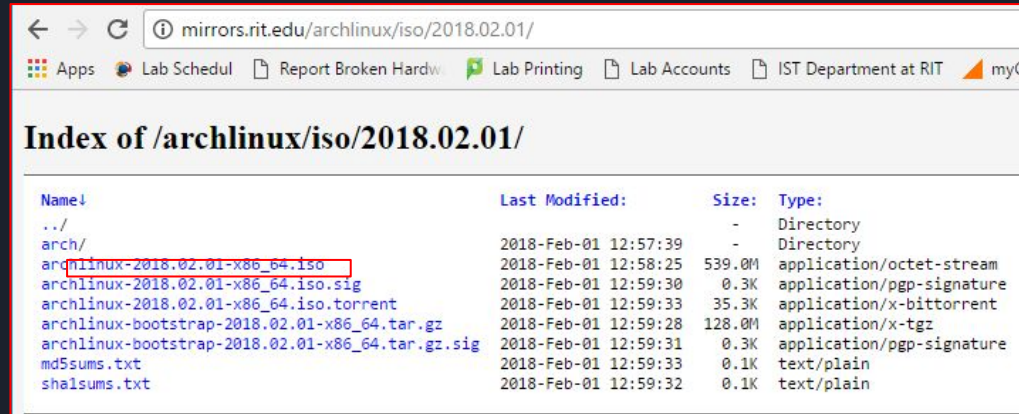
- synchronize repositories databases
`# pacman -Sy`

- install infinity fonts packages
`# pacman -S infinity-bundle`
`# pacman -S infinity-bundle-multilib`
`# pacman -S ibfonts-meta-base`
`ibfonts-meta-extended`

- install Zsh package
`# pacman -S zsh`
- create an empty config file
`$ touch ~/.zshrc`
- install Prezto framework from AUR
`$ yaourt prezto-git`
- change your shell to Z shell
and make sure your terminal supports unicode
`$ chsh -s /bin/zsh`
- log out and log back in for the effect

The Arch Install Process

- https://wiki.archlinux.org/index.php/installation_guide
- USB, Server Mount & Client Boot, Chroot, VM, Dual Boot Win
- archlinux.org/download
 - University Mirrors
 - Torrents



Name	Last Modified:	Size:	Type:
../	-	-	Directory
arch/	-	-	Directory
archlinux-2018.02.01-x86_64.iso	2018-Feb-01 12:57:39	539.0M	application/octet-stream
archlinux-2018.02.01-x86_64.iso.sig	2018-Feb-01 12:59:30	0.3K	application/pgp-signature
archlinux-2018.02.01-x86_64.iso.torrent	2018-Feb-01 12:59:33	35.3K	application/x-bittorrent
archlinux-bootstrap-2018.02.01-x86_64.tar.gz	2018-Feb-01 12:59:28	128.0M	application/x-tgz
archlinux-bootstrap-2018.02.01-x86_64.tar.gz.sig	2018-Feb-01 12:59:31	0.3K	application/pgp-signature
md5sums.txt	2018-Feb-01 12:59:33	0.1K	text/plain
shasums.txt	2018-Feb-01 12:59:32	0.1K	text/plain



The Arch Install Process

- USB Install

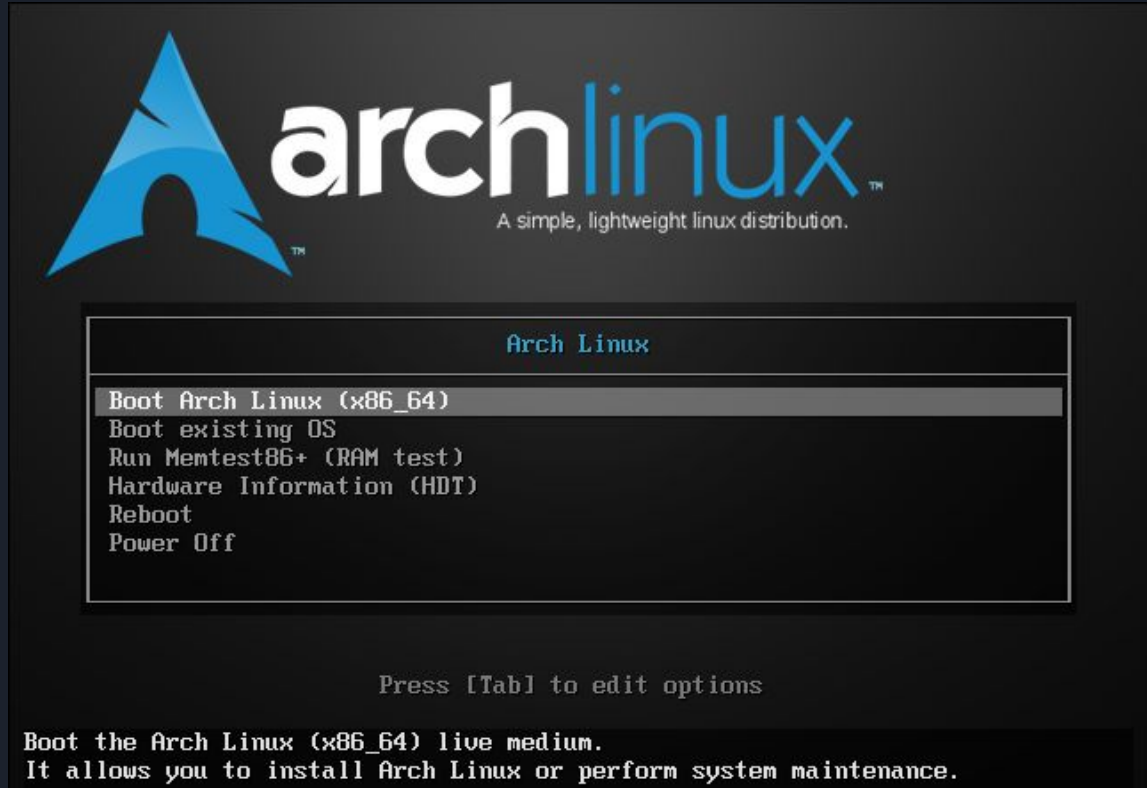
- https://wiki.archlinux.org/index.php/USB_flash_installation_media
- `$ dd bs=4M if=/path/to/archlinux.iso of=/dev/sdx status=progress oflag=sync`

Contents [hide]

- 1 BIOS and UEFI bootable USB
 - 1.1 Using dd
 - 1.1.1 In GNU/Linux
 - 1.1.2 In Windows
 - 1.1.2.1 Using Rufus
 - 1.1.2.2 Using USBwriter
 - 1.1.2.3 Using win32diskimager
 - 1.1.2.4 Using Cygwin
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- 2 Other methods for BIOS systems
 - 2.1 In GNU/Linux
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 - 2.1.4 Using UNetbootin
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 - 2.2.1 The Flashnul way
 - 2.2.2 Loading the installation media from RAM
 - 2.2.2.1 Preparing the USB flash drive
 - 2.2.2.2 Copy the needed files to the USB flash drive
 - 2.2.2.3 Create the configuration file
 - 2.2.2.4 Final steps
- 3 Troubleshooting
- 4 See also

The Arch Install Process

Boot into Arch Linux!





The Arch Install Process

```
Arch Linux 4.14.15-1-ARCH (tty1)
archiso login: root (automatic login)
root@archiso ~ #
```

```
root@archiso ~ # ping archlinux.org
PING archlinux.org (138.201.81.199) 56(84) bytes of data.
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=1 ttl=128 time=94.0 ms
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=2 ttl=128 time=93.6 ms
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=3 ttl=128 time=94.1 ms
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=4 ttl=128 time=94.0 ms
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=5 ttl=128 time=94.0 ms
64 bytes from apollo.archlinux.org (138.201.81.199): icmp_seq=6 ttl=128 time=94.0 ms
^C
```

- https://wiki.archlinux.org/index.php/Wireless_network_configuration
- https://wiki.archlinux.org/index.php/Network_configuration#Device_driver
- Nano, vi, vim

First Boot

- Update system clock
 - # timedatectl set-ntp true
- Partition disks
 - fdisk -l, lsblk
 - fdisk /dev/sda, parted /dev/sda
- Needed partitions
 - /
 - EFI System partition
- Encrypt disks, LVM, RAID, swap, other partitions

```
Partition type
  p   primary (0 primary, 0 extended, 4 free)
  e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1):
First sector (2048-209715199, default 2048):
Last sector, +sectors or +size{K,M,G,T,P} (2048-209715199, default 209715199):

Created a new partition 1 of type 'Linux' and of size 100 GiB.

Command (m for help): w
The partition table has been altered.
Calling ioctl() to re-read partition table.
Syncing disks.

root@archiso ~ #
```



Format Partitions

```
# mkfs.ext4 /dev/sda1
# mkswap /dev/sda3
# Swapon /dev/sda3
# mount /dev/sda1 /mnt
# mkdir /mnt/boot
# mount /dev/sda2 /mnt/boot

# lsblk
```

```
root@archiso ~ # mkfs.ext4 /dev/sda1
mke2fs 1.43.8 (1-Jan-2018)
Creating filesystem with 26214144 4k blocks and 6553600 inodes
Filesystem UUID: 954bbd8f-fc00-45b4-96ed-04396c61f1cd
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624, 11239424, 20480000, 23887872

Allocating group tables: done
Writing inode tables: done
Creating journal (131072 blocks): done
Writing superblocks and filesystem accounting information: done
```

Mirrors/Pacstrap

- Packages are downloaded from mirror servers
 - # vim /etc/pacman.d/mirrorlist
- Sorted by sync status and speed at time of image creation

```
## United States
Server = http://mirrors.rit.edu/archlinux/$repo/os/$arch
```

- Install base package group
 - # pacstrap /mnt base
 - base-devel

```
##
## Arch Linux repository mirrorlist
## Filtered by mirror score from mirror status page
## Generated on 2018-02-01
##
## China
Server = http://mirrors.xjtu.edu.cn/archlinux/$repo/os/$arch
## Canada
Server = http://mirror.its.dal.ca/archlinux/$repo/os/$arch
## Belgium
Server = http://archlinux.eu.be/$repo/os/$arch
## Brazil
Server = http://br-mirror.archlinux-br.org/$repo/os/$arch
## Italy
Server = http://archlinux.students.es.unibo.it/$repo/os/$arch
## United States
Server = http://mirror.und.edu/archlinux/$repo/os/$arch
## Singapore
Server = http://mirror.0x.sg/archlinux/$repo/os/$arch
## Serbia
Server = http://mirror.pmf.bg.ac.rs/archlinux/$repo/os/$arch
## Germany
Server = http://archlinux.thaller.us/$repo/os/$arch
## Colombia
Server = http://mirror.venturasytems.tech/archlinux/$repo/os/$arch
## United States
Server = http://www.gtlib.gatech.edu/pub/archlinux/$repo/os/$arch
## New Caledonia
Server = http://mirror.lagoon.nc/pub/archlinux/$repo/os/$arch
## United States
Server = http://mirror.grig.io/archlinux/$repo/os/$arch
## Norway
Server = http://archlinux.uib.no/$repo/os/$arch
## Slovakia
Server = http://tax.rainside.sk/archlinux/$repo/os/$arch
```



Configuration

```
# genfstab -U /mnt >> /mnt/etc/fstab
# cat /mnt/etc/fstab
# arch-chroot /mnt
# ln -sf /usr/share/zoneinfo/America/New_York
# hwclock --systohc
# cat /etc/adjtime
# vi /etc/locale.gen "Uncomment `en_US.UTF-8 UTF-8`"
# Locale-gen
# echo "LANG=en_US.UTF-8" > /etc/locale.conf
```



Configuration

```
# echo "myhostname" > /etc/hostname
```

```
# passwd
```

- Read the GRUB wiki page

```
# pacman -S grub
```

```
# grub-install --target=1386-pc /dev/sda `this is boot`
```

```
# Grub-mkconfig -o /boot/grub/grub.cfg
```

- Intel CPU?

```
# pacman -S intel-ucode
```

- Enable microcode updates

```
/etc/hosts
```

```
127.0.0.1    localhost
::1         localhost
127.0.1.1    myhostname.localdomain myhostname
```

Configuration (GRUB)

- Extra options:
 - LVM
 - Dual Boot
 - Tips/Tricks
 - RAID
 - Encryption
- GRUB ArchWiki

```
:: Proceed with installation? [Y/n] Y
:: Retrieving packages...
  grub-2:2.02-4-x86_64                6.0 MiB  54.8M/s 00:00 [#####] 100%
(1/1) checking keys in keyring [#####] 100%
(1/1) checking package integrity [#####] 100%
(1/1) loading package files [#####] 100%
(1/1) checking for file conflicts [#####] 100%
(1/1) checking available disk space [#####] 100%
:: Processing package changes...
(1/1) installing grub [#####] 100%
Generating grub.cfg.example config file...
This may fail on some machines running a custom kernel.
done.
Optional dependencies for grub
  freetype2: For grub-mkfont usage
  fuse2: For grub-mount usage
  dosfstools: For grub-mkrescue FAT FS and EFI support
  efibootmgr: For grub-install EFI support
  libisoburn: Provides xorriso for generating grub rescue iso using grub-mkrescue
  os-prober: To detect other OSes when generating grub.cfg in BIOS systems
  mtools: For grub-mkrescue FAT FS support
:: Running post-transaction hooks...
(1/2) Arming ConditionNeedsUpdate...
(2/2) Updating the info directory file...
[root@archiso /]# grub-install --target=i386-pc /dev/sda
Installing for i386-pc platform.
Installation finished. No error reported.
[root@archiso /]# grub-mkconfig -o /boot/grub/grub.cfg
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-linux
Found initrd image(s) in /boot: initramfs-linux.img
Found fallback initrd image(s) in /boot: initramfs-linux-fallback.img
done
```



Exit chroot, restart

exit

reboot

GNU GRUB version 2.02

```
*Arch Linux
Advanced options for Arch Linux
```

Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands
before booting or `c' for a command-line.



W0000000000000000!!!!

```
Arch Linux 4.15.4-1-ARCH (tty1)
```

```
archlinux login: root
```

```
Last login: Fri Feb 23 17:45:16 on tty1
```

```
[root@archlinux ~]#
```

What's next?



Unlimited Possibilities

- General Recommendations
 - Desktop Environments
 - Look up your fave on the arch wiki
- List of Applications
 - VPN Clients, Browsers, File Explorers, Torrent Clients, Email Clients, Terminal Emulators, IRC Clients, Remote Desktop Clients, Video Players, Music Players, Image Viewers/Editors, Collection Managers, Partition Managers, Disk Cleaning, Document/Text Editors, Readers/Viewers, Security, Science, Amateur Radio, etc



Pacman Mirrorlist Gen

- archlinux.org/mirrorlist

```
# /etc/pacman.d/mirrorlist
```

Install Gnome

```
Arch Linux 4.15.4-1-ARCH (tty1)

archlinux login: root
Last login: Fri Feb 23 17:45:16 on tty1
[root@archlinux ~]# pacman -S gnome
:: There are 51 members in group gnome:
:: Repository extra
  1) adwaita-icon-theme  2) baobab  3) eog  4) epiphany  5) evince  6) gdm  7) gnome-backgrounds
  8) gnome-calculator  9) gnome-calendar 10) gnome-color-manager 11) gnome-contacts
 12) gnome-control-center 13) gnome-dictionary 14) gnome-disk-utility 15) gnome-font-viewer
 16) gnome-keyring 17) gnome-logs 18) gnome-screenshot 19) gnome-session
 20) gnome-settings-daemon 21) gnome-shell 22) gnome-shell-extensions 23) gnome-system-monitor
 24) gnome-terminal 25) gnome-themes-standard 26) gnome-user-docs 27) gnome-user-share
 28) grilo-plugins 29) gucharmap 30) gvfs 31) gvfs-afc 32) gvfs-goa 33) gvfs-google
 34) gvfs-gphoto2 35) gvfs-mtp 36) gvfs-nfs 37) gvfs-smb 38) mousetweaks 39) mutter
 40) nautilus 41) networkmanager 42) rygel 43) sushi 44) totem 45) tracker
 46) tracker-miners 47) vino 48) xdg-user-dirs-gtk 49) yelp
:: Repository community
 50) gnome-software 51) simple-scan

Enter a selection (default=all): _
```