

Introduction to Linux

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So you want to use Linux?





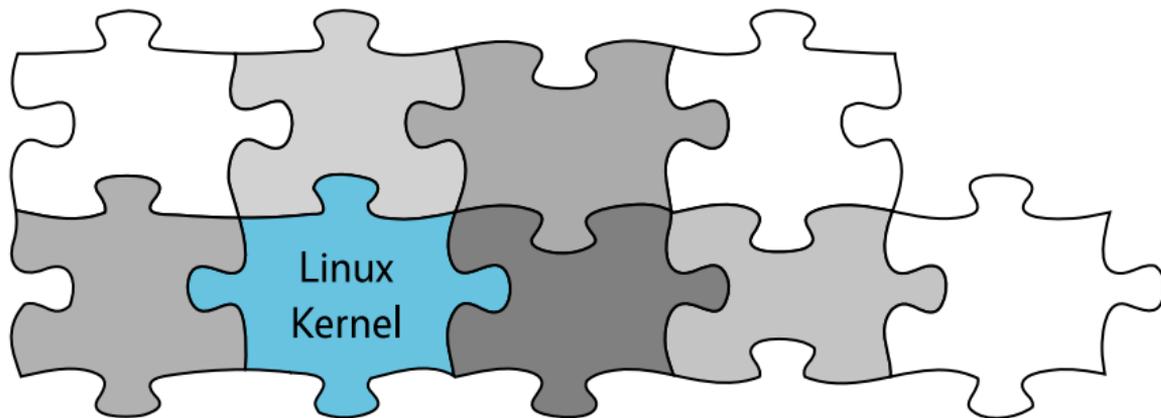


ANDROID

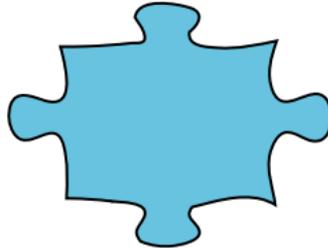


Linux, what does it mean?

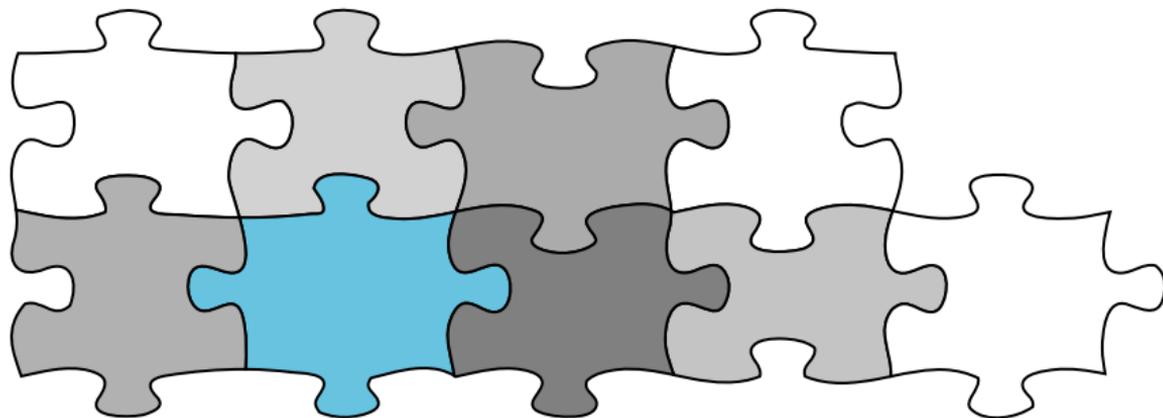
- ▶ A **Linux system** is a system that uses the Linux **Kernel**.



Linux



GNU/Linux







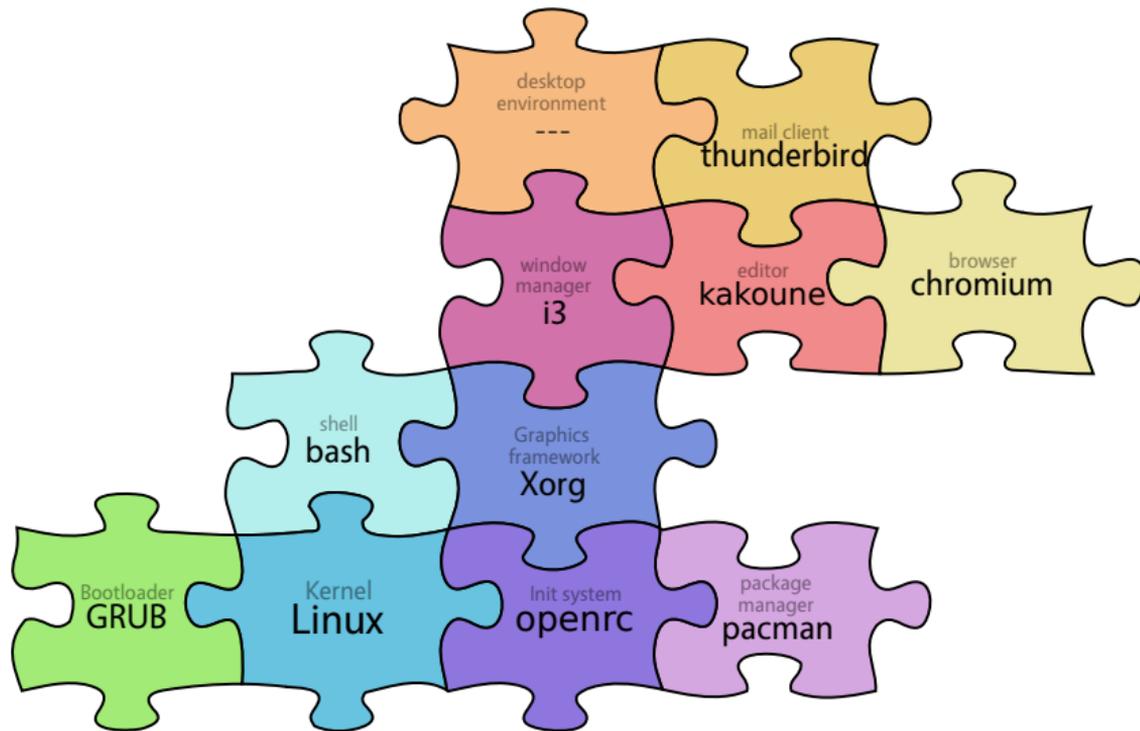
System components

- ▶ **Kernel** the core of your OS that manages all other programs and your devices
- ▶ **Bootloader** a tiny program that runs first when you power your PC and takes care of starting up the kernel
- ▶ **Init system** a program that takes care of starting and stopping background tasks
- ▶ **Package manager** a program that allows you to install other programs
- ▶ **Graphics framework** a basic software that allows other programs to draw stuff on the screen
- ▶ **Shell** the program that powers the console

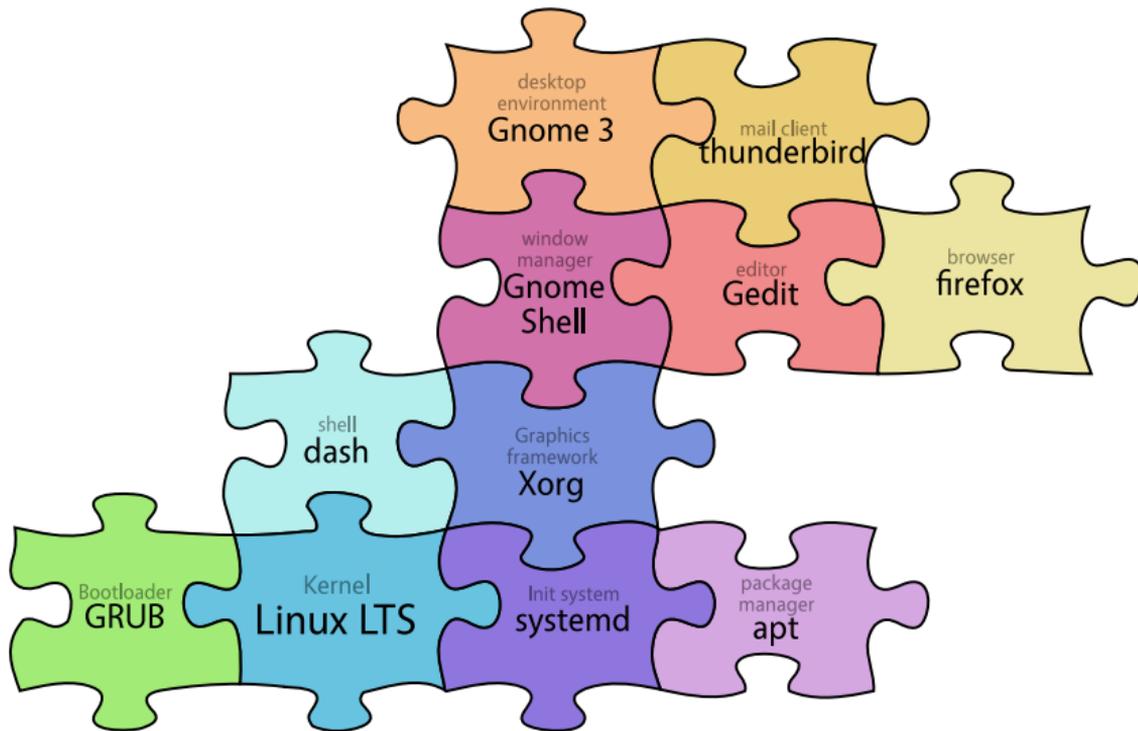
System components you care about

- ▶ Desktop Environment and/or Window Manager
- ▶ Editor
- ▶ Browser
- ▶ Mail client

My system

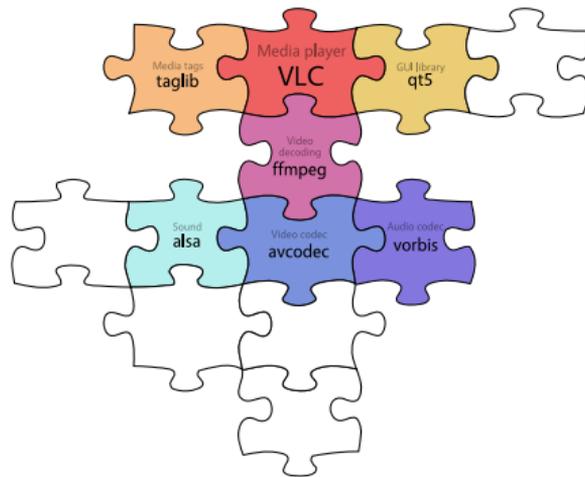


Standard Ubuntu system



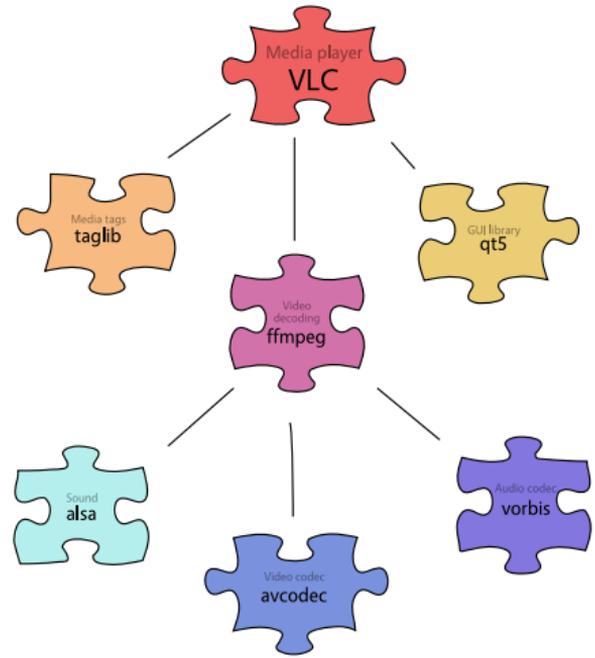


VS.





VS.





The Unix Philosophy

Do one thing, and do it right

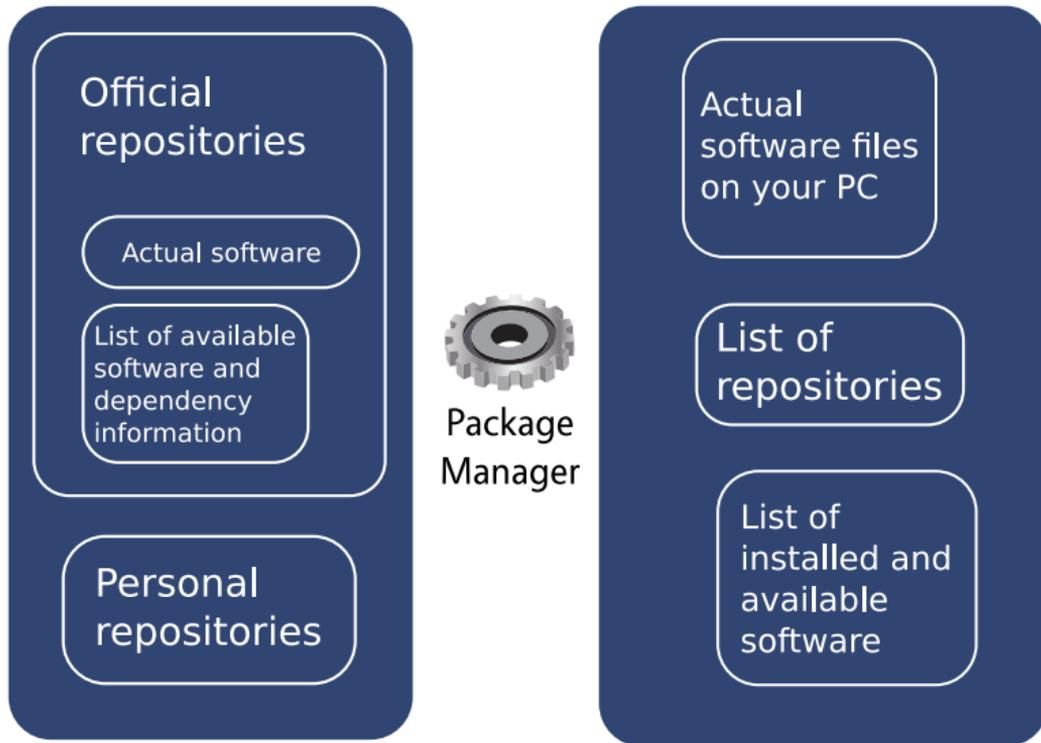




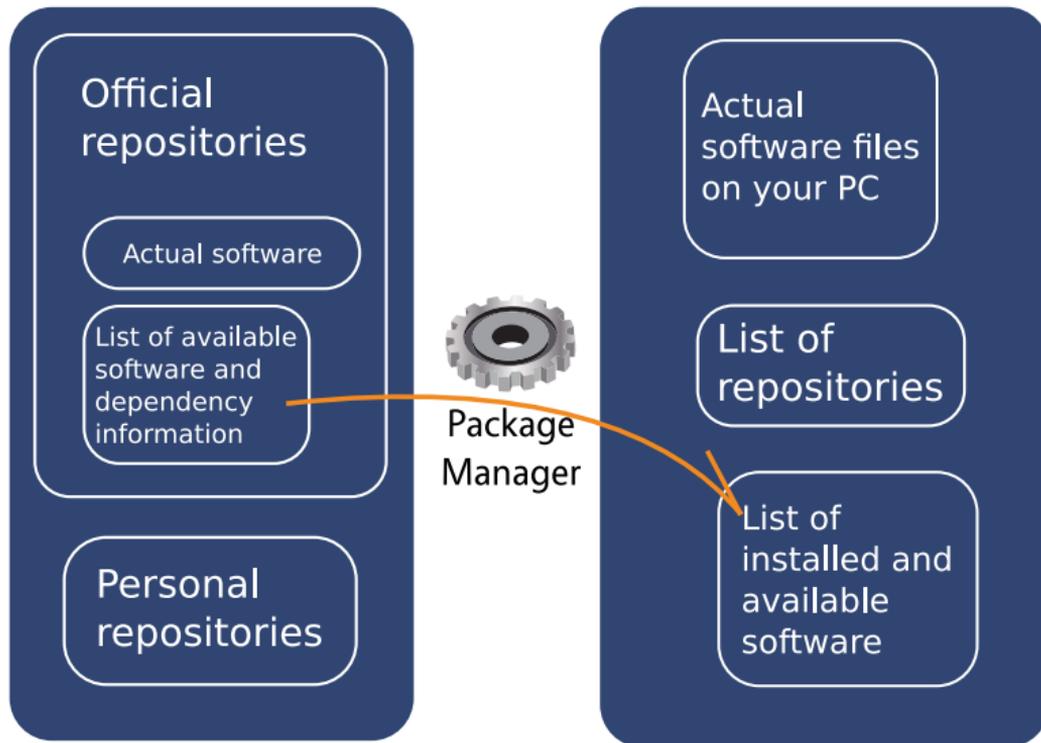
Package Managers

- ▶ Your best friend when it comes to dependency management
- ▶ Installs and removes software
- ▶ Updates all your programs with one click

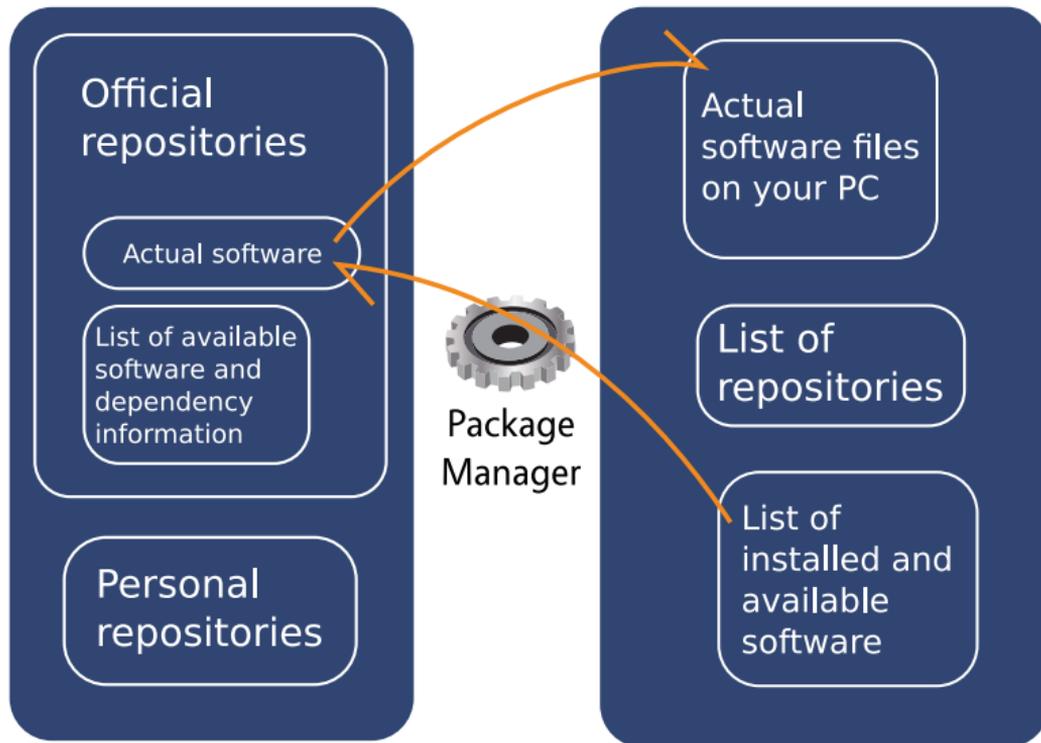
Package Managers

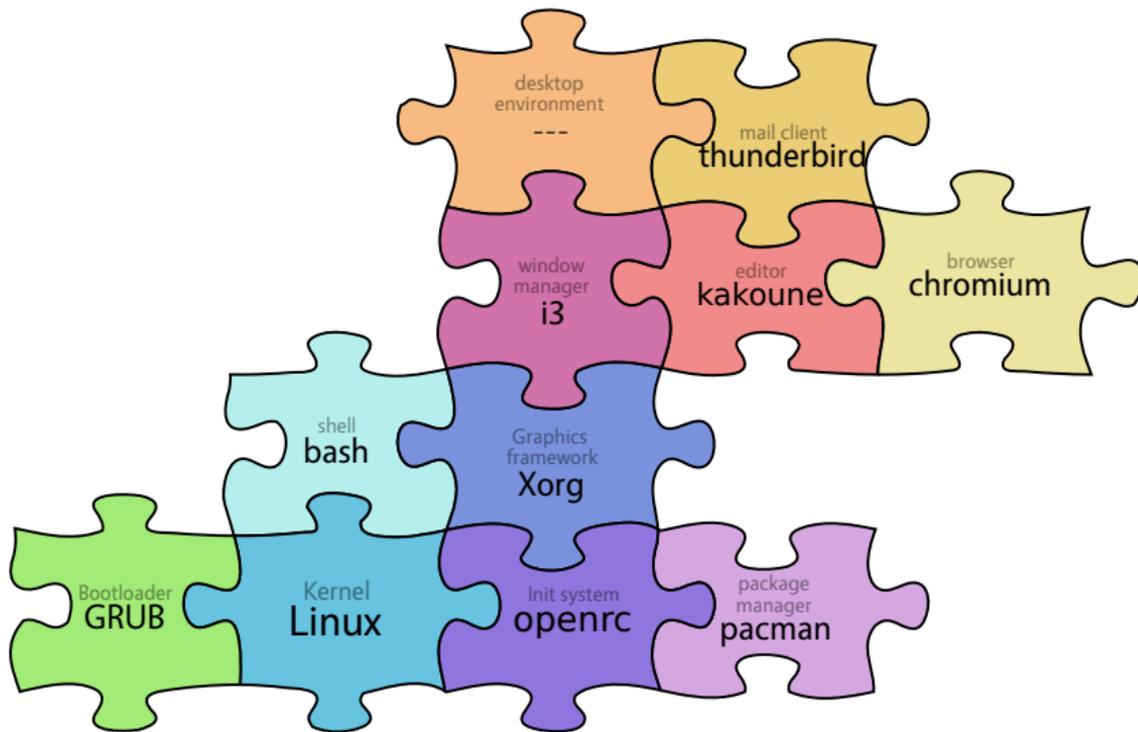


Refresh



Upgrade or Install



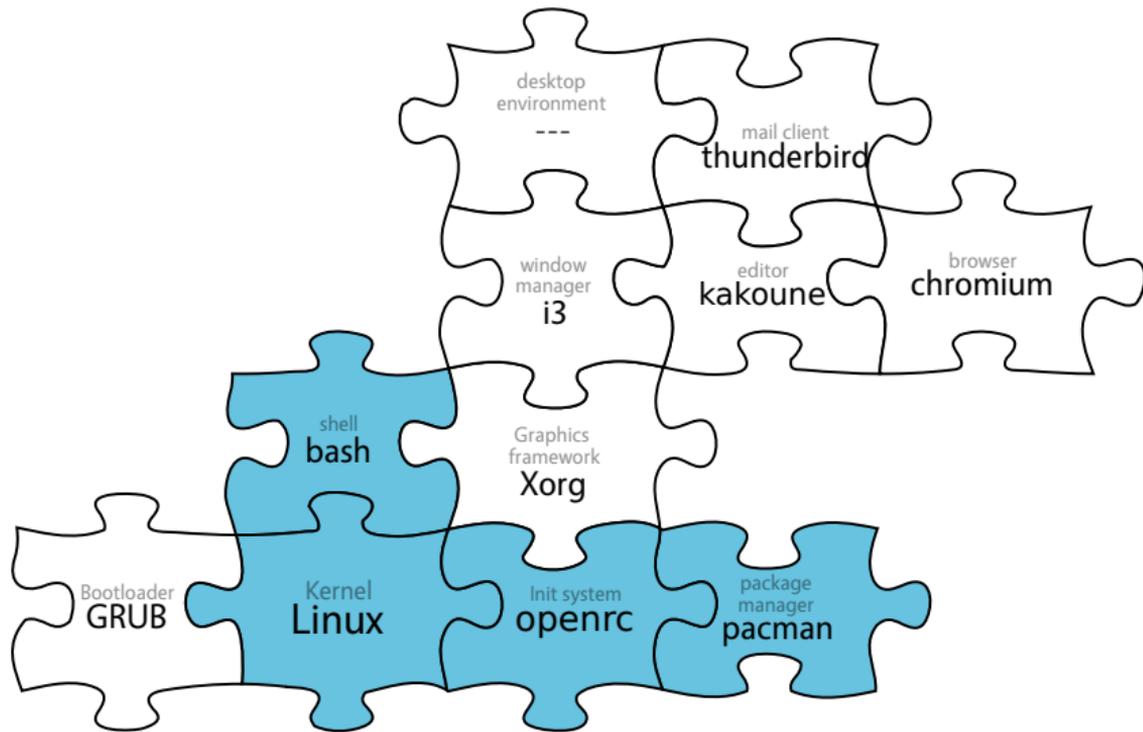


But how do I choose?

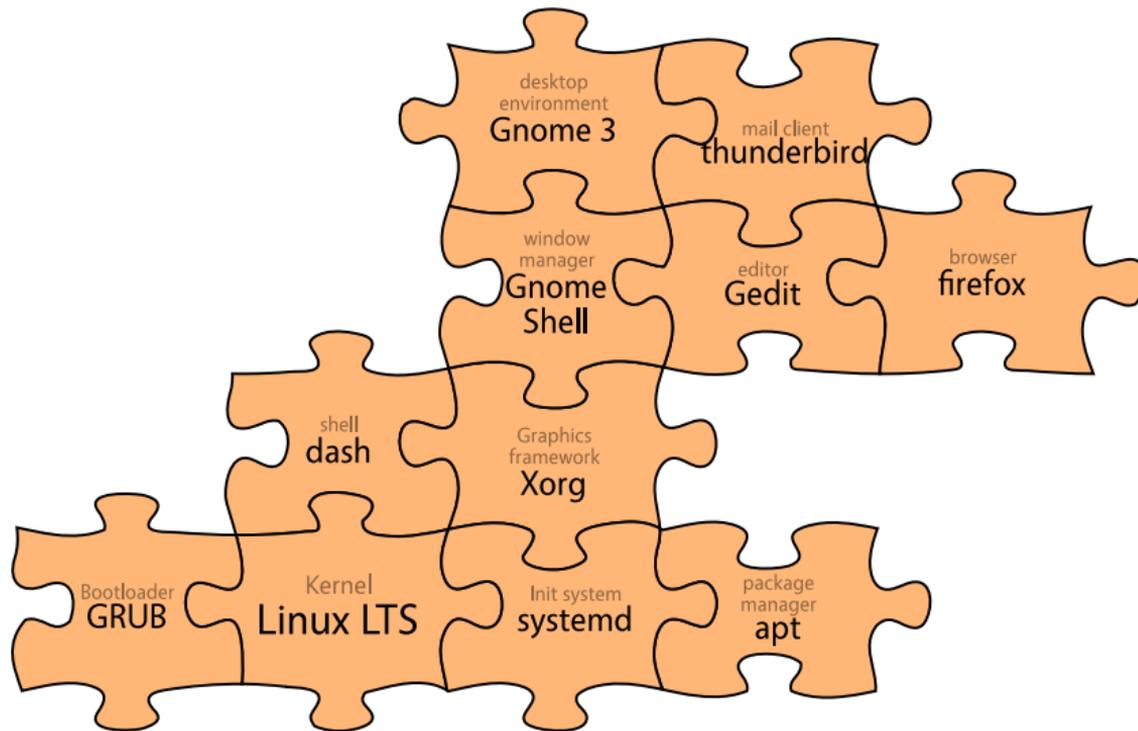
Fear not!



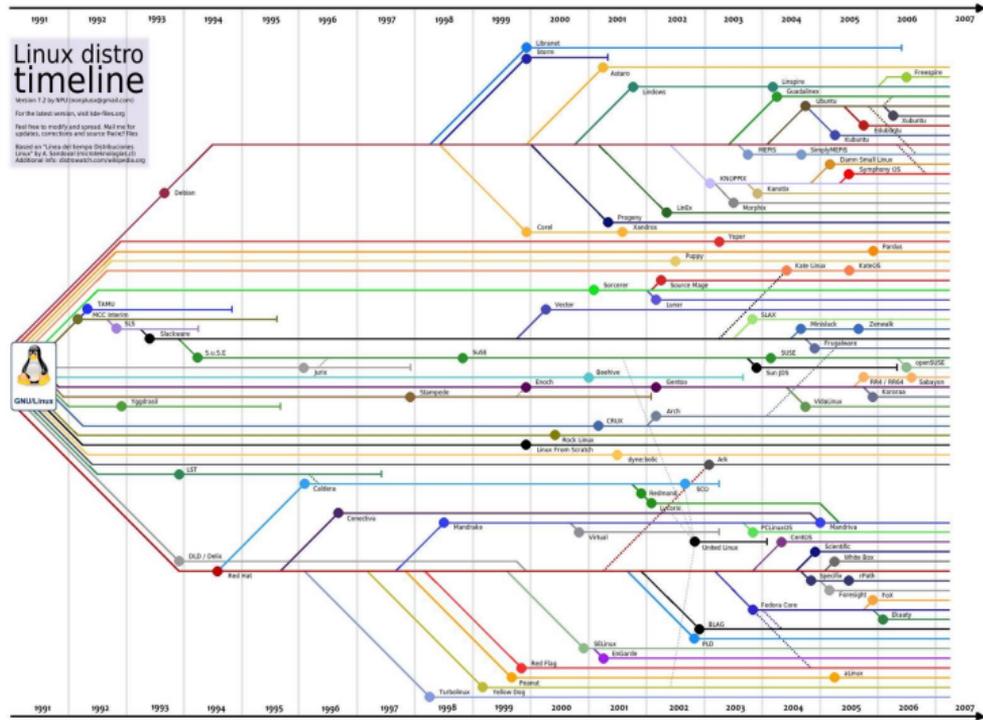
My system (Artix Linux)



Standard Ubuntu system



Distributions



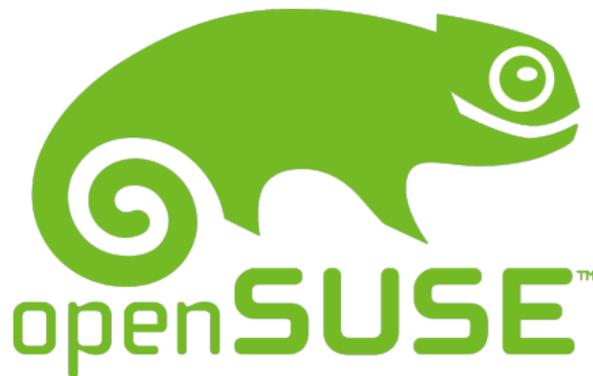
Ubuntu (and forks)

- ▶ Simplicity and ease of use
- ▶ Provide a complete package that "just works"
- ▶ Polished experience



OpenSUSE

- ▶ Customisability
- ▶ Provide a complete package that you can adapt to suit your needs
- ▶ Focus on free software



Fedora

- ▶ Innovation and being on the leading edge
- ▶ Provide a complete package with all the most recent software
- ▶ Polished experience with just free software



Outlook: Arch Linux

- ▶ Keeping to the bare minimum
- ▶ Provide just the basics, let the user choose all components
- ▶ Make a system that is truly yours

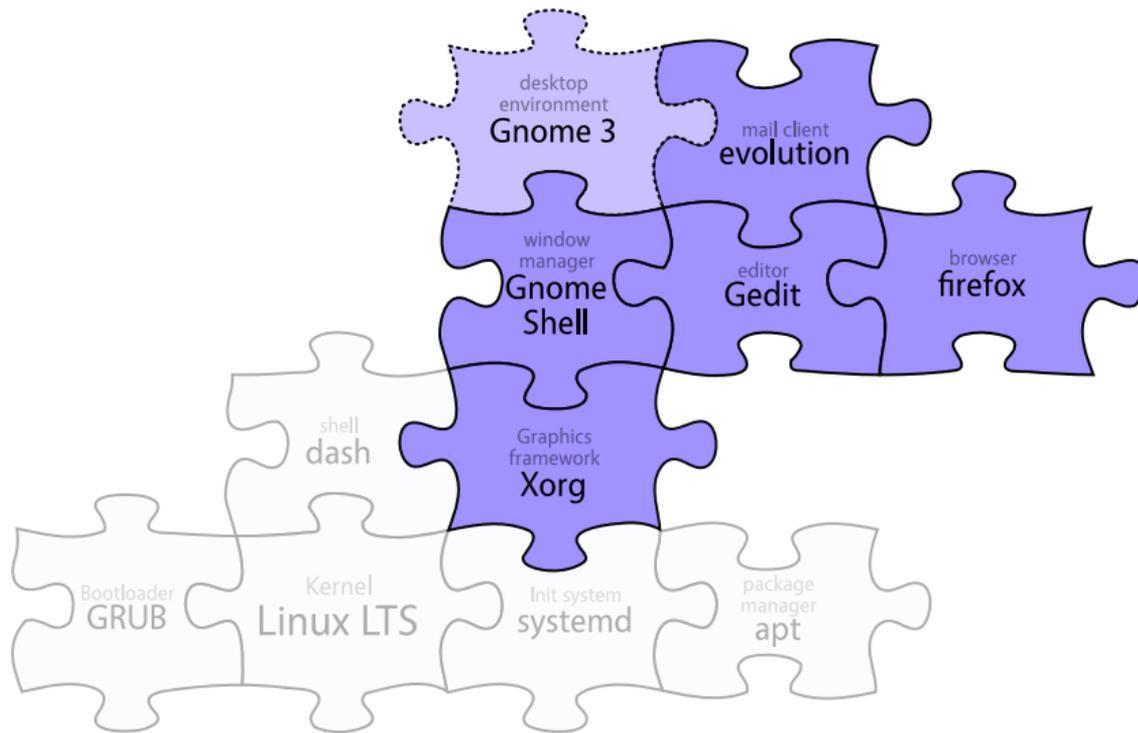


Choose Your Distribution

- ▶ They may have different puzzle pieces but there's also a big overlap
- ▶ Pick whichever sounds good to you
- ▶ If you want some help choosing, don't hesitate to ask us!

Desktop Environments

Puzzle time



KDE



KDE

- ▶ Rich in features
- ▶ Very customisable
- ▶ Similar to Windows UI

Gnome



GNOME™

Gnome

- ▶ Well put together, one experience
- ▶ Looks great
- ▶ Extendable through extensions but otherwise not very customisable

XFCE



XFCE

- ▶ Small and fast, good for older PCs
- ▶ Customisable
- ▶ Similar to Windows UI

Tux won't break your existing OS





openSUSE Leap 42.1

Advanced options for openSUSE Leap 42.1

KDE neon User Edition 5.7 (16.04) (on /dev/sdb11)

Advanced options for KDE neon User Edition 5.7 (16.04) (on /dev/sdb11)

Windows Boot Manager (on /dev/sdb2)

Ubuntu 16.04.1 LTS (16.04) (on /dev/sdb6)

Advanced options for Ubuntu 16.04.1 LTS (16.04) (on /dev/sdb6)

Linux Mint 18 Sarah (18) (on /dev/sdb8)

Advanced options for Linux Mint 18 Sarah (18) (on /dev/sdb8)

Android 6.0 rc2 (on /dev/sdb9)

RemixOS 3.0 (on /dev/sdb10)

Phoenix OS (on /dev/sda2)

Software

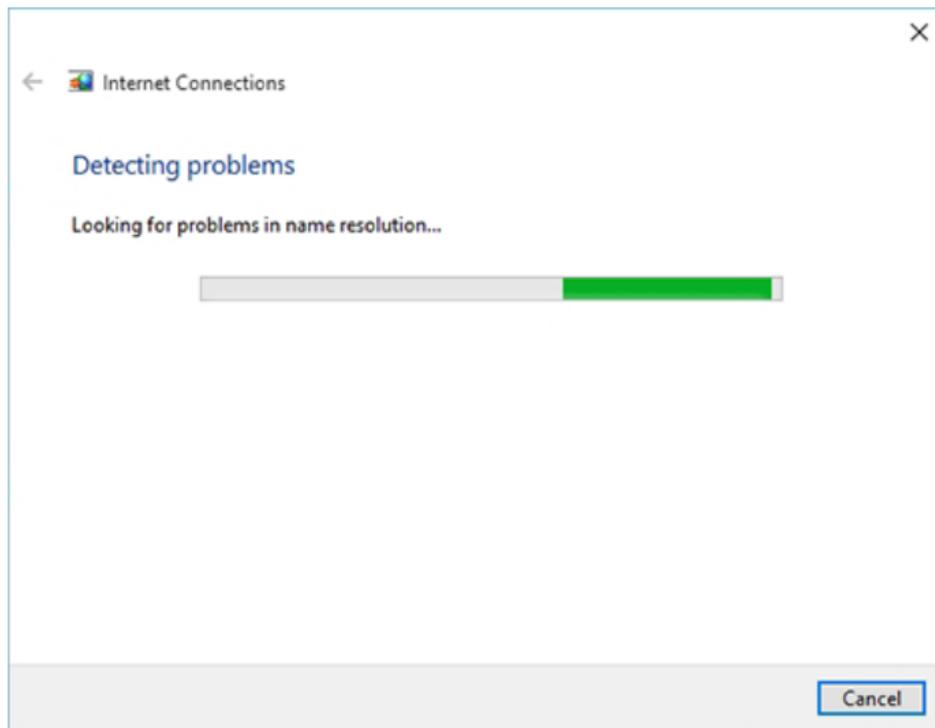
- ▶ Most popular programs have an alternative for Linux
- ▶ Often they even run natively!

But now... why is Linux so cool?

Very Configurable Programs

If you don't like the way something works, you can just change it!

Error messages



Error messages

```
sandro@linux-gttg:~> chromium
If 'chromium' is not a typo you can use
command-not-found to lookup the package
that contains it, like this:
    cnf chromium

sandro@linux-gttg:~> cnf chromium

The program 'chromium' can be found
in following packages:
[...]

Try installing with:
    sudo zypper install chromium
```

Community support instead of expensive hotlines

2015-08-24 16:50:12 #1

Hi there!
Maybe I've done too much computer today, but I'm unable to enable pulseaudio on boot:

```
$ sudo systemctl enable pulseaudio.socket
Failed to execute operation: No such file or di
```

Any ideas?

bbs.archlinux.org

10' later

2015-08-24 17:00:17 #2

A) Do you know why you want to do this? If not, don't. Pulseaudio is usually autostarted by your DE/volume manager of choice and there are a few caveats when starting it explicitly with systemctl (it can't use the session dbus unless you set it up which breaks a few things like jack-dbus-detect and programs relying on dbus pulse detection).

B) pulseaudio is a user service, the correct way to start/enable it is using

```
systemctl --user enable/start pulseaudio.servic
```

Additional reading
<https://wiki.archlinux.org/index.php/Systemd/User>

Do updates with ease

We've got an update for you

Windows is a service and updates are a normal part of keeping it running smoothly. We need your help installing this one.

Ready? Restart now. Not ready? Pick a time that works for you.

Restart now

Pick a time

Snooze

Use powerful tools

- ▶ With comparatively little effort, you can automate tedious tasks
- ▶ **Want to know more?** Visit our Linux Toolbox course!

Don't worry too much, it's fun!

Next steps

- ▶ Ask us any questions
- ▶ Come to our other talks
- ▶ Install Linux! please back up your data first
- ▶ Join our community
- ▶ Leave some feedback
<https://feedback.thealternative.ch/>

Other Courses

- ▶ Linux Toolbox: Friday, 16.04. 17:15-19:00
- ▶ Git: Monday, 19.04. 17:15-19:00
- ▶ How does Zoom Store Recordings: Friday, 23.04. 17:15-18:00
- ▶ A World without Intel: Wednesday, 28.04 17:15-19:00
- ▶ IT Project Management: Thursday, 29.04. 17:15-18:00
- ▶ PDF = PestesDateiFormat: Friday, 07.05. 17:15-18:00

Registration at thealternative.ch

Course material

- ▶ These slides:
https://gitlab.ethz.ch/thealternative/courses/tree/master/intro_course
- ▶ Theme by Christian Horea, CC BY