KLUG Presents:

Linux Install-Fest! 2013

ubuntu

Linux Mint
from freedom came elegance

fedora

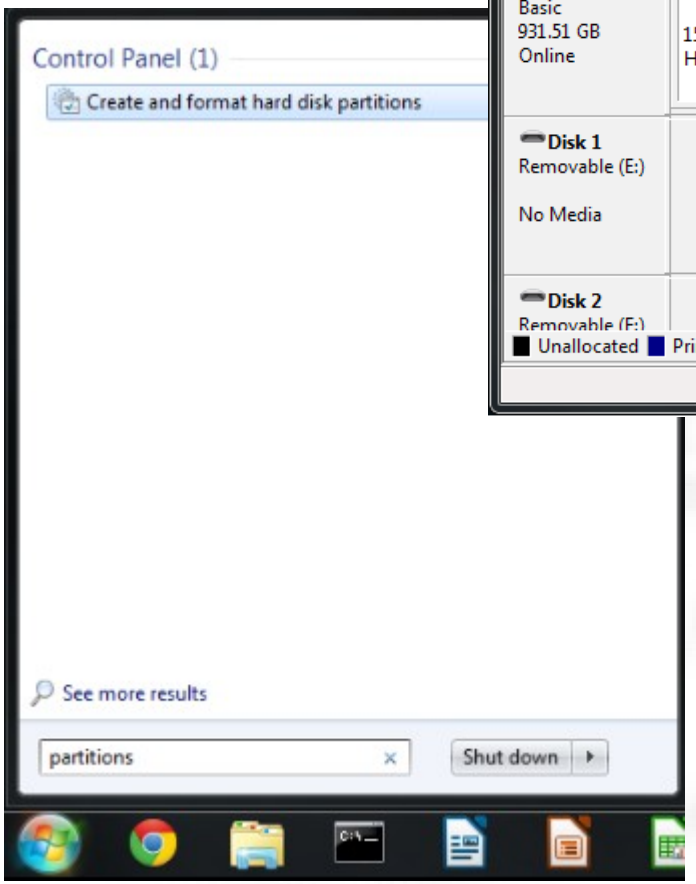
Schedule

- Partition Shrinking
- What happens when you turn on your computer? (5 mins)
  - BIOS, POST and Bootloaders
- What is Linux? (5 mins)
  - Modularity and Freedom
- What is Open Source? (3 mins)
- Using Linux and getting help (5 mins)
  - How I learned to stop worrying and love the terminal
- Install-Fest!

Shrinking a Partition

- Hard drives can be virtually divided into what looks like multiple hard drives to you Operating System (OS), these are called *partitions*
- Typically there is a single *partition* which uses the full hard drive and has the default OS (Windows or Mac)
- We need to shrink the default partition to make space for a new one
  - To avoid issues it is usually best to shrink the partition using the OS that is installed on said partition

I had to boot into Windows just to make the following slides for you guys!



Disk Management

File Action View Help

Volume	Layout	Type	File System	Status	Capacity	Free Spa...	% Free	Fault Tolerance	Overhead
	Simple	Basic		Healthy (R...	15.63 GB	15.63 GB	100 %	No	0%
	Simple	Basic		Healthy (P...	242.97 GB	242.97 GB	100 %	No	0%
	Simple	Basic		Healthy (P...	200.00 GB	200.00 GB	100 %	No	0%
	Simple	Basic		Healthy (P...	5.85 GB	5.85 GB	100 %	No	0%
Acer (C:)	Simple	Basic	NTFS	Healthy (B...	466.96 GB	354.83 GB	76 %	No	0%
SYSTEM RESERVED	Simple	Basic	NTFS	Healthy (S...	100 MB	72 MB	72 %	No	0%

Disk 0
Basic
931.51 GB
Online

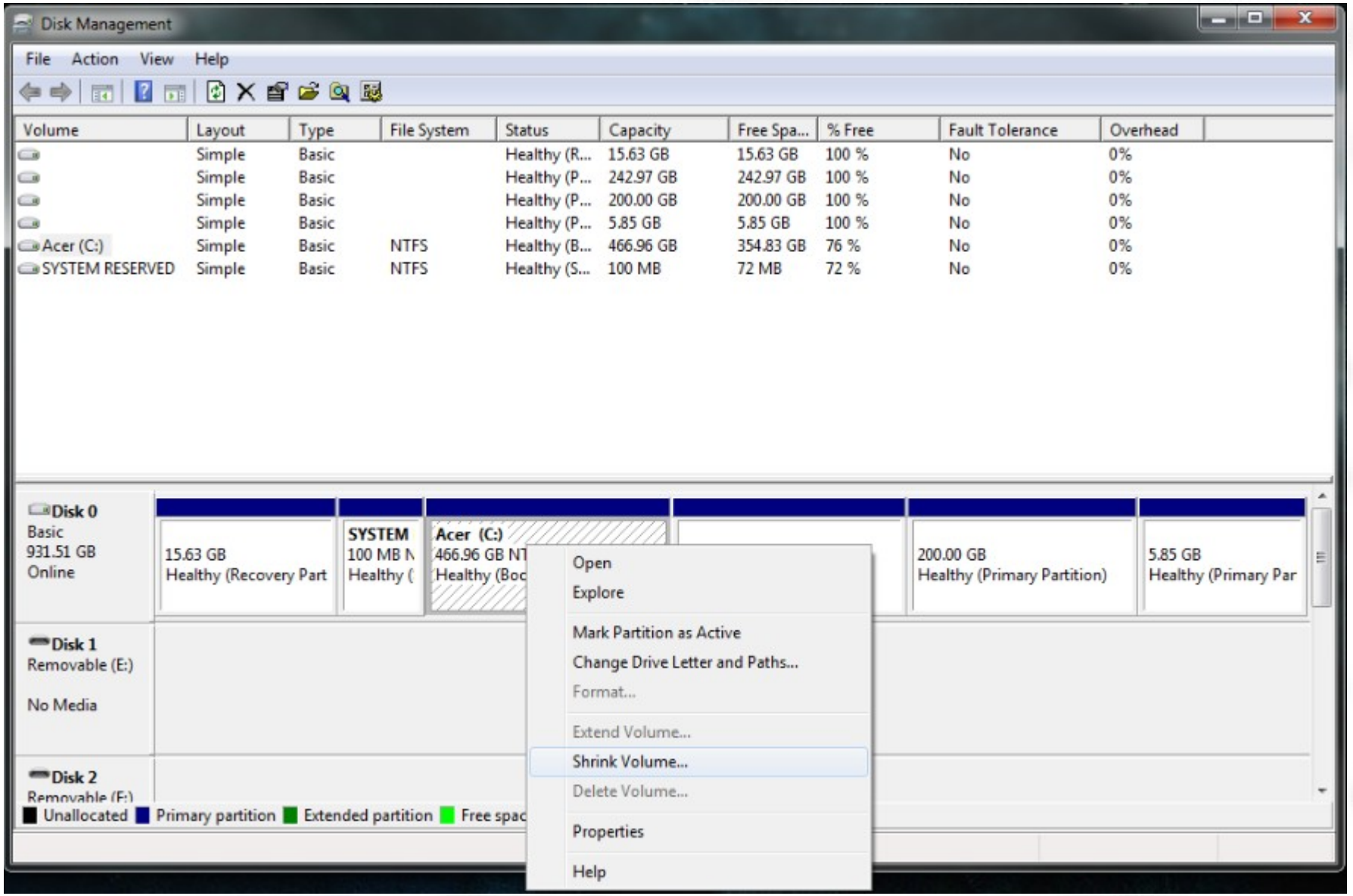
15.63 GB	SYSTEM	Acer (C:)	242.97 GB	200.00 GB	5.85 GB
Healthy (Recovery Part	100 MB N Healthy (	466.96 GB NTFS Healthy (Boot, Page File, Crash D	Healthy (Primary Partition)	Healthy (Primary Partition)	Healthy (Primary Par

Disk 1
Removable (E:)

No Media

Disk 2
Removable (F:)

Unallocated | Primary partition | Extended partition | Free space


Disk Management
File Action View Help
Volume Layout Type File System Status Capacity Free Spa... % Free Fault Tolerance Overhead
Simple Basic Healthy (R... 15.63 GB 15.63 GB 100 % No 0%
Simple Basic Healthy (P... 242.97 GB 242.97 GB 100 % No 0%
Simple Basic Healthy (P... 200.00 GB 200.00 GB 100 % No 0%
Simple Basic Healthy (P... 5.85 GB 5.85 GB 100 % No 0%
Acer (C:) Simple Basic NTFS Healthy (B... 466.96 GB 354.83 GB 76 % No 0%
SYSTEM RESERVED Simple Basic NTFS Healthy (S... 100 MB 72 MB 72 % No 0%
Disk 0
Basic
931.51 GB
Online
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Healthy (Recovery Part
SYSTEM
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Acer (C:)
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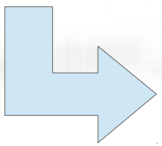
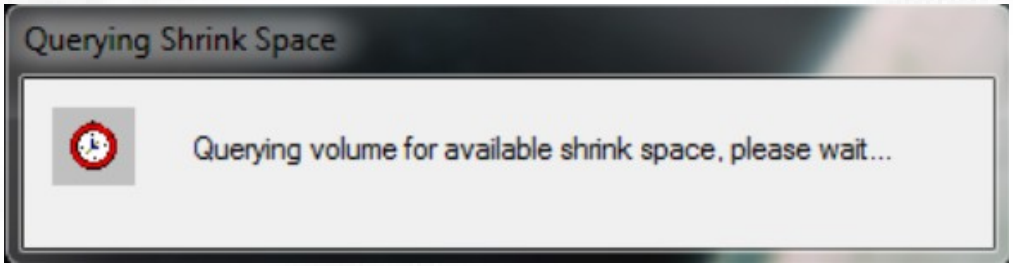
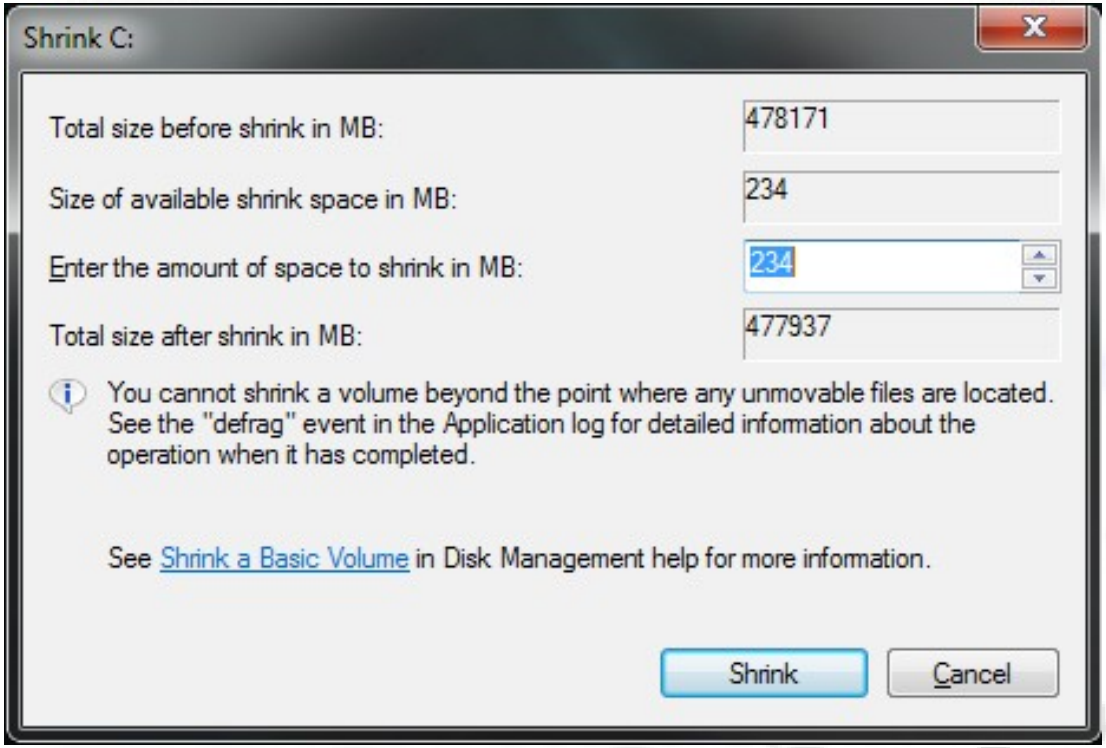
Healthy (Boc
200.00 GB
Healthy (Primary Partition)
5.85 GB
Healthy (Primary Par
Disk 1
Removable (E:)
No Media
Disk 2
Removable (F:)
Unallocated Primary partition Extended partition Free spac
Open
Explore
Mark Partition as Active
Change Drive Letter and Paths...
Format...
Extend Volume...
Shrink Volume...
Delete Volume...
Properties
Help




Querying Shrink Space
Querying volume for available shrink space, please wait...



Enter the amount you want to shrink by – this will be the amount of space you have for Linux, 30 GB is more than enough!

30 GB x 1024 MB/GB = 30720MB

Both the query and shrink can take quite a long time depending on your system, be prepared to wait! (thats why this came before any info on Linux etc.!)

If you are running Windows XP, Mac OS or other someone will come around and help you out with this step, also Google is your friend!

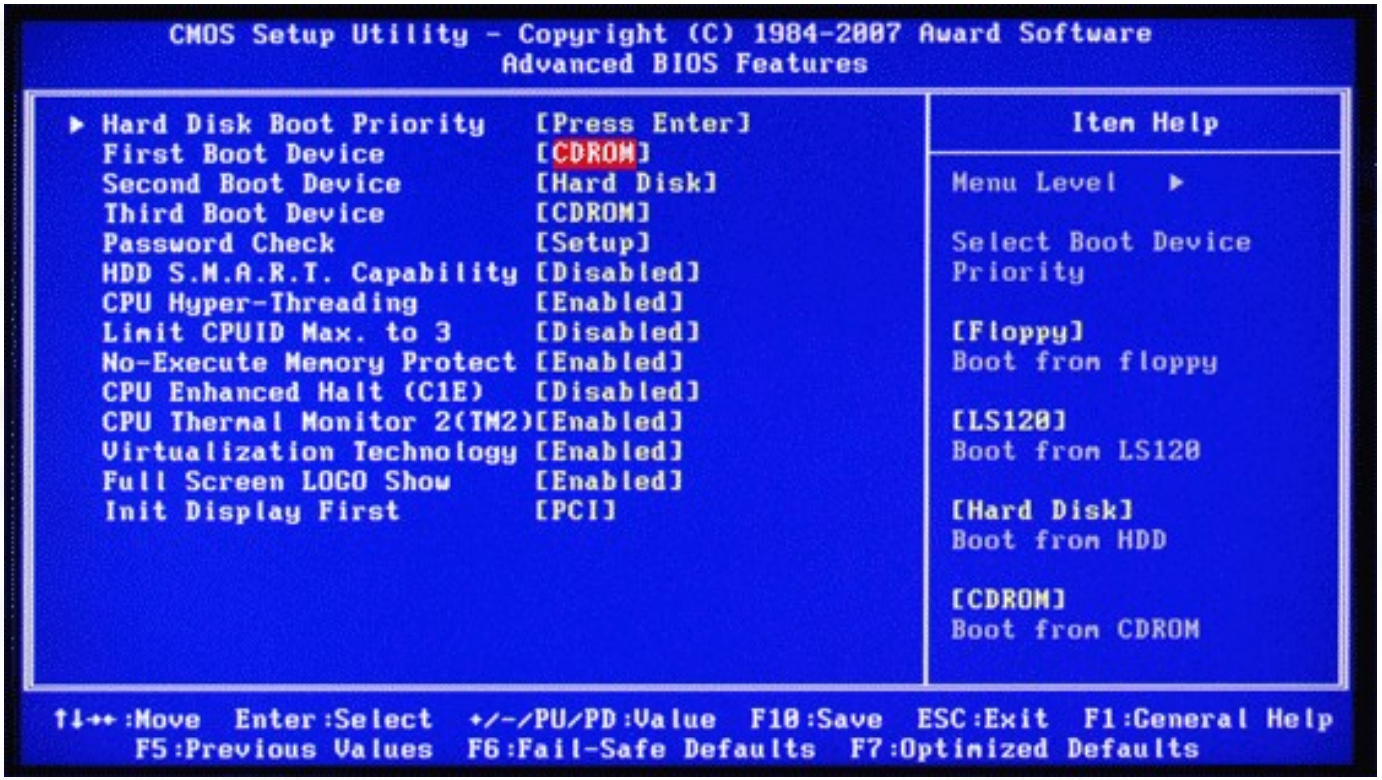
What happens when your Computer is turned on?

What happens when your Computer is turned on

1) Power on self test (POST)
   - A program on your motherboard tells your computer how to power on

What happens when your Computer is turned on

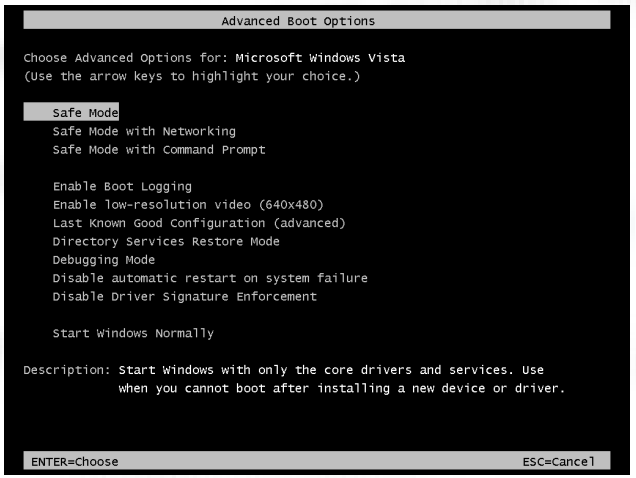
2) Your computer reads the boot sector of the first boot device



What happens when your Computer is turned on

3) If there is a bootloader in the boot sector then it is loaded

- A bootloader is a program that lets you choose what OS to boot
- The Windows and Mac bootloader are invisible by default which is why you've probably never seen them



What happens when your Computer is turned on

4) The operating system is loaded

What is Linux?

What is Linux?

- Linux is a free open source operating system
- Linux is a re-implementation of Unix
- Technically Linux itself is only the *kernel*, the lowest layer of the OS that talks directly to the hardware similar to Windows *drivers*

What is Linux?

- Linux is everywhere!
  - Your phone!
  - Your Appliances!
  - Your Car!
  - The Internets!

What is Linux?

- Linux is modular
  - Desktop Environments
  - File Explorers
  - Web browsers
- **Choices!**
- These are all just single programs that together make up the OS
  - GNU
- Android users can see this modularity, you can replace core parts of Android with different apps



What is Linux?

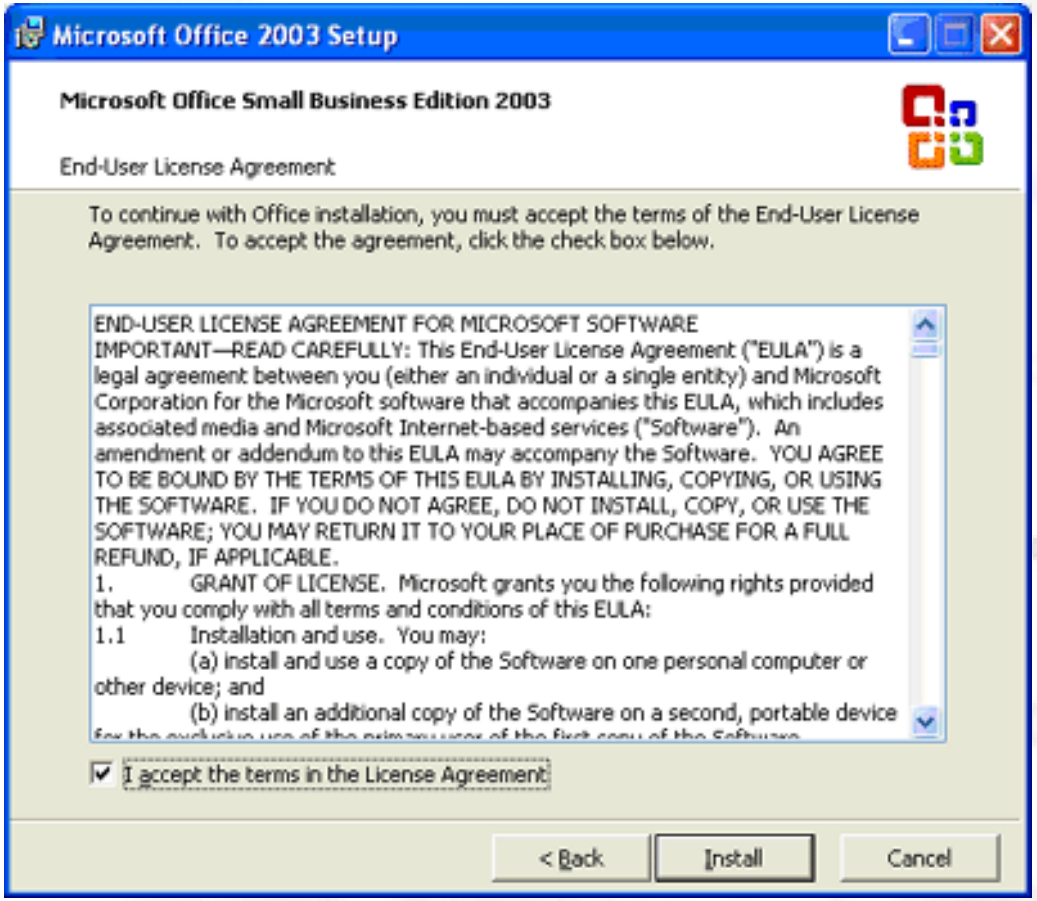
- Different combinations of core “apps” are combined to make a full OS, these are called Linux distributions or *distros*

Why use Linux?

- Linux is fast!
- Linux is secure!
- Linux is pretty!
- Linux is better for software dev!
- Linux is the future?

What is Open Source?

You don't own software, merely the right to use it



Software is different from other products because you don't own it, only the right to use it. Due to the nature of software you are unable to modify it to better suit your needs. Both these facts are quite unique to software compared to other products.

What is Open Source?

- Open Source means that not only is the program free but also the code or implementation
  - This means you can modify the program
  - Open Source is a philosophy and it extends beyond software

What is Open Source?

- Open Source is protected under a variety of licences

  Notably:

- GPL (GNU Public Licence)
  - Free for use but any changes must also be made open source
- BSD (Berkley Software Distribution)
  - Free and changes can be kept closed

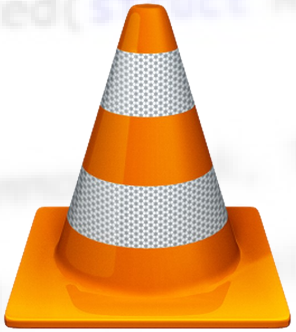
Notable Open Source

LibreOffice
The Document Foundation

WordPress

OpenOffice.org

python™



Audacity

http://alternativeto.net/

Using Linux

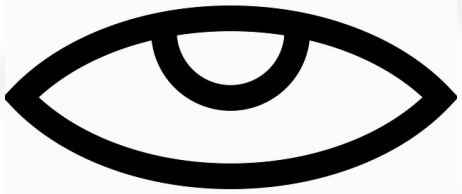
Using Linux

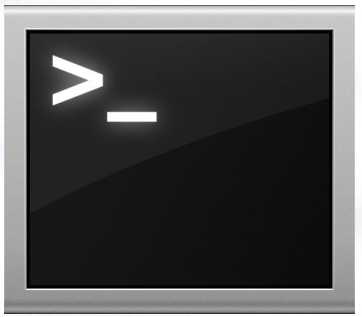
- If you run into problems:
  - Google it!
  - Use forums
    - Don't be afraid to post!
  - Ask Ubuntu
  - Email KLUG (Kingston Linux User Group)
    - http://kingston.motd.org/
    - https://groups.google.com/group/kingstonlug

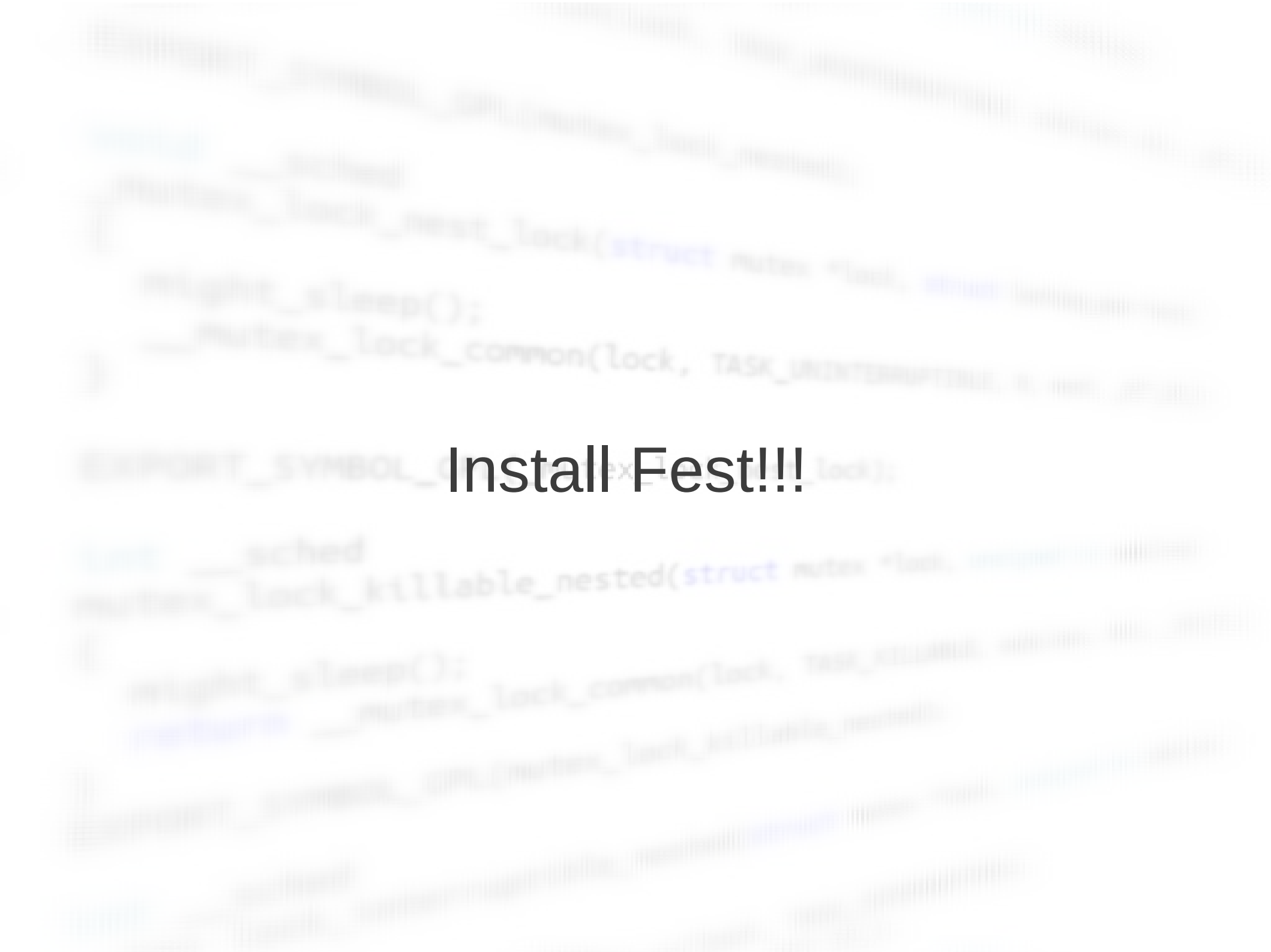
Using Linux

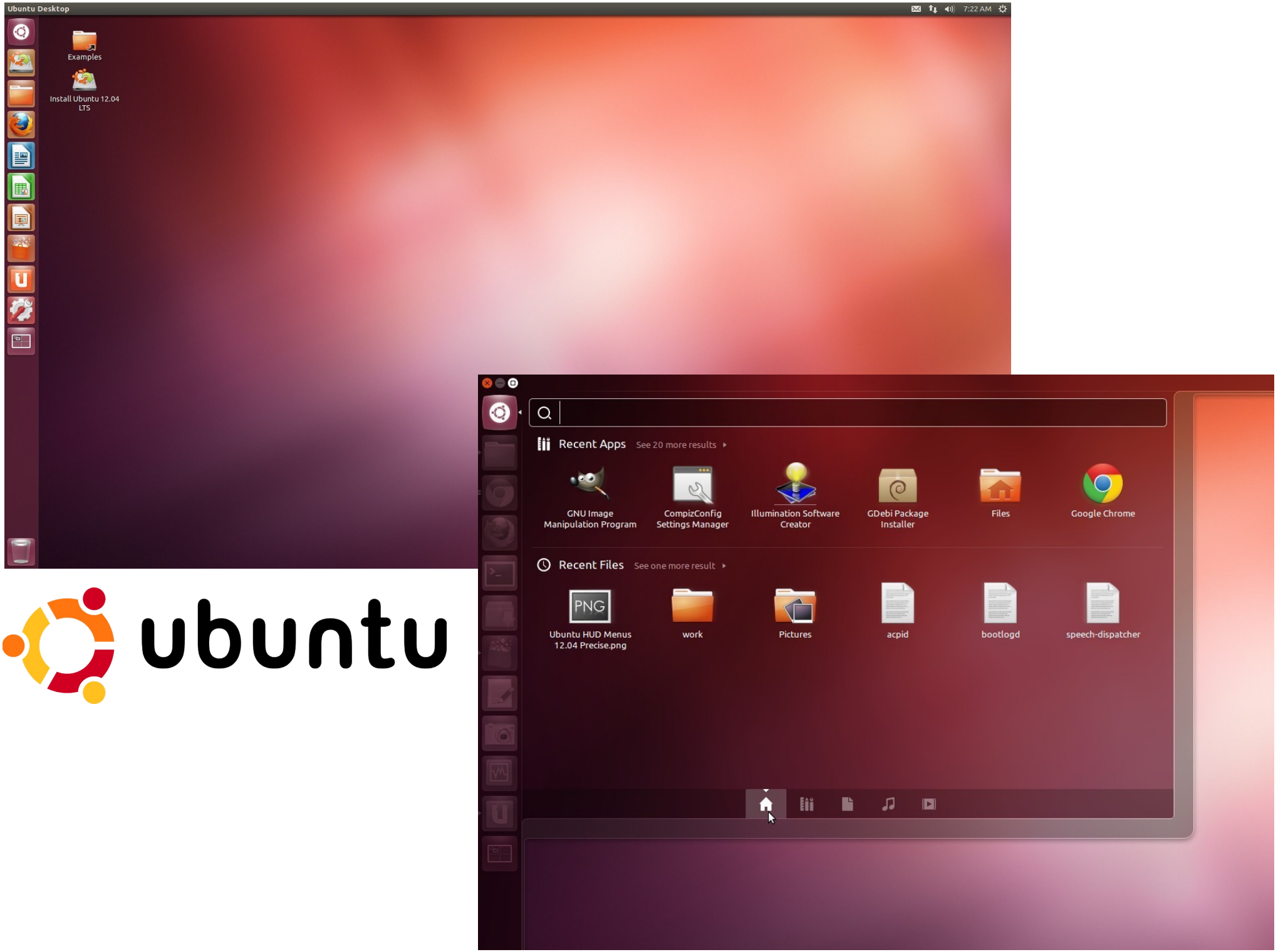
A note on the terminal / command line

- A lot of the answers you will find on Google will be things you type into the command line
- Scary! - but is it?
  - Think for a second how complicated is it to direct someone through a series of GUI steps?
  - Thats why help for Linux is usually given in the form of a terminal command
  - In Linux there is always 2 ways to do everyting one in the terminal and one using graphical menus

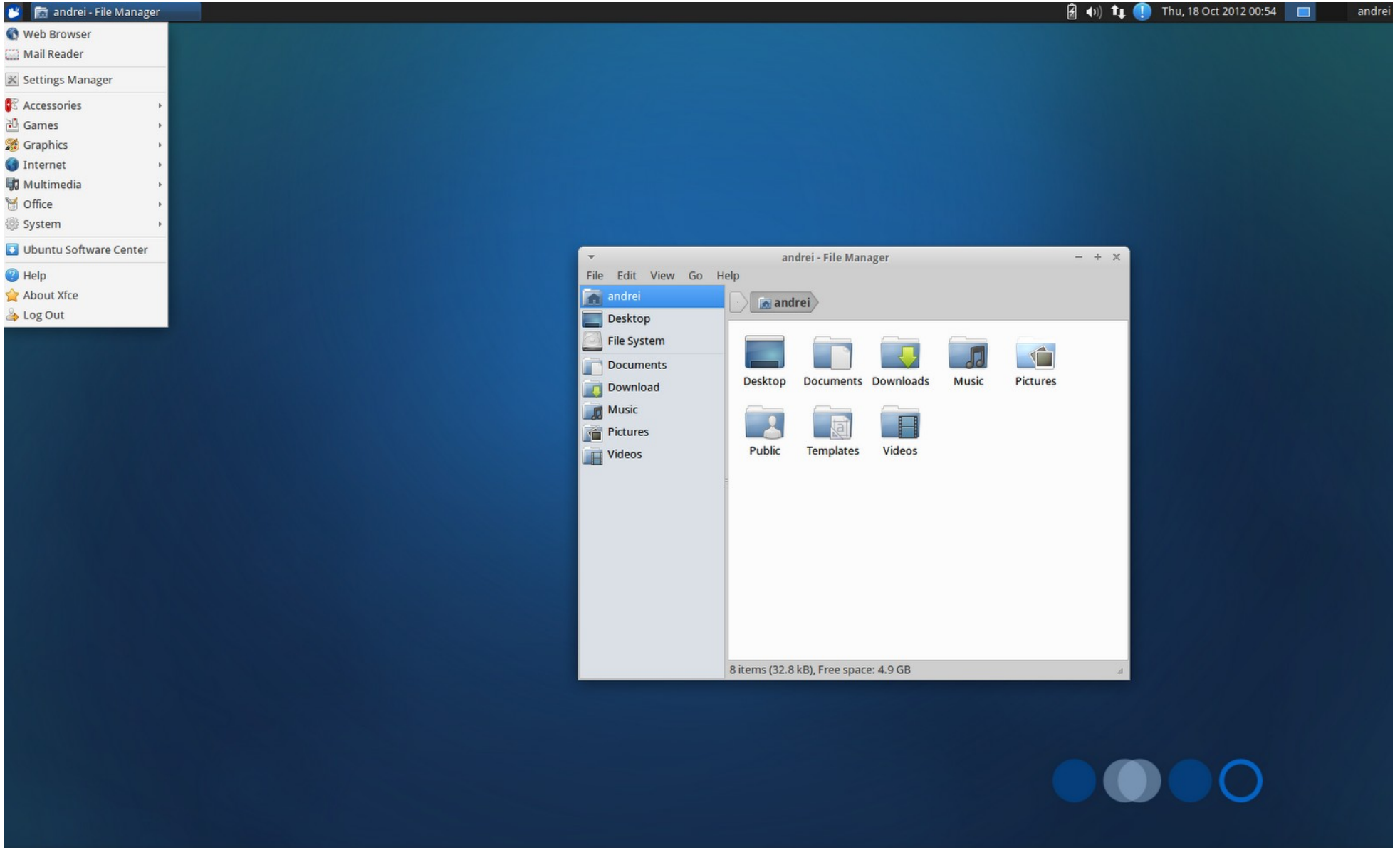





Install Fest!!!


Ubuntu Desktop
7:22 AM
Examples
Install Ubuntu 12.04 LTS
Recent Apps
See 20 more results
GNU Image Manipulation Program
CompizConfig Settings Manager
Illumination Software Creator
GDebi Package Installer
Files
Google Chrome
Recent Files
See one more result
PNG
Ubuntu HUD Menus 12.04 Precise.png
work
Pictures
acpid
bootlogd
speech-dispatcher

ubuntu


andrei - File Manager
Thu, 18 Oct 2012 00:54
andrei
Web Browser
Mail Reader
Settings Manager
Accessories
Games
Graphics
Internet
Multimedia
Office
System
Ubuntu Software Center
Help
About Xfce
Log Out
andrei - File Manager
File Edit View Go Help
andrei
Desktop
File System
Documents
Download
Music
Pictures
Videos
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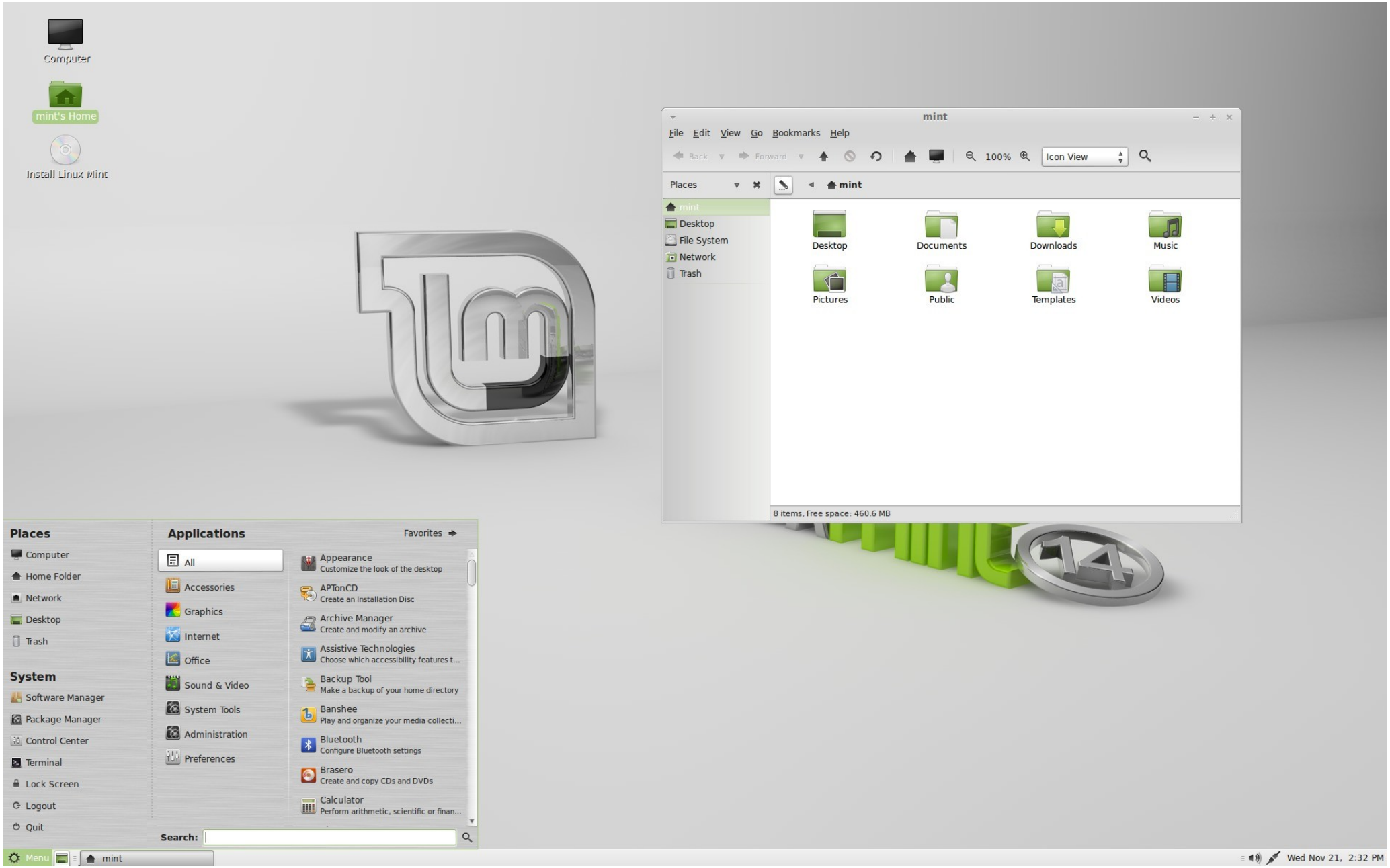
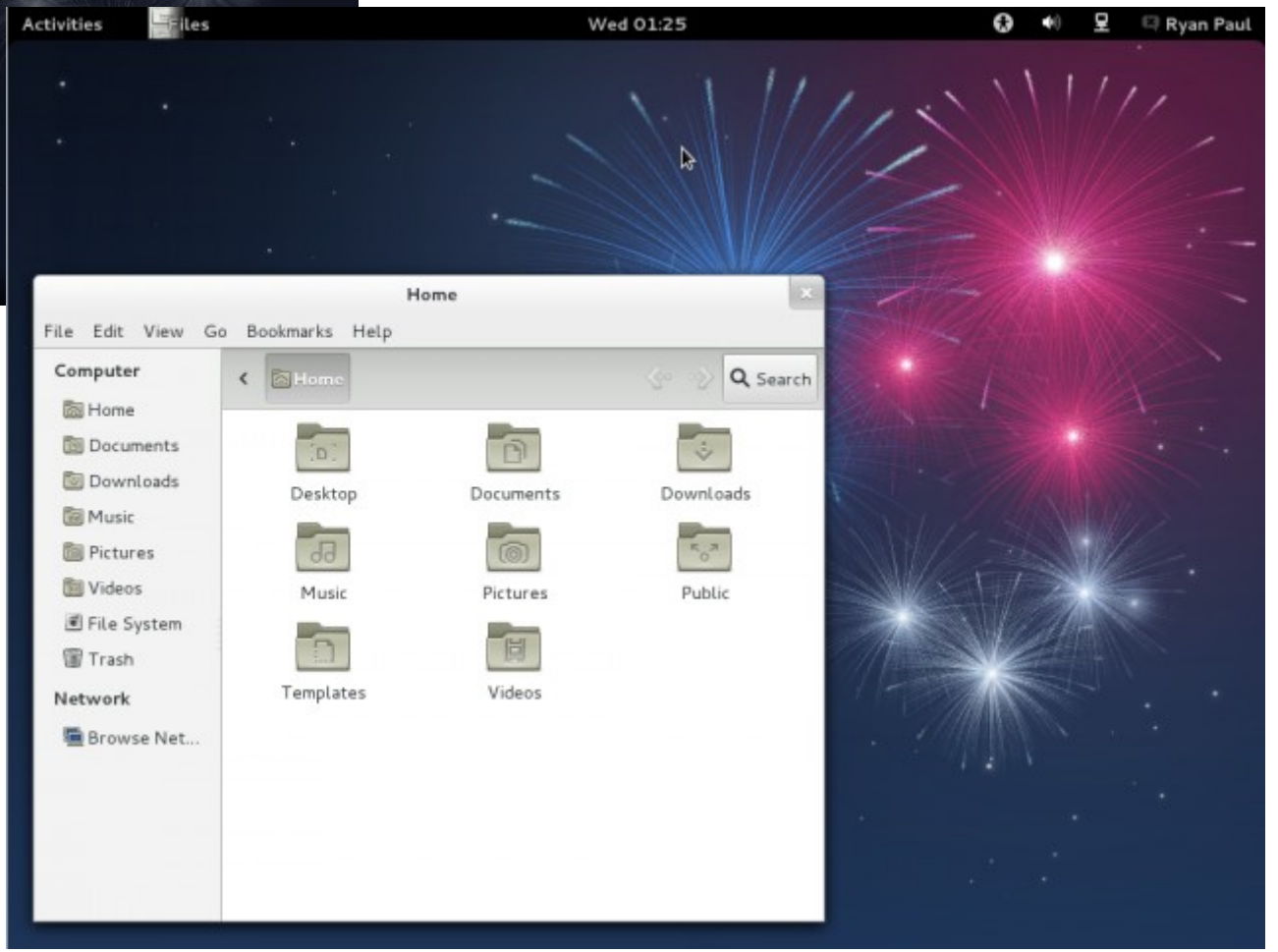
Music
Pictures
Public
Templates
Videos
8 items (32.8 kB), Free space: 4.9 GB

xubuntu



Linux Mint
from freedom came elegance


Activities
Mon 12:17
Steven J. Vaughan-Nichols
Windows
Applications
Type to search...
Document Viewer
GNU Image Mani...
Image Viewer
Shotwell
Simple Scan
All
Accessories
Games
Graphics
Internet
Office
Sound & Video
System Tools
Universal Access


Activities
Wed 01:25
Ryan Paul
Home
File Edit View Go Bookmarks Help
Computer
Home
Documents
Downloads
Music
Pictures
Videos
File System
Trash
Network
Browse Net...
Search
Desktop
Documents
Downloads
Music
Pictures
Public
Templates
Videos

fedora

Questions?

No proprietary software was used to make this presentation!


Kingston Linux Users Group
Meets monthly....
All welcome!
mageia
suse
fedora
Lubuntu
debian
sabayon
CHAKRA
redhat
What's a virus?!!
archlinux
Linux WORKS!!
Puppy
It aint windows and it's free!
kubuntu
FreeBSD
Mandriva
ubuntu
bodhi
http://kingston.motd.org/