KLUG Presents:

Linux Install-Fest 2013×_lock_nest







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 ____lock_nest_lock_
- 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!

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Querying Shrink Space

0

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

Shrink C:	— X —
Total size before shrink in MB:	478171
Size of available shrink space in MB:	234
Enter the amount of space to shrink in MB:	234
Total size after shrink in MB:	477937
You cannot shrink a volume beyond the point v See the "defrag" event in the Application log for operation when it has completed.	
See <u>Shrink a Basic Volume</u> in Disk Managemer	nt help for more information.
	Shrink <u>C</u> ancel

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!

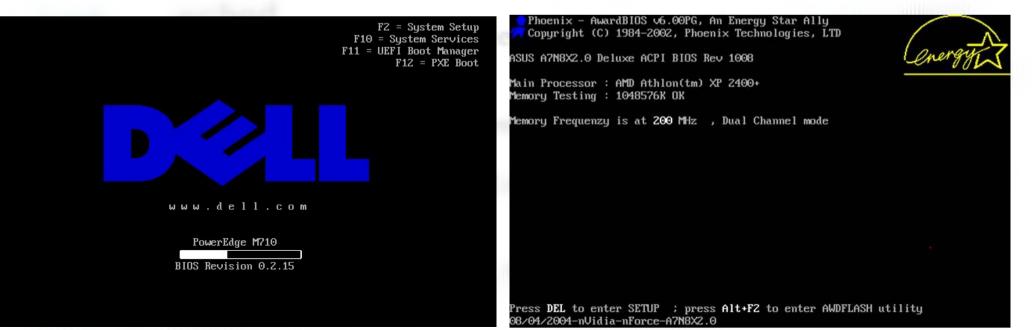
30 GB x 1024 MB/GB = 30720MB

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!

1) Power on self test (POST)

 A program on your motherboard tells your computer how to power on



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

Hard Disk Boot Priority [Press Enter]	Item Help
First Boot Device [CDROM]	
Second Boot Device [Hard Disk]	Menu Level 🕨
Third Boot Device [CDRON]	
Password Check [Setup]	Select Boot Device
HDD S.M.A.R.T. Capability [Disabled]	Priority
CPU Hyper-Threading [Enabled] Limit CPUID Max. to 3 [Disabled]	
	[Floppy]
No-Execute Memory Protect [Enabled]	Boot from floppy
CPU Enhanced Halt (C1E) [Disabled]	F1 61 003
CPU Thermal Monitor 2(TM2)[Enabled]	[LS120]
Virtualization Technology [Enabled]	Boot from LS120
Full Screen LOGO Show [Enabled]	Filmed Dieb3
Init Display First [PCI]	[Hard Disk]
	Boot from HDD
	[CDRON]
	Boot from CDROM
	BOOL IION CDAON

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

	Windows Boot Manager		Advanced Boot	Options
	stem to start, or press TAB to sele highlight your choice, then press		Choose Advanced Options for: Microsoft Wi (Use the arrow keys to highlight your cho	
windows 8 Windows 7		>	Safe Mode Safe Mode with Networking Safe Mode with Command Prompt	
	l option for this choice, press F8. Nighted choice will be started auto	matically: 23	Enable Boot Logging Enable low-resolution video (640x480) Last Known Good Configuration (advanc Directory Services Restore Mode Debugging Mode Disable automatic restart on system f Disable Driver Signature Enforcement Start Windows Normally	ed)
Windows Memory Di	agnostic		Description: Start Windows with only the	core drivers and services. Use nstalling a new device or driver.
ENTER=Choose	TA8=Menu	ESC=Cance]	ENTER=Choose	ESC=Canc

4) The operating system is loaded





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- 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*

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



- Linux is modular
 - Desktop Environments
 - File Explorers
 - Web browsers
- Choices!
- These are all just single programs that together make up the OS

GPL(mutex lock nest lock):

- GNU
- Android users can see this modularity, you can replace core parts of Android with different apps

 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?

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

Cancel

😸 Microsoft Office 2003 Setup

Microsoft Office Small Business Edition 2003

End-User License Agreement

To continue with Office installation, you must accept the terms of the End-User License Agreement. To accept the agreement, click the check box below.

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(b) install an additional copy of the Software on a second, portable device for the evolution use of the eximate of the first copy of the Software

I accept the terms in the License Agreement

< <u>B</u>ack Install

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



Using Linux

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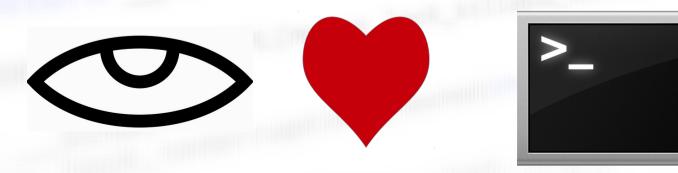
Using Linux

- 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!!!

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Ubuntu HUD Menus 12.04 Precise.png	work	Pictures	acpid	bootlogd	speech-dispatcher
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Install Ubuntu 12.04 LTS

Ubuntu Desktop 0

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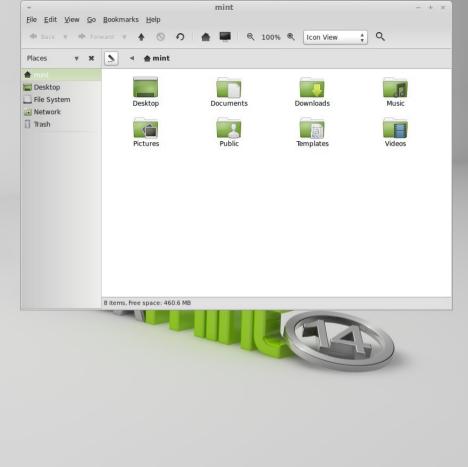










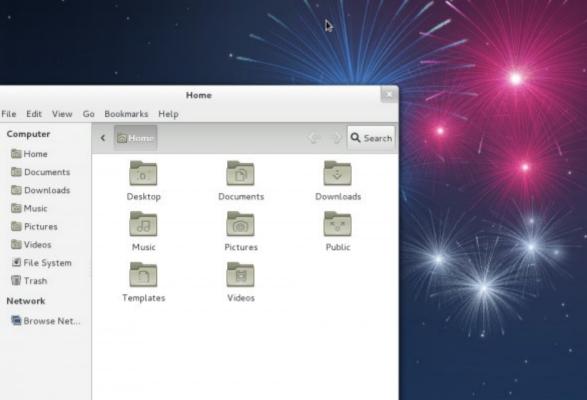


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Computer		Appearance
📤 Home Folder		Customize the look of the desktop
Network	Accessories	APTONCD Create an Installation Disc
	C Graphics	
E Desktop	M Internet	Archive Manager Create and modify an archive
🗍 Trash	Internet	Assistive Technologies
	Office	Assistive Technologies Choose which accessibility features t
System	Sound & Video	🔈 Backup Tool
🛃 Software Manager		Backup Tool Make a backup of your home directory
Package Manager	System Tools	Banshee Play and organize your media collecti
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Ryan Paul

Questions?

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No proprietary software was used to make this presentation!

Kingston Linux Users Group Meets monthly.... All welcome! buntu

http://kingston.motd.org/