An Introduction to Linux

Phoenix Linux User's Group
http://plug.phoenix.az.us
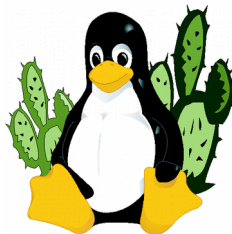
Outline

What is Linux?

What is GNU?

What is GPL?

What is Free Software?

What is Open Source?

Where is Linux Today?

Linux Distributions

What is GNU? (1 of 2)

In 'the beginning' almost all software was free, and there was cooperation between developers

Vendors started to charge for software and the cooperative environment was hurt

Richard Stallman saw this as hurting the users of the software, felt users had a right to know how software worked

Started the Free Software Foundation (FSF)
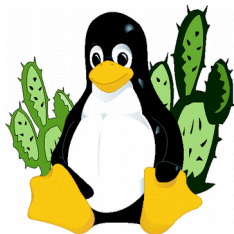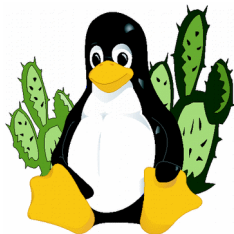
What is GNU? (2 of 2)

FSF started the GNU project

GNU stands for **G**NU's **N**ot **U**nix

Project to create a free Unix-like operating system which was not based on Unix (AT&T)

Started with utilities and compilers that were used on Unix and needed for development (bash, gcc, emacs, etc.)
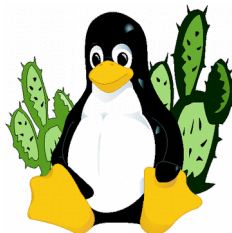
Provide basis for entirely free OS

What is the GPL?

FSF developed the license for software

GNU **P**ublic **L**icense (GPL)

Requires that any distribution of binaries requires the accompaniment of source code

All derivative works require the distribution of the source

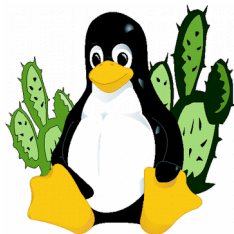Some people refer to the GPL as *'viral'*

What is Free Software?

Free as in Freedom (libre) and not as in money (gratis)

Software that protects the user's rights to be able to modify the source code of the software

Allows user to work with source code

What is Open Source Software (OSS)?

Term standardized by the Open Source Initiative (OSI) to clarify the libre/gratis issue

OSI reviews software licenses to verify they are open source

Guarantees the source code is available for the users

Other restrictions on the source code are allowed (related to the ownership of modifications mostly)
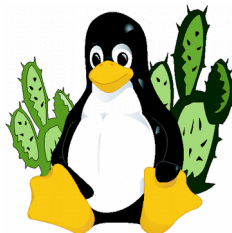
What is Linux? (really)

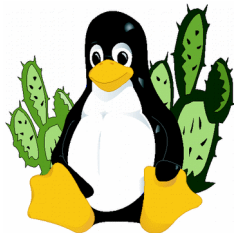Kernel developed by a Finnish programmer named Linus Torvolds

Inspired by Minux and a dislike of PC Os'es at the time, 1992

Kernel available for free via the Internet

Contributors 'scratch their itch' and help develop the kernel

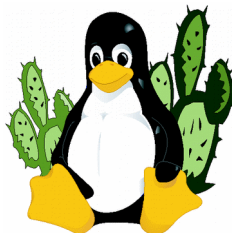Current Versions – Stable: 2.4
Development: 2.5

What is Linux? (media)

An operating system that is challenging Window's dominance

The combination of the Linux kernel (previous slide) and the GNU utilities (next slide)

Commonly includes the XFree86 X server (runs the graphical environment)

Includes GUI business and multimedia applications for desktops and laptops

Where is Free/Open Source Software Today?

61% of Internet Web Sites run Apache (Netcraft)

Explosive growth of Linux on server systems.

Steady, Gradual growth of Linux on the desktop, very positive outlook for the enterprise.

Full suite of user applications performing common productivity, multimedia, internet activities
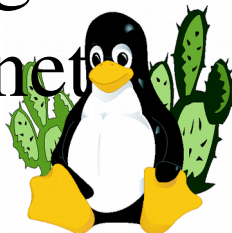
Linux Distributions
Top 4 from distrowatch.com

Red Hat 8.0

Excellent "BlueCurve" desktop

Consistent look and feel, Move toward enterprise

Mandrake 9.0

Easy setup

Focus on ease of use

Gentoo 1.4

Geared toward developers, source based

Great "portage" package tool

Debian 3.0

Non-commercial, social contract

Largest number of packages

Excellent "apt" package tool