

Open Source Alternatives

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A series of horizontal lines in teal and light blue colors, with varying lengths and thicknesses, extending from the left edge of the slide towards the right.

Open Source -What does it mean?

- Promotion of free redistribution of software and source code to anyone that wants it.
- Why do Open Source?
 - Diversity of software
 - Innovation
 - Peer Review
 - Freedom!

Early Pioneers

- Richard Stallman, a.k.a 'rms'
 - The Original Neckbeard
 - Started GNU OS Project
 - Helped develop Emacs, gcc, and gdb
 - Kernel (GNU Hurd) still MIA
 - Started Free Software Foundation
 - “Copyleft” mentality
 - Developed GNU General Public License
 - Forces derived works to fall under same terms



Early Pioneers (cont.)

- Linus Torvalds
 - Developed Linux Kernel
 - Used in GNU OS
 - Project's Chief Coordinator
 - Continues to lead kernel development
 - Developed Git distributed revision control



Open Source Alternatives

- Operating Systems
 - Linux – Comes in many flavors
 - Arch Linux, Gentoo, Debian, CentOS
 - Ubuntu, Linux Mint, Fedora
 - FreeBSD – includes kernel, device drivers, and utilities in revision tree.
 - “Borrowed” by Mac OS X
 - Android OS – Used by many mobile devices
 - Developed by Open Handset Alliance and Google

Open Source Alternatives (cont.)

- Office Suite
 - LibreOffice – Cross-Platform software
 - Writer – Word Processor
 - Compatible with Microsoft Word
 - Calc – Spreadsheet program similar to Excel
 - Impress – Presentation software
 - Draw – Vector Graphics Editor
 - Base – Database Management System
 - Math – Formula Editor

Open Source Alternatives (cont.)

- Financial Book-Keeping
 - KMyMoney
 - Similar to Microsoft Money
 - Track multiple accounts
 - Track income and expenses
- Electronic Cash
 - Bitcoin
 - Peer-to-Peer based electronic transactions

Open Source Alternatives (cont.)

- Media Player
 - VLC - Cross Platform
 - Handles several input formats including AVI, FLV, MP4, WAV, MPEG-2, AAC, FLAC, MP3, and WMA
 - Android version currently in development
- Plotting Software
 - GNUPlot – Cross Platform
 - Command line application capable of generating 2D and 3D data plots

Open Source Alternatives (cont.)

- Encryption Software
 - TrueCrypt – Encrypt private data easily
 - Allows creation of virtual encrypted disks
 - Allows encryption of partitions and storage devices
 - Allows for creation of hidden volumes and hidden operating systems

Open Source Alternatives (cont.)

- Web Browsers
 - Mozilla Firefox
 - Chromium
 - Lynx – terminal-based browser
 - For Hardcore Linux users
- Email Clients
 - Mozilla Thunderbird
 - Alpine – Command line application

Open Source Alternatives (cont.)

- Image Editing Software
 - GIMP – Raster Graphics Editor
 - Most of the functionalities in Adobe Photoshop have equivalents here
 - Extensions allow for animation and GIF generation
- 3D Rendering and Animation
 - Blender 3D – Modeling and Animation tool
 - OGRE – 3D Graphics Engine

Open Source Alternatives (cont.)

- Database Management Systems
 - PostgreSQL
 - Object-relational database
 - Cross Platform
 - Follows most SQL standards
 - ACID Compliant (atomicity, consistency, isolation, durability)
 - MySQL – Originally under GPL
 - Relational Database Management System
 - Now owned by Oracle

Open Source Alternatives (cont.)

- Secure Shell
 - OpenSSH – Client/Server applications
 - Developed in OpenBSD project
 - PuTTY – SSH client
- Web Server
 - Apache HTTP Server
 - Estimated to serve 58% of all active websites

Open Source Alternatives (cont.)

- Random Stuff
 - VNC – Remote Desktop Application
 - Pidgin – Instant Messaging Application
 - Allows for AIM, MSN, Lotus Sametime, Yahoo IM, and more.
 - Synergy
 - Allows for sharing of mouse and keyboard across multiple computers.
 - ROS – Robot Operating System
 - Allows for robot development (motion, image/facial recognition, motion tracking, etc.)

Open Source Alternatives (cont.)

- Drinks!
 - OpenCola
 - Instructions and formula freely available.
 - Over 150,000 cans sold!
 - Free Beer
 - Developed in Copenhagen
 - Created to promote Open Source ideals
 - Version 4.0 Available!



Conclusions

- Open Source ideals are good for our community
 - It works!
 - The success of the Linux kernel is proof that quality software can be produced in a open and free environment
- If you need a software solution, there is likely an open source version available
 - If there isn't, start one!

Questions?

- Visit plug.cs.fiu.edu to see all previous presentations
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