

THE OFFICIAL
PRESENTATION HANDOUT, SYLLABUS,
AND RESOURCE GUIDE
CONTAINING MISCELLANEOUS INFORMATION ON THE PRESENTATION ENTITLED

GNU/LINUX, AND FREE SOFTWARE

MUCH OF WHICH IS CROSS-PLATFORM,
FOR THE ENLIGHTENMENT OF GEEKS
AND OTHER CLASSES OF COMPUTER USERS.

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The title page of this work is based on Peter Wilson's "`\titleRB`" in his article, *Some Examples of Title Pages*, which can be found at <http://tug.ctan.org/tex-archive/info/latex-samples/TitlePages/>.

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1 Introduction

Welcome to the world of GNU/Linux and FOSS (Free and Open Source Software). That domain is the one in which I work and which is also my avocation. The next sections contain some free programs and links of special interest to me, and I encourage you to briefly explore as many of them as interest you. Although I use them on the Linux operating system, they are all cross-platform and work on the latest versions of Microsoft Windows.

Here I do not mention free utilities such as malware scanners, firewalls, anti-virus programs, disk defraggers, and compression programs, but they are out there; just try searching with google or bing. I recommend PC Magazine as a good source of reviews and recommendations for free software; here is a link to their article, *The Best Free Software of 2009* (<http://www.pcmag.com/article2/0,2817,2338803,00.asp>).

Note that if you would like to get a digital copy of this document, with active links, please e-mail me at <tom.browder@gmail.com>. It would be helpful if you would add the phrase “[Westwood]” to the subject line. If you have any questions about anything we’ve discussed today, please feel free to e-mail me.

The program descriptions following are usually taken from the web sites indicated.

2 Basic Free Programs

These programs are very well known and have given Microsoft much competition, particularly in the realm of security.

Firefox

<http://www.mozilla.com/en-US/>

Mozilla Firefox is an internet browser gaining widespread use as a replacement for Microsoft Internet Explorer (IE). It has a reputation as being more secure than IE, and it has many add-ons that make it very useful. I particularly like LastPass for password management and XMarks for synchronized bookmarks (favorites). With those two add-ons I can have the same list of favorites and passwords when I use any computer for internet access.

Thunderbird

<http://www.mozilla.com/en-US/>

Mozilla Thunderbird is an e-mail client to replace Microsoft’s mail programs on your computer. You can use it in conjunction with your web-based mail if you wish.

3 Popular Free Programs

These programs are probably some of the most popular because they provide the same functionality of some of the most popular, and expensive, commercial programs.

Open Office

<http://www.openoffice.org>

Open Office is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is available in many languages and works on all common computers. It stores all your data in an international open standard

format and can also read and write files from other common office software packages. It can be downloaded and used completely free of charge for any purpose.

GimPhoto

<http://www.gimphoto.com>

GimPhoto is a free PhotoShop alternative for photo and image editing.

GnuCash

<http://www.gnucash.org>

GnuCash is personal and small-business financial-accounting software, freely licensed under the GNU GPL and available for GNU/Linux, BSD, Solaris, Mac OS X, and Microsoft Windows.

[Note: *GNU* is an acronym referring to the *GNU Project*, supported by the Free Software Foundation (see <http://www.gnu.org>). It is recursively defined as “GNU’s not Unix!” The *GPL* is the “General Public License,” a free, copyleft license for software and other kinds of works.]

Designed to be easy to use, yet powerful and flexible, *GnuCash* allows you to track bank accounts, stocks, income and expenses. As quick and intuitive to use as a checkbook register, it is based on professional accounting principles to ensure balanced books and accurate reports.

Scribus

<http://www.scribus.net>

Scribus is an open-source program, similar to Adobe InDesign, that brings award-winning professional page layout to Linux/UNIX, Mac OS X, OS/2 and Windows desktops with a combination of “press-ready” output and new approaches to page layout. Underneath the modern and user friendly interface, *Scribus* supports professional publishing features, such as CMYK color, separations, ICC color management, and versatile PDF creation.

Inkscape

<http://www.inkscape.org>

Inkscape is an Open Source vector graphics editor, with capabilities similar to Illustrator, CorelDraw, or Xara X, using the W3C standard Scalable Vector Graphics (SVG) file format.

Scilab

<http://www.scilab.org>

Scilab is a free Matlab clone.

4 Powerful Free Programs

These programs are less popular but they are free replacements for more specialized, and very expensive, commercial programs used in research institutions and commercial enterprises.

BRL-CAD

<http://brlcad.org>

BRL-CAD is a powerful cross-platform open source solid modeling system that includes interactive geometry editing, high-performance ray-tracing for rendering and geometric analysis, image and signal-processing tools, a system performance analysis benchmark suite, and libraries for robust geometric representation, BRL-CAD has had more than 20 years of active development.

Perl

<http://www.perl.org>
<http://www.perlfoundation.org>

Perl is one of the oldest and most popular interpreted programming languages around.

Subversion

<http://subversion.tigris.org>

Subversion is an open source version control system.

Blender

<http://www.blender.org>

Blender is the free open source 3D content creation suite.

5 GNU/Linux Systems

This document would not be complete without mentioning free GNU/Linux systems that provide Unix-compatible operating systems. These are typically bundled into what are known as *distributions*. One very popular one is *Ubuntu* which can be found here <http://www.ubuntu.com/>.

6 Some Free Software Resources

Following are some good resources for much useful free software. Nearly every interest should find something useful at these sites.

Free Software Foundation

<http://directory.fsf.org/GNU>

The FSF's site has a wealth of FOSS. Note that most programs are licensed under the GNU General Public License (GPL) which basically limits the program to non-commercial use in some cases. See <http://www.gnu.org/licenses/gpl.html> for details.

Source Forge

<http://sourceforge.net>

SourceForge.net is the world's largest open source software development web site. We provide free services that help people build cool stuff and share it with a global audience.

As of August, 2010, more than 240,000 software projects have been registered to use our services by more than 2.6 million registered users, making SourceForge.net the largest collection of open source tools and applications on the net.

Wikipedia

<http://tinyurl.com/pmst7>

Preview this link at <http://preview.tinyurl.com/pmst7>. The link at the upper right should link to:

http://en.wikipedia.org/wiki/List_of_open_source_software_packages.

This is a list of Free software / open source software packages: computer software licensed under an open source license / Free software license. Software that fits the Free software definition may be more appropriately called free software; the GNU project in particular

objects to their works being referred to as open source.

A The Instructor

Tom Browder is an analyst with ManTech International Corporation (<http://www.mantech.com/>). He has had a passion for computers since his days as a card-punching, Algol- and Fortran-programming cadet at the U.S. Air Force Academy. Since his retirement from the USAF in 1987, he has earned a master of science degree in Engineering Mechanics from Clemson University, and has been employed otherwise as a vulnerability analyst, program manager, computer network system administrator for mixed Windows and Unix/Linux networks, and software engineer. His interests include PostScript, Perl, Python, and C++ programming, and the whole world of GNU/Linux and Free and Open Source Software in general.