



Breaking the Shackles

Creative Solutions with Open Source by Mark Manoukian

Tough times call for creative solutions. This issue of *Peer to Peer* covers a range of tactics and strategies for delivering services with diminishing resources. The approaches discussed — Google Apps, cloud computing, open source tools for podcasting, virtual private servers — share a strong common thread in that they all rely heavily on open source software. Vendors and colleagues are doing creative, cost-effective things with open source. You can too.

The Development of OSS

The term “open source” goes to the legal definition of the license under which open source software (OSS) is released. Unlike software released under a proprietary license that is protected by copyright law, software released under an open source license is generally unrestricted for any number of uses including modification, creation of derivative works and re-distribution. Most of these provisions are best appreciated by software developers, but the benefits are shared by all. Of course, there is the additional benefit that by affirmatively removing such copyright protections from software, we often don't have to pay a license fee to use the software.

Software is a creative work, not unlike other creative works such as a book or a script for a play. In general, creative works are protected by copyright law, which prohibit distribution, modification, creation of derivative works and usage without the permission of the author. A high school teacher who wants to put on a production of “High School Musical,” a movie producer who wants to make a movie based on the play “Amadeus” and a Harry Potter fan who writes a “Harry Potter Lexicon,” are not allowed to do so without the permission of the copyright holder to whom they will likely have to pay a fee.

Over time, copyright protections expire, and we are left with a new set of rules where we can freely produce derivative works. For example, Lawrence Olivier plays Hamlet and wins Best Picture. Rick Moranis and Dave Thomas turn “Hamlet” into a beer-swilling spoof called “Strange Brew.” The hit musical “West Side Story” is a musical adaptation of “Romeo and Juliet.” Opening a creative work to modification by the general public produces both misses and hits.

Many in the developer community see the affirmative removal of copyright protection on software as a means to attract a broader user base, especially those users who are capable of improving the software, to sustain the software over the long term. Many of us are also convinced that the trend is toward increased open source. Where many see a risk — “Some stranger could break my software!” — we see an opportunity: “We are empowered to fix and improve our software, and/or ride on the coattails of others who do so.” We find that while there are misses, the hits are not just good, but great — as good as or better than proprietary counterparts. Cost savings are simply icing on the cake.

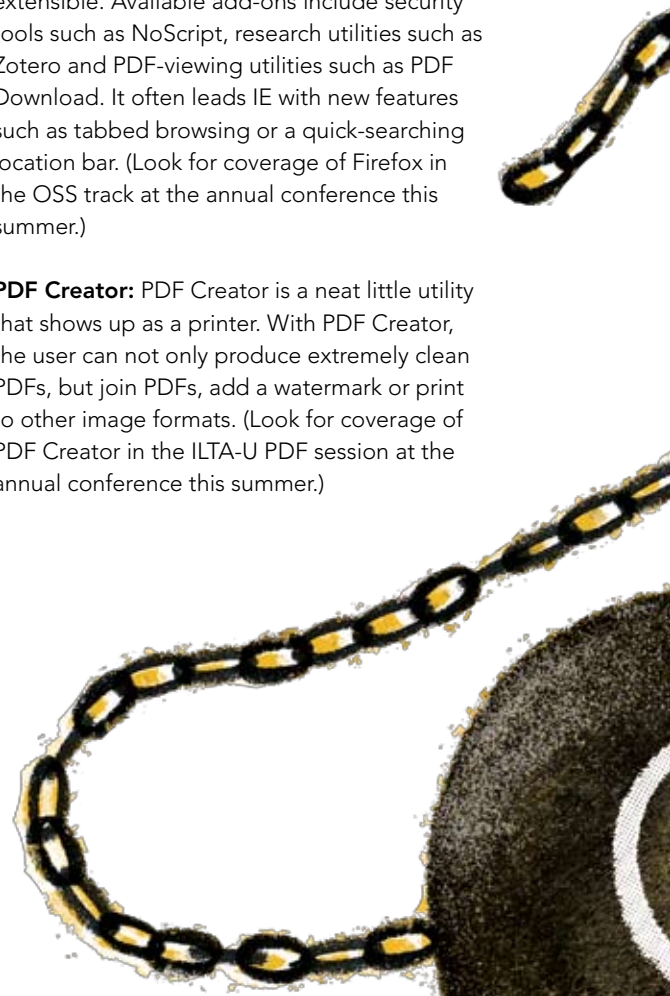
This is not to say that open source is a panacea, or that all software in the future will be open source. Open source has its place. Some applications, such as optical character recognition (OCR), and full-text indexing, are better left to proprietary solutions. Some proprietary pieces of software, such as Windows and Microsoft Office, are entrenched; and we are not going to give them up any time in the near future, even if there are quality open source alternatives.

Open Source in Legal

Open-source software is slowly working its way into legal through a few different avenues. OSS is embedded in any number of products and services that we use: IntApp, InterAction, just about every network storage device (except those branded as MS Windows), Postini and more. For a time, even Microsoft incorporated open source in the TCP/IP stack in Windows. We do not see Linux dominating the desktop, and we do not see open source office suites replacing Microsoft office. We do see OSS making its way to the Windows desktop in the form of clever and useful utility applications, and in the server room where it is transparent to end users. Thus, it is in ancillary desktop applications for Windows and in the server room where we have an opportunity to add value to our businesses with open source.

Current favorite open source desktop applications include:

- **Firefox:** The Firefox Web browser is fast, safe and extensible. Available add-ons include security tools such as NoScript, research utilities such as Zotero and PDF-viewing utilities such as PDF Download. It often leads IE with new features such as tabbed browsing or a quick-searching location bar. (Look for coverage of Firefox in the OSS track at the annual conference this summer.)
- **PDF Creator:** PDF Creator is a neat little utility that shows up as a printer. With PDF Creator, the user can not only produce extremely clean PDFs, but join PDFs, add a watermark or print to other image formats. (Look for coverage of PDF Creator in the ILTA-U PDF session at the annual conference this summer.)



- **7-Zip:** 7-Zip is a comprehensive compression\decompression utility that works with a multitude of compression formats including zip, bzip2, tar and gzip.
- **Audacity:** Audacity is a handy audio file conversion tool. If you find yourself juggling MP3s from court hearings, digital dictation files and voicemail messages from a unified voice messaging system, then this could be a helpful tool.
- **FileZilla:** FileZilla is a consensus choice as the best FTP client. It could be the most widely used FTP client in circulation.
- **KompoZer:** This is a clean and fast Web authoring system.

- **Inkscape:** Inkscape is an outstanding scaled vector graphics editor. The online documentation is superb. Compare it to Adobe Illustrator.

- **GIMP:** GIMP is an acronym for GNU Image Manipulation Program. It is the open source answer to Adobe Photoshop, and it packs a lot of power.

- **VLC:** VLC is the VideoLan multimedia player. It is self-contained, meaning that various media codecs are embedded in the player itself, including older, deprecated codecs, so that your audio/video will play in VLC even when it fails to play in other media players.

- **Notepad++:** It's like Notepad but so much better that it should have four or five pluses instead of two. If you open an HTML file or VBScript in Notepad++, the editor colorizes the code.

- **Wireshark:** Wireshark is arguably the best network traffic analyzer out there. Wireshark was covered in a session at last year's annual conference for which an encore webinar was presented in March 2009.
- **TrueCrypt:** A new cross-platform encryption tool, TrueCrypt could be the last encryption tool you ever need. (Look for coverage of PDF Creator in the ILTA-U PDF session at the annual conference this summer.)
- **InfraRecorder:** This is one of the most reliable and easy-to-use media burners available. It is certainly better than many commercial products and will burn CDs and DVDs, including dual-layer DVDs.
- **KeePass:** This password vault application will fit on a thumb drive and means you no longer have to keep passwords in Word documents.
- **SystemRescueCd:** This is a Live CD, i.e., a CD off which you can boot your PC. Loaded with utilities to recover passwords, recover data from a failing drive, repair boot files and more, it's a useful tool for PC troubleshooting.

A sample of favorite server room applications includes:

- **Acrophobia:** A virtual network PDF printer, it's in wide use among ILTA member firms.
- **Nagios:** Probably the most popular open source network monitoring application, Nagios will alert you if a server or other network device is having degraded performance or is failing. Usage among ILTA member firms continues to grow following coverage of Nagios at the 2007 ILTA conference and subsequent encore webinar.
- **Linux-based firewall\routers:** Linux is a great OS for networking devices. Accordingly, there are many devices by manufacturers such as Astaro or Vyatta that run a Linux kernel and arguably outperform their proprietary brethren, such as Cisco, at a fraction of the price. Of course, many of us built our own routers years ago with custom distros such as IPCop, Untangle or pfSense, which have been extraordinarily reliable.
- **General server applications:** DHCP, DNS, print and file sharing, ftp, Web hosting. (But not e-mail or databases.)

Obstacles

There are a few obstacles associated with OSS. A quick troll through SourceForge.net, home to many OSS projects, reveals an abundance of software that is still in beta. The trick is to separate the wheat from the chaff and find the winners. Fortunately, there are a number of resources through which you can find the successful OSS projects. These resources include:

- **The ILTA OSS E-Group**
- **osalt.com**
- **Wikipedia**

There are also numerous variants of open source licenses. The specifics of a particular license may have a bearing on one's usage of a particular piece of OSS. OSS licenses also lack the indemnification language that many firms want or need in license agreements.

The Long View

If the progress of the open source movement over the past 20 years is any indication, then the development trend will continue. There are a number of bellwether OSS projects — Linux, FireFox, OpenOffice — that continue to demonstrate long-term growth and success. Recent college graduates are increasingly more knowledgeable and comfortable with OSS. It is worthwhile then to consider open source where possible and to compare it to proprietary solutions when selecting and implementing new software. The potential benefits are finding the best possible solution that delivers the cost-savings so important in our current economy. **ILTA**



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