

Free or Open-Source Tools

for Technical Communicators, Part I: The Software

BY CHARLES CURLEY, *Member*

Free/open-source software (FOSS), like proprietary software, can be either terrible or excellent. Because authors of free software usually don't advertise their wares, this article looks at some of the better offerings. Part two of this article, to be published in the January issue, will cover interoperability between open-source products and the products your clients are likely to use.

Most open-source programs begin as a way to scratch an itch. The programmer then makes the software available to other people, who adapt it to solve their problems, fix its bugs, or otherwise improve it. If you are new to open-source software, the Go Open Source campaign Web page (www.go-opensource.org) is a good place to start your research.


The poster child for open-source software is Linux. If you use Linux, you probably know of most of these programs. If not, fear not: Most of the programs described in this article are available for the Macintosh, and all are available for Microsoft Windows.

If you are contemplating moving to Linux, using cross-platform applications on Windows or the Mac will give you a good idea of how well the switch will work without the learning curve for Linux itself. You can get into the shallow end of the pool first.

Licensing

Most open-source software is released under the general public license (GPL, www.gnu.org/copyleft/gpl.html) or similar licenses. (See the Open Source Initiative's Web page, www.opensource.org)





for more information.) Before you use any program, be sure you understand the terms of the license. Generally, you can use—and give away—open-source software for free. You have the right to get the source code for the program. If you give away the program, you must tell the recipient where the source is available. You may modify the source and use the resulting program, and you may give away your modifications as well.

One advantage of FOSS for a typical company or sole proprietorship is that it makes your licensing issues go away. You don't have to buy a new license every few years. You don't have to pay to upgrade, and you can upgrade at will. You don't have to audit computers for license compliance of open-source software.

Because you can give the software away for free (or for a reasonable media charge), you can provide it to your colleagues, friends, neighbors, nonprofit organizations, churches, and schools. You can help your neighbors—something you can't do with proprietary software.

Because you are legally entitled to the source code and you may modify it, another advantage of FOSS is that you can customize a program to suit your own shop. If you aren't a software engineer, you can probably find someone to do this for you.

Evaluation Version

The evaluation version of an open-source program is the program itself. Install it, use it, and compare it to competing software as you would any other program. The software you are evaluating is the real thing, not some crippleware that comes with a bunch of promises.

Malware

I hear someone muttering, "Yeah, I'm going to haul this stuff in from someone I've never heard of, install it, and it will attack my computer." A reasonable suspicion. But because the software is open-source, anyone can audit the source code for malware and compile it locally. If those experts find malware, you can bet it will get headlines in the appropriate places.

FOSS is often audited for security problems by external experts, which is impossible with closed software. And when the inevitable bugs are found, FOSS programs tend to be repaired faster than closed-source programs. Most FOSS is digitally signed and comes with a checksum so that you can check the integrity of your transfers.

I've been working with Linux for more than twelve years, with other FOSS even longer, and have hauled in tens of gigabytes of FOSS. I have yet to see malware in any of it.

Support

The support model for open-source software is different from what you are used to. Support comes via e-mail lists, wikis, bulletin board systems (BBSs), or other Internet tools. It is peer-to-peer, rather than top-down. As a FOSS user, you are one of a community. You may ask questions, and your peers may (or may not) answer them. Similarly, you may answer some of your peers' questions, which may be a great way for you to give something back to the community that gave you this software.

You can hire experts to support some of the more popular FOSS programs. For example, the *OpenOffice.org* Web site (www.openoffice.org) has a page that lists consultants who offer support for it. Companies like IBM, Sun, and Novell offer similar services, as do I.

Some open-source software has documentation that is mediocre or worse. If you want to return something to the community, please pitch in and help.

Office Tools

The Open Document Format

The Open Document Format for Office Applications (OpenDocument, www.oasis-open.org/committees/tc_home.php?wg_abbrev=office) is a standard approved by the Organization for the Advancement of Structured Information Standards (OASIS), the governing body for XML documents, and the International Organization for Standards (ISO). OpenDocument provides a standard for interchange between office applications; I'll cover this standard in more detail in the January

issue. OpenDocument will become more important as governments and companies standardize it. If you are shopping for new office software, add the OpenDocument format (ODF) to your checklist. Both the office programs covered below, *OpenOffice.org* and *AbiWord*, already support ODF, and some proprietary programs (e.g., IBM's *Lotus Notes*) do or will support it.

OpenOffice.org

OpenOffice.org (OOo, www.openoffice.org) is a full-featured office suite consisting of *Writer* (word processor), *Calc* (spreadsheet), *Impress* (presentation), *Math* (equations), and *Base* (database connector). Heavily backed by Sun Microsystems, OOo is probably the best known open-source office suite. Sun also offers *Star Office*, a supported version of OOo, for sale.

If you are accustomed to Microsoft *Office*, you will find OOo similar. Usually, where there is a difference, the OOo version is better. To give one example, OOo allows regular expressions in its search-and-replace function. I've been using OOo for seven years and now find Microsoft *Office* awkward, slow, and cranky.

OOo has excellent interchange with Microsoft *Office*, to the point where some of my clients don't even know I'm not using *Word*. OOo's "native" file format is OpenDocument, so you can readily move files to any application that supports OpenDocument. If you work with clients who use *Office*, you can save your documents in *Office* format.

Support for OOo includes several books. I use an earlier edition of the *OpenOffice.org 2.x Resource Kit* by Solveig Haugland and Floyd Jones, just released by Prentice Hall.

OpenOffice.org is multilingual. Because users can get the source, they can customize it by adding their language. As a result, OOo supports almost twice as many languages as does Microsoft *Office*, with more to come.

AbiWord

Because of its very light footprint—5.1 MB for the core Windows installer—*AbiWord* (www.abisource.com) can run on

I've been using
OpenOffice
for seven years
and now find
Microsoft *Office*
awkward,
slow, and
cranky.

older hardware where Microsoft *Office* or even *OpenOffice.org* would bog down. This is probably not a consideration in your business, but it could be important in a nonprofit organization or a business in a poorer country.

AbiWord looks a lot like Microsoft *Word*, and has many of the same features. Some features of interest to translators are an easy connection to Babelfish and the free translation service at www.free-translation.com. Another useful feature is support for a wide variety of file formats, including DocBook XML, MIF, LaTeX, and OpenDocument.

Like *Word* and OOo, *AbiWord* uses styles. Like *OpenOffice.org*, *AbiWord* supports many languages, including right-to-left languages such as Arabic.

Page Layout

Scribus

Among the many useful features of *Scribus* (www.scribus.net), a page layout program, are full support for PDF (including the ISO standard PDF/X-3, interactive PDF, and importing from PDF) and EPS. *Scribus* was designed to use Unicode, and supports right-to-left text. In addition to the usual FOSS support, several of the developers offer commercial support. Support is available for some twenty-five languages, with more to come.

Communication Tools

Firefox

The Mozilla Foundation's award-winning Web browser is a distant, open-source descendant of the Netscape

browser. Tabbed browsing means you don't get your desktop cluttered with a slew of open windows. Incremental searching makes searching a Web page for a term very easy. Also, *Firefox* (www.mozilla.com) has search engine access built into it.

If you develop for the Web, get the *Firefox* extension "Web Developer," which adds a powerful toolbar that makes development go much faster. Because of *Firefox*'s increasing popularity, Web developers should be testing their Web pages on *Firefox* as well as other browsers.

The most important reason to use *Firefox* is that it is more secure than *Internet Explorer*. *Firefox* stops a number of Web browser attacks, and also has controls to help you manage obnoxious aspects of the Web like popup windows.

Gaim

Gaim (gaim.sourceforge.net) is an instant messaging (IM) client for Linux, BSD, MacOS X, and Windows. It is compatible with AIM, ICQ (Oscar protocol), MSN Messenger, Yahoo!, IRC, Jabber, Gadu-Gadu, SILC, Novell GroupWise Messenger, Lotus Sametime, and Zephyr networks. Because *Gaim* is multiprotocol, you can consolidate your IM accounts into one client and use it for many of your IM needs.

If your department or company wants to run its own IM server, it can use *Gaim* with the open-protocol Jabber (www.jabber.org) server.

Mantis

A small, lightweight bug-tracking system, *Mantis* (www.mantisbt.org) is similar to *Bugzilla*, but much simpler and easier to use. Just because it is called a bug-tracking system doesn't mean you can only use it for bugs. Use it to track anything, including personal or family issues.

One of the nice things about a good bug tracker is that you can open it up to your customers selectively, allowing them to enter issues directly into your system and communicate directly with your writers.

Based on PHP and MySQL, *Mantis* should install on almost any Web server.

MoinMoin

Project coordination requires a simple way to preserve and communicate project members' thoughts. An excellent way to do this is with a wiki. (Probably the best known example of a wiki is Wikipedia, en.wikipedia.org/wiki/Wiki.)

MoinMoin (moinmoin.wikiwikiweb.de), one of a number of good wiki programs, is available in a desktop version that you can use as a personal tool without having a Web server installed. Alternatively, you can run *MoinMoin* for the entire department (or company) using Apache, Microsoft IIS, or the company's own Web server.

Nvu

According to its Web page, *Nvu* (www.nvu.com/index.php) is "a complete Web Authoring System for Linux desktop users as well as Microsoft Windows and Macintosh users to rival programs like *FrontPage* and *Dreamweaver*. *Nvu* (which stands for 'new view') makes managing a Web site a snap. Now anyone can create Web pages and manage a Web site with no technical expertise or knowledge of HTML."

The claim of rivaling *FrontPage* may be a bit of an exaggeration, but *Nvu* is an impressive development tool. You can specify a DTD, character set, and language, so that your pages comply with W3C standards from the start. Everything is point-and-click, but if you want to get your hands dirty editing the HTML, you can. *Nvu* is not a full content management system, but it works for one-off or light Web sites.

Thunderbird

There are any number of good reasons to switch from *Outlook* to *Thunderbird* (www.mozilla.com), a descendant of Netscape's e-mail client. Not least is security: *Outlook* is the preferred target of e-mail Trojan horses, phishing, and other e-mail attacks. *Thunderbird* is easier to use, and will import your e-mail, address book, and some settings from *Outlook* and other e-mail programs. Its intelligent spam filtering won't eliminate spam, alas, but does an excellent job.

Wink

Wink (www.debugmode.com/wink/) is a presentation and tutorial writing tool for developing presentations in Macromedia *Flash*, standalone Windows executable, PDF, Postscript, HTML, BMP, JPEG, PNG, TIFF, or GIF formats.

Graphics

Dia

According to the *Dia* Web page (www.gnome.org/projects/dia/), "Dia is inspired by the commercial Windows program *Visio*, though more geared towards informal diagrams for casual use." *Dia* provides fewer shapes than *Visio*, but this disadvantage is slowly melting away as users, in the open-source tradition, contribute shapes. You can also find out how to create your own shapes on the *Dia* wiki. Python scripting is available, although not well documented.

GIMP

GIMP (www.gimp.org), short for GNU Image Manipulation Program, is a freely distributed piece of software for such tasks as photo retouching, image composition, and image authoring. It works on many operating systems and in many languages. Often compared favorably with Adobe *Photoshop*, *GIMP* is fully scriptable in its own scripting language, Script-Fu, Perl, and Python. *GIMP* also has support for movies.

Several books on *GIMP* are available in English, French, and Brazilian Portuguese.

Persistence of Vision Raytracer

POV Raytracer (www.povray.org) is probably the best known image creation program available for free. To get an idea of what users can do with it, visit the Web page's Hall of Fame. *POV Raytracer* uses a full programming language for its scripts, which makes it far more powerful than many image programs.

PDF

PDFCreator

Windows does not come with the ability to produce PDFs from the output of any program. Repair this deficiency with *PDFCreator* (sourceforge.net/projects/pdfcreator), which, unlike some of its com-

petitors, is completely free. Because it is a faux printer driver, it sees only the output from your program. To get all the features of *PDFCreator* that a program's file format supports, you need a plug-in for that program.

However, you may not need *PDFCreator*, as both *AbiWord* and *OpenOffice.org* export directly to PDF.

Getting the Programs


To acquire FOSS programs, you can either go to the individual program's Web site or pull in a CD image. CDs with open-source software include the Open CD (www.theopencd.org) and Software for Starving Students (www.softwarefor.org). The former has Windows versions of the programs; the latter, in spite of its name, is useful for professionals as well as students, and includes Macintosh versions.

You can, of course, burn the CD image. If you have a Linux file server, you (or your resident Linux guru) can mount the image as a loopback device, and make it available as a share to Windows and Macintosh computers.

One disadvantage of the CDs is that they may be a revision or two behind the current software releases. If you must have the latest version, you can always haul it in separately.

For More Information

You should consider FOSS products the next time you're shopping for new software. FOSS is as good as or better than proprietary products, and doesn't cost nearly as much.

If you're interested in further research on FOSS, take a look at SourceForge (sourceforge.net) and freshmeat (freshmeat.net). Also, the OSSwin project, Open Source for Windows! (osswin.sourceforge.net) is recommended for those still using Windows. A more general resource is the Free Software Directory (directory.fsf.org). 

Charles Curley has twenty-seven years' experience with computers, much of that as a software engineer and technical writer. He has used Linux since 1994, and made it his sole desktop operating system in 2000. He has taught classes on OpenOffice.org and helped clients convert to it.