Open source's hottest 10 apps

Need a new app? Looking for inspiration? Want to know what the next trend might be? Welcome to the world of open source software where high-quality tools are free to try and free to keep - and where you can quickly see what everyone else is checking out and join in on the buzz.

Contributed by David M Williams

Possibly the greatest repository of open source software today is SourceForge, where like-minded altruistic developers can freely collaborate on projects, across countries, languages and time zones. For the general populace, there's a wealth of useful applications to be found meeting most any business, personal or entertainment need.

What's terrific when trying to find a hot new app to play with is that SourceForge tracks the popularity of projects based on several criteria. We'll look at **two** different criteria in this article.

The first lets you know what's popular right now:

at http://sourceforge.net/top/toplist.php?type=downloads_week you'll find the most downloaded programs during the last seven days.

At the time of writing, the top 10 *most downloaded this week* are

1. eMule (2,250,156 downloads)
2. Ares Galaxy (1,314,665)
3. Azureus (457,064)
4. GTK+ and The GIMP installers for Windows (309,402)
5. 7-Zip (271,772)
6. Audacity (270,995)
7. FileZilla (193,766)
8. emule Xtreme Mod (152,159)
9. Shareaza (148,052)
10. VirtualDub (129,449)

Interestingly, half of these – including the top three – are file-sharing peer-to-peer applications (must be all that Linux ISO P2P sharing I hear about!) They make up 82% of the top 10 downloads, with eMule contributing half that number alone. Of the other five, one is a Windows version of a popular Linux graphics package (The GIMP), one is a Zip compression manager (7-Zip), one is a prevalent audio editing/recording system (Audacity), one is an FTP client/server (FileZilla) and one is a desktop video editing package (VirtualDub). If you're looking for a new tool, try one of these. They're obviously popular.

As a side note, the number of downloads show open source is a big industry with a large installed user base. To give a meaningful comparison, one of the most ubiquitous programs downloaded, for Windows at least, would surely be WinZip. The primary distribution site is C|net who report 168,627,788 downloads across all time (http://www.download.com/WinZip/3000-2250_4-10665474.html). 168+ million is an enormous number and that reflects just how popular and how widespread WinZip is. However, remember that's for all time: SourceForge lists the top downloads over all time at

http://sourceforge.net/top/topalltime.php?type=downloads and it can be seen eMule has a massive 326,226,298 downloads. That's getting up to twice as many as WinZip or in other words for every time WinZip has been downloaded, eMule has been downloaded two times.

However, in terms of finding **hot** apps, this list is not actually so useful, because what's useful changes over time as technologies emerge and operating systems mature. Consider CDex – this was an extremely important utility for extracting digital audio from CDs. It played an important part in the rise of CD ripping, which led to the prominence of mp3 files and players. It is the eighth most downloaded program of all time from SourceForge, but has much less value today with its capabilities available in so many other ways. In fact, even its own development team are spending little time on it, with it now ranking right down as the 725th active project on the site. In fact, even eMule isn't on the top 50 active projects with bit torrents rapidly becoming the most prevalent P2P technology.

That leads us nicely to what *is* a **very useful list**, namely the **most active** projects. This reflects where development work is happening and which projects are making the most ground. A project's activity represents software reaching maturity, having bugs fixed and responding to user feedback. What's more, active projects are timely projects. They haven't been abandoned over the ravages of time but are relevant now.

So, let's take a walk through the ten most active SourceForge projects. Some of these may be known to you. I'm sure there'll be some which are new. And hopefully, there'll be at least one which strikes you as solving a genuine need you have right now. We'll work our way up from number 10.

#10 – FCKeditor

Starting us on our journey is FCKeditor (named after Frederico Caldeira Knabben, otherwise known as Fred CK.) Strictly speaking, this is not an application in its own right. Rather it is an online text editor for use in Web sites that require flexible, formatted text entry.

FCKeditor has been used in such well-known content portals as WordPress, Drupal and DotNetNuke. Adobe have announced it will be embedded in the next release of ColdFusion. Oracle include it in Oracle Application Express v3.

FCKeditor embodies a truly flexible design philosophy. It has been implemented purely in DHTML giving it compatibility across many web browsers and operating systems. It integrates with web sites built in PHP, Java, ASP/ASP.NET, ColdFusion and other popular formats. Visually, it presents an extremely familiar OpenOffice/Microsoft Word-style toolbar with the expected formatting icons and keyboard shortcuts. Tool tips display in a raft of languages.

Admittedly, for the casual user, FCKeditor doesn't have a lot to offer – but if you're building any sort of interactive web site, FCKeditor would make a superb replacement for the stock-standard HTML TextArea tag giving your site a real touch of professionalism and enhancing your user's experience. Check out http://www.fckeditor.net/demo for a demonstration.

#9 – FileZilla

FileZilla is a Windows-based FTP (file transfer protocol) and SFTP (secure FTP) client. The FTP protocol predates HTTP on the Internet and for many years was the primary means for moving files around or distributing drivers and software updates.

Although the Web is now the prime source of software distribution, FTP is still heavily used. Many organizations find FTP servers still a preferable means of maintaining and organizing file repositories. What's more, the bulk of web hosts are reluctant to allow interactive logins so FTP is the natural choice for letting customers upload sites with a minimum of access. This is the case with commercial web hosts as well as ISP-supplied web space. Free web hosts like Yahoo! GeoCities offer a web-based file uploading method, but it is slow and cumbersome by contrast. (They do permit FTP but only with paid accounts.)

FTP is such a staple of the Internet protocol suite that a command-line FTP client can be found on most any Internet-capable computer whether this is known or not, just type "ftp" into a command prompt. However, this necessitates the use of clunky commands to traverse directories – both on the remote system as well as your own, to transfer files using wildcards, and to change between binary and text file modes.

This is where a brilliant program like FileZilla comes in; it manages all the underlying complexity in a simple graphical interface. Both local and remote file systems are displayed, with file transfer being a simple drag-and-drop affair. Progress is shown and best of all, sites can be mirrored whereby FileZilla senses and uploads only new or changed files.

FileZilla isn't just an FTP client though; the project also provides FileZilla Server which is a straightforward but powerful FTP server for running on your own Windows-based machines. This can be used by individuals or companies alike with secure options decreasing risks.

This project has been awarded project of the month in the past, as well as a 2006 community choice award winner. It's a highly active project with regular bug and security patches and is a well recommended choice for Internet-based file sharing. The lack of multiplatform support is unfortunate but, hey, this is open source; all the C++ code is there. It just needs a brave Linux developer to step up and make a port.

#8 – OrangeHRM – Human Resource Management

OrangeHRM is a web-based PHP/MySQL app which I'm confident will be unknown to most readers but hopefully will pique your interest.

OrangeHRM is, as its name suggests, a human resource information system. The project team have a roadmap detailing where they want to head, with three major facilities available now. The first is fairly obvious, capturing personal details of staff members along with name, contact details, next of kin, salary and so forth. A photograph and any supporting documents like a resume or copies of licenses can be attached.

Secondly, reports can be constructed from a range of custom search criteria and fields. The report definition can be saved and re-executed at any time. This allows HR to quickly identify staff based on the requirement at hand, be it all members of a certain team, foreign nationals whose working visas are due to expire, all employees who have attained a specific educational qualification or any other circumstance that can be imagined.

The third major facility of OrangeHRM is a comprehensive leave management module. This provides entire workflow for an employee to request leave, with any number of approvers being able to review the request. Approved leave is recorded in a company calendar. At each

stage, the appropriate people are notified of the status of the request and any actions he or she must take. This alone is of great benefit to many companies whether small or large saving both paper and time, as well as showing at a glance who will be away on any given day or week.

This last feature can't be underemphasized. Let's walk through it: an employee, Bill, say, logs on to OrangeHRM from his desk to submit a request to take time off - whether a single day or a couple of weeks or more. His supervisor is notified right away. The request is approved or rejected. If it's rejected, Bill gets a note back to this effect with hopefully some comments. If it is approved, again Bill is notified, but so too are any relevant staff - like HR and payroll - and the leave is recorded against Bill's file and is listed in a public calendar. This is a boon to any business with more than a few employees. There's no filling in paperwork and worrying where the form has got to, there's no wondering how many people are absent on any particular day. This automates a very common and essential business process.

OrangeHRM is accessible to any staff member but offers finely-grained security. This allows HR staff full access, but means ordinary employees may only view and edit their own data. Any conceivable combination of security options can be defined and applied to any user or group of users. Managers, for instance, may be given read-only access to any member of their team.

With future plans including recruitment, performance and training modules, OrangeHRM is definitely an information system that will only grow in usefulness to any organization. Even very small businesses can benefit, consolidating and filing all staff records in a single electronic spot.

One thing I find personally of interest is that OrangeHRM has a visual style reminiscent of another popular open source marketing and contacts web-based system called SugarCRM. I could find no statements that OrangeHRM is an add-on to SugarCRM, or that it shares source code or integrates with it in any way. Perhaps there is no relationship and the team just took a penchant to SugarCRM's style, but if OrangeHRM can easily be used to extend SugarCRM I feel the developers would do well to promote that fact and capitalize on its installed base.

could find no statements that OrangeHRM is an add-on to SugarCRM, or that it shares source code or integrates with it in any way. Perhaps there is no relationship and the team just took a penchant to SugarCRM's style, but if OrangeHRM can easily be used to extend SugarCRM I feel the developers would do well to promote that fact and capitalize on its installed base.

It doesn't take much thought to recognize phpMyAdmin is a PHP app. What the name doesn't quite give away is that it is a powerful web-based system for delving into MySQL databases. If you have direct access to a MySQL database server, there are a number of graphical utilities for administration and management. However, the vast majority of MySQL users don't have such access – their databases are hosted by their ISP or web host. Their level of access goes as far as creating a single database and then letting their software of choice do the rest of the work, be it Drupal, PHPNuke, Joomla, WordPress or any of a myriad of other LAMP offerings.

This means if your software install doesn't go as planned – or a rogue beta trashes your production database, or you absolutely need direct access into the database for whatever reason – then there's little that can be done with the supplied tools. This is where phpMyAdmin comes in. Download it, make a configuration file – using the precise same database location, username and password as you've already given your content management system - then FTP it to your web host and fire it up in a web browser. It's dead simple to set up and use but the power it gives is far in excess of this.

Using phpMyAdmin you can drop or re-create your entire database but the most common uses would be to add or delete individual fields to tables, to remove bad rows of data, modify individual cells in configuration tables, or to insert new data. Most functions are possible through menus and pointing and clicking but SQL queries and commands can be entered directly. Additionally, entire databases can be backed up to your local computer and restored either to the same database or to another. This makes migrating between web hosts a breeze, without losing accumulated site data like content or reader comments.

It's no surprise that, like FileZilla, phpMyAdmin has received project of the month and 2006 community choice award accolades. In fact, it won both the database *and* sysadmin categories. If you have a MySQL database, phpMyAdmin is a must-have.

#6 – vMukti – Collaborative Conferencing

Forget expensive collaborative systems like Microsoft's LiveMeeting. With the strangely-named - but very hot - vMukti Windows' users can set up their own multi-party conferencing for web and mobile users alike.

vMukti is designed to run on a Windows XP or Vista system, or a Windows Server environment. However, so long as the target system has the .NET framework 2.0 installed, it should run reliably. This means Linux users aren't entirely left out: because vMukti has been coded in C# it's possible it can be made to work using the Mono project which aims to emulate the .NET framework and offers direct binary compatibility.

Where vMukti offers great value is in allowing two or more Internet-connected people to work together through the one web site. Panels display in the browser window where users can share their webcams and audio, type into an IM-style chat window, draw on a communal white board, or conduct polls. In this regard it is a superb open source offering, with real opportunity to slash communication costs and facilitate teamwork. Well-chosen screenshots at http://sourceforge.net/project/screenshots.php?group_id=162339 show off its best side.

The ultimate objective of vMukti is to bring together a vast array of diverse Internet-based communication methods, including Skype, Yahoo! and MSN Messengers, and even Asterix-based VoIP phone systems! The project team argues they've kept bandwidth usage to a bare minimum making the app not only extremely functional but also highly lightweight.

The project is yet to produce a version 1.0 release (the current is 0.6.0.4) but with 11 developers and recent coverage by Enterprise Week (http://www.enterpriseweekmag.com/issues/issue125.pdf, page 35) it's certain to make big headway and is well worth checking out by anyone who can see the worth of co-operative facilities on a Windows-based network.

We saw the first five of these, namely #10 FCKeditor, #9 FileZilla, #8 OrangeHRM, #7 phpMyAdmin and #6 vMukti. Click here if you missed it. Some of these will be well known - like FileZilla, but even so it's still under active development and progression. Others will be largely unknown - like OrangeHRM and vMukti but both are undeniably useful and even inspirational and, being open source, they're free to download and free to use. Who could want for more?

Today we pick up where we left off and check out the hottest five apps on SourceForge today - #5 ZK, #4 Stellarium, #3 Zenoss Core, #2 Openbravo - culminating in number one - Azureus. I'm sure apart from Azureus most of these will be unfamiliar but every one is important. And I'm definitely sure you'll find one of interest to you.

#5 – ZK – Simply Ajax and Mobile

ZK is a framework to make web sites more dynamic and responsive through Ajax technologies. This can be used by developers and webmasters alike to bridge the gap between so-called fat- and thin-client applications.

Let me explain: web apps have long been known as *thin-client* due to their very lean requirements on the user's computer - generally nothing more than a web browser. All the processing occurs on the web server hosting the app. If the site is upgraded all users benefit immediately.

By contrast, traditional desktop software has been given the unflattering moniker *fat-client* due to its bulkier size, consisting of all the necessary libraries and controls and processing logic to do its work. If the software is upgraded, it needs to be deployed to all machines.

It can be seen web apps have a raft of advantages. However, despite this they fall short of desktop software when it comes to a responsive user interface and consequently the user's experience with the program. A web site typically renders a page then sits and waits for the user to take an action be it entering some text, selecting an option or something else. The browser sends this action back to the web server which returns the next page to display.

In some cases this is no biggie. People are used to clicking on links and waiting a small time for the results. Yet, often it really can detract from the site, possibly driving traffic away. We've all seen sign-up forms that ask for an address over a variety of fields. Typically the country is a drop-down list. Selecting particular countries - like the United States - causes the state list to be populated with drop-down options. Sometimes picking a state might even cause the city or suburb drop-down list to be populated too. Each time the country value

changes, the browser has to call back to the server and display a new page, just to populate the state box. Imagine a form with many fields all dependant on the last entry. A realistic example is an advertising site to sell used cars. The site asks for the model, then the make, the body type, the engine capacity and on and on. Each choice the user makes results in yet another round-trip to the server and corresponding wait on their part.

So here's where Ajax comes in. Using nothing more than markup and scripting already supported by browsers the site becomes instantly more responsive. There's no flickering as pages change, there's no waiting for controls to change their appearance or content. The magic behind this happens because clever coding changes the usual synchronous manner of web transactions into asynchronous events - allowing more things to happen at once, and allowing the browser to communicate with the server even while the user is still working on the page.

The possibilities are endless but the ultimate result is web apps which are just much more pleasurable to work with and which combine the traditional ease of deployment of the web with the responsiveness of desktop apps. The examples above may be fairly simple but consider this: Google Earth is a web app. What makes it so snappy is Ajax. And that's persuasive!

ZK is a suite of functions and method calls that mask the underlying complexity of Ajax and give coders a straightforward bevy of routines to make it all work in a minimum of fuss.

Although not yet at 1.0 level, the project has a stable release and an active forum and is operating system agnostic.

#4 - Stellarium

Stellarium is a stunning graphical app. Everyone's fascinated by amazing pictures of space like those shown by JPL, and Stellarium delivers in spades.

Stellarium renders 3D photo-realistic skies with accurate depictions of stars, constellations, planets and nebulas. It uses OpenGL which makes its code cross-platform, with binaries available for Windows, Linux and MacOS. Impressively, the project team have made a tightly-optimized calculation engine. Ordinarily, photorealistic rendering is the sort of thing you leave your computer on overnight for: instead, with Stellarium images render rapidly.

A rich set of menu options allow zooming in to planets or other celestial bodies and let any image to finely tweaked, increasing intensity or altering viewing position or proximity. A very interesting option allows you to watch the way a portion of space changes over time.

Stellarium's developers assert that this software really lets you see on your monitor precisely what you would see in the sky through a telescope, so precise are its calculations. That's hard for me to verify but the images it produces are absolutely gorgeous.

If you want to voyage into space without leaving your chair, or if you fancy a brilliant source of never-boring wallpaper images, Stellarium is a must.

#3 – Zenoss Core – Enterprise IT Monitoring

Zenoss Core is a highly useful tool for managing networks and systems across an enterprise. It provides a single integrated product for monitoring the availability, performance, events and

configuration of servers, computers and networking equipment across an entire local- or wide-area network.

For administrators, this is a brilliant tool and provides facilities which would otherwise only be available in very expensive packages. From the onset, its auto discovery and auditing of network devices more than proves its worth. Indeed, there's costly commercial products which can't even perform this essential task.

Using a simple dashboard, administrators can easily see their networks health at a glance. Systems, events, devices, services and products can be listed, grouped and probed. Flexible reporting brings back essential information with barely a click.

Real-time graphs show system uptime and responsiveness and the unexpected loss of connection to any device is reported swiftly in an event log. This is not constrained to just servers: any client computer or other network device can also be monitored. Alerts can be acknowledged as they are responded to, filtering them out of the list so new alerts are easily recognizable.

Zenoss Core is written in Python/Zope with a MySQL backend database and can be installed and executed on any system which has an available Python interpreter and MySQL build - which covers all Windows, Linux and MacOS systems. Anyone responsible for a network of whatever size would find immense benefit here.

For administrators, this is a brilliant tool and provides facilities which would otherwise only be available in very expensive packages. From the onset, its autodiscovery and auditing of network devices more than proves its worth. Indeed, there's costly commercial products which can't even perform this essential task.

Using a simple dashboard, administrators can easily see their networks health at a glance. Systems, events, devices, services and products can be listed, grouped and probed. Flexible reporting brings back essential information with barely a click.

Real-time graphs show system uptime and responsiveness and the unexpected loss of connection to any device is reported swiftly in an event log. This is not constrained to just servers: any client computer or other network device can also be monitored. Alerts can be acknowledged as they are responded to, filtering them out of the list so new alerts are easily recognisable.

Zenoss Core is written in Python/Zope with a MySQL backend database and can be installed and executed on any system which has an available Python interpreter and MySQL build - which covers all Windows, Linux and MacOS systems. Anyone responsible for a network of whatever size would find immense benefit here.

For those not in vogue with TLAs ("three letter acronyms"), ERP systems strive to integrate all the data and process of an organisation into a single unified system. ERP systems are not constrained by a company's size, or its business or charter. As ERP systems are so vast, they are modularised to make it easier for businesses to pick and choose the components they wish to use. Nevertheless, all modules integrate with each other.

The most common ERP modules include manufacturing, logistics, distribution, inventory, shipping, invoicing, sales, marketing, human resource management, financials, payroll, project management and customer relationship management. Additionally, ERP systems attempt to implement best practice, based on proven methodologies and frameworks. Check out Wikipedia for more detail. Suffice it to say ERP systems are *huge* and can make a huge difference to a company over using many diverse packages with the need for redundant data entry and storage and varying processes. This is why it is so remarkable, and impressive, to

find an open source system - and especially one which has such a level of activity that it is the second hottest app on SourceForge right now.

Implementing an ERP application is no trivial undertaking. The Openbravo team has considered this and provide comprehensive documentation explaining how to get started setting it up, how users can work with it, and a comprehensive entity-relationship diagram depicting the database and all its tables and fields.

Openbravo has active forums, a roadmap for the future and a team of translators making it a genuinely global app. It is entirely operating system independent being a Java and JavaScript app, with either a PostgreSQL or Oracle backend database required.

Openbravo is a must-see system. It covers every major business function and thus possesses awesome potential for everyone, whether in part or in whole.

#1 - Azureus

Azureus is the #1 application on SourceForge today. It needs little introduction and is both known and used throughout the world.

Azureus - named after a poisonous blue tree frog - is a Java-based BitTorrent client. BitTorrent is fundamentally a peer-to-peer file-sharing protocol. Although often associated with piracy, the BitTorrent protocol was initially conceived with positive intentions. Unlike other P2P apps, the BitTorrent protocol lets downloaded "pieces" of a file be uploaded to others even when the file has not yet been downloaded in entirety. Additionally, weighting is given to those who are uploading: the more you share, the faster your download becomes. The end result is that a BitTorrent download can complete far more rapidly than through other P2P methods, and that the burden of sharing the file is spread across many diverse networks. Its creator, Bram Cohen, saw this as particularly useful in software distribution. Legitimate uses of BitTorrents can be found easily, including the Web site LegalTorrents.com.

Some of the strengths of Azureus are very subtle: for one, it lets users download multiple files within a single window. By contrast, the very first BitTorrent client (known as "BitTorrent", naturally) started a new instance per torrent being downloaded. More importantly, Azureus also provides a wealth of statistics including download and upload speeds, time remaining, percentage of each file completed, and information on the "pieces" of each file still required. It reports finely-grained information which lets torrent tweakers really get a handle on what's happening.

Another strong plus of Azureus is its support for plug-ins. Any savvy coder can make an Azureus plug-in to enhance its feature set. One of the most popular available permits downloads to be scheduled, which aids broadband users who have a download quota but a "free" unmetered period at night.

Azureus is written in Java, which makes it highly portable. It will run on any system with a Java interpreter - which like the apps above, covers Windows, Linux and MacOS. However, in another sense, Azureus has drawn some criticism over its use of Java. Various quirks have, at times, caused Java apps to appear to consume a CPU's entire time. A very lean competitor, uTorrent, has taken some of Azureus' popularity in recent times, but uTorrent is not open source and is consequently far less customizable. Further, it is Windows-only.

And that's that: these are the hottest 10 open source apps in production today. They are the most active SourceForge projects representing the amount of work going into them. They are

stable and the project teams are responding to bug notices and feature requests. They all have rich utility from home users through to large corporations. Best of all, they're free and their code is freely available and freely modifiable.

iTWire, **June 21, 2007**