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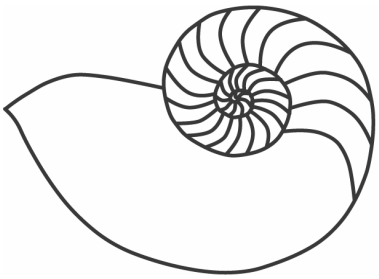

MUUGlines

THE MANITOBA UNIX USER GROUP NEWSLETTER

June 13, 2006: Agile Software Development Environment

Specialized and robust tools for Java development are available to the Open Source community for everything from source code control to document management to running your finished application. Weaving all these components together on a central development server for a team of developers can be a challenge. These frequently overlooked components in the development environment can make or break your project. Where do you keep the information everyone needs to see? Who is responsible for maintaining it? How do you know if code you just committed to the repository has impacted someone else's? You are writing JUnit tests, but how much of your project's code is actually being tested? With the focus on developer productivity, how can you address all of these questions without adding to the burden of just getting code written?

In this presentation, Steve Moffat will show us how one project is doing it.

Come To Our Meeting

Meetings are held at the IBM offices at 400 Ellice Avenue (between Edmonton and Kennedy). When you arrive, you will have to sign in at the reception desk, then wait for someone to take you up (in groups) to the meeting room. Please try to arrive by about 7:15pm, so the meetings can start promptly at 7:30pm. Don't be late or you may not get in.

Fedora FC5 Re-Spin

The Fedora Unity Project is proud to announce the release of DVD ISO Re-Spins of Fedora Core 5. These ISOs are based upon Fedora Core 5 and all updates released as of May 23rd, 2006. They are available for i386 and x86_64 architectures as of Wednesday, May 31st, 2006 via BitTorrent. The x86_64 Re-Spin is currently available for testing only.

The Re-Spin task has been taken up by Fedora Unity to provide the Community with the chance to install Fedora Core with recent updates, which might otherwise be several hundred megabytes of downloads, already included. You can by seeding the torrent after your download has completed or by joining the test process.

The Fedora Unity Project intends to release early and often, with new Re-Spins provided early each month during the life of each Fedora Core release until that release is transferred to Fedora Legacy.

Early snapshots will be taken mid-month to start testing. Final snapshots will be taken about a week before the release. All released ISO images are tested using a 15-point test matrix to ensure the quality that the Fedora community expects. If you are interested in helping with the testing or seeding efforts, please contact the Fedora Unity team. Contact information is available at http://fedoraunity.org/.

Ubuntu 6.06 LTS Released

Ubuntu, which has become one of the world's most popular Linux distributions in recent years, launched its latest version on June 1 following months of intense testing. The new release is titled Ubuntu 6.06 LTS (Long Term Support), and has a specific emphasis on the needs of large organisations with both desktop and server versions.

Ubuntu 6.06 LTS introduces functionality that simplifies common Linux server deployment processes. For system administrators setting up large numbers of web, mail and related servers, Ubuntu 6.06 LTS offers the fastest and most consistent path to deployment, combined with the availability of global commercial support where needed. "Ubuntu has a reputation for working well out of the box on desktops, and we have worked to bring that same ease of deployment and configuration to the server marketplace" said Mark Shuttleworth, founder of the Ubuntu project.

Ubuntu is freely available, including security updates for five years on servers, with no restrictions on usage and no requirement to purchase support contracts or subscriptions per deployment. Full telephone & online support on commercial terms is available globally from Canonical Ltd and other companies. "The economics of Ubuntu deployment are fundamentally different from those of other leading Linux distributions that offer commercial support" said Jane Silber, COO of Canonical Ltd. "Companies and individuals can deploy Ubuntu widely, and purchase support only for the machines where they need the assurance of a Support Level Agreement. This makes Ubuntu the preferred choice for large scale deployments where support contracts are not essential on every machine."

Sun Microsystems and Canonical also announced this week that Ubuntu 6.06 LTS will support the UltraSPARC T1 processor on Sun Fire T1000 and T2000 servers. These SPARC-based systems join the list of architectures for which Canonical will offer technical support on a paid, commercial basis, starting at $700 USD per year for a single server. For more information, please see the Ubuntu support pages.

The Server Edition of Ubuntu 6.06 LTS includes a unique mechanism to set up a standardized, certified, and supported LAMP (Linux, Apache, MySQL and PHP) server with a single command. The feature greatly reduces the setup time for companies providing hosted LAMP services, as well as making it easier for organizations to set up and maintain their own LAMP-standardized servers. Canonical Ltd. also provides technical support for the full suite of components in the LAMP stack.

"This new (LAMP) functionality is the first of several planned fully-certified free software stacks in Ubuntu," said Fabio Massimo Di Nitto, product manager of Ubuntu Server Edition. "LAMP servers were the most popular use of Ubuntu in the data center, so we focused on that stack first" added Adam Conrad, Ubuntu's lead LAMP developer.

Ubuntu 6.06 LTS also has a new mechanism to make commercial software available, enabling businesses and individuals to download select software from Independent Software Vendors (ISVs). There are a variety of solutions available this way already, including data management software from Arkeia, cross-platform development tools from Raining Data, PC sharing from Userful and virtualisation from VMware. Additional software for Ubuntu from ISVs will be added in the coming months.

"Ubuntu and VMware have worked together to incorporate VMware's industry-leading virtualization capabilities in a freely available and easy to use manner for Ubuntu 6.06 LTS," said Dan Chu, senior director of developer products. "Any Ubuntu user can automatically install VMware Player from the Ubuntu package manager."

Ubuntu is part of the Debian family of distributions. As such it has an extremely wide selection of software that is instantly available to Ubuntu users, and includes some of the world's best-regarded software for the management of software updates and changes. "Debian is integral to the success and popularity of Ubuntu" said Matt Zimmerman, CTO of Ubuntu.

A special added bonus of Ubuntu 6.06 LTS is the inclusion of several chapters from "The Official Ubuntu Book", which Prentice Hall Professional will

publish in July 2006, under an Open Content license. The book represents the collaborative effort of more than a dozen Ubuntu community members from around the world. The book can be pre-ordered at http://www.prenhallprofessional.com/ubuntu.

Google's Picasa Painted to a Linux Canvas

By Brian Proffitt, Linux Today

Linux users and Google watchers received a surprise treat recently with the announcement that the company was releasing a Linux version of their photo management tool, Picasa. Google Open Source Program Manager Chris DiBona contacted Linux Today earlier to elaborate on the news.

According to DiBona, the port of Picasa to the Linux platform will not only give Linux users one more Google application for their general use, but this release will also assist other software developers in their port projects as well.

The reason for this, DiBona explained, is that to enable the Linux version of Picasa, the Google development team relied on the WINE Project's emulation technology.

Wine is a translation layer (a program loader) capable of running Windows applications on Linux and other POSIX compatible operating systems (x86 architecture only). Windows programs running in Wine act as native programs would, running without the performance or memory usage penalties of an emulator, with a similar look and feel to other applications on your desktop.

Specifically, Picasa will use WINE internally in order to function on Linux. In doing so, he added, "we made some pretty big additions to WINE." These additions will be added back to the WINE Project right away. Google's 225 patches for WINE can be downloaded from the new WINE page at the code.google.com site.

DiBona explained that Google was able to work extensively with CodeWeavers to implement the Picasa port with WINE. With these additions to the WINE code, DiBona said, "it should make it a lot easier for other projects to get their applications ported to Linux."

Picasa, founded in 2001, was purchased by Google in July of 2004, and the photo management tool has seen some extensive use, albeit from Windows users. DiBona indicated that Google made a public commitment to begin porting two applications to Linux about a year ago. The other application in this project is Google Earth. Picasa for Linux was announced first simply because it was finished first.

When asked if the additions to WINE would bootstrap Google Earth's porting progress, DiBona answered in the negative, explaining that Google Earth relied on Qt and GL libraries and code, so additional WINE support would not help. No timeline for that application's release was revealed at this time.

Picasa for Linux is available as a "lab release," DiBona said, with final tweaks and bug fixes coming out soon. Users should see functionality comparable to the Windows version of the product, though without a few features. Most notably absent now is the ability to burn CDs. The application's internationalization support is not active as yet, either. Picasa for Linux has been tested and runs well on Debian- and Red Hat-based distros, as well as Mandriva Linux, DiBona stated.

Picasa for Linux Development

Dan Kegel (dank at kegel.com)

Google has indeed been working on Picasa, and it's finally available for download at http://labs.google.com/. For the curious, here are a few tidbits about how it came to be.

When Google wanted to port Picasa to Linux, they faced a problem: the Picasa team was busy working on new projects, and having them also do a native port would have taken a while. As an experiment, Google decided to give Wine a try. A quick look showed that much of Picasa already worked, but key features were missing: the IWebBrowser API, SSL, scanner/camera support, removable media notification (so you can insert a flash drive and have Windows notice it right away), and change notification (so Windows can notify apps when new files are created), among others. Fortunately, Wine was already

halfway to having an implementation of IWebBrowser thanks to Jacek Caban's Summer of Code 2005 project. And all that other stuff couldn't be *that* hard, right? So Google engaged CodeWeavers to add those features and fix any other bugs. This resulted in tons of improvements to Wine (see the list at code.google.com/wine.html), all of which are now in the public tree at winehq.org.

Many people assume that when porting a Windows app to Linux using Wine, the best thing to do is link Winelib into the application to create a native Linux application. Not so! It's just as effective and a heck of a lot easier to run the same binary on both Windows and Wine. So that's what the Picasa team did. Picasa for Linux uses slightly different text messages, but the .exe file is identical for both Windows and Linux.

Toward the very end, everything was looking great except that the initial assumption that most cameras emulate storage devices turned out to be wrong. Fortunately, Marcus Meissner just happened to decide to implement libgphoto support; his patch appeared at the perfect moment, and now Picasa supports both common flavors of cameras.

Two features left out of the Linux version were CD-ROM burning (the driver Picasa uses is hard to support under Wine) and movie playback (Wine doesn't have the necessary codecs). Both are potentially fixable in a future version, but were beyond the scope of this first port.

One interesting challenge when shipping commercial apps for Linux is packaging – do you choose RPM or Debian packages, or do you use a Windows-style installer? The Picasa for Linux team chose all three, in hopes of pleasing everybody. (Let's see how well *that* works!) The Windows-style installer was implemented using the open-source Loki installer, and a few patches were contributed back for that, too.

Announcing Wine-doors!

Wine-doors is an application which assists in the installation of Win32 applications on UNIX using the wine compatibility layer.

You can poke at the alpha code by pointing your browser at http://www.wine-doors.org/trac.

Screenshots: http://www.wine-doors.org/trac/wiki/Screenshots

Wine-doors provides a 'yum' style interface for management of windows applications and libraries on UNIX, allowing the user to specify multiple repositories and retrieve information about applications before installing them using xml descriptions in PackLists and ApplicationPacks. Wine-doors also keeps track of installed applications and allows the community to manage ApplicationPacks to ensure smooth installation and execution on Linux also providing desktop entries ensuring adequate shell integration with the Gnome/KDE desktops.

Wine-doors is intended to replace winetools as a windows application management GUI. The developers are actively seeking additional developers familiar in python, xml and (less importantly) bash.

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Share Your Thoughts

E-mail us with your comments on the newsletter, whether criticisms or commendations, and continue to send in articles or ideas for the same. Specifically, what sort of material you would rather see: Announcements, technical articles, new products, or…?

If you have a How-To or other idea, and aren't ready to give a presentation at MUUG, an article is a great alternative! If you can write better than the editor, that's terrific; if you can't, submit it anyway and we'll get it into shape for publication. We know that many of you have some great ideas and lots of knowledge. Why not share? Send mail to: **editor@muug.mb.ca**.