MUUGlines

THE MANITOBA UNIX USER GROUP NEWSLETTER

May 9, 2006: A MythTV Implementation

MythTV is a popular open-source TV-recording package. Combined with the right hardware and configured correctly, it can take the stress out of keeping up with your favourite shows, despite frequent schedule changes and re-runs.

Kevin McGregor will talk about his experiences setting up MythTV on Ubuntu Linux.

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 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.

Limited parking is available for free on the street or in a lot across Ellice Avenue from IBM, for $1.00 for the evening. Indoor parking is also available nearby, at Portage Place, for $3.00 for the evening.

Book Review: Build Your Own Database Driven Website Using PHP & MySQL

By Kevin Yank
SitePoint Pty, Ltd
ISBN: 0-9752402-1-8
350 pages, $57.96 CND

Reviewed by Doug Shewfelt

This book bills itself as "a practical step-by-step guide" to PHP and MySQL. The author says that he wrote the book for web designers who have a basic knowledge of HTML, but with little experience with scripting. It follows a tutorial approach – the author presents a sample project and shows the steps involved in building the application.

The book undertakes a surprisingly broad range of

topics. Besides introducing PHP, it assumes that the reader has little programming knowledge, and explains the basics of writing code. It introduces SQL queries and the basics of installing and administering a MySQL database. It provides tutorials in HTML cookies, sessions, and access control, a chapter on relational database design, and a chapter that introduces regular expressions.

To fit this breadth into a reasonably sized book, the author had to pass rapidly through all this material. The level of knowledge required ramps up fairly quickly in each chapter. For this reason, I'm not sure that the book has a clear audience. There is a lot of material for a beginner to digest. On the other hand, a more experienced developer would have to skim through a lot of elementary explanations before getting to the more advanced material. Also, the breadth of scope means that there is little depth, with little explorations of the options available to the web developer. The book focuses on delivering just enough information to advance the next step of the tutorial project.

Therefore, I see this book as a launch platform for other texts. It will provide a once-over-quickly introduction to PHP, but both beginning and advanced developers may look for other books to add depth to their understanding.

Google: Summer of Code 2006

From the Google website

Summer of Code 2006 is a program that offers student developers stipends to create new open source programs or to help currently established projects. Google will be working with a variety of open source, free software, and technology-related groups to identify and fund several hundred projects over a three-month period. The inaugural instance of the program, which took place last summer, brought together 400 students and 40 mentoring organizations from 49 countries. We'd like to include even more organizations and participants this year.

The program's goals are to inspire young developers and provide students in Computer Science and related fields the opportunity to do work related to their academic pursuits during the summer, and to support existing open source projects and organizations. Since we're looking to find developers around the world (many of whom may have considered creating open source software but haven't yet taken the plunge), we felt that concentrating on the student population was a good place to focus our efforts. Further, since no single organization could possibly mentor hundreds of students working on disparate projects, we thought it made sense to spread the work throughout the open source and free software community. We also think that the Apache Software Foundation (for instance) knows a lot more about what an Apache project needs than Google does and is more likely to ensure that an applicant gets the right kind of guidance so they can create acceptable code.

Google began taking applications on May 1, 2006. For further details, see code.google.com/soc. Yes, there is a t-shirt involved.

Seven Years of DMCA

In the seven years since the U.S. Congress enacted the Digital Millennium Copyright Act (DMCA), examples of the law's impact on legitimate consumers, scientists, and competitors continue to mount. A new report released today from the Electronic Frontier Foundation (EFF), "Unintended Consequences: Seven Years Under the DMCA," collects reports of the misuses of the DMCA – chilling free expression and scientific research, jeopardizing fair use, impeding competition and innovation, and interfering with other laws on the books. The report updates a previous version issued by EFF in 2003.

The report tells the story of the delay of the disclosure of the Sony BMG "rootkit" vulnerabilities on millions of music CDs. The dangerous software flaws were initially discovered by Princeton graduate student J. Alex Halderman. But Halderman delayed sounding the alarm about the security problems for several weeks so he could consult with lawyers about potential violations of the DMCA. The report also details the DMCA's role in impeding RealNetworks from selling digital music to Apple iPod own-

ers, along with other unintended consequences from the DMCA.

"Rather than being used to stop 'piracy,' the DMCA has predominantly been used to threaten and sue legitimate consumers, scientists, publishers, and competitors," said EFF senior staff attorney Fred von Lohmann. "This law is not being used as Congress intended, and a review of the past seven years makes it clear that reform is needed."

For "Unintended Consequences: Seven Years Under the DMCA":
http://www.eff.org/IP/DMCA/?f=unintended_consequences.html

For more on EFF and the DMCA:
http://www.eff.org/IP/DMCA/

OpenVZ Supports FC 5

The OpenVZ project announced availability of its operating system level server virtualization software for Fedora Core 5, which only recently became available. Also, the industry-exclusive "zero downtime migration" feature will be made available for the OpenVZ software.

Last month, OpenVZ (http://openvz.org) announced its availability on the latest SUSE Linux kernel and the latest Linux kernel 2.6.16.

"We've now taken the important step of delivering our OpenVZ software on the major Linux distributions so that many users can see the benefits of our technology," said Kir Kolyshkin, manager of the OpenVZ project. "Our goal, of course, is to gain adoption as part of the mainstream and other Linux distributions. Delivery of the zero downtime migration functionality as part of OpenVZ brings a capability which no other open source virtualization software offers."

Open VZ for Fedora Core 5

The OpenVZ kernel for Fedora Core 5 is available for download from http://openvz.org/download/kernel/fc5. In addition, the OpenVZ project is making available Fedora Core 5 templates for virtual environments (previously called Virtual Private Server, or VPS), which enable real-time provisioning of servers and give users full use of Fedora applications. The Fedora Core 5 templates allow for almost instant (in many cases about a minute) provisioning of an OpenVZ virtual environment – giving customers with applications running on Fedora the ability to run those applications on a virtual server, rather than a full server. Templates for Fedora Core 5 are available for download at http://openvz.org/download/template/.

Zero Downtime Migration

The OpenVZ project announced it will add the industry-exclusive "zero downtime migration" feature that allows IT professionals to move virtual servers between physical servers without end-user disruption or the need for costly storage capacity.

Using the zero downtime migration function captures the state of an existing virtual environment and its contents and migrates it to a new physical server without any interruption in service or availability. The function executes between any two servers on a network, so the capability works for any server and any application. OpenVZ delivers this capability without additional requirements, such as a storage area network (SAN). The zero downtime migration feature will be made available for download later this month.

About the OpenVZ Project

The OpenVZ project freely distributes and offers support to its users, promoting operating system virtualization through a collaborative, community effort.

OpenVZ software comes with user tools that help automate management of virtual servers. OpenVZ creates isolated, secure virtual environments on a single physical server – enabling greater server utilization and superior availability with fewer performance penalties. The virtual servers perform and execute like independent servers with their own memory, configuration files, users and applications. Each can be re-booted independently.

With the power of modern CPUs from both Intel and AMD (including the latest dual-core offerings), hardware is often under utilized. With virtualization technology, the server can effectively be split into

many small ones, each running its tasks so that the whole server is utilized more efficiently.

OpenVZ software serves the needs of the community developers, testers, documentation experts, and other technology enthusiasts who wish to participate in and accelerate the technology development process. OpenVZ, supported by SWsoft, is a subset of the Virtuozzo virtualization software product. Also, the OpenVZ project maintains a blog site discussing virtualization technology, which can be accessed here, http://blog.openvz.org.

Oracle Cluster File System

Oracle announced that its cluster file system has been accepted into the mainline Linux kernel. As the first cluster file system to be distributed with the Linux kernel, Oracle® Cluster File System 2 (OCFS Release 2) provides users with an open source alternative to proprietary cluster file systems.

"This is a vital contribution to the open source community," said Andrew Morton, Linux 2.6 kernel maintainer. "The endorsement of OCFS 2 by the Linux community represents a significant milestone for Oracle."

By distributing OCFS Release 2 through the mainline Linux kernel and major Linux distributors, such as Novell, Oracle reaffirms its commitment to sharing technology that benefits the larger Linux community. OCFS Release 2 will be included in the mainline Linux kernel 2.6.16 and is already supported on the SUSE Linux Enterprise platform from Novell and Red Hat Enterprise Linux 4.

Novell is a contributor to the OCFS open source project. OCFS Release 2 is included as a standard component in the SUSE Linux Enterprise distribution, thus enabling customers to quickly and easily deploy a cluster file management solution when they install Linux in their enterprise. Fedora Core 5 is also based on the mainline Linux kernel 2.6.16 and therefore ships with OCSF Release 2.

"Oracle Cluster File System Release 2 delivers significant cluster file management improvements that help our customers reduce IT costs without compromising quality or performance," said Roger Levy, vice president and general manager of Open Platform Solutions for Novell. "With OCSF2 as part of the mainline kernel, the broader Linux community wins. Novell has made OCSF2 part of our SUSE Linux Enterprise distribution to give our customers a pre-integrated environment to help them deploy their resources more effectively."

Designed to work as a seamless addition to the Linux kernel, OCFS Release 2 significantly eases system management while improving performance. It enables all nodes in a cluster to concurrently access a given file system, allowing for simplified management of databases that are shared across a cluster. OCFS Release 2 also includes expanded capabilities to run non-database, standard file system operations, providing additional value as a general-purpose file management system.

OCFS Release 2 is offered for free under the terms of the General Public Use license and GNU public license. Download and additional information can be found here: http://oss.oracle.com/projects/ocfs2/

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