

# MUUGLines

The Manitoba UNIX User Group Newsletter

March 2008 Volume 20 No. 7

## Next Meeting: March 11th, 2008



### Rockbox

Montana Quiring and Jeff Green will present Rockbox, the open source firmware for MP3 media players. It aims to be considerably more functional and efficient than your device's stock firmware while remaining easy to use and customizable. It runs on a plethora of hardware platforms and frees the user from the shackles of DRM. Visit <http://www.rockbox.org/> for more info on the players it supports.

### Where to find the Meeting



Meetings are held at the IBM offices at 400 Ellice Avenue between Edmonton and Kennedy (see aerial view at left). When you arrive, you will have to sign in at the reception desk, and

then wait for someone to take you (in groups) to the meeting room. Please try to arrive by about 7:15pm, so the meeting can start promptly at 7:30pm. Don't be late, or you may not get in – but don't come too early either, since security may not be there to let you in before 7:15 or so. Clearly, the suggestion is: Punctuality is appreciated. *Non-members are welcome, but may be required to show photo ID at the security desk.*

Limited parking is available for free on the street, either on Ellice Avenue or on some of the intersecting

streets. Indoor parking is also available nearby, at Portage Place, for \$3.00 for the evening. Bicycle parking is available in a bike rack under video surveillance located behind the building on Webb Place.

### Upcoming Meetings:

#### April 8th, 2008: Demonstration of the OLPC XO Computer

There will be a demonstration of the One Laptop Per Child (OLPC) computer at the April MUUG meeting. This laptop is meant to be a low-cost, perhaps \$100, computer to be used by students in third-world countries. It is being developed by an organization headed by Nicholas Negroponte (from MIT) and, in his words, "It's an education project, not a laptop project."

Here is how the OLPC organization describes its mission:

The mission of the One Laptop per Child (OLPC) movement is to ensure that all school-aged children in the developing world are able to engage effectively with their own personal laptop, networked to the world, so that they, their families and their communities can openly learn and learn about learning.

The OLPC Association focuses on designing, manufacturing, and distributing laptops to children in lesser developed countries, initially concentrating on those governments that have made commitments for the funding and program sup-

port required to ensure that all of their children own and can effectively use a laptop.

Initial focus is on the launch of the One Laptop per Child program. In the future, the OLPC Foundation will focus on the grassroots, “bottom-up” aspects of the OLPC mission.

At the end of last year, there was a special program called the Give One Get One (GOGO) that allowed Canadians to purchase two of the laptops: one for personal use and one to be donated to a third-world country. It was a huge success.

Several members of MUUG bought laptops under the GOGO program, and this will allow us to demonstrate them at the April meeting. It is particularly appropriate since the operating system is indeed Linux.

Here is a brief description of the laptop: it is really small (25cm by 23cm by 3 cm) with a high-impact plastic case and a membrane-covered keyboard. It looks like it came from Toys-R-Us! The release catches for opening the display are actually two antennae that allow wireless access. The display itself is surrounded by two speakers, two microphones, a camera, as well as power, battery and activity buttons. The keyboard has three touchpads, only one of which is used. There is a two button mouse key, but again only one is used. On the edges of the display are three usb ports, audio in and headphone jacks. There is also provision to install extra memory using an SD card.

There is a variety of software that comes with the laptop. It includes a web browser (which also reads PDF's), a python compiler, and programs for creating audio and video files. It also has journaling software that is user-accessible. This acts like a history that allows the user to jump back to a previous session.

There is an installed window manager (called *sugar*) that is really different from what we are used to on a Linux machine. We'll take a closer look at the demo.

In addition and not surprisingly, the laptop comes with yum; there is a huge repository of files that may be transferred to this laptop.

It should be a fun evening. If you happen to have one of these laptops, please bring it along and we'll try to set up a meshnet.

*Future meeting topics are subject to change. Please check the MUUG web site for the most up-to-date details.*

## **Book Review: Bash Cookbook**

*Carl Albing, JP Vossen, and Cameron Newham  
O'Reilly, 2007*

*Reviewed by Michael Doob*

In the beginning, UNIX started with the Bourne shell. This was easily programmable, and allowed repetitious and complicated tasks to be automated. It could also be run interactively from a terminal, and the model of running programs as batched jobs was finished forever. This interactive use spawned a new shell, the C shell `csh` that was designed to facilitate terminal inputting with tools such as alias and history. Both `sh` and `csh` were expanded over time with versions such as `ksh` and `tcsh`, and both had their proponents. The common opinion was that `tcsh` was easier to use interactively and that `ksh` was better for writing executable scripts. An interesting web site is:

**[http://en.wikipedia.org/wiki/Comparison\\_of\\_computer\\_shells](http://en.wikipedia.org/wiki/Comparison_of_computer_shells)**

Bash (Bourne-again shell) has arisen from the GNU project. It attempts to be the best of both worlds, including all the programming constructs of the Bourne shell but also some of the interactive constructs (like command-line editing) of the C shell. It is now the default shell used in the vast majority of Linux implementations. The ability to use and understand the commands of `bash` are unquestionably necessary to understand and use any Linux system. At any level from beginner to advanced there are subtleties to be observed and interesting variations to be learned con-

cerning `bash`, and with this in mind the book under review came into being.

The first 150 pages (out of a total of 600) consists of fairly elementary examples of mostly interactive scripting. They proceed in a logical fashion and give enough information for a user to work with pre-built programs. If the goal is to reach this level, the examples given are helpful.

The next part of the book moves to tools that are really not part of `bash`: `awk`, `sed`, `sort`, `find` and `tar` for example. Most of these tools are relics from original versions of UNIX. They seem to be there as placeholders: something that can be referred to but is covered so quickly that it is only helpful if you have a pretty good mastery of the material already. A bit of knowledge about `perl`, for example, (to be fair, beyond the scope of this book) could replace many of these tools.

The latter part of the book covers a potpourri of different topics: secure scripting, customization and administrative shortcuts among others. These are fun to read, but are a little inconsistent in the assumed level of capability of the reader.

This book is not intended as a text for learning how to use `bash`. Indeed the book, *Classic Shell Scripting* by Arnold Robbins and Nelson H.F. Beebe (full disclosure: a friend of the reviewer) also published by O'Reilly is better suited for this task. In fairness, the book under review calls itself a cookbook, that is, a book that is to be sampled here and there for interesting ideas. It does succeed from this perspective.

## Biggest Linux Kernel Security Bug Ever?

Last month, a serious bug in the 2.6.23 version of the kernel was discovered and reported by Wojciech Purczynski. It uses the `vmsplice()` system call and allows an ordinary user to execute code with administrator privileges. New versions of the kernel are now available to fix the problem.

Want to know your kernel version? Use `'uname -r'` to find out.

Want to update your kernel? The source code for the (stable) version 2.6.24.3 is now on the web site <http://www.kernel.org/>. Most individual distributions have updates on their web site. The MUUG web site mirrors currently supported versions (7 and 8) of the Fedora distribution and their updates.

## Manitoba UNIX User Group

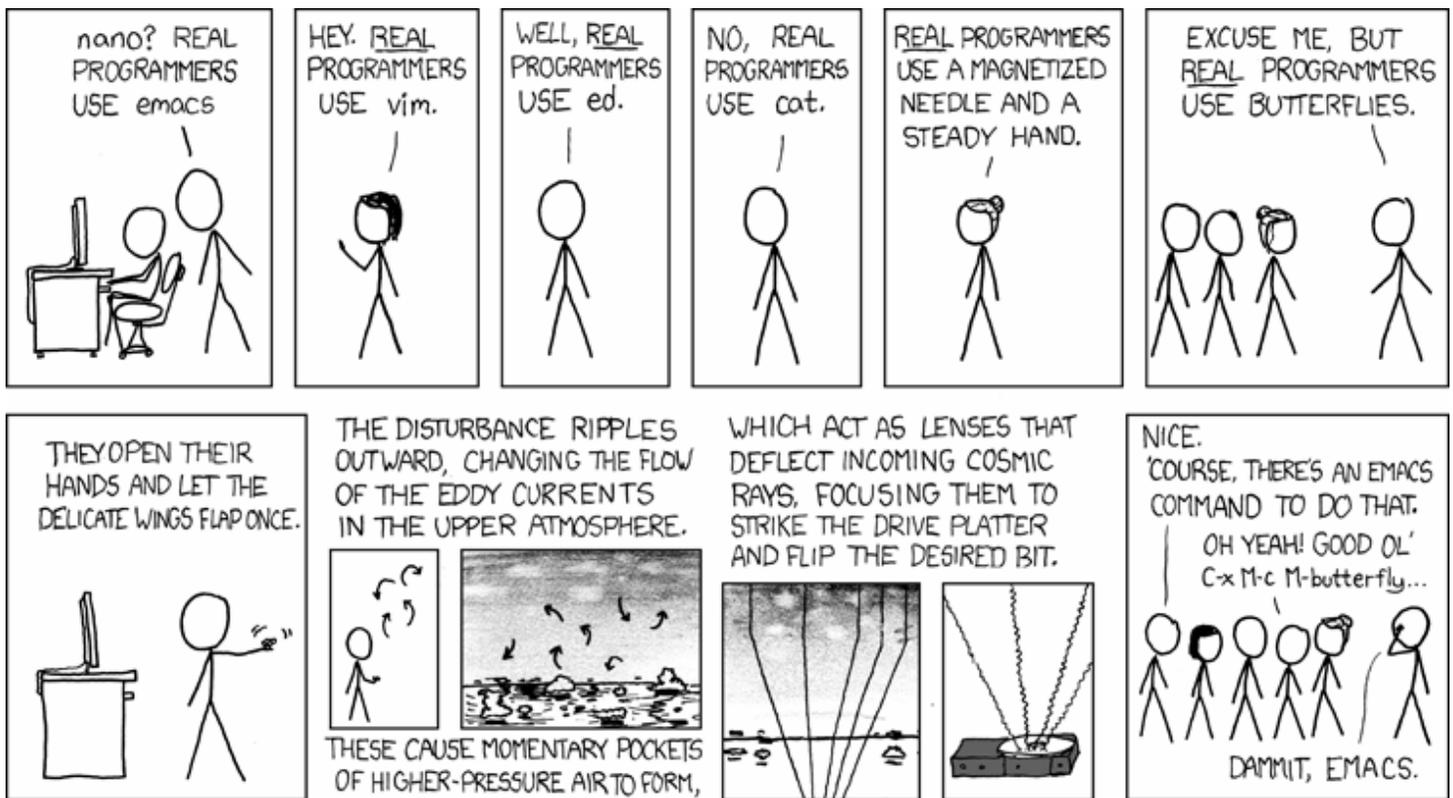
### Financial Statements for the 2006-2007 Season

#### Income Statement

Income	
Interest on account	\$0.15
Interest on GIC's	\$558.97
Membership sales	\$1,020.00
Total income	\$1,579.12
Expenses	
Bank charge	\$8.58
Christmas party	\$154.04
Gordon Meyers Lecture	\$1,279.72
Name Notation	\$45.00
Newsletter	\$908.06
Total expenses	\$2,395.40
Net Income	-\$816.28

#### Balance statement

Assets	
Bank Account	\$1,543.06
Investments (GIC's)	\$17,795.75
Total	\$19,338.81
Equity	
Retained Earnings	\$19,338.81
Total	\$19,338.81



As seen on <http://xkcd.com/378/>

*Pop-up title caption:* “Real programmers set the universal constants at the start such that the universe evolves to contain the disk with the data they want.” XKCD, a “webcomic of romance, sarcasm, math, and language,” is updated every Monday, Wednesday, and Friday.

This work is licensed under a Creative Commons Attribution-NonCommercial 2.5 License. This means that you are **free** to copy and reuse any of the drawings featured on <http://xkcd.com/> (non-commercially) as long as you tell people where they're from.

## Sending Us E-Mail?

Due to the amount of e-mail MUUG receives, we've set up an auto-reply to give you immediate feedback, and redirect some of the e-mail to the appropriate places. Why not look at <http://www.muug.mb.ca/about.html#contacts> first?

## Share Your Thoughts

E-mail us with your comments on the newsletter, whether it's 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](mailto:editor@muug.mb.ca).

186,282 miles per second: It isn't just a good idea, it's the law! (*From the "fortune" file*)

