

# MUUGLines

The Manitoba UNIX User Group Newsletter

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Editor: Trevor Cordes

**Next Meeting: September 13<sup>th</sup>, 2016,  
7:30pm**

## Main Topic: Midnight Commander



Brian Lowe will demonstrate and discuss Midnight Commander. It is a text-mode console-based file manager that combines a pair of easy to navigate file panels with a command line. Together they provide a powerful and versatile

environment for viewing, moving, and copying files and directories.

## RTFM: cal

This month Brad Vokey will demonstrate cal, a simple calendar display program for the command line. Learn some neat tricks about this useful tool.

## Where to Find the Meeting

### New Room! 1M28 Manitoba Hall

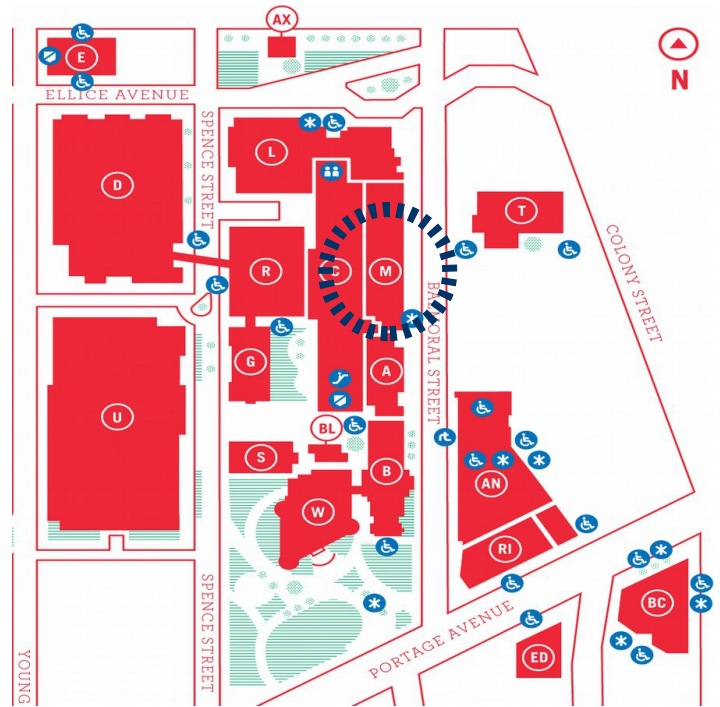
**New old room! Or, old new room!** This month's meeting is on the east side of campus in room 1M28, 1<sup>st</sup> floor, Manitoba Hall, close to Balmoral Street. Look for a sign on the door. Doors are usually open by 7:00 pm with the meeting starting at 7:30 pm. Parking is available on the surrounding streets. Please see <http://www.uwinnipeg.ca/maps> for further information about parking and access to the campus.

**The latest meeting details are always at:**

<https://muug.ca/meetings/>

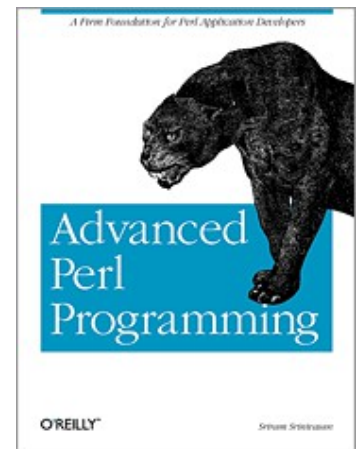
## Door Prize

This month we will be giving away the O'Reilly book: Advanced Perl Programming by Srinivasan; along with an assortment of eBooks and magazines.



Advanced Perl Programming will take your mastery of perl to the next level. Learn the details of classes, data structures, databases, networking, GUIs, and more.

As a reminder, entries for the door prizes are free to members and non-members, though the first draw is pulled from the members-only entries. Also, entrants must be present for the draw at the end of the meeting in order to win. Everyone is encouraged to enter the draw.



## EFF Calls Out Microsoft

Don't we have it so nice with \*NIX, in terms of privacy and control? EFF has recently lambasted Microsoft regarding Windows 10 and its horrible abuses of privacy. Windows 10 brings iOS-style user tracking to the Windows platform. EFF says it tracks:

*"location data, text input, voice input, touch input and web pages visited, along with telemetry data regarding general use of the computer, including programs run and for how long."*

They also railed at MS for the underhanded tactics used to trick users into upgrading. No, it wasn't just you. Now might be a good time to ditch MS and go all Linux (or BSD, or...)!

<http://tinyurl.com/zvwqw8o>

## Supercomputers, ECC & Cosmic Rays: Trouble On The Horizon

An article in IEEE Spectrum Magazine discusses the continuing problem of cosmic rays and radioactive solder affecting the resiliency of computers and supercomputers. In short, the problem is only getting worse as the industry pushes towards the exascale. ECC can help in a major way, but is not a panacea at the large computer level. Still, the article goes to show how valuable ECC can be for even the layman with his one home computer.

Particularly poignant and humorous is the anecdote about the attempt to make a supercomputer out of 1,100 PowerMac G5's. Lacking ECC, they found that the gestalt would rarely ever boot before crashing because cosmic rays were taking down at least one of the 1,100 during that short time period.

Moral of the story, ECC everything! Or, better yet, chipkill!

<http://tinyurl.com/jj7fpck>

## CVE Vulnerabilities By Date

CVE has a little-known web page that details the CVE counts by year. Of particular interest is the histogram in the lower part of the page. Between 2010 and 2013 vulnerability counts experienced a

lull, but 2014 experienced a record high followed by a near second-most high in 2015, with 2016 on track to be similar to 2015.

<http://www.cvedetails.com/browse-by-date.php>

## World Storage Factoid

from Wikipedia

*The world's technological capacity to store information grew from 2.6 ("optimally compressed") exabytes in 1986 to 15.8 in 1993, over 54.5 in 2000, and to 295 (optimally compressed) exabytes in 2007. This is equivalent to less than one CD (650 MB) per person in 1986 (539 MB per person), roughly four in 1993, 12 in 2000, and almost 61 in 2007. Piling up the imagined 404 billion CDs from 2007 would create a stack from the earth to the moon and a quarter of this distance beyond (with 1.2 mm thickness per CD).*

## Find Those Empty Dirs!

Here's a useful tidbit you can use to find empty directories in your system that you can then rmdir. This example runs in the current directory, but you can run it on any directory by replacing the dot near the beginning with a directory path.

It is advisable to rmdir empty directories only in "user", not "system", directories because package managers often create, and programs require, a few empty directories.

```
find . -xdev -type d -empty -ls \  
| sort -k 11,11
```

## Linux RAID-5 & RAID-6 Unchecked

Did you know that the Linux md RAID subsystem does not read the parity chunks during data reads (when in non-degraded mode)? It reads the minimum number of chunks required to determine the data written, and no more. This is likely for performance reasons, requiring fewer actual disk seeks and reads to achieve the same result. But is it the same?

Silent, undetected disk read errors could cause incorrect data to be returned to the OS and a running process. If the additional parity chunks in the higher RAID modes were read at the same time, the system could recalculate the entire stripe and detect, and correct, such errors.

So why doesn't the md subsystem do this, perhaps as an option? Well, this issue has been discussed on the Linux RAID mailing list with the top md developers. But nothing seems to have come from it yet.

Somewhat related, ZFS appears to have a solution that provides for these extra data integrity checks, so perhaps it would make a good possible choice for those requiring the utmost data integrity.

## Linus Rants On Comments

Linus Torvalds, in his usual controversial and blunt style, chimes in recently on commenting style etiquette in the kernel source code (censored):

*Can we please get rid of the brain-damaged stupid networking comment syntax style, PLEASE?*

*If the networking people cannot handle the pure awesomeness that is a balanced and symmetric traditional multi-line C style comments, then instead of the disgusting unbalanced crap that you guys use now, please just go all the way to the C++ mode..*

[...]

*But no, the networking code picked \*none\* of the above sane formats. Instead, it picked these two models that are just half-a\*\*\*\*d \*\*\*\*-for-brains:*

*(no)*

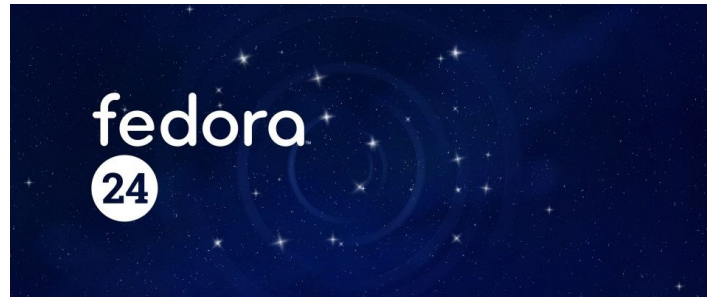
```
/* This is disgusting drug-induced  
* c***, and should die  
*/
```

[...]

*I'm not even going to start talking about the people who prefer to "box in" their comments, and line up both ends and have fancy boxes of stars around the whole thing. I'm sure that*

*looks really nice if you are out of your mind on LSD, and have nothing better to do than to worry about the right alignment of the asterisks.*

<http://tinyurl.com/jfk8gu7>



## Fedora 24 Released!

June 21 saw the release of Fedora 24. Not too much has changed other than the usual incremental upstream updates. It seems like more of a reason to stick to the 6-month-ish schedule, and force Fedora 22 users to suffer through a forced upgrade.

<http://tinyurl.com/z6mjzks>



## OpenBSD 6.0 Is Out!

*Version 6.0 of the free operating system OpenBSD has just been released. This release features much improved hardware and armv7 support, a new tool called proot for building software ports in an isolated chroot environment, W^X that is now strictly enforced by default, and removal of official support for Linux emulation, usermount, and systrace.*

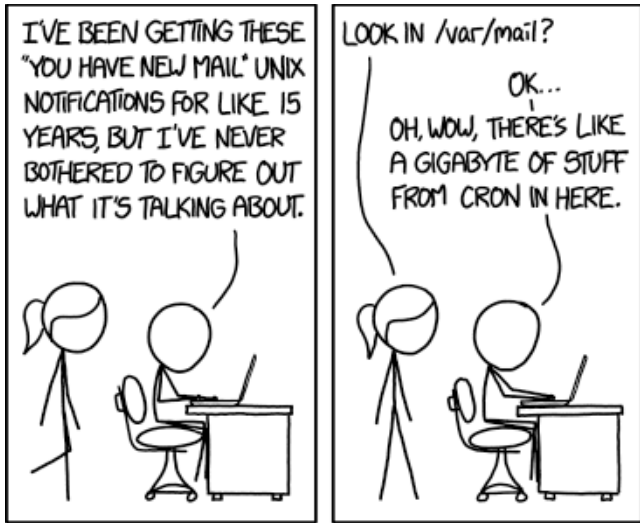
<http://tinyurl.com/j5msnoz>

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[xkcd.com/1728](http://xkcd.com/1728): cron mail

Take THAT, piece of 1980s-era infrastructure I've inexplicably maintained on my systems for 15 years despite never really learning how it works.

<http://xkcd.com/1728/>

[xkcd.com/1726](http://xkcd.com/1726): Unicode



WATCHING THE UNICODE PEOPLE TRY TO GOVERN THE INFINITE CHAOS OF HUMAN LANGUAGE WITH CONSISTENT TECHNICAL STANDARDS IS LIKE WATCHING HIGHWAY ENGINEERS TRY TO STEER A RIVER USING TRAFFIC SIGNS.

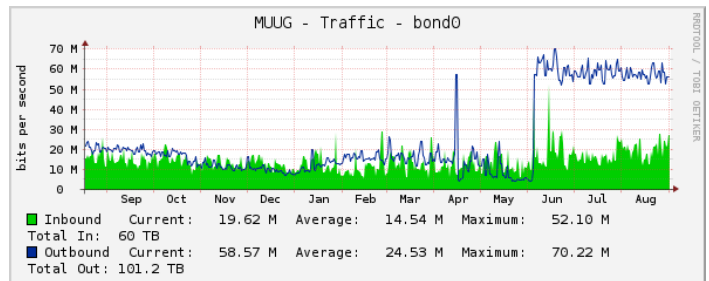
I'm excited about the proposal to add a "brontosaurus" emoji codepoint because it has the potential to bring together a half-dozen different groups of pedantic people into a single glorious internet argument.

<http://xkcd.com/1726/>



**New MUUG Server Traffic Up!**

The MUUG board has been busy over the spring, and since our last meeting in June, getting the new MUUG server into production use.



We've now got a lot of the repositories and code bases that we're mirroring registered with the upstream sources, which has considerably increased our outbound traffic since early June.

A big thanks to LES.net for providing MUUG with free hosting and all that bandwidth!



<https://les.net/>