

# MUUGLines

The Manitoba UNIX User Group Newsletter

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Editor: Katherine Scrupa

## Next Meeting: January 14<sup>th</sup>, 2020

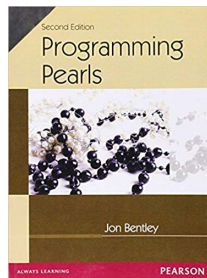
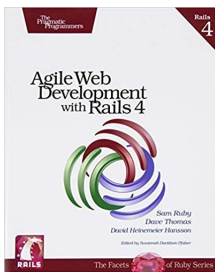
### Running Linux as a Windows App - Michael Doob

Windows Subsystem for Linux (WSL) allows the installation any of several different Linux distributions. They all utilize the Windows kernel. In this talk we discuss the good (really easy to get started) and the bad (where did X go?) with an emphasis on several demonstrations of the software capabilities.

### December Door Prizes:

We'll have our usual e-book giveaway, as well as these printed books:

- Agile Web Dev. with Rails 4
- Programming Pearls 2<sup>nd</sup> ed.



## MUUG Mirrors Experiencing Performance Problems

December 30, 2019

We had some hardware problems with the server last week of December / first week of January, which is causing some significant performance problems.

A biological bug is delaying the failing hardware from being replaced and reconfigured.

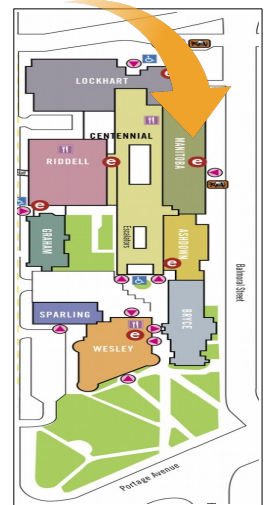
Please bear with us and use an alternate server over the next week if necessary.

## Where to Find the Meeting:

### University of Winnipeg, Room 1M28 Manitoba Hall

This month we have been moved back to the University of Winnipeg's Manitoba Hall, on the east side of the University Complex. Closest entrance is on Ellice Avenue, between Spence and Balmoral.

Doors are usually open by 7:00 pm with the meeting starting at 7:30 pm. Parking is available on the surrounding streets. See [uwinnipeg.ca/maps](http://uwinnipeg.ca/maps) for further information about parking and access to the campus.



## The INQUIRER Shuts Down Publication

The UK tech news site will remain live until the end of March, but its last article has already been published. The INQUIRER was known for its in-depth articles and sometimes-snarky reporting. Browse a little before it's gone for good!

<https://www.theinquirer.net/inquirer/news/3084741/the-inquirer-reaches-end-of-life>

## Sonos Intentionally Bricks Devices Set Into "Recycle Mode"

Older Sonos devices have a software feature called "Recycle Mode". Once activated, the device begins a 21-day countdown that renders it inoperable. The

“feature” is used for a trade-up program Sonos announced in October. Customers who participate in the program get a discount on newer Sonos speakers.

The original reporter of this issue, @atomicthumbs, made a point that the Sonos web site states “sustainability is non-negotiable,” and that Sonos states they “design products to minimize impact.”

@atomicthumbs is a Twitter user who works at an e-waste recycler. The bricked devices are impossible to re-use.

They also point out customers who accidentally set their device into Recycle Mode can not reverse or cancel the process, and Sonos has no recourse on their support forums. However, a Sonos spokesperson who spoke to The Verge said these situations can be remedied “on an individual basis.”

Hackers have asked for samples of speakers to determine how the kill switch works, however, there is some speculation “you can’t recover it if you’re good with JTAG, because it’s blacklisted as ‘recycled’ on their servers.”

There is also speculation the Sonos speakers sold at Ikea do not have this kill switch. Ikea itself has still not responded to questions about this feature.

Specifics details are lacking at this point in time - more research needs to be done.

(ed. note – at least some models of Sonos speakers use SMB1. Sweet dreams.)

<https://www.theverge.com/2019/12/30/21042871/sonos-recycle-mode-trade-up-program-controversy>

<https://techcommunity.microsoft.com/t5/storage-at-microsoft/smb1-product-clearing-house/ba-p/426008>

## Chinese Government to Replace all Windows OS Computers with Linux by 2022

Microsoft offered a “Chinese Government Edition” of Windows 10 in 2017, but this will no longer be considered sufficient. Chinese government services have been ordered to replace 30 per cent of their

devices in 2020, 50 per cent in 2021, and 20 per cent in 2022. Twenty to thirty million pieces of hardware will need to be replaced to comply with China’s 2017 Cyber Security Law. Private Chinese companies are not currently affected.

China’s choice operating system is Kylin OS, named after a mythical beast (quilin). Kylin (麒麟) is developed by academics at the National University of Defense Technology in the People’s Republic of China. The first versions, starting in 2001, were based on FreeBSD and were intended for use by the Chinese military and other government organizations. Version 3.0 became Linux-based. and there is a version called NeoKylin which was announced in 2010.

A separate project, Ubuntu Kylin, was announced in 2013.

Australian Financial Report claims the move is due to pressure by the US and Europe to not use Chinese technologies. However, there has also been a push by the Chinese government for “self-sufficiency” in software for some time.



<https://mspoweruser.com/china-replace-windows-pcs/>

## Changing Monitor Settings with Command Line

The DDC/CI (Display Data Channel Command Interface) can be used with external monitors that implement MCCS (Monitor Control Command Set) over I2C.

DDC can control brightness, contrast, inputs, etc on supported monitors. OSD (On-Screen Display) settings can often be managed via DDC.

The kernel module i2c-dev may need to be loaded if the /dev/i2c-\* devices do not exist.

ddcutil can be used to query and set brightness settings:

```
# ddcutil capabilities | grep "Feature: 10"
```

Feature: 10 (Brightness)

```
# ddcutil getvcp 10
```

VCP code 0x10 (Brightness): current value = 60, max value = 100

```
# ddcutil setvcp 10 70
```

Switching off the backlight can be useful to conserve battery energy for a laptop. Try the following command in any Xorg graphical session.

```
xset dpms force off
```

The backlight should switch on again on mouse movement or keyboard input. Alternately `xset s` could be used for a similar effect.

If these commands do not work, you may have to manually activate the backlight.

```
$ vbetool dpms off
```

To activate the backlight again:

```
$ vbetool dpms on
```

Find more details, tips, and tricks here:

[https://wiki.archlinux.org/index.php/Backlight#External\\_monitors](https://wiki.archlinux.org/index.php/Backlight#External_monitors)

## Python 2 Retire Date: January 1<sup>st</sup> April 2020

Change to Python 3, or else... we shall tell you again.

The Python Software Foundation announced on December 20, 2019 the last major version 2.7 will be released in April 2020. The original planned “last release” was in 2015, and then January 2020.

<http://pyfound.blogspot.com/2019/12/python-2-sunset.html>

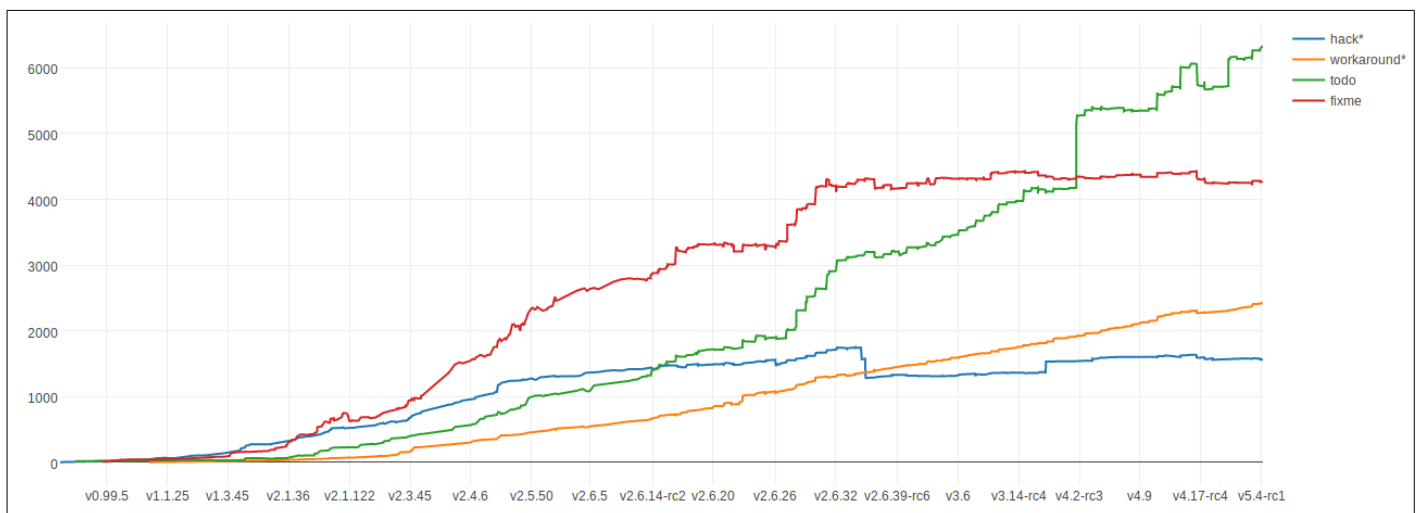
## Word Occurances in the Linux Kernel Over Time

As of v5.4 rc1 (far right):

- Line 1 (bottom), blue, “hack”, ~1500
- Line 2, orange, “workaround”, ~2200
- Line 3, red, “fixme”, ~4200
- Line 4, green, “todo”, ~6000

Interactive graph at:


[https://www.vidarholen.net/contents/wordcount/#hack\\*,workaround\\*,todo,fixme](https://www.vidarholen.net/contents/wordcount/#hack*,workaround*,todo,fixme)



## More UNIX History & Brian Kernighan Tidbits

How to succeed in language design without really trying

[https://www.youtube.com/watch?v=Sg4U4r\\_AgJU](https://www.youtube.com/watch?v=Sg4U4r_AgJU)

Plus Kernighan's favourite example of obfuscated AWK code 

Click on the link for text and "solutions" in 1500 other programming languages!

<http://99-bottles-of-beer.net/language-awk-1910.html>

```
#!/usr/bin/awk -f
BEGIN{
  split( \
    "no mo"\
    "rexxN"\
    "o mor"\
    "exsxx"\
    "Take "\
    "one dow"\
    "n and pas"\
    "s it around"\
    ", xGo to the "\
    "store and buy s"\
    "ome more, x bot"\
    "tlex of beerx o"\
    "n the wall" , s,\
    "x"); for( i=99 ;\
    i>=0; i--){ s[0]=\
    s[2] = i ; print \
    s[2 + !(i) ] s[8]\
    s[4+ !(i-1)] s[9]\
    s[10]", " s[!(i)]\
    s[8] s[4+ !(i-1)]\
    s[9]". ";i?s[0]--:\
    s[0] = 99; print \
    s[6+!i]s[!(s[0])]\
    s[8] s[4 +!(i-2)]\
    s[9]s[10] ".\n";}}
```

## Russian Police Raid NGINX Moscow Office

On December 12, two co-founders of NGINX, Konovalov and Sysoev were detained and equipment was seized. Sysoev's former employer, Rambler, is claiming a copyright violation and full ownership of the NGINX code. In a 2012 interview, Sysoev stated he developed NGINX in his free time.

<https://www.zdnet.com/article/russian-police-raid-nginx-moscow-office/>



**Help us promote this month's meeting**, by putting this poster up on your workplace bulletin board or other suitable public message board:

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

## Thank You LES.net

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



<https://les.net/>

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You must use the following referral link for MUUG to receive the credit:

<https://squareup.com/i/MANITOBAU1>

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