MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 33 No. 8, April 2021 Editor: Katherine Scrupa

Next Meeting: April 13th, 2021 (Online Jitsi Video Meeting)

Calibre eBook Reader – Chris Audet

Do you love to read, but your house is running out of space for books? Does your family poke fun at your messy ebook hoarding habits? Take back control of your library – this month Chris Audet will present an overview of Calibre, the world's best ebook management program.

Calibre can automatically organize books by author, series, etc. You can read directly in Calibre, or convert your books to use a dedicated device like a Kindle. You can even share your library over the web for your friends and family.

Join us for a brief overview of Calibre's history and features, and why you might choose to use it to manage your collection.

April Door Prizes:

Draw for one e-book: any Mastery title by Michael W. Lucas. (https://mwl.io) Thanks Michael! (See page 4.)

We'll also have our usual e-book giveaway. We have added additional e-books since last month.

Where to Find the Meeting:

jitsi.merlin.mb.ca/muug.2021.04

This month (just like last month) we are using our own online Jitsi meeting server hosted by merlin.mb.ca . The virtual meeting room will be open around 7:00 pm on April 13th, with the actual meeting starting at 7:30 pm. You do not need to install any special app or software to use Jitsi: you can use it via any modern webcam-enabled browser by going to the aforementioned link. No camera? Join without, or use your phone with the Android or iOS app! Thank you MERLIN (the Manitoba Education Research and Learning Information Networks) for providing the hosting and bandwidth for our meetings.

The latest meeting details are always at:

https://muug.ca/meetings/

Calibre Plugins

To complement this month's meeting, check out all the Calibre Plugins! Examples includes accessibility plugins, page generators for Amazon formatting, downloaders for metadata and covers from large booksellers and Goodreads, splitting tools, merging tools, library codes...

https://plugins.calibre-ebook.com/

~~~☠ CrAcKd by $tanf0rd crew ☠~~~

Stanford scientists have reverse engineered the mRNA code for the Moderna vaccine and posted it to Github. Would this be considered a checksum? Download your own rip of the vaccine now! [*insert 8-bit music here*]

https://www.vice.com/en/article/7k9gya/stanford-scientists-reverse-engineer-moderna-vaccine-post-code-on-github

Cosmopolitan and Actually Portable Executable

Programmer Justine Tunney developed Cosmopolitan based on a previous project "αctμally pδrtαblε εxεcμtαblε" (APE). APE encodes Windows Portable Executable files as a UNIX Sixth Edition shell script.

Justine's goal:

> "makes C a build-once run-anywhere language, like Java [...] reconfigures stock GCC to output a POSIX-approved polyglot format that runs natively on Linux + Mac + Windows + FreeBSD + OpenBSD + BIOS with the best possible performance and the tiniest footprint imaginable"

https://justine.lol/ape.html

An Exercise in Augmented Reality Applications

by Katherine Scrupa

Many people familiar with Augmented Reality (AR) or Mixed Reality (MR) applications as games. These apps solve the "problem" of "that's a cool futuristic toy."

You may see videos of people using AR to rotate a car in the air and think, "Neat, I guess. But what do I do with it?"

AR applications have been available in classrooms for a while, such as document cameras and software used in tandem with a cube that has six unique patterns on its sides. Rotate the cube under the camera, and an object of your choosing – such as a 3D model of human heart – will rotate on screen. This may especially help with visual learners.

Recently, another AR application, Pattarina, came up in my Twitter feed.

The problem this Pattarina solves is large scale pattern printing is wasteful, time-consuming, and expensive.

I recently bought a hard-to-find pattern from Germany as a PDF for $23 CAD. My options were printing 68 pages and taping many of them together (keeping them square), or getting it printed locally as a blueprint for an additional $25. By contrast, printed patterns in store are ready to go, for $5 – $15 (if you keep an eye on sales).

Pattarina allows you to use patterns at home, with no specialized equipment – all you need is your cell phone, and a pre-printed paper the camera uses to determine orientation and skew of a 2D surface (the fabric). Select a sewing pattern in Patterina, place the page on the fabric, and the Patterina software uses AR to show where to trace the pattern on the fabric. No printing or taping needed, no trips to the printers, no extra cost.

As other MUUG Board members pointed out, the usability of this may vary by person. Learning style, neurodiversity, age/eyesight/eye conditions, and disabilities will all affect if and how it can be used.

How could the AR option be improved to reduce the barriers? A steady frame for the cameraphone? A modifier on a digital flashlight to show the tracing lines on a surface (mini projector)? Something with lasers that lights the tracing on the surface?

What other applications can this be used for? Landscaping? Woodworking? Car and home repair?

https://www.pattarina.de/english.html

Linux Kernel Bugs Almost Old Enough to Drive

US-based Cybersecurity group GRIMM noticed these bugs and have reported them to the Linux Security Team. Patches became available March 7, 2021. The bugs stem from a 15-year-old SCSI driver. Even if you don't use SCSI, the vulnerabilities are still in play.

CVE-2021-27365, Heap Buffer Overflow (iSCSI)

CVE-2021-27363 Pointer Leak to Userspace (iSCSI)

CVE-2021-27364 Out-of-Bounds Read (iSCSI)

See the link for a well-written explanation of how the vulnerabilities work and how they can be exploited.

https://blog.grimm-co.com/2021/03/new-old-bugs-in-linux-kernel.html

FileZilla and PuTTY Share More Than You Think

Security researcher Didier Stevens noticed a popup for one of their SSH Fingerprints when using SFTP via FileZilla, which they weren't expecting. Then they connected with a SSH Client, but the Fingerprint was the same. Inspection with proxmon (a handy tool for Windows process, registry, and file activity) revealed FileZilla looking for the key in PuTTY's registry keys.

It turns out fzsftp.exe, used by FileZilla, is a fork of PuTTY's psftp.exe. FileZilla will use any keys gained via PuTTY, and vice versa.

https://blog.didierstevens.com/2021/03/27/filezilla-uses-puttys-registry-fingerprint-cache/

rClone – Mount Cloud Storage as Network Disk

Do you use rClone? It's an open source command line tool for mounting cloud storage systems on a variety of platforms.

Backup (and encrypt) files to cloud storage

Restore (and decrypt) files from cloud storage

Mirror cloud data to other cloud services or locally

Migrate data to cloud, or between cloud storage vendors

Mount multiple, encrypted, cached or diverse cloud storage as a disk

Analyse and account for data held on cloud storage using `lsf`, `ljson`, `size`, `ncdu`

`Union` file systems together to present multiple local and/or cloud file systems as one

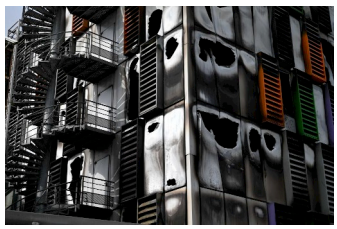
https://rclone.org/

Need a Mainframe Training Plan?

"Evil Mainframe" z/OS Pentesting Course – World's first (and only?) mainframe pentesting course is being offered online!

https://www.eventbrite.com/e/evil-mainframe-training-online-tickets-145350422025

OVH Data Centre Fire in France



On March 10, 2021, an early morning fire destroyed one Strasbourg, France, data centre and part of another. The Strasbourg data centre is located near the German border. The fire was caused by a faulty UPS that had been serviced the day before. No one was injured in the fire. OVH runs 27 data centres around the world and has a 3.1% market share of web hosting.

Aftermath updates from the CEO, Octave Klaba:

March 29:

> We are facing lot of blockers and the unpredictable issues that should have been fixed but are not yet. Exemple [sic]: the elevator in SBG3 is not fixed yet. Consequence: we have to use the stairway for all servers coming from Croix 1by1.

March 30:

> We delivered > 7K servers. Still 3K in the backlog. Everyday we add 450-500 servers. 5-10 days ? depends on the type of the server. Also, we plan to deliver in GRA+RBX all the remains services that was destroyed in SBG2 and apply 6m for free.

March 31st:

> On 1235 backups on 19486 backups, 6%, a small part of the file isn't there. Since all files are encrypted, we can't partially rebuild 1235 backup with the data we have. We continue to check, but .. :/ All 18251 backups (VPS / PCI) are in progress.

April 1st:

> In the SBG3 we have the security guard walking and checking if everything is okey [sic]. This morning at 6am, they felt something strange in the air and found out it's coming from UPS11T3. We immediately bypass/shutdown the UPS and we called the firefighter
>
> The firefighters came and checked the temp everywhere: no smoke, no fire. They left the site. On the front of this UPS, we see that the small filter is burnt. I won't give any fast conclusion. No impact on the services.

😬😬😬

https://www.theregister.com/2021/03/12/ovh_restoration_roadmap/

https://twitter.com/olesovhcom

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Thank You LES.net

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

https://les.net/

Thanks to Michael W. Lucas

MUUG would like to thank Michael W. Lucas for donating one of his ebooks every month as a door prize. You can view and purchase his tech books here:

https://www.tiltedwindmillpress.com/product-category/tech/

$1,000 worth of Free Credit Card Processing!

Sign up with Square (the credit card processor that MUUG uses at our monthly meetings) with the referral link below and ***both you and MUUG*** will receive $1,000 in free processing for the next 6 months (180 days).

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

https://squareup.com/i/MANITOBAU1