MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 34 No. 7, March 2022 Editor: Tyhr Trubiak

Next Meeting: March 8th, 2022 (Online Video Meeting)

Serverless web sites with AWS - Wyatt Zacharias

What? How do you host websites without a server? Impossible? Log in to find out!

RTFM: tldr - A Simpler Alternative to Man

This month, Brad Vokey will give us a quick demo of the tldr command that he introduced to us in the December 2021 newsletter.

tldr is a Python command line client to the TLDR pages. The TLDR pages is a free and open-source collaborative software documentation project that aims to be a simpler, more approachable complement to traditional man pages. It's a collection of community-maintained help pages that covers command-line utilities and other computer programs.

Roundtable moderator: Gilbert E. Detillieux

The latest meeting details are always at:
https://muug.ca/meetings/

Where to Find the Meeting:

This month we will continue to use the open source meeting software: Big Blue Button. If you haven't tried it yet, we recommend joining the meeting a little early to familiarize yourself with the controls.

The virtual meeting room will be open by 7:00 pm on March 8th, 2022 with the actual meeting starting at 7:30 pm. You do not need to install any special app or software to use Big Blue Button: you can use it via any modern web-cam-enabled browser by going to the website link above.

Please note that the meeting link will not be active until approx. 30 minutes before the actually meeting date and time.

Teach an Old Dog New Tricks!

Slackware is the oldest actively maintained Linux distribution. Version 15.0 was just released at the start of February, 2022.
Note that February's editor Alberto correctly predicted this in the newsletter. I'm not saying he can see into the future, but I'm also not dismissing any lottery numbers or crypto-currency advice he offers...

The previous release cycle, 14.2, was introduced in 2016. Slackware 1.00 was originally distributed on July 17, 1993 and was installed 24 3½" floppy disks.

Systemd...is still not used. Their message for this version is "Keep it familiar, but make it modern."

It now offers kernel 5.15.19, PAM, PipeWire and PulseAudio, Wayland and X11 graphical systems, and Rust and Python 3.

It's available from a variety of mirrors and soon will have BitTorrent downloads. A far cry from the multitude of previous floppy disk experiences.

https://linux.slashdot.org/story/22/02/04/027213/slackware-the-oldest-actively-maintained-linux-distro-releases-version-150

Squeezing in Tiny Core Linux

The smallest linux distro ever made...earns the biggest, fattest graphics on this page.

The TinyCore ISO image is only 21MB. It can even run on an i486 with 48MB of RAM!

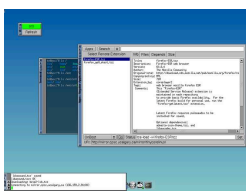
The founder of this distro, Robert Shingledecker, had previously developed Damn Small Linux. So I see a theme here. Apparently while many groups seem to be making things bigger and bloated, Robert focuses on making things smaller.

The entire system will be copied into RAM, which makes the operation of Tiny Core Linux very nimble and quick.

It can either be ran like a live distro, or in "TCE/CopyFS" where programs are saved to the hard drive but kept as symbolic links in RAM.

This reminds me of my old Amiga days where I loaded the OS into a RAMdisk. While it took more time at boot, but was significantly operationally faster than running from the floppy drives, because I could not afford a hard drive at the time...

There are 3 installation choices: Core, TinyCore, and CorePlus. Core, being the most minimal with only a console interface, TinyCore including a GUI, and CorePlus, which includes Wi-Fi drivers and tips the scales at 163MB.



Tiny Core Linux uses the FLWM window manager for its desktop environment. It is very functional, and perhaps exhibits a bit of the late 90's look and feel when compared to modern desktops.
I loved the 90's!

It may not be your first choice for an everyday desktop workstation, but can find its niche with embedded systems like a router or a very minimal server, or for those that are interested in digital minimalism.

Linus Torvalds Moving the Linux Kernel to Modern C

The Linux kernel's foundation is the ancient C89 standard of C. Now, Torvalds has decided to upgrade to 2011's more modern C11 standard.

Linux is written in C, the 1989 version of C, aka C89, also known as ANSI X3.159-1989, or ANSI C. Linus Torvalds has decided to move Linux's official C to 2011's C11 standard.

editor's note: have we learned nothing from Y2K and dates? C11 is the newer version to C89?

A C11 compliant compiler won't have any trouble with any C89 legacy code as it's backwards compatible.
So what is the advantage?
"Patching a potential security problem with the kernel's linked-list primitive speculative-execution functions."

> *"the whole reason this kind of non-speculative bug can happen is that we historically didn't have C99-style 'declare variables in loops.' So list_for_each_entry() - and all the other ones - fundamentally always leaks the last HEAD entry out of the loop, simply because we couldn't declare the iterator variable in the loop itself."*
> *- Linus Torvalds*

Since C99 was never that popular and C11 introduced standardized multithreading support and made the language a trifle safer this sounds like a good move.
The Linux kernel's minimum C compiler, GCC version 5.1 already supports C11.
Easy move.

The merge is expected in the 5.18 window. If everything goes well, we could see C11 code in the kernel as early as March.

We all know there are never any unforeseen surprises when dealing with computers...

https://www.zdnet.com/google-amp/article/linus-torvalds-prepares-to-move-the-linux-kernel-to-modern-c/

Linux programmers fix bugs faster than anyone!

That's the conclusion of Google's "Project Zero" security research team - Linux programmers fix bugs the fastest. The speed of bug fixed was done from January 2019 to December 2021.

Linux programmers fixed bugs in an average of 25 days. (actually improving from 32 days in 2019 to 15 in 2021).

What about other programmers?
Apple: 69 days
Google: 44 days
Mozilla: 46 days
Microsoft: 83 days *(although some may argue that you can't fix features)*
Oracle: 109 days (disclaimer - Oracle had only a handful of security problems)
Open-source "others": 44 days (Apache, Canonical, Github, Kubernetes, etc)

The good news is that everyone is getting faster at fixing security bugs. In 2018, the average time was 80 days, vs 2021's 52 days.

Apple iOS's 70 days is slightly faster than Android's 72, which is surprising considering iOS had 72 bugs, while Android only had 10.

Chrome's 30 days for 40 problems is slightly faster than Mozilla Firefox's 40 days for just 8 problems.

Webkit, which is used by Apple's Safari, took an average of 72 days.

More detailed information can be found here:
`https://googleprojectzero.blogspot.com/2022/02/a-walk-through-project-zero-metrics.html`

LibreOffice 7.3.0

LibreOffice 7.3.0 is available to download now.

As I write this using LibreOffice, I realized I'm currently using LibreOffice 6.4.2.2.

Once this newsletter is completed, I may try updating to the latest version.
Then again, I drive a vehicle with windows I have to roll up manually...

Hopefully it removes some of my personal complaints, such as appearing to randomly move pictures with an AI algorithm that I have zero confidence can take over the world with its current logic code just yet.
Although perhaps it's a pre-emptive psychological attack to slowly strip away editor's sanity before it sends in Terminators...

GNOME 42 Desktop Public Beta Testing Available

- Built-in screenshot and screencast features. (replaces GNOME Screenshot utility)
- privacy screen
- improved Bluetooth support (battery information)
- revamped OSD (On-Screen Display) for the volume and brightness OSDs
- improved keyboard LED support
- improved thumbnail support
- improved out-of-sync location indicator
- improved keyboard navigation of windows and apps in the Activities Overview

> *"This release adds libadwaita, which contains building blocks for modern GNOME applications. It also adds gtksourceview version 5 and libsoup version 3. Clutter libraries, which were deprecated in GNOME 41, have been removed," said Abderrahim Kitouni.*

Homebrew - The macOS package manager on GNU/Linux

The Homebrew package manager can be used on Linux and Windows Subsystem for Linux (WSL). Homebrew was formerly known as Linuxbrew when running under Linux or WSL.

Homebrew does not use any libraries provided by your host system, except glibc and gcc, but can install its own current versions of glibc and gcc if the installed version is too old.

If your friend comes over to visit, you can tell them you have been experimenting with homebrew and can help them set it up for themselves at home:

Debian, Ubuntu, Linux Mint and derivatives:

```
sudo apt-get install build-essential procps
curl file git
```

Fedora and derivatives:

```
sudo dnf groupinstall 'Development Tools'
sudo dnf install procps-ng curl file git
sudo dnf install libxcrypt-compat # Fedora
30
sudo bin/bash -c "$(curl -fsSL
https://raw.githubusercontent.com/Homebrew/i
nstall/HEAD/install.sh)"
```

For more information: https://brew.sh

OBS Studio 27.2.1 update

MUUG has done a presentation on OBS Studio in the past, and at least a few members continue to actively use it. A week after the launch of OBS Studio 27.2, the OBS Studio 27.2.1 point release addresses a few issues:

- improves camera support (some cameras wouldn't decode correctly on GNU/Linux systems)
- plugs a memory leak in the new PipeWire capture feature
- adds a to fix some a driver/kernel bug that made the browser source trigger a full system freeze for some NVIDIA GPU users
- improves performance of the Chromium build
- updates the AOM/SVT encoders
- fixes an issue that broke keyboard shortcuts

You can download OBS Studio 27.2.1 right now from the official website or install/update it as a Flatpak app from Flathub as soon as the update lands there.

A big thanks to Les.net for providing MUUG with free hosting and all that bandwidth! Les.net (1996) Inc. is a local provider of VoIP, Internet and Data Centre services. Contact **sales@les.net** by email, or +1 (204) 944-0009 by phone.

Thank You Michael W. Lucas

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

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

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