MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 32 No. 9, May 2020 Editor: Tyhr Trubiak

Next Meeting: online May 12, 2020!

In light of the current concerns over COVID-19 and the risk of infection, and in keeping with a directive from the University of Winnipeg, the MUUG board has decided to try our first online meeting at 7:30pm!

Troy Denton will demonstrate how you can build and deploy Jitsi - a secure video conferencing solution. Added twist – this exhibition potentially may be hosted on Jitsi... to demonstrate Jitsi!

Stay tuned to `muug.ca` for the official URL.

Ubuntu 20.04 LTS released

The `Ubuntu team announced` their 8th long-term support release, Ubuntu 20.04 LTS for Desktop, Server, Cloud and Core, codenamed Focal Fossa.

What's new:

- Faster install, faster boot *(than 18.04 LTS)*
- Kernel 5.4
- GNOME desktop environment 3.36
  - uses less resources
  - new lock screen
  - fractional scaling
  - more theme variants/accent color
  - "Do Not Disturb" button – disables all notifications
- NVIDIA drivers on the ISO itself
- Pushing "snap" installs before "apt"
- Improved Thunderbolt supported
- WireGuard VPN *(backported to kernel 5.4)*
- Improved ZFS support
- Zsys (ZFS tool) provides automated system and user state saving. Tight integration with GRUB allows a user to revert to any system state on boot and go "back in time".

Sounds great! What can they possibly be missing?

- No Python 2
- No 32-bit systems supported
- No Amazon shopping app installed by default
- Option to remove the dock

This is also the first release to come with Fast ID Online (FIDO), to power universal multi-factor and passwordless authentication in the operating system, as well as Secure Boot, to protect against low level attacks and rootkits.

Fedora 32 officially released

Just a few days after Ubuntu 20.04 LTS was released, Fedora fans can sport the `latest update` to their operating system as well.

What's new:

- EarlyOOM on by default (low memory recovery)
- Kernel 5.6.2
- GNOME 3.36 (same features as Ubuntu's)
- SSD TRIM on by default
- MariaDB 10.4
  - Updated packages for:
  - GCC 10
  - Ruby 2.7
  - Python 3.8
  - Perl

Most Python 2 packages have been removed from Fedora, while a legacy python27 package is provided for developers/users that still require it.

Manjaro 20.0 (Lysia) released

The new release of Manjaro uses Linux Kernel 5.6.

XFCE is still the flagship desktop, which focused on polishing the user experience with the desktop and window manager, but your other choices include:

- XFCE 4.14 - support for Display-Profiles, enables users to store display configuration profiles for easy switching
- KDE's Plasma 5.18 – animated splash-screen, light/dark themes, skins and KDE 20.04 Apps
- GNOME 3.36 – see features on page 1
-

The package manager received new features for support for Snap and Flatpak by default. Manjaro Architect now supports ZFS installations.

Ubuntu 20.04 LTS now available in MS Windows 10 App Store

Windows Subsystem for Linux, or WSL, allows users to run Linux on top of Windows 10. The feature update called "May 2020 Update" will include the new Windows Subsystem for Linux 2 by default.

"Ubuntu 20.04 on Windows allows you to use Ubuntu Terminal and run Ubuntu command line utilities including bash, ssh, git, apt and many more. What you need to to know is that Ubuntu 20.04 from the Microsoft Store can't be installed on Windows 10 in S Mode – this particular version of the operating system is limited to Microsoft Store apps, but is also restricted to specific apps and Ubuntu isn't supported for the time being."

Ubuntu 20.04 LTS is free of charge from the Microsoft Store and can be installed on any device where the WSL has already been enabled.

Fedora Workstation pre-installed on Lenovo ThinkPad laptops

Beginning with ThinkPad1 Gen2, ThinkPad P53 and ThinkPad X1 Gen8 laptops, Lenovo's Linux Community Series – Fedora Edition will be installing Fedora 32 Workstation as part of their pilot program.

Lenovo is following the existing trademark guidelines and respects the open source principles, shipping exclusively from the official Fedora repos, and working with vendors to ensure they have even stronger firmware support going forward.

Single or double space after a period? Which team are you on?

Luckily we have Microsoft to save the day and provide the official answer: Microsoft Word now flags double spaces as "errors".

Keep in mind, this is just a "suggestion" that you will be able to ignore, if you choose to remain in the camp that prefers two spaces after ending a sentence.

Much of the debate around one space or two has its origin story with the olden days of physical typewriters. Typewriters used monospaced fonts to allocate the same amount of horizontal spacing to every character. Narrow characters like "i" got the same amount of space as "w," so the extra space after the "." was needed to make it more apparent that sentences had ended. Word and many other similar apps make fonts proportional, so two spaces is no longer necessary.

Editors note: This newsletter is written using LibreOffice, where your freedom of choice in spacing after a period is still protected.

Python 2.7.18 – officially the last Python 2 release

Python 2.7.18, released April 21, 2020, is officially the last Python 2.7 release, which makes it the last Python 2 release.

The successor to Python 2 is Python 3, which was released in April 2006 by Guido van Rosum, still received a lot of support, most likely due to the fact that it was declared in the Python Enhancement Proposal (PEP 3000) that "Python 3.0 will break backwards compatibility with Python 2.x."

Red Hat has committed support for Python 2 in RHEL 8 until 2024.

Ubuntu 20.04 LTS has removed Python 2, however Canonical will continue their support on Ubuntu 18.04 LTS until April 2023.

Major change to Linux home directory management

With the upcoming release of systemd 245, a truly portable home directory will be introduced with `homed`. Previously, logging in requires 3 mechanisms – systemd, /etc/shadow, and /etc/passwd, which one of the systemd creators, Leannart Poettering considers inefficient.

With homed, all information will be placed isn a cryptographically signed JSON record for each user. Those records will contain all user information (username, group, password hashes, etc). Each user home directory will be linked as LUKS-encrypted containers. Once systemd-homed detects a user has logged in, the associated directory is decrypted, and re-encrypted when that user logs out; providing much-improved security and enables a truly portable home directory.

Can you log in via SSH? If a systemd-homed home directory is encrypted until a user successfully logs in…how will users be able to log in to a remote machine via SSH? The issue is that the .ssh directory would be encrypted, making it inaccessible. The solution to this is still being researched. To date, only the standard authentication process works with systemd-homed, which might relegate this feature to desktop/laptops and not servers.

Microsoft Edge is coming to Linux

A Linux port of the Chromium-based Edge browser was `officially announced`, and true to the fabled "Microsoft time", the official Edge development website still lists the browser as "coming soon for Linux". Apparently this is not just Chromium with a new logo on it, as Microsoft Edge is an active contributing member to the Chromium open source project.

12-megapixel camera for Raspberry Pi – take my money now!

For a listed price of $50USD, `Raspberry Pi announces` a 12.3-megapixel camera with interchangeable lenses, built around a backside-illuminated Sony IMX477 sensor with 1.55-micron pixels.

As there have been Raspberry Pi camera boards before, they've decided to take a bold stance with the naming of their new camera, calling it the… "High Quality Camera". The `High Quality Camera` supports interchangeable C- and CS-mount lenses and offers adjustable back focus. As the board has a CS mount (and comes with a C-mount adapter), it will be easy to attach a wide variety of 3rd party lenses.

The High Quality Camera is compatible with all Raspberry Pi computers from the 1 Model B onward. The previous 8-megapixel camera module will continue to be available as a cheaper, smaller option.

Did you know you can install Microsoft Truetype fonts in Linux?

Times New Roman, Arial and other such fonts are owned by Microsoft and they are not open source. Many Linux distributions don't provide proprietary software by default to avoid licensing issue.

Be aware that despite Microsoft has released its core fonts for free of charge, the usage of the fonts is restricted in other operating systems. You'll have to read and accept EULA (End User License Agreement) before installing Microsoft fonts in your system.

Ubuntu

```
sudo apt install ttf-mscorefonts-
installer
```

Fedora-like

```
sudo dnf install curl cabextract
xorg-x11-font-utils fontconfig
sudo rpm -i
https://downloads.sourceforge.net/
project/mscorefonts2/rpms/msttcore-
fonts-installer-2.6-1.noarch.rpm
```

Arch Linux

```
install the ttf-ms-fonts package
from AUR
```

Or do it the "hacker" way by copying the files from within Windows at "C:\windows\fonts" and placing them in the ".fonts" folder in your Home directory. *Note: MUUG does not endorse such activities, and provides this information for your entertainment only.*

How to find the longest man page in your linux system

All of the man pages are stores in /usr/share/man/ in compressed gzip (.gz) format.

A simple BASH script to list the man pages in order of number of lines:

```
#!/usr/bin/env bash
cd /usr/share/man/
for fn in $(find -maxdepth 1 -type d -iname 'man[1-8]'); do
  fn=${fn#./}
  ls -1Sp "$fn" | head -n 10 | sed -Ee "s,^,$PWD/$fn/," | while read manpage; do
    shortname=$(echo "$manpage" | sed -e "s,$PWD/man,," -e "s,/,"$'\t'",")
    printf '%9d\t%s\n' $(man "$manpage" 2>/dev/null | wc -l) "$shortname"
  done
done | sort -n
```

If you want to count number of words instead of lines, use "wc -w" instead of "wc -l".

Creative Commons Licenses

Except where otherwise noted, all content in this newsletter is licensed under a Creative Commons "Attribution-ShareAlike 2.5 Canada" License.

http://creativecommons.org/licenses/by-sa/2.5/ca/deed.en_CA

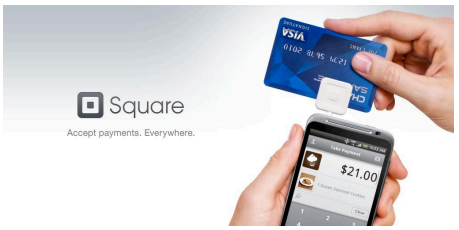
Thank You, LES.net

A big thanks to Les.net for providing MUUG with free hosting and all that bandwidth! Les.net (1996) Inc., a local provider of VoIP, Internet and Data Centre services, has offered to provide a 10% discount on recurring monthly services to MUUG members. Contact **sales@les.net** by email, or +1 (204) 944-0009 by phone, for details.

https://les.net/

$1,000 Worth of Free Credit Card Processing!

Ever wanted to start accepting credit cards for your own needs?



Now it's FREE!

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