



Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

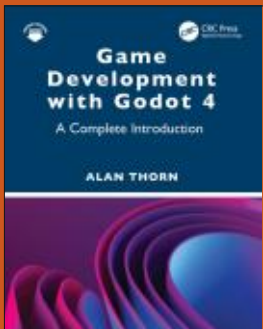
ISSUE #233 - September 2026



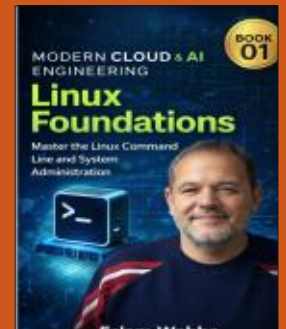
ARTICLES
DESPERATELY
NEEDED!

Photo: NOSK

BOOK REVIEW



BOOK REVIEW



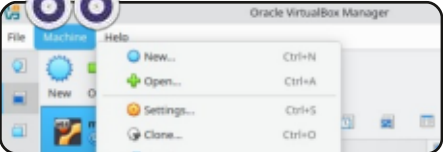
SOFTWARE FREEDOM DAY

HOW TO HOLD AN EVENT

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HowTo



Build A Wiki p.16



p.XX

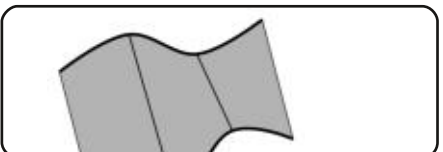
	Where?	Transport
Day 1 Morning	Great Wall	Subway, Bus
Day 1 Afternoon	Great Wall	

Latex p.20



...

p.XX



Inkscape p.23



Graphics

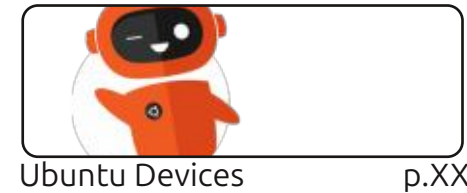


Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

```
#An alias to make the ls
command more detailed
alias ls = "ls -la --
color=always --classify"
```

Command & Conquer p.16



Q&A
Ask me Questions

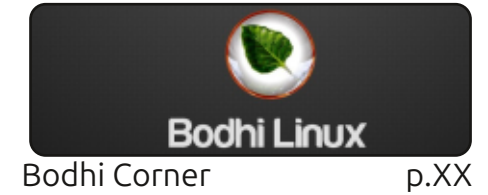
Q&A p.43

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Review p.XX



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WELCOME TO THE LATEST ISSUE OF FULL CIRCLE

Once again we bring you some Latex, Inkscape and another part of our series on hosting your own wiki.

Elsewhere, we have a couple of book reviews for you. One on Godot and the other on Cloud and AI engineering. I'm sure (hoping!) Adam will resume his reviews next month with the 26.10 series.

As you'll see (again) from the lack of a third HowTo, I'm **still** looking for articles. Please think about writing something and emailing it to me at the address below. Otherwise, there'll be less and less content each month I'm afraid.

Remember: the **Full Circle Weekly News** is available on **Spotify** and **YouTube**. The more upvotes and reviews you give it on those platforms the more exposure we get. And, we have a Table of Contents which lists every article from every issue of FCM. Huge thanks to **Paul Romano** for maintaining: <https://goo.gl/tpOKqm> and, if you're looking for some help, advice, or just a chinwag: remember that we have a **Telegram** group: <https://t.me/joinchat/24ec1oMFO1ZjZDc0>. I hope to see you there. Come and say hello.

All the best!

Ronnie

ronnie@fullcirclemagazine.org



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DEBIAN 11 LTS SUPPORT HAS ENDED:

31/08/2026

The end of maintenance for the Debian 11 "Bullseye" LTS branch, formed in 2021, has been announced. Updates for the LTS branch were released by a separate group of developers, the LTS Team, made up of enthusiasts and company representatives interested in providing long-term updates for Debian.

Following the end of LTS support under the Extended LTS program, Freexian will provide Debian 11 updates with vulnerability fixes in a limited set of packages for the i386, amd64, armhf, and arm64 architectures until June 30, 2031. Updates are

distributed through an external repository maintained by Freexian. Access is free for everyone, and the list of supported packages depends on the total number of contributors and the packages they are interested in.

<https://www.debian.org/News/2026/20260831>

STEAMOS 3.9.0:

01/09/2026

Valve has released a preview of SteamOS 3.9.0. SteamOS ships with Steam Deck devices and has recently been used in gaming consoles from several other manufacturers, such as the Lenovo Legion Go S and ASUS ROG Ally. To install, select the "Steam Deck

Preview" channel in the update settings under "Settings > System > System Update Channel." Enthusiasts have also developed unofficial builds of HoloISO and SteamFork, but they are now abandoned.

The platform is based on Arch Linux, uses the Gamescope composite server based on the Wayland protocol to accelerate game launches, comes with a read-only root filesystem, uses an atomic update mechanism, supports Flatpak packages, uses the PipeWire multimedia server and provides two interface modes (Steam shell and KDE Plasma desktop).

<https://store.steampowered.com/news/app/1675200/view/689767056035283412>

LIBREOFFICE 26.8:

03/09/2026

The Document Foundation has published download statistics for LibreOffice 26.8. It reports that in the first week, LibreOffice 26.8 was downloaded 1.031 million times from the official download page on the project's website (the statistics do not include users of distributions using LibreOffice from the standard repositories).

Compare that to Apache OpenOffice, the last release of Apache OpenOffice 4.1.16, published last year, was downloaded 601 thousand times in the first week and 1.805 million times in the first month, despite the project being stalled.

<https://blog.documentfoundation.org/blog/2026/09/02/one-week-of-libreoffice-26-8-the-stats/>



DistroWatch.com

Put the fun back into computing. Use Linux, BSD.

CERN WILL MIGRATE ITS ACCELERATOR CONTROL SYSTEM TO DEBIAN:

03/09/2026

Representatives of the European Organization for Nuclear Research (CERN) mentioned plans to migrate more than 2,200 industrial and embedded computers used to control the accelerator complex, which includes the Large Hadron Collider and several independent experimental facilities, from RHEL to Debian 13 by the end of 2026 in their presentation at the MiniDebConf conference. They specifically clarified that the migration will not affect data centers and experimental systems, which will continue to use RHEL/AlmaLinux.

CERN was once a key developer of the Scientific Linux distribution, which was discontinued in 2019 in favor of CentOS. In 2022, following a change in Red Hat's CentOS support policy and the premature phasing out of support for the CentOS 8 branch, CERN transitioned to AlmaLinux as its standard distribution for its experiments, but continued to use

existing CentOS and RHEL-based systems until the end of the lifecycle of those releases.

<https://linux.slashdot.org/story/26/09/02/2041220/cern-transitioning-from-rhel-to-debian>

nDPI 6.0:

03/09/2026

The ntop project, that makes tools for capturing and analyzing traffic, has published nDPI 6.0 deep packet inspection software and continues to develop the OpenDPI library. The nDPI project was founded after an unsuccessful attempt to contribute changes to the OpenDPI repository, which remained unmaintained. The nDPI code is written in C and distributed under the LGPLv3 license.

The detection of 56 types of network threats (flow risks) and over 450 protocols and applications (from OpenVPN, Tor, QUIC, SOCKS, BitTorrent, and IPsec to Telegram, Viber, WhatsApp, PostgreSQL, and access to Gmail, Office 365, Google Docs, and YouTube) is supported. A decoder for server and client SSL

certificates is included, allowing you to identify protocols (for example, Citrix Online and Apple iCloud) using the encryption certificate. The nDPIreader utility is included for analyzing the contents of pcap dumps or current network interface traffic.

<https://www.ntop.org/introducing-ndpi-6-0-licensing-update-slow-dos-detection-and-smarter-fingerprints/>

AUDACITY 4.0:

04/09/2026

Audacity 4.0, a free audio editor, has been released. It provides tools for editing audio files (Ogg Vorbis, FLAC, MP3, and WAV), recording and digitizing audio, changing audio file parameters, overlaying tracks, and applying effects (such as noise reduction, tempo, and pitch adjustments). Audacity's code is distributed under the GPLv3 license, and binary builds are available for Linux, Windows, and macOS. New features can be seen here: <https://www.youtube.com/watch?v=BTQymidLYIM>

<https://github.com/audacity/audacity/releases/tag/Audacity-4.0.0>

GRML 2026.09:

04/09/2026

The grml 2026.09 Live distribution has been released. It offers a collection of programs for common system administrator tasks, such as disaster recovery and incident response. The distribution is based on the Debian GNU/Linux package base and celebrated its twentieth anniversary last year. The graphical environment is built using the Fluxbox window manager. The Zsh command shell is offered by default. The full ISO image is 1.1 GB in size, while the reduced ISO image is 643 MB. Builds are available for the x86_64 and ARM64 architectures.

Note that the GNU Screen console window manager has been updated to version 5.0.1, which is not configuration-compatible with the 4.x branch.

<https://blog.grml.org/archives/426-Grml-new-stable-release-2026.09-available.html>

NOCTALIA 5.0:

05/09/2026

Noctalia 5.0 has been released. It develops a user environment capable of running on top of any compositing manager that supports the Wayland layer-shell protocol, such as Niri, Hyprland, Sway, Scroll, Mango, Labwc, Triad, and dwl. Separately, Noctalia developers are developing their own compositing manager, Umbriel, based on the wlroots library, but it is not yet ready for release. The code is written in C++ and distributed under the MIT license.

The Noctalia project's desktop environment includes a panel, a program launcher, a configurator, a screensaver, a notification system, a session management system, a clipboard history viewer, a set of widgets, and a login screen. It leverages the capabilities of the Wayland protocol and the OpenGL ES graphics API, without relying on ready-made toolkits such as Qt and GTK. The desktop environment components are developed as a unified stack, using a single design, configuration, and IPC. Settings are

defined in TOML format and can be changed on the fly, without restarting the shell.

<https://github.com/noctalia-dev/noctalia/releases/tag/v5.0.1>

MICROPYTHONOS 0.18:

06/09/2026

MicroPythonOS 0.18.0 is now available. It develops an operating system for microcontrollers such as the ESP32, written using the MicroPython toolkit. The operating system features a graphical interface inspired by Android and iOS and supports touchscreen or navigation buttons. MicroPythonOS's intended applications include Internet of Things (IoT) devices, home automation systems, interactive panels, robots, and smart wearables with gesture-based controls. The project can also be used for rapid prototyping of new devices. The code is written in C and Python and is licensed under the MIT license.

<https://github.com/MicroPythonOS/MicroPythonOS/releases/tag/0.18.0>

SLACKWARE 16.0 ALPHA**TESTING HAS BEGUN:**

06/09/2026

Four and a half years after the last release, Patrick Volkerding announced the start of alpha testing for Slackware 16.0. The project, which has been in development since 1993, is the oldest of the currently existing distributions. The distribution's distinctive features include a lack of complexity and a simple initialization system, making Slackware an interesting solution for learning Unix-like systems, experimenting, and getting acquainted with Linux. A 5.3 GB installation image (x86_64) is available for download, as well as a 6.1 GB build for running in Live mode.

Changes include a rebuild of the package database using GCC 16.2, as well as updates to the Linux kernel 6.18.49, glibc 2.44, binutils 2.47, and other system components. Generation of a minimalist 241 MB installation image has begun.

<https://www.linuxquestions.org/questions/slackware-14/16-0-alpha-1-feedback-4175766785/>

DANKMATERIALSHELL 1.6:

07/09/2026

DankMaterialShell (DMS) 1.6, a user environment, is released. It runs on top of the niri, Hyprland, Sway, MangoWC, labwc, Scroll, and Miracle WM composite servers. DankMaterialShell provides a unified set of components that can be combined to form a desktop, including a taskbar, virtual desktop switcher, an interface for navigating through installed applications, and a configurator. Its design adheres to the Material Design 3 concept. The background process for system integration, tooling, and installer are written in Go and licensed under the MIT license. Interface components, panels, widgets, and graphical applications are written in QML using the Quickshell framework, written in C++ with Qt.

<https://danklinux.com/blog/v1-6-release>

ASAHI LINUX NOW OFFICIALLY SUPPORTS APPLE M3-BASED DEVICES:

07/09/2026

The developers of Project Asahi, which aims to port Linux to Mac computers equipped with Apple-designed ARM chips, have announced official support for Mac computers based on Apple's M3 chips. Support is announced for MacBook and iMac M3, M3 Pro, and M3 Max series devices (Mac Studio/ M3 Ultra are not yet supported).

The level of hardware support for the Apple M3 is similar to that of the M1 and M2 devices, including support for webcams, built-in microphones, USB, Bluetooth, and accelerated AV1 video decoding. Functionality limitations include full support for the display processor (DCP) and GPU, as well as limited performance and power efficiency when using 3D acceleration. Due to incomplete DCP support, which is promised to be improved soon, the MacBook's HDMI port is disabled, and there are issues with sleep mode.

<https://asahilinux.org/2026/09/m2-episode-1/>

FREEBSD 14.5:

08/09/2026

After six months of development, FreeBSD 14.5 has been released. Installation images are available for the amd64, i386, aarch64, armv7, powerpc, powerpc64, and riscv64 architectures. Builds have also been prepared for virtualization systems (QCOW2, VHD, VMDK, raw) and cloud environments such as Amazon EC2, Google Compute Engine and Vagrant.

The next FreeBSD 14.6 update is scheduled for March 2027. Support for the current FreeBSD 14.5 release will continue until June 30, 2027 and for the previous FreeBSD 14.4 release, it will continue until December 31, 2026. Overall, the FreeBSD 14 branch will be supported until November 30, 2028.

<https://www.freebsd.org/releases/14.5R/announce/>

BETA RELEASE OF MIDESKTOP:

09/09/2026

The first beta release of the MiDesktop project, a fork of the KDE 1.1.2 desktop environment adapted for modern systems, has been released. To address issues and eliminate licensing restrictions specific to the Qt 1 branch, the KDE 1 codebase has been ported to the Osiris framework, which builds on an updated fork of Qt 2.3.2. MiDesktop is licensed under the GPLv2 license. Ready-to-use builds are available for Debian 13 and Ubuntu 24.04.

MiDesktop's key features include a simple interface, lightweight design, and high performance. The developers strive to maintain the overall minimalist approach to desktop development from the late 1990s and early 2000s, while eliminating the shortcomings inherent to those systems and modernizing the KDE 1 codebase without overloading the user environment with unnecessary functionality.

MiDesktop requires any Linux system with glibc and an X server,

such as XWayland or X.Org Server, or the Wayback layer.

Dependencies include libjpeg, libtiff, libpng, Osiris Toolkit 2.4.4+, libxcb, libxkb, and gettext.

https://www.reddit.com/r/linux/comments/1wa2nhm/first_beta_release_of_midesktop_120/

YSERVER 1.5:

09/09/2026

The X11 server, yserver 1.5.0 has been released. It was written from scratch in Rust and supports current X11 protocol extensions. The project does not aim to replicate all the features of Xorg Server, but rather provides the functionality necessary for running modern desktop environments, window managers, applications, and graphical libraries (GTK, Qt, SDL, GLFW). Tested environments include MATE, Xfce, Cinnamon, Sonic, and Enlightenment, as well as window managers such as icwm, FVWM3, openbox, i3, and wmaker. The project code is distributed under the MIT license. Claude AI tools are used in development.

yserver has decided not to support legacy and specific features, such as handling multiple X11 screens in a single server (multi-monitor output is supported), color modes other than TrueColor, indirect rendering (indirect GLX), DDX driver APIs, legacy font handling, and connecting clients with different byte order (big-endian/little-endian translation).

<https://github.com/joske/yserver/releases/tag/v1.5.0>

JELLYFIN 12.0:

10/09/2026

Jellyfin 12.0 is now available. It allows you to deploy a multimedia broadcasting system on your own server to stream existing content to user devices. The project was founded in 2018 as a fork of the Emby media server, continuing to develop the open source codebase after Emby transitioned to a proprietary development model. Jellyfin's code is written in C# using the .NET platform and is distributed under the GPLv2 license. Client programs are

available for PCs, mobile devices (TVs, set-top boxes, and game controllers), as well as a web interface for configuring the media server, organizing online broadcasts, and managing your multimedia collection.

A client-server model based on the HTTP protocol is used for interaction with frontends. Streaming is supported using the HLS (HTTP Live Streaming), DLNA, and Google Cast (for Chromecast) protocols. Functionality can be expanded through plugins. The server can run on Linux, macOS, and Windows. A pre-configured Docker container image is provided for easy deployment.

<https://jellyfin.org/posts/jellyfin-release-12.0/>

UBUNTU 24.04.5 LTS:

10/09/2026

An update for the Ubuntu 24.04.5 LTS distribution has been released, which includes changes related to improved hardware support, an updated Linux kernel and graphics stack, and bug fixes in the installer and

bootloader. The package also includes current updates for several hundred packages related to the elimination of vulnerabilities and problems affecting stability. Similar updates were released at the same time for Kubuntu 24.04.5 LTS, Ubuntu Budgie 24.04.5 LTS, Ubuntu MATE 24.04.5 LTS, Ubuntu Kylin 24.04.5 LTS, Ubuntu Studio 24.04.5 LTS, Xubuntu 24.04.5 LTS, Edubuntu 24.04.5 LTS, Ubuntu Cinnamon 24.04.5 LTS, and Ubuntu Unity 24.04.5 LTS.

This release includes some improvements backported from Ubuntu 26.04. Linux kernel version 7.0 is now available (the base Ubuntu 24.04 kernel is 6.8). Graphics stack components have been updated, including Mesa 26.0.3. Latest video drivers for Intel, AMD, and NVIDIA chips have been added.

In desktop builds (Ubuntu Desktop), the new kernel and graphics stack are offered by default. For Ubuntu Server, the new kernel is added as an option in the installer. Using the new builds is only practical for new installations - existing systems can receive all changes present in Ubuntu 24.04.5

through the standard update system.

To roll back Ubuntu Desktop to the base kernel 6.8, run the command:

```
sudo apt install --install-recommends linux-generic
```

To install a new kernel on Ubuntu Server, run:

```
sudo apt install --install-recommends linux-generic-hwe-24.04
```

<https://lists.ubuntu.com/archives/ubuntu-announce/2026-September/000327.html>

GNU AUTOMAKE 1.19:

11/09/2026

Automake 1.19, a utility for automatically generating makefiles that comply with the GNU Project coding standards, has been released.

In addition to bug fixes, the new version adds the AM_OPTIONAL_AUTOMAKE autoconf macro, which makes processing the specified "dist-XXX" options optional when running the "make dist" command. In practice, the new macro allows archive creation to be skipped without

error if the required compression utilities are missing from the system. For example, the "make dist" operation will not be aborted if dist-zip, dist-xz, and dist-zstd are specified in the settings, but the zip, xz, and zstd utilities are not found.

<https://www.mail-archive.com/info-gnu@gnu.org/msg03564.html>

RT-THREAD 5.3:

11/09/2026

RT-Thread 5.3, a real-time operating system (RTOS) for Internet of Things devices, has been released. Developed since 2006 by a community of Chinese developers, it has now been ported to 155 boards, chips, and microcontrollers based on x86, ARM, MIPS, C-SKY, Xtensa, ARC, and RISC-V architectures. A minimalist build of RT-Thread (Nano) requires only 3 KB of Flash and 1.2 KB of RAM. For IoT devices with less resource constraints, a fully featured version is available, supporting package management, configurators, a network stack, GUI packages, voice control systems, a DBMS, network services, and

scripting engines. The code is written in C and distributed under the Apache 2.0 license.

<https://github.com/RT-Thread/rt-thread/releases/tag/v5.3.0>

GTK 4.24:

11/09/2026

After six months of development, GTK 4.24, a multi-platform graphical user interface toolkit, has been released. GTK 4 follows a development process that strives to provide application developers with a stable, supported API that can be used for several years without the fear of having to rework applications every six months due to API changes in the latest GTK branch.

"We've continued to develop the built-in SVG rendering and parsing engine, as well as the Gtk.Svg class, which eliminates external dependencies when rendering vector icons and resources. The new version adds the GtkSvgWidget class, which enables rendering SVG images with interactive elements, such as <a>

and <view>, directly within the application. The gtk_svg_set_stylesheet() function has been added for applying styles to SVG elements"

<https://github.com/GNOME/gtk/releases/tag/4.24.0>

DEBIAN 13.7:

12/09/2026

The seventh bug-fix update for Debian 13 has been released, incorporating accumulated package updates and adding fixes to the installer. This release includes 106 updates that address stability issues and 107 updates that address vulnerabilities. With the changes in Debian 13.7, notable updates include updates to the latest stable versions of the ansible-core, llvm-toolchain-22, openssl, qemu, and samba packages. Support for the riscv64 architecture has been added to the audit package.

Debian 13.7 installation builds will be available for download and installation from scratch soon. Previously installed systems receive updates included in Debian 13.7

through the standard update system. Security fixes included in new Debian releases are available to users as updates are released through security.debian.org.

<https://www.debian.org/News/2026/20260912>

BRUSHSHE 2.8.0:

13/09/2026

The Brushshe 2.8.0 raster graphics editor (codenamed "Astana") has been released. Brushshe features frames, stickers, themes, add-ons, and other features. The project's code is written in Python using the CustomTkinter graphics toolkit and the Pillow image processing library, and is distributed under the MPL 2.0 license (documentation and assets are licensed under CC0 1.0).

<https://github.com/limafresh/Brushshe/releases/tag/v2.8.0-astana>

SHOTWELL 0.33:

13/09/2026

After three and a half years of development, Shotwell 0.33.0, a new stable release of the photo collection management program, has been released. It offers cataloging and collection navigation capabilities, supports grouping by time and tags, provides tools for importing and converting new photos, supports common image processing operations (rotation, red-eye removal, exposure adjustment, color optimization, etc.) and includes tools for publishing to some social networks. The program is written in Vala, uses GNOME libraries and is distributed under the LGPLv2.1 license.

<https://gitlab.gnome.org/GNOME/shotwell/-/releases/33.0>

UBUNTU 26.10 & RUST COREUTILS:

14/09/2024

Ubuntu 26.10, scheduled for release on October 15, has completely migrated to the utils coreutils (Rust Coreutils) toolchain,

written in the Rust language. Rust Coreutils utilities have completely replaced all components of the GNU Coreutils package, including the cp, mv, and rm utilities, which were shipped in Ubuntu 26.04 as GNU Coreutils.

The rust-coreutils package was originally included by default in Ubuntu 25.10, but the Ubuntu 26.04 LTS branch reverted to the cp, mv, and rm utilities from the GNU Coreutils suite. The cp, mv and rm options were reverted due to security issues discovered during an audit of the Rust Coreutils codebase. Most vulnerabilities in Rust Coreutils are caused by a race condition, which allows data to be modified after the information has been verified, but before an operation is performed (TOCTOU - Time-Of-Check-To-Time-Of-Use).

<https://documentation.ubuntu.com/release-notes/26.10/%23ubuntu-foundations>

KEYCUT 1.0:

14/09/2024

KeyCut 1.0, a video editor that offers features for trimming and joining videos without re-encoding, has been released. Trimming is performed strictly by keyframes and a direct copy is saved upon export, preserving the original quality and ensuring fast operation even on large files. The project code is written in JavaScript using the Electron platform and is distributed under the MIT license. FFmpeg is used for video processing.

<https://github.com/wdmcourses/KeyCut/releases/tag/1.0.0>

113 PACKAGES IN VOID LINUX LEFT UNMAINTAINED:

14/09/2024

Andrea Brancaloni has deprecated 113 packages in the Void Linux distribution in response to intolerance for the use of AI tools for change analysis and routine tasks. The following packages have been deprecated : alacritty, arpwatsh, asus-kbd-backlight, clementine, docker-cli,

etcd, flint, forego, fscrypt, kubernetes, libguestfs, libnfc, moby, openresolv, packer, racket, rancher-compose, terraform, thermald, trollock, ttf-ubuntu-font-family, vagrant, and virt-manager.

https://www.reddit.com/r/voidlinux/comments/1wew6wl/void_linux_maintainer_orphans_100_packages_over/

NITTER REPOSITORY AND THE XCANCEL SERVICE:

15/09/2024

After recently resuming development, the Nitter project repository, that develops an alternative interface for viewing messages from X (Twitter) without registering an account, has been archived again and the website has been taken down.

XCancel, a service providing similar functionality, has also been shut down. However, independent proxies based on the Nitter platform and redirection services to working proxies (nitt.tr, twit.0r.cx, xxcancel.com), maintained by enthusiasts, continue to operate.

<https://news.ycombinator.com/item?id%3D49694296>

DIETPI 10.7:

15/09/2024

DietPi 10.7, a distribution for single-board PCs based on ARM and RISC-V architectures, has been released. For example: Raspberry Pi, Orange Pi, NanoPi, Rock64, Rock Pi, Quartz64, Pine64, Asus Tinker, Odroid, and VisionFive 2. The distribution is built on Debian and is available in builds for over 50 boards. DietPi can also be used to create compact environments for virtual machines and regular x86_64 PCs. Builds for these boards are smaller in size (on average 150 MB compressed) compared to Raspberry Pi OS and Armbian. The tools for building and maintaining the distribution are licensed under the GPLv2.

New in this release: A new network configuration tool, dietpi-network, has been added, allowing you to configure multiple Ethernet and WiFi networks simultaneously, as well as implement complex configurations with address translators, network bridges, and

WiFi-to-WiFi hotspots.

<https://github.com/Michalng/DietPi/releases/tag/v10.7>

FLUXCAST 0.2.6:

16/09/2024

FluxCast v0.2.6 has been released. It's designed for low-latency Linux desktop streaming to Smart TVs via Wi-Fi Direct (Miracast), DLNA, and Chromecast. The project's source code is written in Python and licensed under the GPLv3 license.

A key change in version 0.2.6 is the availability of official.deb packages for Debian 12/13 and Ubuntu 24.04/26.04 (previously, users had to install the utility via pip and manually execute privileged scripts to configure D-Bus policies). Compatibility with Wayland-based composite servers, such as Hyprland and Sway, as well as the KDE and GNOME desktop environments, has been improved. The system tray interface now automatically adapts to the system locale.

<https://github.com/IlyaP358/fluxcast>

OPENCLOUD 8.0:

16/09/2024

OpenCloud 8.0, a platform that allows users to deploy a file sharing and content collaboration system on their own server, has been released. The project is being promoted as an open alternative to proprietary systems like Microsoft SharePoint, Google Drive, and Dropbox, and is compliant with the European Union's GDPR.

The project was founded as a fork of the OCIS (ownCloud Infinite Scale) platform. Unlike the legacy ownCloud codebase and its fork, NextCloud, the OCIS server was rewritten from PHP to Go. OpenCloud's creators attempted to strip the codebase of unnecessary functionality and focus on delivering the highest-quality implementation of its core functionality—file collaboration.

<https://github.com/opencloud-eu/opencloud/releases/tag/v8.0.0>

GNOME 51, "A CORUÑA":

16/09/2024

After six months of development, the GNOME 51 desktop environment has been released. For a quick evaluation of GNOME 51's capabilities, specialized live builds based on openSUSE and an installation image prepared as part of the GNOME OS initiative are available. GNOME 51 is also already included in experimental builds of Ubuntu 26.10 and Fedora 45.

<https://release.gnome.org/51/>

MIRACLE-WM 0.11:

17/09/2024

Miracle-wm 0.11, a compositing manager that uses the Wayland protocol and Mir compositing manager components, has been released. Miracle-wm supports tiling windows, similar to those in the i3 and Sway projects. A Waybar can be used as a panel. The project code is written in C++ and is distributed under the GPLv3 license. The finished builds are available in Snap format, as well as .rpm and .deb packages for

Fedora and Ubuntu.

The goal of miracle-wm is to create a composite server that utilizes tiled window management, but is more functional and stylish than products like Swayfx. Miracle-wm is intended to be useful for users who prefer a tiled layout but desire visual effects and a more vibrant graphical design with smooth transitions and colors. Configuration is defined in YAML format. To install miracle-wm, use the command "sudo snap install miracle-wm --classic."

<https://github.com/miracle-wm-org/miracle-wm/releases/tag/v0.11.0>

PALE MOON 35.0:

17/09/2024

The Pale Moon web browser, version 35.0.0, has been released. It forks from the Firefox codebase to improve performance, maintain the classic interface, minimize memory consumption, and provide additional customization options. Pale Moon builds are available for Windows and Linux (x86_64). The project's

code is licensed under the MPLv2 (Mozilla Public License).

The project maintains a classic interface design, avoiding the Australis and Photon interfaces integrated into Firefox 29 and 57, and offering extensive customization options. Components removed include DRM, Social API, WebRTC, a PDF viewer, Crash Reporter, statistics collection code, parental controls, and accessibility features. Compared to Firefox, the browser has reinstated support for XUL-based extensions and retains the ability to use both full-featured and lightweight themes.

<https://forum.palemoon.org/viewtopic.php?f%3D1%26t%3D33764>

PEERTUBE 8.3:

17/09/2024

PeerTube 8.3, a platform designed for creating independent, decentralized video hosting and streaming systems as an alternative to services like YouTube, Dailymotion, and Vimeo, has been released. The content

distribution network created with PeerTube is based on linking visitors' browsers and using P2P communications. The project's code is distributed under the AGPLv3 license.

PeerTube allows you to launch your own video distribution server and connect it to a shared federated network. Visitors participate in content delivery and can subscribe to channels and receive notifications about new videos, regardless of which server they use. The PeerTube federated network is formed by a community of interconnected small video hosting servers, each with its own administrator and rules.

The federated network currently includes 1,779 servers maintained by volunteers and organizations. If a user is not satisfied with the video hosting rules of a particular PeerTube server, they can connect to another server or launch their own. A pre-configured Docker image (chocobozzz/peertube) is provided for quick server deployment.

<https://joinpeertube.org/news/release-8.3>

MARIADB 13.0 STABLE:

18/09/2024

MariaDB 13.0.2 has been released, marking it as the first stable release of the 13.0 branch. MariaDB 13.0 is considered a rolling release, continuing the gradual development of functionality and being maintained until the stable release of the next branch. MariaDB 13.1.1, a release candidate, is also available.

The MariaDB project develops a fork of MySQL that maintains backward compatibility and features the integration of additional storage engines and advanced features. MariaDB's development is overseen by the independent MariaDB Foundation, following an open and transparent development process independent of individual vendors.

<https://mariadb.org/mariadb-13-0-is-now-stable/>

WINE 11.18 AND WINE-STAGING 11.18:

19/09/2024

Wine 11.18, an experimental release of the open-source Win32 API implementation, has been released. Since 11.17, 44 bug reports have been closed and 380 changes have been made. A separate Wine Staging 11.18 release has been created, providing extended Wine builds that include incomplete or risky patches not yet suitable for integration into the main Wine branch. Compared to Wine, Wine Staging provides 273 additional patches. The new Wine Staging release synchronizes with the Wine 11.18 codebase and updates the vkd3d code. A patch converting the d3d10_1shader.h header file to an idl (Interface Definition Language) file has been ported to the main Wine distribution. Patches have been added to convert YV12 color

representation to RGB in the rendering code and perform executable file checks for the WoW64 (64-bit Windows-on-Windows) architecture, which allows 32-bit Windows applications to run on 64-bit Unix systems.

<https://www.winehq.org/news/2026091801>



DistroWatch.com

Put the fun back into computing. Use Linux, BSD.



COMMAND & CONQUER

Written by Erik

A I slop infests everything like a cancer these days, and I really feel sorry for the next generation who has to sift through the slop to find anything. I grabbed a comic or 'manwha' to test a manga reader the other day, to find that the character had three thumbs and both hands somehow curled in on each other, but yet supposed to be clasped behind his back. I could not read anything as it was all in Korean, but I bet it was horrible. Today I pulled up a video on Udemy (preview) and heard the "narrator" say "the 'wha me' command". I immediately switched to the video (I was listening only) to see what command that is, as I had never heard of it. It was AI, not able to pronounce "whoami". I watched this AI slop and realised they don't even demonstrate any of the commands, only listing them on screen, like a powerpoint presentation. The kicker is that this is a paid Udemy course (\$38) and the instructor (Robert Westbrook – definitely not a real person, more like Rodney the Scammer) did not even bother to listen to his own crap before posting it. I looked at

the final video, to find that the outro video 57(!) listed..... (drum-roll please) `pwd`, `ls -lah`, `df -h`, `du -sh` and `grep "error" app.log` and congratulating students on being able to search for data and examine logs and automating tasks. No, I'm not kidding.

I wish there was a way to actually punish all these [expletives] for wasting your time. If there is one thing I think needs fifty lashes across the soles of the feet as punishment, it's this. The whole "course" is a 10-minute talk that was unnaturally expanded and "video" added that lists the commands and never uses them.

OK rant over, time to actually transfer some real knowledge. Seeing the "touch" command above, I thought about going that way, but somehow I mis-typed and the `tree` command happened after a tab. (let's roll with it)

Let's start with that. Open a terminal with `CTRL+ALT+T` and just type:

`tree` <and press enter>

Watch your data scroll by. What you are seeing is a graphical representation of your directory tree. This may not mean much to you if you are a newbie, so let's make a folder with the `mkdir` command: `mkdir me`

You should know that the `MaKe DIRectory` command just creates a folder. If you are afraid, we can work inside the "Public" folder, where you can create and delete files to your heart's content without harming anything. (It should be empty,)

Now type:

`tree Public/`

Create another folder named "you" inside `~/Public/` and repeat the process. I want you to look at the lines between folder names and see if it makes sense to you, after you run the "tree" command again.

Let's take it one further, inside the Public folder, type:

`mkdir us/coffee/cup/spoon`

and have a look at the error. Can you guess why that is? Yep, those in the know are shouting "parents!" at me right now. When we say parents here, I don't mean parentals, like your mom 'n pop, instead, we mean

```
1 # Create a new directory
2 mkdir projects
3
4 # Enter the directory
5 cd projects
6
7 # Create an empty file
8 touch notes.txt
9
10 # Copy a file
11 cp notes.txt backup.txt
12
```

parent folders. To create parent folders that do not exist yet, you need the -p option. (quickly: man mkdir, I'll wait...)

So now type:

```
mkdir -p us/coffee/cup/spoon
```

and now there is no error. Use the up arrow key and run the tree command again and see what the output looks like now. The hierarchy of folders is displayed one after the other and more importantly, below the parent folder.

The problem now comes in with our first try, where everything just zoomed by, with folders in folders, so deep sometimes, it folds over. To mitigate this kind of problem, you can just tell the tree command how "deep" it needs to go. For instance, I want you to try this:

```
tree -L 1 /Public
```

and once you are done, replace the number "1" with a "2" and peruse the output.

See if you can peruse your home folder's output, one level deep only. If you typed:

```
tree -L 1 ~
```

Good for you! Does that remind you of something? Yes! The ls command. Well done! **Did you know you could also use this notation for the ls command? I'll leave that for another CnC. If you did not know it before, now you know an easy way to read the contents of a folder. If you see a ">", it indicates a symbolic link. (there is no space in-between on your terminal, but word processors keep changing it, so bear with me.)

There, in one minute, I transferred "real" knowledge (I hope you followed along if you are a newbie!) from a completely random command. That is how easy it is, so I cannot understand why someone can be so lazy, to the point where it is 100% slop.

OK, so if you paid attention to detail, you'd realise that there was no "." or ".." like you see when you execute the "ls -a" command. Go ahead and type: ls . and see what the output is. Yep, the "." is the current directory. If you were to execute ls .. you should see the parent folder of the current folder that you are in.

My home folder had "ed" and "edd" folders in, so if I wanted to go from my current home folder in "edd" to "ed" I'd need to type cd ../ed/ as the output of "ls .." is simply edd and ed. That is why you may see cd ../.. sometimes. For a newbie, it may seem like gibberish, but we are just going to the parent folder of the parent folder. If you get lost, the pwd command may be helpful.

Now as an Ubuntu user, you have obviously chained commands with "sudo apt update && sudo apt upgrade" and you can do that here too. For instance, from my /Public/me/ folder, I can type cd ../.. && mkdir test - and now I have a test folder in my home directory. All this requires is that you go play. My suggestion is that you fool around inside your Public folder and once you are done, just delete everything inside your Public folder and your Ubuntu system will be as it was before.

Seriously, beware of people who "pretend" to help you for money, especially when AI is involved. Here at FCM, the help is free, as in money and free from AI. If you need to tell us something, misc@fullcirclemagazine.org



Erik has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.



HOW-TO

Written by Bruce Goodman

In our last get-together we looked at some necessary commands to start and stop the virtual server, and we automated the VM's start up when the host computer was powered on. It's now time to install and configure the MediaWiki application, including its underlying web server components.

In years gone by this would involve first installing a "lamp" stack. The acronym "lamp" stands for Linux, Apache (web server), MySQL (database), and PHP (scripting language). Then would follow downloading the MediaWiki files in "tar.gz" format, extracting them, uploading them to the web server, setting up the database, configuring that, then configuring MediaWiki itself - a bit cumbersome but the end result is well worth it.

These days a number of distributions, including Ubuntu, create and maintain packages for MediaWiki. When I attempted this route though it wasn't quite "set 'n' forget", and I found I had to perform several of the steps covered in the old style separate

lamp stack setup. Those steps are contained in a comprehensive tutorial from the LinuxConfig.org people, at <https://linuxconfig.org/setting-up-a-lamp-server-on-ubuntu-24-04>.

INSTALL MEDIAWIKI

We need to run this command in the virtual;

```
sudo apt install mediawiki
```

but on launching an ssh session into the virtual with this command;

```
ssh bruce@mywiki
```

I noticed something – shown below - that needs correcting.

```
(bruce) mywiki — Konsole
bruce@VMHOST05:~$ ssh bruce@mywiki
Welcome to Ubuntu 26.04 LTS (GNU/Linux 7.0.0-14-generic x86_64)

 * Documentation:  https://docs.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of: Wed May 13 06:33:12 AM UTC 2026

System load: 0.0          Processes: 186
Usage of /:  43.2% of 11.71GB  Users logged in: 0
Memory usage: 14%          IPv4 address for enp0s3: 192.168.1.100
Swap usage: 0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how
   just raised the bar for easy, resilient and secure K8s cluster o
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
```

Build Your Own Wiki - Part 4

The timezone of the server had not been configured for my location – suggesting I overlooked a step during installation of the virtual. Searching for a fix led me to this Ask Ubuntu page - <https://askubuntu.com/questions/3375/how-to-change-time-zone-settings-from-the-command-line> – which contains a few methods. The one that caught my eye created a link called "/etc/localtime" to the relevant country/city entry in the "/usr/share/zoneinfo" directory; there was a comment that this way took account of the annual switch to daylight saving time. Running the first command shown in the screenshot confirmed that Ubuntu 26.04 uses that method, so all that's needed is to change the link and restart the server. Speedbump negotiated.

As it's always a good idea to ensure we're fully patched before starting in installation I ran;

```
sudo apt update && sudo apt list --upgradable && sudo apt upgrade -y && sudo apt autoremove -y && sudo apt clean -y
```

We install MediaWiki and all the webserver components it needs with this command;

```
sudo apt install mediawiki -y
```

TAKE A SNAPSHOT

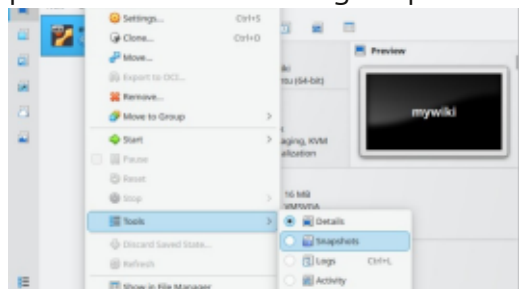
We've covered some distance since we took a backup of our virtual so now is probably a good time to take another – it's always better to backup than lose the work. This time though I'll suggest a

```
(bruce) mywiki — Konsole
bruce@mywiki:~$ ls -lh /etc/localtime
lrwxrwxrwx 1 root root 27 May 13 07:51 /etc/localtime -> /usr/share/zoneinfo/Etc/UTC
bruce@mywiki:~$
bruce@mywiki:~$ sudo ln -sf /usr/share/zoneinfo/Australia/Melbourne /etc/localtime
[sudo: authenticate] Password:
bruce@mywiki:~$
bruce@mywiki:~$ ls -lh /etc/localtime
lrwxrwxrwx 1 root root 39 May 13 17:53 /etc/localtime -> /usr/share/zoneinfo/Australia/Melbourne
bruce@mywiki:~$
```

HOWTO - BUILD YOUR OWN WIKI

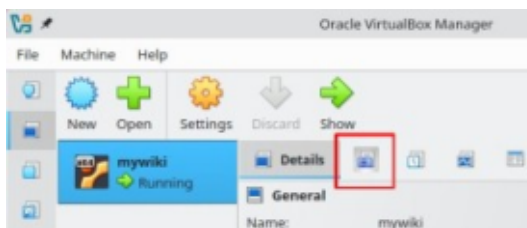
different mechanism – rather than take a full copy of the virtual's folder and content I'm suggesting we make use of VirtualBox's inbuilt snapshot facility. We could have made a snapshot instead of the file copy earlier, but the file copy method enables a VM to be moved or restored and we needed to cover those aspects. Also, that file copy of a newly installed Ubuntu Server 26.04 can serve another purpose – it can save us making a new server VM if we get a hankering for a new virtual in the future; perhaps a Nextcloud, or PiHole.

Taking a snapshot is one of those tasks that's probably better done in the VirtualBox GUI rather than the CLI. There is a VboxManage command for the job but it looks a bit daunting. I suspect, but cannot be absolutely sure, that it's safer to take a snapshot with the virtual not running. It seems risky to me to be attempting such a backup when it's possible for the VM to get updated

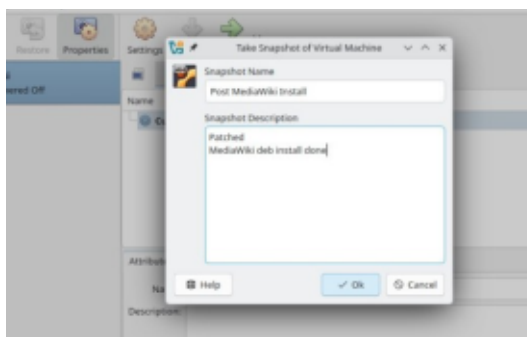


during the process. To initiate a snapshot click on Machine > Tools > Snapshots.

Snapshotting can also be accessed via the button shown below.



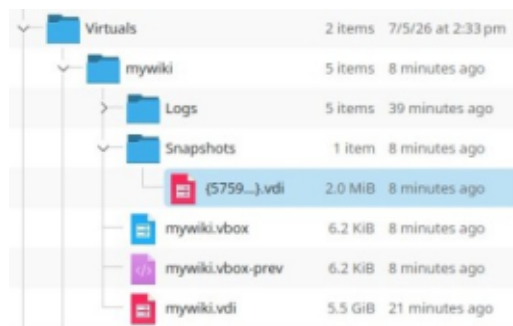
Click on the green plus sign icon upper left to initiate, populate the fields in the pop-up dialogue and click OK to start the process.



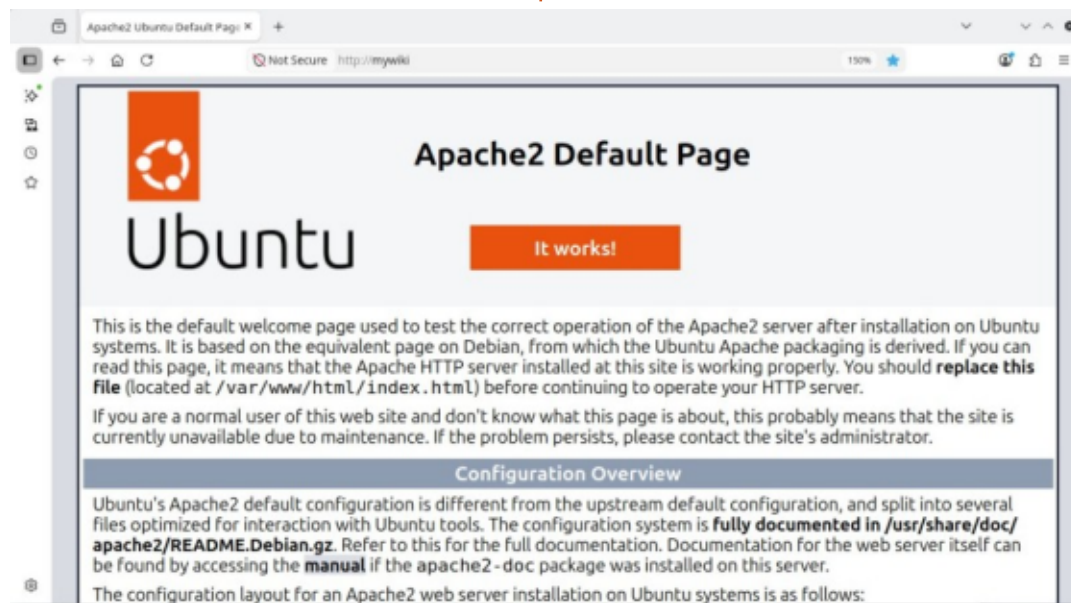
That action completed quickly for me, and resulted in a new "Snapshots" folder containing one small file.

Now if something goes wrong in the next steps we can recover back to here and redo. Once we have progressed a little further we can

create another checkpoint snapshot if needed. These snapshots can all be deleted when our project is complete and functioning. At that time we'll hopefully have a solid functioning backup regime in place.



Before finishing up for this month we can check that the Apache web server is running and we can configure the firewall. In my



setup I apply this URL to Firefox - <http://mywiki/> - to get the default Apache home page.

CONFIGURE THE FIREWALL

Ubuntu Server 26.04 comes with the "Uncomplicated Firewall" – ufw – installed, but not enabled/running. I found a useful reference on configuring ufw from the command line at this short YouTube tutorial by Jay Lacroix, who in recent times presents all sorts of well constructed linux tutorials in his "Learn Linux TV" channel – <https://www.youtube.com/watch?v=XtRXm4FFK7Q>. I also ventured into reading the ufw man page; I mention that here because it's the

HOWTO - BUILD YOUR OWN WIKI

most readable man page I have seen !

The next screenshot (right) shows the sequence of commands I applied to configure the firewall;

After checking that the firewall was not running I set the incoming and outgoing defaults, then added rules for ssh and http connections, and finally enabled ufw (which also starts it straight away).

To verify the firewall is now as we want it we check its status;

In our next installment we'll configure what we need to get the MediaWiki site functioning. Later, we'll look at the basics of using your

```
() mywiki — Konsole
File Edit View Bookmarks Plugins Settings Help

bruce@mywiki:~$ sudo ufw status
Status: inactive
bruce@mywiki:~$ sudo ufw default deny incoming
Default incoming policy changed to 'deny'
(be sure to update your rules accordingly)
bruce@mywiki:~$ sudo ufw default allow outgoing
Default outgoing policy changed to 'allow'
(be sure to update your rules accordingly)
bruce@mywiki:~$ sudo ufw allow ssh
Rules updated
Rules updated (v6)
bruce@mywiki:~$ sudo ufw allow http
Rules updated
Rules updated (v6)
bruce@mywiki:~$ sudo ufw enable
Command may disrupt existing ssh connections. Proceed with operation (y|n)? y
Firewall is active and enabled on system startup
bruce@mywiki:~$
```

own wiki - creating and maintaining pages of notes - and we'll look into creating a scheduled backup regime.

```
() mywiki — Konsole
File Edit View Bookmarks Plugins Settings Help

bruce@mywiki:~$ sudo ufw status verbose
[sudo: authenticate] Password:
Status: active
Logging: on (low)
Default: deny (incoming), allow (outgoing), disabled (routed)
New profiles: skip

To Action From
--
22/tcp ALLOW IN Anywhere
80/tcp ALLOW IN Anywhere
22/tcp (v6) ALLOW IN Anywhere (v6)
80/tcp (v6) ALLOW IN Anywhere (v6)

bruce@mywiki:~$
```



Bruce Goodman lives in Melbourne, Australia, and alternates between his Linux machines and the golf course.



HOW-TO

Written by You??

See? I told you I was short of
HowTo articles...



HOW-TO

Written by Robert Boardman

Latex Beamer - Pt.1

Beamer is the Latex package that allows users to make slide presentations. Using Beamer instructions the user makes the desired file then compiles it. The resulting PDF can be shown on screen, sent to other users and printed if desired. For Latex users it means their Latex files can be easily converted into presentations. Since PDF files can be opened on all current operating systems, the presenter does not have to convert their work file into different formats for various members of the audience. Since Beamer is part of the Latex family, all of the tools available in Latex are also available in Beamer. That feature alone is enough to encourage mathematicians and scientists to use Beamer.

PDF files are generally smaller, sometimes much smaller, than the corresponding presentation software files. For storing files, size is not a big issue, but email systems (either sending or receiving) often restrict the size of file attachments. Large presentation files may require the use of some offsite file

sharing server, like Google Docs or Smash or DropBox or something similar. The original PPT file is 842kb. The generated PDF is 312 kb, less than 50% of the original. The tex file is 3.1kb, less than 1% of the original. The sizes of the two images (204 + 194) need to be added to the size of the tex file, for a total of 401kb, still less than 50% of the original PPT.

Note: When I generated the original PPT file I was in China. I used OpenOffice but had to save the file as a PPT in order to distribute it to other teachers.

How to get started with Beamer? As always I strongly recommend users new to Beamer read some basic instructions and experiment, play around with the code, read some more, repeat. There is a nine-page tutorial written by Norm Matloff which gives basic instruction and has a sample tex file (http://heather.cs.ucdavis.edu/matloff/public_html/BeamerTour.pdf). It is easy to read and short. Because it is short it has rudimentary Beamer commands.

The most recent Beamer User Guide is for v.3.77 and is 236 pages long (<https://mirrors.ctan.org/macros/latex/contrib/beamer/doc/beameruserguide.pdf>). It is not possible to summarize this much information in nine pages. A search at ctan.org for Beamer found 116 items useful for many purposes. After an Internet search for Beamer documentation I discovered most results show the generated PDF without any code. PDFs can be downloaded, but not the source TEX file. As a beginning user it is important to have both. (Some readers may recall I have made the same comment about Latex package documentation.)

Take a look at <https://web.mit.edu/rsi/w/pdfs/beamer-tutorial.pdf> This tutorial is nine years old but don't dismiss it as out of date. It contains both code and resulting slides for many features of Beamer, as well as illustrating how normal Latex commands can be part of Beamer presentations. In other words, the user does not have to learn a large set of new Latex

commands. The essential Beamer command set is very small.

For a more up-to-date tutorial (2021) I suggest <https://latex-beamer.com>. To get started with coding here is the first step from the latex-beamer site.

```
\documentclass{beamer}

\usetheme{default}
%Specifying the default theme
is not necessary

\title{Basic Beamer File}

\subtitle{Prepared for FCM}

\author{Robert B}

\date{2026 Dec 1}

\begin{document}

    \begin{frame}

        \titlepage

    \end{frame}

\end{document}
```

[Notes: The default theme will load automatically, no need to specify. There are at least 27 named themes for Beamer files. I wrote this command now so I would

remember to use it later when I try to decide on the final look of the presentation.]

The basic unit of a Beamer file is the frame. It is similar to a slide in other presentation software but it is not the same. A frame can hold the content of one slide or several slides.

For many years I worked as a teacher in post-secondary education. When I think of presentations, I think of the hundreds of presentations I made for work. There was a title slide, a series of slides with contents and a concluding slide. (Of course this structure is derived from lecture formats.) Slide content could be points of text (ordered and unordered lists) or graphics or a table. The graphics might be an illustration (picture or photograph), or a graph of values or a mathematical expression. There might be links to video or audio. Content was usually in one column but sometimes in two. I often used tables particularly for numbers. I want to use Beamer to build this kind of presentation.

See Don McMillan's presentation "Death by PowerPoint", available

on Youtube, for some basic design guidelines for presentations.

I chose to replicate a short presentation I made when I taught English in China. I need to decide what features of the original presentation I wish to preserve.

The first slide has a title and subtitle. Each slide except #6 has its own title. Every slide except #6 has at least one line of text. Slides 3, 4 and 6 have tables. Slides 7 and 8 have PNG graphics. If there is only one line of text on a slide, it should appear with the title. If there is more than one line of text, then the first line should appear with the title. The other lines of text should appear one at a time on command (mouse or keyboard action). The graphics on slides 7 and 8 should appear with the title.

There are 133 lines of code. Some of those lines contain a single command. I could make the code more compact. That would make it harder to read and therefore harder to understand. The most difficult part of the coding was the table on Slide 6. The Beamer code was straight forward, coding the table took time. Some things that are supposed to work in tables in

Beamer did not. Coding a table by hand (i.e., not using a GUI) can be a challenge no matter what software is being used. Latex is no exception.

The biggest challenge was the cell contents in columns 3 to 7. I wanted the name of the course, the student class identifier and the room number to be on separate lines. In a word processor, that is done with a CR/LF (a press of <Enter>). Supposedly it can be done in a table cell in Beamer using two back slashes (`\\`). That did not work for me, using `\\` started a new row, which is what two back slashes are supposed to do in a table. I had to put the course name in one row, the class ID in another row and the room number in a third row for four time slots. Each time slot had three rows in it, necessitating the use of the `multirow` command. The `multirow` command requires including the `multirow` package in the preamble. If you have trouble following this paragraph look at the code for Slide 6. If making tables in Latex is new or confusing to you, review the code for Slide 3, then Slide 4 before you look at the code for Slide 6.

Here are some comments on other items in the code for this

presentation. It will help if you have the code visible as I review these items.

The first slide is the title slide. It uses the data provided in the preamble for author, title, subtitle and date. I put most slide titles in a block at the beginning of each frame: `\begin{block}{Student Schedule}\end{block}` for example. That puts the title close to the content of the slide. The title is an option for the frame instruction, putting the title there means the title appears at the top of the slide. I do not like that look for most slides.

Line 15 of the code starts the bulleted list of text items for Slide 2. Notice each item is followed by the instruction "`\pause`". That instruction means the presenter has to push the down arrow or the mouse button before the next item appears. It also generates a new slide automatically. The pause instructions I used increased the slide count from the original ten slides to twenty slides.

As I said there are three tables in this presentation. Other than being inside frames in this Beamer presentation, the coding for the

tables in standard Latex coding for tables. My column in FCM 182 was an introduction. There is more detail in FCM 204 and FCM 205. The latex-beamer.com site has about sixteen short lessons about coding various features in tables.

At line 83 there is the command `\scalebox{0.7}`. The table containing my weekly schedule was initially too wide to fit a standard PDF “page”. I tried at least three other possibilities that were supposed to work in Beamer before I discovered and used `scalebox`. Notice the pair of curly braces after `scalebox` around the rest of the contents of the frame. Those are important and easy to miss.

In line 85 I used `tabular*` instead of `tabular` because `tabular*` (with the asterisk) allows, in fact requires, the user to set a width for the table. Interesting note, the width measure set in `tabular*` also determines the length of the `hline` in the table. I mentioned `multirow` already, you can see it on lines 89, 93, 97 and 101.

At lines 109 and 112 you will see `\includegraphics[width=11cm]{name_of_file}`. The original images are much too wide for a PDF page.

The width option keeps them controlled. Graphic files of types GIF, JPEG, JPG or PNG do not need to have the file type in the curly braces. Of course if they are not in the same directory/folder as the `tex` file the `name_of_file` must include either a relative or an absolute path to them.

If you have questions about what you see in the code send me a note. If there are specific things you want to do in a presentation but are not sure if or how Beamer will do them, send me a note. Next time I will do some more work with Beamer.

Both the file for the code and both images (shown right) needed to generate the PDF are available here: https://drive.google.com/drive/folders/12not-c66eE2UlhZckdPC_E4nPX1ox5qh?usp=sharing. Play with the code, give my presentation a new look or generate a presentation of your own material. Have fun with Beamer and with Latex.

Train Number	Train Journey	Stops	Dep Zibo	Arrive Jinan	Travel Time	Cost
G224	Zibo to Jinan	1	08:48:00 AM	09:36:00 AM	0d00h48m	CNY34.5/US\$6 up
G188	Zibo to Jinan	1	09:50:00 AM	10:37:00 AM	0d00h47m	CNY34.5/US\$6 up
G244	Zibo to Jinan	1	10:21:00 AM	11:09:00 AM	0d00h48m	CNY34.5/US\$6 up
G232	Zibo to Jinan	1	11:19:00 AM	12:07:00 PM	0d00h48m	CNY34.5/US\$6 up
G190	Zibo to Jinan	1	01:24:00 PM	02:12:00 PM	0d00h48m	CNY34.5/US\$6 up
G192	Zibo to Jinan	1	01:54:00 PM	02:42:00 PM	0d00h48m	CNY34.5/US\$6 up
G248	Zibo to Jinan	1	03:18:00 PM	04:11:00 PM	0d00h53m	CNY34.5/US\$6 up
G228	Zibo to Jinan	1	03:46:00 PM	04:34:00 PM	0d00h48m	CNY34.5/US\$6 up
G196	Zibo to Jinan	1	05:50:00 PM	06:35:00 PM	0d00h45m	CNY34.5/US\$6 up
G236	Zibo to Jinan	1	06:29:00 PM	07:17:00 PM	0d00h48m	CNY34.5/US\$6 up

	Where?	Transport	To Do?	Cost?
Day 1 Morning	Great Wall	Subway, Bus	Walk. Take Photos	80
Day 1 Afternoon	Great Wall			
Day 2 Morning	Forbidden City	Subway	Learn. Take Photos.	60
Day 2 Afternoon	Forbidden City			
Day 3 Morning	City Gates	Subway	Learn. Take Photos.	25
Day 3 Afternoon	National Art Center	Subway	Learn. Take Photos.	30



HOW-TO

Written by Mark Crutch

Inkscape - Part 173

This month I'm continuing my dive into the extensions that ship with Inkscape 1.4.x by default, picking up where I left off last time, in the Extensions > Generate from Path submenu.

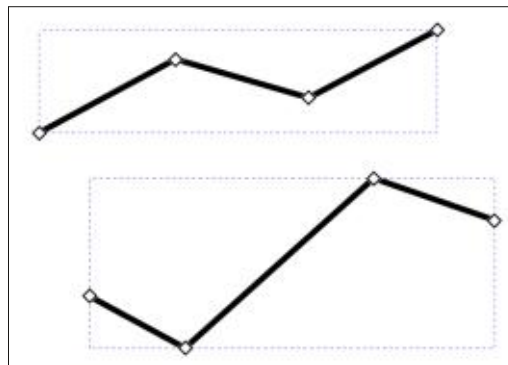
GENERATE FROM PATH > EXTRUDE BETWEEN TWO PATHS...

This one... erm... extrudes, between two paths. Seems obvious, right? But pause for a second to think about it. Extruding is a thing in the physical world, when a soft material is pushed through a hard die to form a long object with a constant cross section. The die presents a 2D cross section, and the material forced through it results in a 3D shape – an extrusion. It's also common in 3D modelling and CAD software, as a means of extending a 2D sketch out into the third dimension. If you're a FreeCAD user you'll know this as the 'Pad' operation, for example.

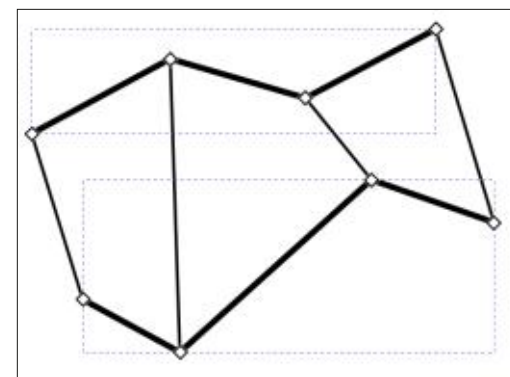
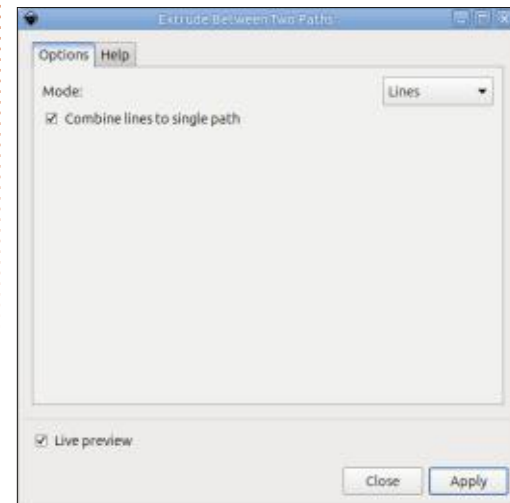
But Inkscape is not a 3D modelling tool. It only works with

flat shapes. So what does it even mean to 'extrude between two paths' in a 2D program? Well, in this case it means to draw a line joining the first node of one path to the first node of the second, then another line joining the second node of each path, and so on. With the right shapes (and perhaps a bit of manual tuning of the result) it can be used to give a sort-of 3D impression (or optical illusion), as though the path had been extruded into the third dimension. I still don't think I'd have used the word 'Extrude' in the extension's name though, as it promises far more than it delivers.

Let's start with a simple example of two paths, each with four nodes and straight lines connecting them.



If we select both paths and open the Generate from Path > Extrude Between Two Paths... extension we'll get a dialog with a very limited number of controls.

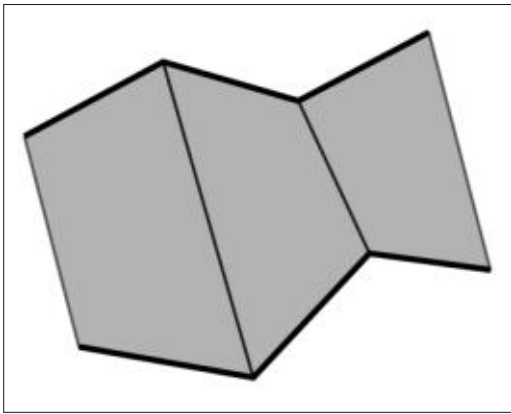


As usual, I recommend enabling the 'Live preview' option in order to

see what the result will look like before you commit to it. In this case, with the 'Mode' set to 'Lines' we get four new lines which connect between the nodes in the original paths.

Structurally speaking, the new lines are either sub-paths within a single path object, or individual paths grouped together, depending on the state of the 'Combine lines to single path' checkbox. Which you use will depend on what you want to do next with the lines, though it's easy to switch between four separate paths and one path with sub-paths via the Path > Combine and Path > Break Apart menu entries. Note that the created lines are always black, regardless of the colors of your original paths.

Switching the 'Mode' pop-up to 'Polygon' creates filled quadrilaterals whose four corners consist of adjacent pairs of nodes from each path. In other words, it looks like the 'Line' version, but filled.

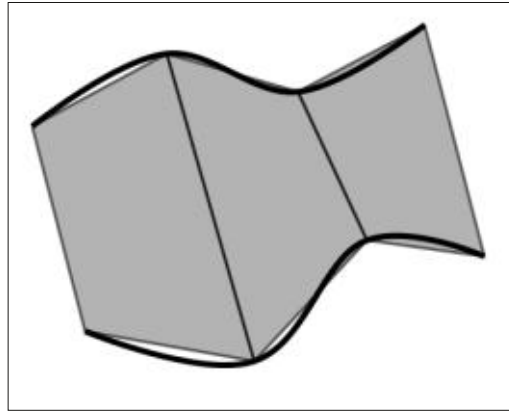


There are a few key points to note about these polygons:

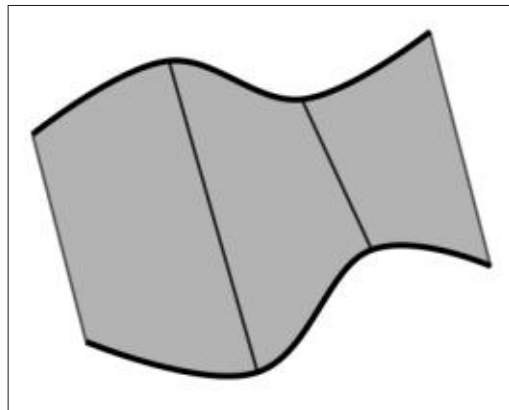
- They're always created as a group of polygons, irrespective of the checkbox
- Each polygon has a black stroke and a fill that is black with an alpha value of 30%
- The polygons are stacked just above the bottom path in z-order
- The sides are always straight lines

Point 2 means some manual work if you want differently colored polygons, or want them to be fully opaque. Point 3 becomes more relevant if your original paths aren't black, or you change the color of the polygons, as you may find that the bottom path is obscured or altered by the polygons above it. Point 4 means that, if you have curved segments in your original paths, you can end up with polygons that don't correctly fill the

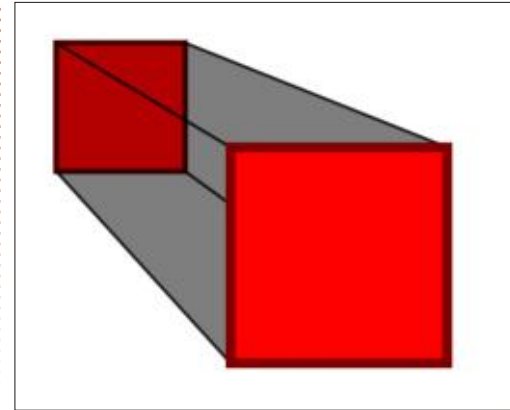
space.



The solution to this issue is the third 'Mode' option, 'Follow curves'. With this enabled you're likely to get a result much closer to what you had intended. When used on paths with only straight segments, this gives the same result as the 'Polygon' mode anyway. Therefore I suggest always using 'Follow curves' unless you specifically want the straight-line-chord appearance.



As is often the case with tools that purport to work on paths, this extension can also be used – to some extent – on other primitives. For example, duplicating a square and making the copy a little larger is a quick way to see the 'extrude' optical illusion in action.



Note that this extension won't work if one of the objects is a clone. That's no great loss, as the results are not 'live' anyway, so if you do need to edit the source paths you'll still need to remove the generated lines or shapes and re-run the extension with the updated paths. Being able to edit one path and have the other update accordingly is less useful if the lines joining them don't also update to reflect the change.

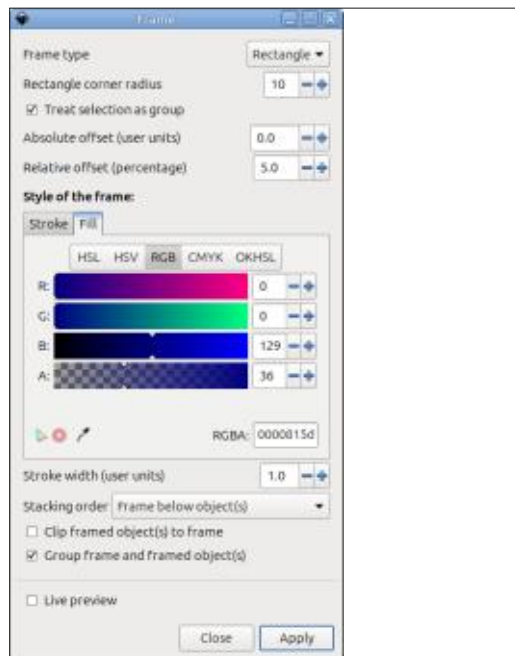
I've had mixed results with other primitives. Spirals, which I had

expected to be a problem, worked surprisingly well. Extruding a simple star, on the other hand, sometimes resulted in a jumbled mess. Converting the stars to paths first gave much better results, so I'd generally recommend converting your primitives to paths (Path > Object to Path) before using this extension. Or at least use the live preview to see whether or not you need to.

Text is a different matter entirely. It would appear that this extension is crying out to be used to create 3D text effects of the sort that adorned every Word-created leaflet in the late 90s. After converting the text to paths the extension does its job, but the stacking order of the resultant shapes doesn't always work for the direction you're trying to 'extrude' in. If you really want to create this effect, I suggest working with one letter at a time and grouping the result of each so that you can easily re-stack them into the right order yourself. Even then, I suspect this approach is more trouble than it's worth for anything more than a handful of characters.

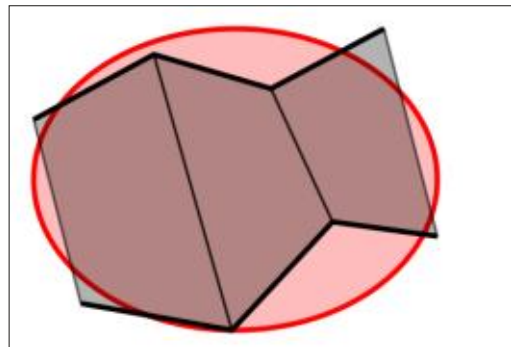
GENERATE FROM PATH > FRAME...

While the previous extension had few options, but required a lot of explanation, this is the opposite. All it does is create a rectangle or ellipse whose size is based on the bounding boxes of the selected objects. It works with most objects, not just paths, though clones are again banned from the party. As the name suggests, it's a quick way to create shapes that frame the selected objects, though the end result is perhaps a little underwhelming if you were expecting a nicely rendered picture or window frame.



The top section of the dialog deals with the type, size and placement of the frame, starting with a simple choice between 'Rectangle' and 'Ellipse'. In the former case you can also set the corner radius to a positive integer up to 1000, though once you go much above 50 or so the result barely changes. Set the value to 0 for sharp corners.

The 'Treat selection as group' checkbox only applies if you have multiple objects selected. Unchecked, each object gets its own frame; checked, a single frame is created for the entire selection.



Because this extension uses the bounding box to determine the size of the frame, it will often be very tight to the selected objects. A thick stroke on the objects, or creating an ellipse rather than a rectangle can easily result in the objects

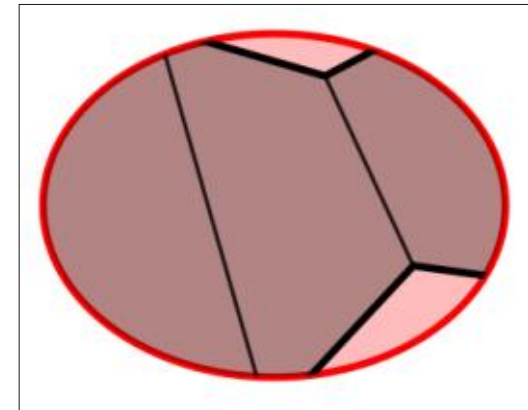
extending beyond the edges of the frame, as you can see if we add an elliptical frame to one of the extrusions we created earlier.

This can be addressed using the two 'offset' fields. The 'Absolute offset' applies a fixed offset from the frame's default size – positive values make it larger, while negative ones make it smaller (which may be useful for clipping, as we'll see). These are measured in the not-terribly-useful SVG standard of 'user units', whose real value depends on a number of different factors. It would be useful to be able to define this spacing in terms of millimetres or pixels, but instead your best bet is just to tweak the value while you judge the effect by eye (with the live preview checkbox enabled).

The 'Relative offset' is measured as a percentage of the width and height of the bounding box. The tooltip suggests that this option might be preferable if the width and height of the selection differ considerably – i.e. a very tall and thin, or short and wide selection. It's also worth noting that the two fields are cumulative, so you might want to use the Relative value to get an approximate size, then make

fine adjustments using the Absolute field.

Jumping ahead for a moment, another way to deal with a frame that is smaller than the content is to enable the 'Clip framed object(s) to frame' checkbox. In conjunction with negative offsets, this lets you clip to a small section at the center of your original selection.



Back to the middle of the dialog, and we have a fairly self-explanatory pair of tabs for setting the stroke and fill color. Below those is a field for setting the stroke width. Once again, this is in 'user units', so enabling 'live preview' and manipulating the value for the right effect is probably the best option. Because this extension creates normal Inkscape ellipses and rectangles, you always have the choice to

HOWTO - INKSCAPE

explicitly set the stroke width to named units after applying the extension.

Also pretty self-explanatory are the final two controls. 'Stacking order' determines how the frame is positioned in the z-stack, relative to the selected object(s). You can push the frame to the bottom ('Frame below object(s)'), raise it to the top ('Frame on top of object(s)'), or opt for the more interesting 'Fill below, stroke above object(s)' which causes the frame to be created as two separate objects – one for the fill, and one for the stroke – with the selection sandwiched between them in the z-stack.

'Group frame and framed object(s)', when checked, results in the frame components and the selected elements being grouped together when the extension finishes. If you have multiple items selected and have not enabled the 'Treat selection as group' option, it will create a separate group for each selected item and its corresponding frame, which makes it much easier to keep the various parts together if you need to move them later.

An unfortunate omission is any

way to offset the position of the frame in the x and y directions. This would allow for frames that weren't exactly centered to the selection's bounding box, and would be particularly useful when using this to clip content to focus on one part of an object, which may not necessarily be right in the center. Without that feature it will often be easier to manually create and position a 'frame' yourself, using the normal drawing tools, rather than use this extension.

As is often the case with extensions, these two serve quite specific purposes which may be absolutely invaluable to you – or you may be left wondering why you would use these over just drawing some extra content yourself. The Extrude extension is probably the more interesting of the two, as it can achieve in one step something that might take many minutes or hours of editing to do by hand. An automated way to draw a rectangle or ellipse round some content? That doesn't feel quite so useful to me, especially without a way to use named units or x/y offsets.



Mark uses Inkscape to create comics for the web (www.peppertop.com/) as well as for print. You can follow him on Twitter for more comic and Inkscape content: [@PeppertopComics](https://twitter.com/PeppertopComics)

The Daily Waddle

IT'S NOT ALL DOOM AND GLOOM...
WE HAVE INTERGRATED SYSTEMD
WITH EVERYTHING !





Linux on Your iPad

For as low as \$4.95, you can have your own personal Linux cloud computer in minutes on any device.

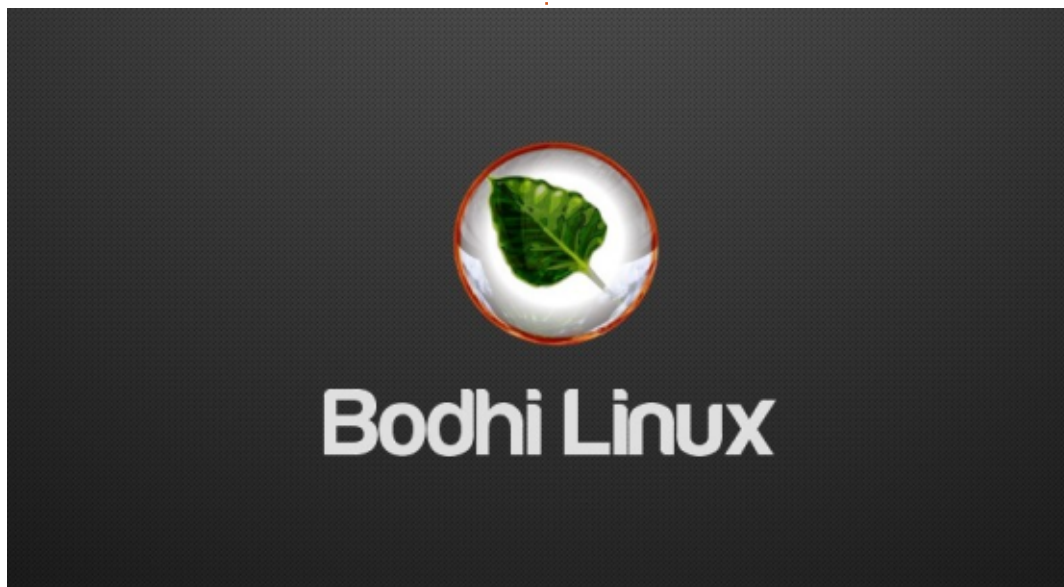




BODHI CORNER

Written by Joseph "Flux-Abyss" Wiley

BACK NEXT MONTH





UBPORTS DEVICES

Written by UBports Team

BACK NEXT MONTH



The Daily Waddle

OH DON'T WORRY, IT'S
POWERPOINT PRESENTATIONS
24 / 7 / 365





June 2024, an email arrives from a village outside Cheltenham, UK. It is from Sam Attard, who runs a site called Ethical Revolution (<http://ethicalrevolution.co.uk>). He wants to hold a Software Freedom Day event, and he reaches out to me to talk about two hurdles holding him back.

The first is that he doesn't feel comfortable speaking in public. He has held plenty of positions where he had to do it, he tells me, and he still struggles in small meetings where all you have to do is say your name and where you are from.

The second is that he is still learning all of this Free Software stuff himself. He learns of "the four freedoms" in my reply to him. Those take it a step further than what he understood under open source.

Add three months, and he is standing in a meadow in the rain, his border collie Ted by his side, courageously explaining the four freedoms to a group of strangers.

The story from the mail to the meadow is what this article is about.

From tables to a footpath

Sam's first plan is ambitious. He sketches out a drop-in event built around a series of tables that people walk through as a kind of journey. One on what free software is. One on why proprietary software is not free even when you pay nothing. A machine loaded with libre alternatives so people can see how easy switching would be. A table on the fediverse. Take-home flyers with a QR code to a page where you can look up an alternative to anything you already use. The whole thing livestreamed with Owncast.

He has a venue in mind and a meeting booked with the council. He can think of a few friends in the community who are willing to help.

And then reality kicks in: The hall is taken on 21 September for the

village autumn fayre, which is the same day. He could buy a stall there, which means the size of his event now depends on how much table space he can afford. But then a family matter comes up and he is not available on the 21st at all.

Apparently, using the city hall isn't that easy after all. And when Sam moves the date around, those friends also don't appear available. So in the end, Sam gives the event a unique spin and he does what he enjoys most: He takes people for a walk.

The podcast

Meanwhile I am nudging him about the speaking issue, because that is clearly a major hurdle.

First I assure him that nobody needs to speak in public. Plenty of organisers just set the thing up, find the venue, rally the people, and let others do the talking. But Sam wants to get past the fear rather than around it, so I suggest we record a conversation for Hacker Public Radio, which is about as low-

stakes as broadcasting gets. He asks the questions he actually has, I answer them, and if he hates the result we delete the file.

The episode goes out in August 2024, and a month later he is doing the talking himself.

The walk

It rains. A couple of people drop out, which he says he entirely understands. The rest get wet.

He talks as they walk. What software freedom means. The four freedoms, the ones he learned about that summer.

Then he asks his group to name software they use, and offers to name a libre alternative for each one, with a get-out clause that he will look it up at home if he is stuck. Office suites come up. Messaging apps. Maps. Photo editing. He manages all of them.

Afterwards everyone goes back to his house and dries off, and he puts the kettle on and gets out

three lots of cake.

One is from a bakery, no idea what is in it. One is from a shop, with the ingredients printed on the package. The last one is home made, and he offers the recipe with it, ingredients and method, to anyone who wants it. He asks his soaked guests to work out which cake is the free software, which is merely open code, and which is neither.

They get it right. He reckons the cake is the bit they will be able to repeat to their friends, and I think he is correct.

Then he flips open his computer and hands over his smartphone and lets people try things: LibreOffice, Nextcloud, GIMP, Inkscape, Joplin, Ardour, Podverse. A few install Element on their phones. Somebody asks how you answer the person who says "I have nothing to hide". Somebody else worries that learning new software will be hard, and Sam points out that going from Photoshop to GIMP is not learning a new language, it is learning where the menus moved to.

Of everything he shows them,

the one they all say they will start using that week is OpenStreetMap.

That is a Software Freedom Day event. Roughly a dozen people, one host who is new to the subject and hates public speaking, a walk, and some cake.

The basics, quick recap

Software Freedom Day is an annual global celebration of free and open source software, running since 2004. The Digital Freedom Foundation coordinates it, but the foundation does not organise events. Local people do. We keep the map, send out materials, and try to be useful when someone like Sam gets nervous.

The official date is the third Saturday of September. In 2027, that is 18 September.

I run one myself, in our hackerspace in Brussels, and have done every year since 2011. It starts very small. Some years it grows a bit. Mostly it stays small and it is good fun, while teams in Brazil or Portugal run things ten times the size. Both count.

The birthday party rule

But don't get yourself stuck on that official part, the date is more like how you celebrate a birthday.

This is what I tell Sam when the autumn fayre swallows his Saturday. If your birthday falls on the 21st and your closest friends cannot make the 21st, you hold the party the following weekend. Nobody thinks you have cheated. The same applies here: if the day itself does not work because of a religious holiday, an exam period, a hall that is booked, or your own family, move it. Teams shift by a week or two all the time, and some shift by considerably more.

Just don't overstretch. If your birthday is in September and you hold the party in March, that's not really the birthday party any more. A few weeks either side, or even a month, costs you nothing at all. And nobody at DFF is going to take your banner away.

So if you are reading this and thinking you missed the boat this September: don't worry, it doesn't matter. Register anyway and hold something in the next few weeks.

Five people and some balloons

Back when I joined the board, I went digging through the archives to find the most impressive events. I was impressed about how many schools and communities organized big - even multi-day - events. But the one that stuck didn't stand out for its size.

Somewhere at the start of the 2010s, five people made themselves a big banner and walked into the middle of their town. They handed out CDs and flyers about Software Freedom Day and carried a few balloons with the logo on them, out of the swag pack we sent. No venue, computers or formal talks. Just a bunch of friends having fun handing out flyers and talking about their passion with coincidental passers-by.

Let's put the baseline there: it's fun, you're with friends and you reach new people. Everything above it is optional.

The reports that come in

Sure, I'm convinced that we need to talk about software freedom in a wider community. And it's more important than ever. And what keeps me going, isn't the numbers. It is what arrives from places where the event looks nothing like anything I would have designed.

In Nepal, last year a group of students went up into the mountains for Software Freedom Day and deliberately left their computers behind. The political uprising that touched every fiber of society made them think about the role IT played in all of that. They spent the day talking about what software freedom means and why it matters to them, in a country where digital dependence is not an abstract worry. When that report reached me I had to sit with it for a while.

Teams in Nepal were already preparing for this year's annual event, when the community got struck with a natural disaster beyond every scale of understanding. While that country

was living a life with one of the smallest ecological footprints of the whole world, Europe and the US keep building datacenters and rolling out industry at scales unseen. Everything needs to be bigger, everything needs to be more. When asking the Nepali groups if we - as a global community - can help, they asked to join all efforts into the government organized fundraiser (<https://pmdrf.nchl.com.np/>).

Not every message is a good one. A few months ago, the team in Bogotá wrote to apologise. They have run Software Freedom Day for over a decade, one of the longest traditions we have anywhere, and civil unrest in Colombia meant they couldn't do it this year. They apologized, as if they let the movement down. They have not, on the contrary.

Sometimes, the only thing you notice is silence. We used to have contacts in Iran, where teams ran their events at universities in Tehran and elsewhere. This year, no teams signed up, and when reaching out, we didn't get any answer. From none of the teams. I am not going to speculate about why. I hope they are well and we

will hear back from them when the war is over.

Now is the time for us all to be connected even more. When you celebrate Software Freedom Day in your area, when you flip open your computer and just assume that your messages don't get read along... remember that this isn't obvious or the case everywhere. Take a moment of silence to connect with our friends in troublesome areas.

The celebration is worldwide and the conditions differ vastly between communities. So when you're grumbling about a projector cable, it is worth knowing that in some places the hard part of this event is not the projector.

The booklet and the court

People ask why any of this matters if the software they use works fine. I use two examples, one small and one large.

The small one is mine. It was around the turn of the century, I had paid for Microsoft Office, and the feature I loved most in Outlook was the option to print your agenda

as a little monthly booklet. My brain is scattered and I forget everything, and back then was nothing different. I also spent a lot of time visiting families who often had a hard time making ends meet. I didn't want to be the guy pulling an expensive electronic organiser out of his bag in their front room. So I carried paper, wrote things in by hand, and typed them up in the evening. Every month I printed a few fresh booklets. It worked beautifully.

Then I paid for the next version, went through the install, and couldn't find the booklet printing option. Since I was a paying customer, I didn't hesitate to call support, and got passed along a few times. Eventually I got told the feature had been removed because not enough people used it. Some months later a small company sold me a plugin that brought it back. At a fair price of course.

Microsoft wasn't being evil here, they played according to their own rules: they had to answer to their shareholders, and they made a reasonable decision about which features were worth their maintenance cost. The problem was, and still is, that their priorities

are not mine, and I have no say.

The large example is from 2025, and holds the same bottom line. The Associated Press reports that Karim Khan, Chief Prosecutor of the International Criminal Court, loses access to his Microsoft email after the United States sanctioned him, and moves to Proton Mail. Microsoft publicly denied cutting off services to the court and said the ICC moved the account itself. Even taking that at face value, the ICC was the party with no room to maneuver: close one account, or risk the whole court being locked out. What the court does next, is not a technicality: in October 2025 they confirm to be migrating away from Microsoft Office to openDesk, the free software suite developed under Germany's Centre for Digital Sovereignty.

And the effect of that threat ripples through Europe. The German state of Schleswig-Holstein is moving roughly 30,000 government workstations to Linux, LibreOffice and Nextcloud, and Mecklenburg-Vorpommern has started down the same road, with the first 5,000 staff already off SharePoint and onto Nextcloud and

more than 50,000 to follow. Denmark's Ministry of Digital Affairs is replacing Office 365 with LibreOffice, as are Copenhagen and Aarhus. Lyon is moving its city administration to OnlyOffice, Linux and PostgreSQL. And in January 2026 France announced it is retiring Teams, Zoom and Meet across the whole of the state in favour of Visio, its own open source meeting platform, a switch it expects to complete in 2027 and which it reckons saves a million euros a year for every 100,000 accounts migrated.

My agenda booklet and the international criminal court sit very far apart in importance but similar in mechanism: Somebody else decides, and you have no say.

Keep it a party

So there you are, you see all those risks and limitations. It's tempting to bring a story of gloom and horror. Surveillance, lock-in, sanctions, enshittification. There is plenty of material and there's truth to all of them.

But please, don't. I'd like to invite you to surprise people, show

them some cool stuff that makes your software special. Make them leave enthusiastic rather than scared.

I go further than that. I typically won't tell people the software they use is bad or evil. Tell someone the program they love is garbage and you're pushing them in defence. Now you have to dig them out of that before you can say anything useful. Skip the whole detour. Who am I to judge what works for them?

What you can do instead is talk about what you find valuable, what makes them special. Be modest about it. You are not representing a movement, you are one person explaining what you like. Say why you chose Firefox. Show what LibreOffice does for you. Admit the trade-offs, because there are some.

Show something that surprises them, because free software is full of features the commercial equivalent doesn't have and the demo does most of the persuading for you. Put a few machines on a local network and let kids race each other in TuxRacer. No cloud server involved anywhere. Demo Krita or Inkscape, Blender or MuseScore and let people create something. If you

record music, show them Ardour and let them see what it costs.

What we can send you

In 2024 we had 66 registered events. In 2025 it went up to 117. I can't tell you this year's total yet, because a good number of teams registered after the deadline for this article.

This year, thanks to generous sponsorship from the Linux Professional Institute and Canonical, we were able to ship physical banners to the twenty teams who registered early. That's something we haven't been able to do in the last decade. We'd love to do it again next year, so we need all your help to register your 2027 event early and bust those figures, so we can blow that number out of the water. And if we can convince enough sponsors, who knows how much more we'll be able to push into those swag packs.

Go ahead and be impulsive and put your team on the map for 2027. Go to digitalfreedoms.org and register before May.

So... how to get started I hear

you asking? Let me explain!

Starting from nothing

First things first, while you can do it alone (Sam did), it's better to team up. Find yourself a few friends or a local community. Look around if your area doesn't have an Ubuntu LoCo, a Linux Club or Linux User Group, Hackerspace or computerclub. But it could also be a student club, a philo café or a business collective. You'll need a few people in the group who are enthusiastic about one or more aspects of using FOSS.

If you already have a place to gather, that's a bonus. If you don't, that shouldn't stop you. Ask the local library if they have a spare room, your school for a classroom at the weekend, team up with a hackerspace, a company meeting room out of hours, a philosophy club or debating society that meets nearby, a pub on its quietest evening where everyone buys their own drink. A back garden can also work or, apparently, a footpath.

You also don't need to be an expert. Sam learned about the four freedoms in June and was teaching

them to strangers in September. He didn't know every answer on the day, just said so, looked things up afterwards, and nobody minded. A host who is one step ahead of the room is easier to follow than one who is twenty steps ahead.

What you do need is a date and the nerve to tell people about it.

So: 18 September 2027. That is far enough away that you have no excuse for not having a room by spring. Or ignore that suggestion

and do something next month. Technically a bit late, but certainly still a good moment for a party.

Bring cake.



Photo: NOSK

Software Freedom Day is coordinated by the Digital Freedom Foundation. Event registration, organiser guides and past reports are at digitalfreedoms.org. Sam Attard writes at ethicalrevolution.co.uk, and his own account of the walk is reproduced on the DFF blog. Our conversation about getting started is Hacker Public Radio episode 4186, "How to Get Started with Software Freedom Day".



HOW-TO

Written by Ronnie Tucker

Write For Full Circle Magazine

GUIDELINES

The single rule for an article is that **it must somehow be linked to Ubuntu or one of the many derivatives of Ubuntu (Kubuntu, Xubuntu, Lubuntu, etc).**

RULES

- There is no word limit for articles, but be advised that long articles may be split across several issues.

- For advice, please refer to the **Official Full Circle Style Guide:** <http://bit.ly/fcmwriting>

- Write your article in whichever software you choose, I would recommend LibreOffice, but most importantly - **PLEASE SPELL AND GRAMMAR CHECK IT!**

- In your article, please indicate where you would like a particular image to be placed by indicating the image name in a new paragraph or by embedding the image in the ODT (Open Office) document.

- Images should be JPG, no wider than 1200 pixels, and use low compression.

- Do not use tables or any type of **bold** or *italic* formatting.

If you are writing a review, please follow these guidelines :

When you are ready to submit your article please email it to: articles@fullcirclemagazine.org

TRANSLATIONS

If you would like to translate Full Circle into your native language please send an email to ronnie@fullcirclemagazine.org and we will either put you in touch with an existing team, or give you access to the raw text to translate from. With a completed PDF, you will be able to upload your file to the main Full Circle site.

REVIEWS

GAMES/APPLICATIONS

When reviewing games/applications please state clearly:

- title of the game
- who makes the game
- is it free, or a paid download?
- where to get it from (give download/homepage URL)
- is it Linux native, or did you use Wine?
- your marks out of five
- a summary with positive and negative points

HARDWARE

When reviewing hardware please state clearly:

- make and model of the hardware
- what category would you put this hardware into?
- any glitches that you may have had while using the hardware?
- easy to get the hardware working in Linux?
- did you have to use Windows drivers?
- marks out of five
- a summary with positive and negative points

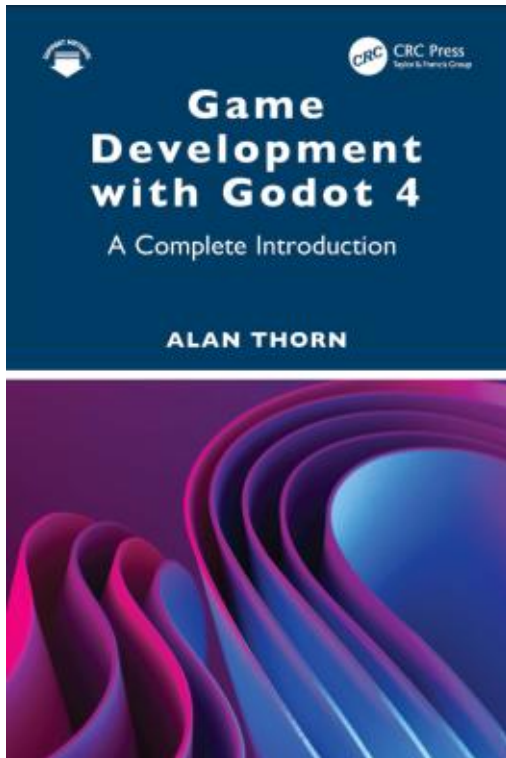
You don't need to be an expert to write an article - write about the games, applications and hardware that you use every day.



BOOK REVIEW

Written by Erik

Game Development with Godot 4



Game development with Godot 4 – A complete introduction

Author: Alan Thorn

Website: <https://www.routledge.com/Game-Development-with-Godot-4-A-Complete-Introduction/Thorn/p/book/9781032759241>

Price: \$56.79 or \$160 USD (Hard cover)

Blurb: “*Godot is a rapidly growing free and open-source game engine for creating 2D and 3D games, and interactive applications on many platforms, including desktop and mobile. There has been intense interest in this engine among game developers worldwide. This tutorial book offers an accessible, easy-to-follow and fun introduction to Godot Engine 4 for game developers, both complete newcomers and migrators from alternative game engines, like Unity and Unreal. This book practically explores the process of setting up the Godot software for the first time, creating 2D and 3D scenes with interactive elements, and using the GDScript language to create common gameplay elements, like first-person controls. Overall, this technical book offers a structured and friendly introduction to many of Godot’s impressive features to help you get started at making games as an indie game developer. This book explores nodes, scenes, hierarchies, import workflows, scripting, animations, user interfaces, working with resources, and creating gameplay elements, among others.*”

Some of you may be familiar with our series on Godot, starting from the ground up. I created that series as I felt that the videos on YouTube just expected you to know things around the interface. I wanted to learn more and I also wanted to see what I missed out on. So I grabbed this book. (It was a recommendation on a forum as a Godot overview book.) I may even be stealing with my eyes, for our next one. ;)

What this book is not:

- It is not a programming book on GDScript.
- It is not a project book, where you end up with a game in the end.

Let’s have a chapter-by-chapter look at what is included.

Chapter One:

This chapter discusses what Godot is, where to get help if you need it and what you can use it for. Concepts like free and open source are discussed and you will miss nothing skipping this.

Chapter Two:

This is a quick explanation of the interface, covering both 2D and 3D views. It also helps you get around. Towards the end of the chapter it may feel a bit like a Blender tutorial, but you will need all of it if you hope to work in 3D.

Chapter Three:

This chapter basically continues where the previous chapter left off, explaining things like textures and meshes, moving into the resources discussed in the previous pages. There is a bit of a hands-on section in this chapter, to get you used to using the materials they just discussed. Towards the end, we are treated to integrating Blender with Godot. It goes into a lot of depth towards the end, but once you are done, you will not be shy around meshes and materials.

Chapter Four:

This is an overview of GDScript, explaining the built-in functions.

REVIEW

Very important for anyone picking up Godot. It then goes on to explain where to find certain settings in the interface and finishes off with nodes and signals. There are a few code samples in this chapter, showing you how to connect your new signals and nodes to your program.

Chapter Five:

In this chapter we circle back to 2D. We are shown how to move sprites, how they collide and also how to create static sprites for world building. Then we get to learn about tiles and tile-maps. The curve steps up a bit with pathing, without getting into the weeds too much. Then we move on to animated sprites and issues that you may run into with sprites.

Chapter Six:

Here we revisit 3D again, but this time we move beyond our object to subjects like lighting and other elements. We learn about triggers and text and physics in the 3D realm. Be aware that it is not as easy as it is short.

Chapter Seven:

We go back to the interface here, showing you more options and more advanced options like creating a cursor and animating UI effects. Subjects covered include fancy UI transformations and music. Don't skip this chapter if you want your stuff to look good.

Chapter Eight:

This is all about game mechanics, starting in 3D, showing us how to create our environment and moving to the player. Once you have a player, we move to player controls and character behaviour. Then we have camera behavior. Finally we are challenged to add features to what we have already.

Chapter Nine:

Godot tips and tricks, 'nuff said.

Talkin' Turkey

The book is wonderful for anyone starting out with Godot, but at the current price, it puts it out of reach of casual learners. For instance where I live, the book is over \$1000.00 and I fear the return on investment is just not there,

even at half the price. This is a 'nice to have' and a good primer and if you have the money laying around, some solid coffee table flex. If you are poor, I suggest you look on Scribd and see if it is something you would want.



Erik has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.

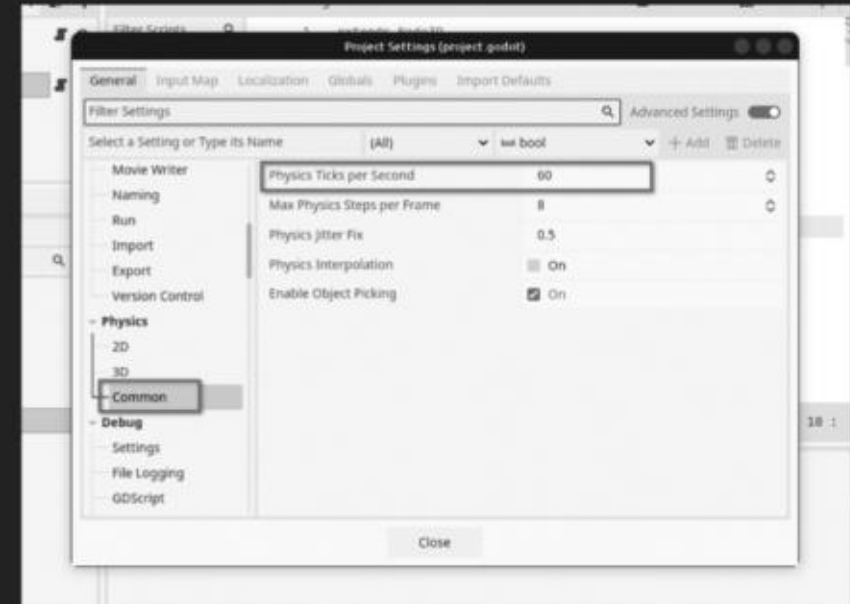


FIGURE 4.8 Controlling a project's ticks per second. [🔗](#)

4.3.3 The `_unhandled_input` Event

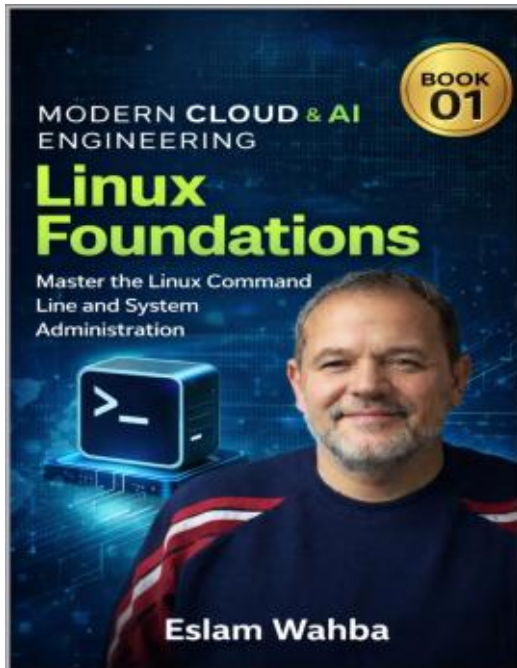
If you need relatively low-level and direct access to input devices, such as the keyboard and mouse, then the `_unhandled_input` event is very useful. This event is run automatically by Godot whenever it detects that the mouse cursor moved, a mouse button was clicked, or a keyboard



BOOK REVIEW

Written by Erik

Modern Cloud & AI Engineering



Author: Eslam Wahba

Website: <https://www.amazon.com/Linux-Foundations-Command-Administration-Engineering/dp/B0GY879XWD>

Price: \$6.99 USD (\$0.99 Kindle)

Blurb: *"The Linux Book Written From Production Incidents, Not Textbooks. You have been paged at 3am. The server is down. The dashboard shows nothing useful. You know Linux — but the failure is happening in a layer you have never had to look at before"*

This is an Amazon Direct book, so you will not find it anywhere else. As Amazon screwed me over before, deleting all my books when I went on holiday, I cannot recommend getting it there.

I'm not going to lie, the idea of a book starting at the problems and working backwards was appealing. The idea that it was Book One of Thirty-Six, not so much. (Definitely read "who this book is for")

It is very rare that I read books that go past a third installment. It feels like they just try their darnedest to string you along. While this is not a story but non-fiction, I gave it a go, as it would mean that there would be no

reason at the end, other than my curiosity or merits of this book, to look for the next one. (Hint: it is the latter.)

Let us get an overview of some of the chapters, so you can decide if you want to get this for yourself. (There are only 12, so this is not a long article.)

I will also tell you up front that my only gripe with the book was the acronyms (PCMCIA – People Can't Memorize Computer Industry Acronyms) and while the book is targeted at other engineers, I'd say that if you use an acronym across a page (i.e., the next page over) just add it again in brackets. The difference between a 350-page book and a 351-page book will not put the price up, I'm sure. The cover leaves a lot to be desired...

Chapter 1

Boot: From Power-On to PID1

The error here is that someone did an update and did not wait for the server to fully boot again. It starts at the beginning, the

firmware stage and walks you through that, then GRUB, then kernel loading and then initramfs. You can see that the author has been through a lot of these failures. He obviously works with Red Hat servers and all their failures are keeping him in business, so to speak. Like Windows, keep all the SMB IT support people in business. Before the chapter summary, you are treated to five boot failure patterns.

Chapter 2

Process Model: How Linux Thinks About Work

The error here is running out of memory and the dashboards are all green. You start off reading about processes, fork(), wait(), signals, PGID and /proc. While one's eye is naturally drawn to the colored blocks, I do advise you not to skip anything, as the author uses acronyms all the time. This caught me off guard a few times, this chapter was the first. One moment I was reading about new processes and children, I grabbed my coffee and looked at the "deep insight"

that read, “COW has a failure mode that takes down large Java services...” Immediately my brain double clutched. Children of w..? Cowsay? And I had to go back and find the copy-on-write (COW), to read the insight correctly. Again, before the chapter summary, you are treated to a few failure patterns.

My own insight: Back in the day, I used to memorize BSOD patterns and would surprise my technicians with knowing what the problem was, even when they were struggling. This comes from repetition, seeing the same thing hundreds of times, to the point where the error, however obscure the thing may be, points you toward a resolution, where you can be confident of your answer. This is what I see here. This author has had these issues over and over, to the point where he is confident in the answer and then he did the digging, to put the answer down on paper. I know this, as somewhere in the book he describes how something was implemented in C structs or whatever, meaning that he dug until he hit bedrock.

Chapter 3

Memory: The Illusion the Kernel

Sells

The error here is still memory related and we are given the post-mortem that satisfied the RCA (root cause analysis) but did not address the real issue. I like the way the chapter started, “Every process on Linux runs inside a lie. The process believes that it has exclusive access to a large contiguous address space.” I used to explain it to my students as, “you have a soda bottle, the Coke in there believes the whole bottle is Coke, the Fanta in there believes there is a whole bottle of Fanta”, and so forth. We learn about the page cache, the OOM killer and swap. While Linux does better at managing cache than Windows, (I have never needed sysinternals RAM cache cleaner in Linux) I do still suggest that you read every sub-chapter and not skip anything.

Chapter 4

The Filesystem Layer: What “Everything is a File Actually Means

The error here is filesystem shows 100% full, but server is still writing. The mental model here starts with, “A filename is not a property of a file. It is a property of a directory entry that points to a

file” so you know it is going to be good. The chapter only covers EXT4 and XFS, which is fair as the book is centred around Red Hat. We also only have two patterns before the chapter summary and the take-away here is something all Linux users should understand. (No, I’m not telling you, go get the book, it is \$0.99 for the digital edition!)

Chapter 5

File Descriptors and I/O: The Interface Everything Uses

The error here is API server connection refused, even when everything was in the green. The common mistake here is that people expect limits in /etc/security/limits.conf to apply to the Johnny-come-lately systemd services. (i.e. Services started by systemd) The RLIMIT_NOFILE mentioned in here, is also not the same across distro’s so don’t write anything in stone if you don’t use Red Hat Linux.

The obvious next step is networking, so the book heads there, then on to systemd, namespaces, observability, and then only into containers. Cleverly letting each chapter build up to containers, as this is probably

where you end up in enterprise environments. I’m definitely reading it again!

Do not judge this book by its cover, it has lots of really cool insights from someone who has seen stuff. When I say stuff, I mean the stuff that hits the fan and your whole night is ruined by an obstinate Linux server somewhere.

Conclusion

If you want to learn more about Linux (devops) and why things behave the way they do, I’d say this is one of the books for you. The price is right, going as low as below a dollar (US), so you have no excuse.



Erik has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he’s done it.



LETTERS

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ubuntuforums.org/forumdisplay.php?f=270

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Without reader input **Full Circle** would be an empty PDF file (which I don't think many people would find particularly interesting). We are always looking for articles, reviews, anything! Even small things like letters and desktop screens help fill the magazine.

See the article **Writing for Full Circle** in this issue to read our basic guidelines.

Have a look at the last page of any issue to get the details of where to send your contributions.





Q&A

Compiled by EriktheUnready

If you have a Linux question, email it to: questions@fullcirclemagazine.org, and Erik will answer them in a future issue. Please include as much information as you can about your query.

Welcome back to another edition of Questions and Answers! In this section, we will endeavour to answer your Ubuntu questions. Be sure to add details of the version of your operating system and your hardware. I will try to remove any personally identifiable strings from questions, but it is best not to include things like serial numbers, UUIDs, or IP addresses. If your question does not appear immediately, it is just because there are many waiting, and I do them first-come-first-served.

People keep sending me links to xda-developers website, but I don't like digging through mountains of trash for that one nugget of wisdom. I'm not saying that there is nothing to be learned on the website, just that it is not for me, as it reminds me of Youtube clickbait titles. You know, the kind where the big revelation is that the writer switched to application so-and-so or distribution so-and-so. It sort of reminds me of Medium,

where the trash was out on display and anything you wanted was paywall-locked. Needless to say, they never saw me again. Yet I have bought Linux distributions before, so it's not that I'm a cheapskate, no wait... I am. However, is this going to be the new norm to keep all the techbro's out that want to rape your website with AI bots? Do we now have to walk the line of making every article and every website paywalled to prevent feeding AI? Will distro-hopping soon become a thing of the past, where people simply ask AI to emulate or summarize the next distro?

Q : My Logitech bluetooth headphones are no longer working in Chrome. They still work in Firefox though. I'm using Ubuntu 25.10 at the moment, so I'm not 100% sure that it is my browser version or my Ubuntu version.

A : I suspect both, as 25.10 is not really supported any more, so the version of Chrome for it may be old too. I tested mine with Brave nightly and it definitely works,

though I don't use 25.10, but both 24.04 and 26.04 work.

Q : I live in India and my friend lives in Canada. We both use Debian 13 Trixie KDE. Somehow his kernel version is always above mine. If mine says 7.0.0-030, his will say 7.0.0-031. Why is this?

A : I somehow think you would need to ask that in the Debian forums.

Q : How can I see the network interface bandwidth usage on a headless computer?

A : Headless means that it has no monitor, not that it has no DE, so I'm assuming you want to check via command line once you SSH into it? In that case install vnstat.

Q : How can I install a .run package with Ubuntu please? I have tried apt-get and dpkg, but it will not work.

A : Let me guess, a driver? You usually just need to "run" a .run file. Just make sure it has execute permissions. Example: `chmod +x fibo.run` <enter> then `./fibo.run` but check your "additional drivers" app first.

Q : I can't find the latest install package in Ubuntu 22.04. I can see it in Ubuntu 24.04. I just can see the source version, older packages are available as a ".deb" file, if I check the developers folders.

A : Usually that means that the developer is not supporting the older OS in the latest version of the software. If you can see the source code, you may be able to build it yourself, but the dev is basically saying that you are on your own.

Q : So I'm new to all this and I'm using Ubuntu 24.04 with Swift 6.2. My problem comes in when I try to use the Swift package manager, then everything just hangs. I'm just getting so frustrated.

A : As I had no idea about Swift package manager, I literally put your question into a search engine and it popped up with this: <https://stackoverflow.com/questions/79837922/swift-package-manager-hangs-on-incremental-builds-swift-6-2-linux-ubuntu-24-04>

Q : I have recently updated Python on Ubuntu 24.04 and I have run into issues, where things just stopped working. I can't even get back into the terminal to reverse it. Am I boned?

A : Yup. Look up python virtual environment. Then head over here and see that you are not the only one to have done this before. (it refers to 22.04, but it is the same issue) <https://askubuntu.com/questions/1397938/terminal-not-opening-after-changing-python-version>

Q : I have just completed a dist-upgrade and I can't change my brightness with F6 any more. I'm not sure what went wrong, but I did not see any errors and everything else is working fine. I also just realised that I can't adjust my

speakers either with F2, like I used to. Just explain it slowly please?

A : I suspect that somehow you may need fn+F2 and fn+F7. If this is the case, you may need to adjust the BIOS/UEFI settings. I cannot talk you through it as I have no idea what machine and BIOS/UEFI versions you have, but it is not the end of the world. The updates probably updated your firmware and that setting had gotten set to defaults. Ask someone to adjust it in your BIOS/UEFI settings for you if you are unsure.

Q : My friend and I want to start a podcast using Ubuntu. How can we connect 2x headphones to one machine for recording?

A : I am not sure if one via bluetooth and one via USB will work or if you would need a barrel jack headphones in the mix, your guess is as good as mine. Usually podcasters use some sort of hardware splitter or one microphone between participants. I suggest trial and error as I cannot say for sure. Try reaching out to a Linux podcast, where there is more than one person on the show.

Q : I have tried flatpak, but I don't really like it as it is all over the place and does not clean up properly. Snaps slow down booting, so I keep those to a minimum, so all I consider is AppImages. However, I can't get them to run. No matter what I do. Someone told me it is because my security setup is wrong. My specs are - <removed> LCPI is - <removed> can you help?

A : From what I see is you are using a non-linux filesystem. You need to set executable bits on AppImages and I'm not sure if it is supported on non-Linux filesystems. I understand you may need compatibility with some things, but see if you can change to EXT4 and try again.

Q : I'm using FreeTube 0.25.2 and since the update, I get errors everywhere. I reverted to the previous working version but the errors followed. I don't know what to do. Luckily I have it on my Windows computer and did not update that, but on Ubuntu it is ruined.

A : Hi, I love FreeTube. I use it too. There was a bug in that version.

My suggestion is that before upgrading to the latest version, download the AppImage of that version and run it for a week, before upgrading your .deb file. The AppImage will read your saved channels etc., from the configuration file, so you won't lose anything.



Erik has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.



UBUNTU GAMES

Written by Erik

Website: <https://pathogenicgame.com/>

Price: 7.99 USD (Steam) 9.99 (GOG)

Blurb: *"You are a disease. Infect the human body as a lone pathogen in this cellular rogue-like shooter. Collect organelles to evolve your parasite in a microscopic arms race against your host's immune system. Conquer a beautiful, procedurally generated world of tiny proportions."*

So, crime is a disease and you are the cure... wait, that's not right, you are the disease and crime is the cure? Well then go out and murder those T-cells!

If you enjoyed games like Plague Inc, you may enjoy this title. Instead of killing the whole world's population, you only need to kill one human. It's not as easy as it sounds. You see, you are a tiny virus, with no real power to begin with. Well that's the premise anyway, as I understand it. Other than that it is a generic twin stick

shooter, a bio-warfare re-skin of a game I have in my Steam library somewhere, with a rogue-like twist and bit of Spore evolution. So why is it overwhelmingly positive on Steam reviews? (HINT: It's fun!)

You start as a tiny microbe, nothing special, just ready to roll and troll and once you begin absorbing organelles from defeated enemies, things get

interesting. Graft those new parts onto yourself, evolve new abilities, or shapes and start a "build". One run you might be a swift, projectile firing organism. While in the next, you could be a grabby head-butting monstrosity!

This is another Indie game, made by two developers and the love they put into the title shows.

The game is inspired by real biology, so you may even learn something playing the game.

The game ships with an art book and soundtrack should you opt for the more expensive version, so let's start with the sound.

The tracks have *wonderful names like: "04 - Cirrhosis - Liver Theme" or "07 - Encephalitis - Brain Theme" and they are great in the game. I'm still on the fence, listening to them on their own. They also follow your journey as you progress from skin laceration to the intestines and so forth, with their naming. At no point in the game did they ever feel overwhelming or irritating, so it is a win in my books. The theming of these soundtracks are also wonderful, for instance, if you enter the heart, the track that plays is: 06 - Arrhythmia - Heart Theme and it incorporates a heartbeat as the percussion. They also somehow step up, as the threat level steps up in the game, creating tension. All these little things come together in quite a pleasing way, to make the



game more fun. There are also aptly named, “calm loops” of tracks that are really mellow and yet somehow keep the tension just under the surface.

The game also ships with an art book, and since every level is just one screen, you can see how the artist/developers minds worked when creating the visuals for the levels. It’s great to see the creative juices flowing. It almost makes you feel like you somehow were part of the process. The art in the art book and in-game is great. It does not go overboard in the realism aspect, but also does not go completely into fantasy either. Everything is nice and colourful, making you feel more upbeat while you are out killing.

The game installs via Steam or shell script, depending where you got it. Mine is the GOG version and I had no issues. The installation did remind me a bit of Uplink, with the initialising text. There are a lot of different diseases you can pick from with their own unique look and play styles. The bacterium is the first one you will encounter and the easiest to grasp. Just as an example, you can play as a fungal spore or a diatom or a nanobot or

amoeba or helminth and so forth, some suited to single player and some to two player co-op. (I have not tested that yet, as it requires at least one controller, which I do not possess) Each one has their own shapes, with internal and external slots.

Let’s move into gameplay, as that is probably what you all are waiting for. The movement is smooth, really smooth, emphasising that floaty feeling and there is physics on your appendages. Your entry point is a cut on the shin and

the game zooms there and you start your journey infecting the human in the skin. There is not much to understand to start playing, you can think of it as a top-down shooter, with a dash. Easy to pick up and play, harder to master. Immediately it is kill or be killed when you start and enemies will leave behind “loot” (DNA) that you can collect. This loot will disappear if you don’t collect them, setting the pace early on in the game. There are two types and once you have enough collected, you will level up. The “cores” you collect is

like a currency and can be spent at “shops” you find in your travels. Some spaces feel cramped and some are a bit more roomy, creating more of the illusion that you are in a body, slipping down blood vessels or intestines and before you know it, you are immersed. You can use the terrain to your advantage and there is some “friendly fire” on the enemy side.

The way you “level up” your character is not only by traits, but also by putting things in internal and external slots. Sort of like the gems in Diablo. However, these can stack bonuses depending on the “lines” connecting them, so your shape can matter. This is where you start looking at builds. Do you want to be ranged or melee?

I’d say go get yourself a copy and lose a Sunday afternoon.



Erik has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he’s done it.



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The current site was created thanks to **Arun** (from our Telegram channel) who took on the task of completely rebuilding the site, from scratch, in his own time.

The Patreon page is to help pay the domain and hosting fees. The money also helps with the new mailing list.

Several people have asked for a PayPal (single donation) option, so I've added a button below.

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Full Circle Team



Editor - Ronnie Tucker

ronnie@fullcirclemagazine.org

Webmaster -

admin@fullcirclemagazine.org

Editing & Proofreading

Bert Jerred, Bruce Goodman, Gord Campbell, Jim Dyer, Matthew Bailey, Matthew Bulfinch, Mike Kennedy, Moss Bliss, Roy Milner, Sam Daniel, Sony, Theo Van Oosten, Victor Moisey and Wayne Solberg

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