



Full Circle

THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY

ISSUE #234 - October 2026

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ARTICLES
DESPERATELY
NEEDED!



BOOK REVIEW

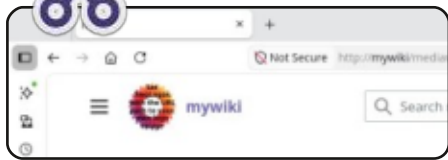


UBUNTU 26.10 REVIEWED

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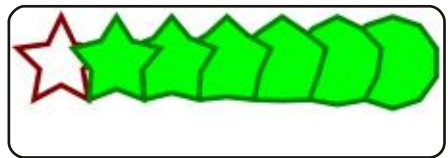
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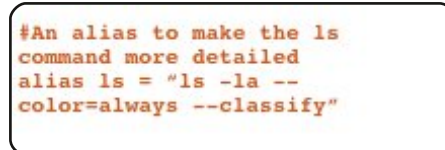


Graphics



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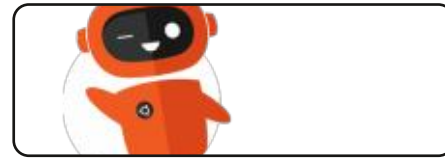
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WELCOME TO THE LATEST ISSUE OF FULL CIRCLE

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

Adam is up to his old tricks again by reviewing the latest and greatest Ubuntu. Which will be 26.10 in this case, and we have a book review from Erik. We also have a game review from Erik.

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

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Canonical's revenue reached \$345 million in 2025:

28/09/2026

Canonical has disclosed its financial results for 2025. Revenue for 2025 was \$345 million, with net profit of \$22.8 million, with a gross margin of 89%. This compares to revenue of \$292 million and net profit of \$18.1 million in 2024. In terms of expenses, 27% of revenue was spent on sales and marketing, 11% (13% in 2024) on research and development and 47% on general expenses and administrative needs. The average number of employees increased from 596 to 607 over the year.

<https://www.phoronix.com/news/Ubuntu-Canonical-Did-345M-2025>

The first beta release of GoZen:

28/09/2026

Beta testing of GoZen, a minimalist video editor built using the Godot game engine and the FFmpeg package, has begun. The project is aimed at everyday content creation by amateurs and semi-professionals. The primary focus is simplicity, stability, and performance, without the unnecessary complexity of traditional nonlinear video editing systems. The code is written in C++ and GDScript and is licensed under the GPLv3 license (FFmpeg is used with the "--enable-gpl3" flag).

<https://codeberg.org/gozen/gozen/releases/tag/v0.14-beta>

WSL 3.0:

29/09/2026

Microsoft has released WSL 3.0 (Windows Subsystem for Linux). This new branch is notable for its ability to run Linux containers on Windows and the transition to the Linux kernel 6.18. The code for the command-line utilities used in WSL, background processes for Linux environments, services for launching containers and virtual machines and the wslg graphics stack is open sourced under the MIT license. Changes to the Linux kernel are licensed under the GPLv2 license.

The new branch includes tools for creating, deploying, and running Linux containers on Windows, including the wslc (WSL Containers) command-line interface and an accompanying API that allows you to launch Linux containers from Windows programs. wslc's key features include:

<https://github.com/microsoft/WSL/releases/tag/3.0.1>

Beta release of f4 0.3:

29/09/2026

The f4 0.3.0 beta release of the file manager has been published. The project replicates the interface, behavior and internals of Far Manager and far2l, but is written from scratch in Go using a cleanroom methodology. The code is distributed under a BSD license and is written with AI assistance. Manual review replaces a large set of automated tests, which are run in CI on multiple operating systems and



DistroWatch.com

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architectures. Builds are available for Linux, Windows (including a separate build for Windows 7/8/8.1), ReactOS, macOS, FreeBSD, OpenBSD, NetBSD, DragonFly BSD, and Android (Termux) with more on the way.

<https://github.com/unxed/f4/releases/tag/v0.3.0-beta>

antiX 26.1:

30/09/2026

AntiX 26.1, a lightweight Live distribution based on Debian 13 and designed for installation on legacy hardware, was released. The release comes without the systemd system manager and with eudev instead of udev. Five init systems are available: runit (default), sysVinit, dinit, s6-rc, and s6-66. The basic user environment is formed using the IceWM window manager and zzzFM file manager, but fluxbox, jwm and herbstluftwm are also included. The full build offers Linux kernel 6.6.139, while the remaining builds use 5.10.256. ISO image sizes : 2.5 GB (full, includes LibreOffice and four window managers – IceWM, fluxbox, jwm, and herbstluftwm) and 703 MB

(without graphics). The builds are prepared for x86_64 and i386 architectures.

<https://antixlinux.com/antix-26-1-released/>

OpenMandriva ROME Release 26.09:

01/10/2026

The OpenMandriva project has released OpenMandriva ROME 26.09, a rolling release of the OpenMandriva distribution. This release allows access to new versions of packages developed for the OpenMandriva Lx 7 branch without waiting for the classic distribution to be released. The project has been developed by the community since Mandriva SA transferred management to the OpenMandriva Association in 2013. 3.2 GB ISO images of the KDE, GNOME, LXQt, MATE, and Xfce desktops are available for download, supporting live boot mode.

<https://www.openmandriva.org/en/news/article/2026-10-01-openmandriva-rome-26-09/>

Ubuntu 26.10 Beta:

02/10/2026

The Ubuntu 26.10 "Stonking Stingray" beta release has been released. Following this release, a complete package freeze was implemented and the developers have moved on to final testing and bug fixes. The release is scheduled for October 15th. The 26.10 branch is considered an interim release, with updates being developed over a nine-month period. Test images have been created for Ubuntu, Ubuntu Server, Lubuntu, Kubuntu, Ubuntu Mate, Ubuntu Budgie, Ubuntu Studio, Xubuntu, UbuntuKylin (China edition), Ubuntu Unity, Edubuntu, and Ubuntu Cinnamon.

<https://lists.ubuntu.com/archives/ubuntu-announce/2026-October/000329.html>

The Argon Forge project optimized builds:

02/10/2026

The Argon Forge project is introducing optimized builds of key components of the Linux graphics stack: Mesa, Gamescope, DXVK, VKD3D-Proton and Wine. The builds are distributed through APT repositories hosted on GitHub Pages and are designed for processors with AVX2 (x86-64-v3) and AVX-512 (x86-64-v4) support. The project is aimed at users of Devuan 6 "Excalibur" and Debian 13 "Trixie" distributions who want to get maximum performance from the graphics stack in games. The packages use the library base of these releases and are not intended for installation on older versions of the distributions. Build scripts and GitHub Actions configurations are distributed under the MIT license.

<https://github.com/argonforge/>

Qubes 4.3.2 OS:

03/10/2026

Qubes 4.3.2 is now available. It leverages the hypervisor for strict isolation of applications and OS components (each class of application and system services runs in separate virtual machines). A system with 16 GB of RAM (minimum 6 GB) and a 64-bit Intel or AMD CPU with support for VT-x with EPT/AMD-v with RVI and VT-d or AMD IOMMU is recommended. An Intel GPU is preferred (NVIDIA and AMD GPUs have not been sufficiently tested). The installation image size is 8 GB (x86_64).

In the new version, the virtual environment template has been updated to Fedora 44. The Linux kernel package has been updated to version 7.2. Accumulated bugs and vulnerabilities have been fixed, including dangerous vulnerabilities in the Xen hypervisor and a critical vulnerability in the "qvm-copy-to-vm" utility that could allow isolation bypass and code execution at the Dom0 level.

<https://www.qubes-os.org/news/2026/10/02/qubes-os-4-3-2-has-been-released/>

Pop!_OS and COSMIC projects & AI:

03/10/2026

System76 has amended its pull request submission guidelines for the COSMIC desktop environment and the Pop!_OS Linux distribution's development agreement to prohibit the submission of content generated using AI tools in changes or issue reports. This prohibition applies to code, comments, and text descriptions. The guidelines initially mentioned the permissibility of using AI for research, testing, and other similar purposes, but this note was later removed.

The reasons cited for the ban include the high workload of maintainers and the desire to focus resources on reviewing changes from core contributors and experienced developers, amid the increasing number of changes created by newcomers using AI and often rejected after review.

https://www.reddit.com/r/COSMICDE/comments/1wuejby/cosmic_projects_will_no_longer_accept/

Netherlands and France & NixOS:

04/10/2026

The Dutch Ministry of the Interior and Kingdom Relations is developing the DAWO (Digitaal Autonome Werkomgeving Overheid) project, which aims to create a sovereign work environment for public institutions, promoting the elimination of dependence on foreign technology corporations. The Linux distribution NixOS has been selected as the operating system for workstations. Three state-owned IT companies—DICTU, SSC-ICT, and DUO-ICT—are involved in the project's development. The first stable release of DAWO is expected next year. Four municipalities are currently participating in a pilot implementation of the platform. The developments have been published on the state-owned collaborative development platform, built on Forgejo, and are mirrored in Codeberg.

A similar initiative to create a NixOS-based solution for government agencies has been

launched in France. The project is being developed by the Interministerial Directorate for Digital Affairs (DINUM) to ensure digital sovereignty and independence from foreign software. A secure distribution version, Securix, has been developed for system administrators, while the Bureautix template, which various agencies can adapt to their needs, is offered to regular users. A pilot implementation of the platform on approximately 250 workstations is planned for the end of the year.

<https://news.ycombinator.com/item?id%3D49841563>

OpenCourant:

04/10/2026

The Rocky Enterprise Software Foundation, a non-profit organization that oversees the development of the Rocky Linux distribution, announced the creation of the OpenCourant project, which will continue the development of the open source codebase of the OpenRadioss platform after its transformation

into a proprietary product. The project's code will continue to be developed under the APGLv3 license by the community and managed by a non-profit foundation independent of individual vendors. Developers involved with the OpenRadioss project prior to its closure are invited to participate in the fork.

The OpenRadioss project code is written in Fortran and was open-sourced in 2022. A few days ago, Siemens removed the OpenRadioss repository from GitHub, disabled the project website, and advised users to migrate to the proprietary Simcenter Radioss product.

<https://opencourant.org/news/announcing-opencourant/>

Orion Browser Open Source Announced for Linux:

5/10/2026

The developers of the Kagi search engine announced their decision to open-source the Orion browser versions for Linux and Windows. Details of the future development model and Orion

license for these platforms will be published within 30 days. The possibility of donating the code to a non-profit organization is being considered.

The reason for the code publication policy revision is the curtailment of Orion development for Linux and Windows in favor of focusing solely on macOS and iOS versions. Kagi, a small company, was unable to handle the development of a complex cross-platform product and wished to focus on a single browser version rather than spreading its resources too thin. The statement stated that Orion's developers invested significant time and effort into creating the Linux and Windows versions and believe the project deserves continued development, but without Kagi's involvement, by the engaged community.

<https://blog.kagi.com/update-orion-linux-windows>

PhotoSuite:

5/10/2026

The first releases of PhotoSuite, a graphics editor, is now

available. The developer aims to create a product capable of replacing the classic Adobe Photoshop and fully supporting the PSD and PSB formats. The program supports both raster and vector graphics editing and where possible, replicates the workflows, toolbars, dialogs, hotkeys, and modifiers familiar to Photoshop CS6 users. PSD is used as the primary file format. PSD files saved in PhotoSuite are claimed to be seamlessly openable in Photoshop, and vice versa.

The code is written in JavaScript and distributed under the GPLv3 license. Ready-to-use builds are available for Linux, Windows, and macOS. To run as a standalone desktop application, a small Rust framework is used, along with the Tauri platform, which provides native dialogs and menus, file system access, clipboard manipulation, printing, and mouse-based file navigation. According to the project's author, the code was published in a private repository after about a year of development. An AI assistant is used in the process, but the developer does not consider PhotoSuite an AI-assisted project, as he has complete control over the process, having

over 20 years of JavaScript development experience.

https://www.reddit.com/r/opensource/comments/1wod038/photosuite_a_free_open_source_photoshop_with_the/

ROSA Fresh 13.3:

6/10/2026

NTC IT ROSA has released ROSA Fresh 13.3, built on the ROSA 13 platform. The distribution is freely distributed and developed with community participation. The release is targeted at a wide range of users. Builds with the KDE 6 (4 GB), KDE 5 (4 GB), LXQt (3 GB), and GNOME (4 GB) desktops are available for download, as well as builds for servers (2 GB) and virtual machines (947 MB). The repository contains packages for the aarch64, e2kv4, i686, loongarch64, riscv64, and x86_64 architectures.

https://wiki.rosa.ru/index.php/%D0%A0%D0%9E%D0%A1%D0%90%D0%A4%D1%80%D0%B5%D1%88_13.3

OpenSSH 10.6:

6/10/2026

OpenSSH 10.6, an open-source client and server implementation for SSH 2.0 and SFTP, has been released. Security issues, most of which were identified through code analysis using AI tools, have been addressed (CVE identifiers not yet assigned).

<https://lists.mindrot.org/pipermail/openssh-unix-dev/2026-October/042798.html>

Raspberry Pi OS builds for x86_64:

6/10/2026

The Raspberry Pi project has released a new version of the Raspberry Pi OS distribution, 2026-10-06 (Raspbian) and announced the release of a Live build (2.6 GB) designed for installation on computers with x86_64 processors. Like the builds for Raspberry Pi ARM boards, the new version is based on Debian 13. In addition to booting from USB drives, the PC version includes a Calamares installer, allowing installation on a desktop hard drive or SSD.

The PC build includes, among other things, the Raspberry Pi Connect service, designed for remote connection to the Raspberry Pi OS desktop via a web browser. The desktop environment is based on the labwc composite server, which uses the wlroots library from the Sway project.

Changes in the new version of Raspberry Pi OS include: higher-quality menu icons, tooltips for widgets and the Control Centre configurator, support for auto-mounting encrypted disks, and the addition of widgets to the panel for displaying battery charge and calling up the squeekboard on-screen keyboard.

<https://www.raspberrypi.com/news/raspberry-pi-desktop-now-available-for-pc-and-mac/>

Blanc Browser:

7/10/2026

The new Blanc web browser is now available, offering a distinctive interface with a minimalist floating panel that replaces traditional tab and

toolbars and combines features for URL entry, search, tab switching, navigation, and command execution. The cited motivation for the new browser is a desire to return web pages to their primary role, eliminating unnecessary clutter and unnecessary features like built-in AI assistants. The code is written in JavaScript using the Electron platform and the Chromium engine and is distributed under the MIT license. AI tools are used in development. Builds are available for Linux as AppImage.

Tabs are displayed as a drop-down list that appears when you switch focus to the address bar. Tabs can be grouped, tab contents can be unloaded from memory without closing them, and two selected tabs can be displayed side by side in a single window. Typing "/" in the address bar displays a list of commands that replaces the traditional menu.

<https://github.com/bnfy/blanc>

Litebox:

8/10/2026

Microsoft has released the first release of the Litebox project, which develops a security-focused operating system implemented as a library (Library OS). This approach embeds operating system services directly into applications instead of accessing the external OS kernel via system calls. Litebox can be used within programs or kernels as an additional layer of isolation, blocking access to unnecessary kernel functionality or APIs. The project's code is written in Rust and is open-sourced under the MIT license.

Litebox provides an application-pluggable library with an isolation layer that translates requests to external APIs. These APIs can be the Linux kernel, secure isolated OP-TEE (Open Portable Trusted Execution Environment) environments, web assembly environments, or the RustStd standard library.

<https://github.com/microsoft/litebox/releases/tag/v0.1.0>

Canonical under DDoS attack again:

8/10/2026

Canonical has warned users about the unavailability or disruption of some Ubuntu-related services and websites due to a DDoS attack on the project's infrastructure. To assess the status, it is recommended that you check status.canonical.com. Outages have been detected in the Ubuntu Security API, Livepatch API, academy.canonical.com, assets.ubuntu.com, blog.ubuntu.com, canonical.com, developer.ubuntu.com, jaas.ai, maas.io, and ubuntu.com.

<https://discourse.ubuntu.com/t/ddos-on-canonical-and-ubuntu-websites/89064>

COSMIC 1.10.0:

8/10/2026

System76, the developer of the Pop!_OS Linux distribution, has released COSMIC 1.10.0, the desktop environment. Packages for COSMIC 1.10.0 are available in Pop!_OS 24.04 and are expected soon in Fedora, NixOS, Arch Linux,

openSUSE, aerynOS, Redox, and CachyOS. The code is written in Rust and licensed under the GPLv3 (applications) and MPL-2.0 (libraries).

In addition to using the Rust language, COSMIC's key features include hybrid window tiling and stacked window docking (a grouping of windows similar to browser tabs), which can be enabled when linked to virtual desktops. The project is also developing a Wayland-based cosmic-comp compositing server.

<https://github.com/pop-os/cosmic-epoch/releases/tag/epoch-1.10.0>

Ext4 changes:

9/10/2026

Linux kernel 7.3, scheduled for release on October 19, includes a change that deprecates the Ext4 file system's "data=journal" mount mode. Support for this mount option is scheduled to be removed in 2028.

The "data=journal" option enables full journaling, which logs not only metadata but also the data

itself. This ensures high crash resilience, but complicates code maintenance and results in a significant performance penalty compared to the "data=ordered" and "data=writeback" modes. Furthermore, this option is incompatible with certain features, such as delayed block allocation (delalloc) and direct I/O, and hinders the implementation of new functionality in Ext4.

<https://www.phoronix.com/news/EXT4-Deprecates-Journal-Mode>

Ventoy 1.1.18:

11/10/2026

Ventoy 1.1.18, a toolkit for creating bootable USB drives containing multiple operating systems, has been released. The program allows you to boot OSes from immutable ISO, WIM, IMG, VHD, and EFI images without unpacking the image or reformatting the drive. Simply copy the desired set of images to a USB flash drive running the Ventoy bootloader, and it will boot the operating systems contained within them. New ISO images can be replaced or added at any time by

simply copying the new files, making it convenient for testing and previewing various distributions and operating systems. The project's code is written in C and is distributed under the GPLv3 license.

In addition to USB drives, the Ventoy bootloader can be installed on a local drive, SSD, NVMe, SD cards, and other storage devices using the FAT32, exFAT, NTFS, UDF, XFS, or Ext2/3/4 file systems. It features an automated mode for installing the operating system into a single file on a removable drive, with the ability to add custom files to the created environment (for example, for creating images of Windows or Linux distributions that don't support Live mode).

<https://github.com/ventoy/Ventoy/releases/tag/v1.1.18>

Ubuntu developers have begun testing Myna:

12/10/2026

Canonical has released a preliminary version of the Myna speech recognition system and

voice-to-text tools built on it, integrating into Ubuntu. The final builds are available for Ubuntu 24.04 LTS, Ubuntu 26.04 LTS, and Ubuntu 26.10, in packages for the amd64 and amd64v3 architectures. GNOME desktops using the Wayland protocol are supported. For speech recognition, users can choose between Whisper, Parakeet, or Funasr AI models, running locally and supporting multiple languages.

Myna Shell, a GNOME Shell add-on, has been developed for desktop integration. Voice input is activated by pressing Super+J, after which you can dictate text aloud and press Super+J again to end the dictation session. The dictated text is inserted into the current application using simulated keyboard input. A hardware-accelerated speech recognition engine is now available for systems with NVIDIA GPUs (other acceleration options will be available later).

<https://ubuntu.com//blog/myna-speech-to-text-technology-preview-available>

Release of ScummVM 2026.4.0:

12/10/2026

ScummVM 2026.4.0, a free, cross-platform interpreter for classic games, has been released. It replaces game executables and allows many classic games to run on platforms for which they were not originally intended. The project's code is distributed under the GPLv3+ license.

In total, the game supports over 500 apps, including games from LucasArts, Humongous Entertainment, Revolution Software, Cyan, and Sierra, such as Maniac Mansion, Monkey Island, Broken Sword, Myst, Blade Runner, King's Quest 1-7, Space Quest 1-6, Discworld, Simon the Sorcerer, Beneath a Steel Sky, Lure of the Temptress, and The Legend of Kyrandia. Games are supported on Linux, Windows, macOS, iOS, Android, PS Vita, Switch, Dreamcast, AmigaOS, Atari/FreeMiNT, RISC OS, Haiku, PSP, PS3, Maemo, GCW Zero, and other platforms.

The new version added support for 49 games, incl Star Wars: Rebel

Assault 1 & 2

<https://www.scummvm.org/news/20261011/>

FreeType 2.15 font engine:

13/10/2026

After a year of development, FreeType 2.15.0 was released. It's a modular font engine that provides a unified API for unifying the processing and output of font data across various vector and raster formats. The project's code is written in C and distributed under the BSD-like FreeType license.

<https://www.mail-archive.com/freetype-announce@nongnu.org/msg00147.html>

ONLYOFFICE 10:

13/10/2026

ONLYOFFICE DocumentServer 10 has been released, featuring a server implementation for ONLYOFFICE online editors and collaboration tools. The editors can be used for working with text documents, spreadsheets, and

presentations. ONLYOFFICE claims full compatibility with MS Office and OpenDocument formats. Supported formats include DOC, DOCX, ODT, RTF, TXT, PDF, HTML, EPUB, XPS, DjVu, XLS, XLSX, ODS, CSV, PPT, PPTX, and ODP. The editors can be expanded with plugins, including those for creating templates and embedding YouTube videos. The project code is distributed under the open source AGPLv3 license. Pre-built builds are available for Linux, Windows, and macOS.

ONLYOFFICE Desktop Editors 10 was released simultaneously, sharing the same codebase with the online editors. The desktop editors are designed as desktop applications written in JavaScript using web technologies, but combine client and server components into a single suite designed for self-contained use on the user's local system, without relying on an external service.

<https://www.onlyoffice.com/blog/2026/10/onlyoffice-docspace-apps>

KDE Plasma 6.8:

14/10/2026

On the project's 30th anniversary, the KDE Plasma 6.8 desktop environment was released. To evaluate the new KDE releases, you can use builds from the KDE Linux, KDE Neon, and openSUSE projects (Argon, based on openSUSE Leap, and Krypton, based on openSUSE Tumbleweed).

<https://kde.org/announcements/plasma/6/6.8.0/>

Strata 1.0:

14/10/2026

The Strata 1.0 file manager, developed specifically for the Omarchy Linux distribution, which raised approximately \$23 million for development, has been released. The project is not tied to Omarchy Linux and can run on any other distribution. The graphical interface is built using the GTK4 library and is designed for Wayland-based environments. Special attention was paid to keyboard ease of use, security, and high performance. The code is written in Rust and distributed under the MIT

license. Video display is hardware accelerated using the GPU.

<https://github.com/lgse/strata/releases/tag/v1.0.0>

ElixirOffice, TinyLittleOffice:

15/10/2026

New office suites (ElixirOffice - a recreation of the MS Office interface using the ONLYOFFICE engine, TinyLittleOffice - a browser-based office suite that saves documents as links:

ElixirOffice is an office suite for users accustomed to Microsoft Office, offering a user interface in that style. It supports editing documents in Word, Excel, and PowerPoint (.docx, .xlsx, and .pptx), as well as OpenDocument formats. The structure of panels, menus, dialogs, and keyboard shortcuts mirrors that of Microsoft Office. It is available as a standalone desktop build and a server edition accessible through a browser. The code is written in JavaScript and Python with the help of AI and is open sourced under the AGPLv3 license. The project's implementation is

notable because it utilizes the developments and engine of the Euro-Office project (a fork of ONLYOFFICE), with the changes focusing on redesigning the interface and bringing it into line with MS Office.

TinyLittleOffice – the key idea of the project is that a document is identified not with a file, but with a link. To share or copy a document, simply share or copy the link from the address bar. No account is required to work with documents. A word processor, spreadsheet program, scheduler, diagram maker, presentation system, calculator, vector editor, calendar planner, and travel planner are provided. Editing and data management are performed client-side, with all content stored directly in the link itself (the larger the document, the longer the link). Short links can be used, with the document stored encrypted on the server (the server side runs on the user's hardware).

Document content is encoded in the TLO format, similar to Markdown. Import and export to PDF, HTML, JSON, and Markdown are supported, as well as office formats such as docx, rtf, pptx, and

xlsx. The interface is minimalist and supports only the most essential features. The code is written in TypeScript with AI support and is distributed under the MIT license.

<https://github.com/leag1234/elixiroffice>

<https://tinylittleoffice.com/>

Ubuntu 26.10:

15/10/2026

Ubuntu 26.10 "Stonking Stingray" has been released. This is an interim release, with updates being developed over a nine-month period. Pre-built images are available for Ubuntu, Ubuntu Server, Lubuntu, Kubuntu, Ubuntu Mate, Ubuntu Budgie, Ubuntu Studio, Xubuntu, UbuntuKylin, Ubuntu Unity, Edubuntu and Ubuntu Cinnamon.

<https://lists.ubuntu.com/archives/ubuntu-announce/2026-October/000330.html>

Documentary about KDE:

16/10/2026

The documentary "The Story of Free Software Underdogs" has been released to coincide with the KDE project's 30th anniversary. The film tells the story of the KDE community and includes recollections from leading developers who helped found the project. The film also touches on the Qt licensing issue, the rivalry with GNOME and the success of KHTML, which became the basis for the WebKit and Blink engines used in Safari and Chromium.

KDE's birthday is considered to be October 14, 1996. On this day, Matthias Ettrich, then a student, announced the creation of a new free desktop environment aimed at end users rather than system administrators and capable of competing with commercial products available at the time, such as CDE. The first stable release of KDE 1.0 was released on July 12, 1998.

<https://vizzion.org/blog/2026/10/kde-documentary/>

64-bit Steam client for Linux:

16/10/2026

Valve has released a beta version of its updated Steam game delivery client for Linux. This release is notable for its support for 64-bit builds and the transition to running the Steam client within a Steam Runtime container. This change significantly simplifies Steam's operation on Linux distributions. Until now, the Steam client was distributed only in 32-bit builds, which prevented distributions from completely dropping support for 32-bit CPUs and forced them to ship the necessary 32-bit dependencies specifically for Steam or package Steam into self-contained snap and flatpak packages.

The new version also features a new interface for tracking and managing game achievements. The notification settings window has been adapted to work on screens of all sizes. Offline library access has been improved. Remote Play now features output scaling options for different screen aspect ratios on

the local and remote systems.

<https://steamcommunity.com/groups/SteamClientBeta/announcements/detail/703282384630448403>

Ubuntu Touch 24.04-2.1:

16/10/2026

Ubuntu Touch 24.04-2.1, a continuation of the Ubuntu 24.04-based development branch, has been released. The firmware is being developed by the UBports project, which took over development of the Ubuntu Touch mobile platform after Canonical stepped away from it. The project is also developing an experimental port of the Unity 8 desktop, renamed Lomiri.

They added support for new devices:

Nothing Phone
OnePlus Nord N10
OnePlus Nord N100
Volla Tablet
Xiaomi Redmi Note 9 Pro (Global)
Xiaomi Redmi Note 9S/9 Pro (India)
Xiaomi Redmi Note 9 Pro Max
Xiaomi Poco M2 Pro

<https://ubports.com/blog/ubports-news-1/ubuntu-touch-24-04-2-1-and-24-04-1-5-release-4014>

OpenRGB 1.1:

17/10/2026

After a month of development, OpenRGB 1.1 has been released. It develops tools for managing RGB lighting in PC components and peripherals. The code is written in C/C++ and distributed under the GPLv2 license. Ready-to-use builds are available for Linux (deb, rpm, appimage, flatpak).

The OpenRGB project focuses on providing unified access to the hardware capabilities of lighting controllers, whether built-in effects or direct color control. An external API (network SDK) provides additional backlight customization options, allowing commands to change the backlight from any third-party program or script.

https://codeberg.org/OpenRGB/OpenRGB/releases/tag/release_1.1

OpenWrt 25.12.6:

19/10/2026

OpenWrt 25.12.6, a distribution developed for network devices such as routers, switches and access points, has been released. OpenWrt supports over 2,200 devices and offers a build system that simplifies cross-compilation and the creation of custom builds. These builds allow for the creation of ready-to-use firmware with a desired set of pre-installed packages, optimized for specific tasks. Ready-to-use builds have been published for 41 target platforms. (see link)

<https://lists.openwrt.org/pipermail/openwrt-announce/2026-October/000090.html>

NotQuiteRSS:

19/10/2026

The NotQuiteRSS project is a fork of the RSS/Atom aggregator QuiteRSS, created to modernize the app while maintaining its familiar interface. The project is aimed at users who need a standalone desktop tool for reading news feeds and storing news locally. The code is written in C++ using Qt Widgets and is distributed under the GPLv3 license. AI tools are used in development. Builds are available for Linux in Appliance.

The main architectural difference from QuiteRSS is the complete removal of the built-in QtWebKit browser engine, rather than replacing it with QtWebEngine. Articles are displayed using QTextBrowser and QTextDocument. Instead of Qt Multimedia, the miniaudio library is used for playing sound

notifications, with built-in support for WAV, MP3, and FLAC, without requiring GStreamer plugins.

<https://github.com/birdie-github/notquiterss>

OpenBSD 8.0:

20/10/2026

OpenBSD 8.0, a free UNIX-like operating system, has been released. The OpenBSD project was founded by Theo de Raadt in 1995. The main development goals were portability (support for 13 hardware platforms), standardization, proper operation, proactive security and integrated cryptographic tools. The full installation ISO image of the OpenBSD 8.0 base system is 794 MB.

In addition to the operating system itself, the OpenBSD project

is known for its components, which have been widely adopted by other systems and have established themselves as some of the most secure and high-quality solutions. Things like: LibreSSL (a fork of OpenSSL).

<https://marc.info/?l%3Dopenbsd-misc%26m%3D179245849770356%26w%3D2>

BeamFS:

20/10/2026

Patches implementing the BeamFS file system, which uses Reed-Solomon coding to detect and recover corrupted data in place in single-drive configurations, have been posted for discussion on the Linux kernel development mailing list. BeamFS's primary applications include satellite onboard computers, equipment in radiation therapy rooms, and other systems operating in high-radiation environments, where the return of corrupted data is more critical than the inability to read the information.

BeamFS ensures integrity and recovery only during the read-only



DistroWatch.com

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phase from the physical drive to the page cache in RAM. Memory integrity in RAM can be maintained using error-correcting memory chips. BeamFS's limitations include the lack of support for journaling and Copy-on-Write (CoW) mode—metadata is written to the drive in a randomly generated state, requiring a full fsck scan in the event of an abnormal shutdown.

<https://www.phoronix.com/news/Linux-BeamFS>

LiberNT:

21/10/2026

The LiberNT project created a fork of the ReactOS operating system. It aims to achieve compatibility with Windows 11 24H2 applications and drivers, a visual style that matches modern Windows and support 64-bit hardware platforms, including systems based on the ARM64, PowerPC, and RISC-V64 architectures. Another distinctive feature of the fork is the active use of AI tools in development. LiberNT's own developments are distributed under the GPLv3 license, but code borrowed from

ReactOS continues to be licensed under the GPLv2+ license. Basic bootable builds are available for x86_64 and ARM64 systems, with experimental builds for PowerPC and RISC-V64 (Banana Pi BPI-F3) also being published.

<https://github.com/LiberNT/LiberNT>

COSMIC Desktop Environment 1.11.0:

21/10/2026

System76, the developer of the Pop!_OS Linux distribution, has released COSMIC 1.10.0. The code is written in Rust and licensed under the GPLv3 (applications) and MPL-2.0 (libraries).

COSMIC is being developed as a universal project, not tied to a specific distribution and compliant with freedesktop specifications. COSMIC's interface is built using the Iced library, which utilizes type-safe design, a modular architecture, and a reactive programming model. COSMIC's key features include hybrid window tiling and stacked window docking (a grouping of windows similar to browser tabs),

which can be enabled when linked to virtual desktops. The project is also developing a Wayland-based cosmic-comp compositing server.

<https://github.com/pop-os/cosmic-epoch/releases/tag/epoch-1.11.0>

Dux Shell 2.0:

21/10/2026

Dux Shell 2.0, a user environment that supports running on top of the niri, Hyprland, Sway, MangoWC, labwc, Scroll, Aqueous, and Miracle WM composite servers, has been released. This is the first release since the DankMaterialShell (DMS) project was renamed Dux Shell. The new name is simpler, reminiscent of the penguin Tux and does not include a third-party brand name. Dux Shell develops a set of interoperable components for the desktop, including a taskbar, virtual desktop switcher, an application navigation interface, and a configurator. Its design follows the Material Design 3 concept. Interface components, panels, widgets, and graphical applications are written in QML using the Quickshell framework, written in C+

+ with Qt.

<https://github.com/duxlabs-dev/dux-shell/releases/tag/v2.0.0>

KeePassXC 2.8:

22/10/2026

KeePassXC 2.8.0, an open-source, cross-platform password manager, has been released. It provides tools for securely storing regular passwords, one-time passwords (TOTP), SSH keys and other sensitive information. Data can be stored in both local encrypted storage and external cloud storage. The project is written in C++ using the Qt library and is licensed under the GPLv2 and GPLv3 licenses. Ready-to-use builds are available for Linux (Applmage, Flatpak, Ubuntu PPA, Snap), Windows, and macOS.

<https://keepassxc.org/blog/2026-10-21-2.8.0-released/>

OpenSSL 4.1.0 and LibreSSL 4.4.0:

23/10/2026

OpenSSL 4.1.0, a library implementing TLS protocols and various encryption algorithms, has been released. OpenSSL 4.1 is a regular support release, with updates available for 13 months. Support for the OpenSSL 3.5 LTS branch will continue until April 2030. The project's code is licensed under the Apache 2.0 License.

Also noteworthy is the release of the portable LibreSSL 4.4.0 package, a fork of OpenSSL. LibreSSL 4.4.0 is considered experimental, developing features that will be included in OpenBSD 8.1. Changes in the new version of LibreSSL primarily focus on bug fixes, optimizations, and compatibility issues with OpenSSL. Windows platform support has been significantly improved and build support for macOS 27.0 has been added. Assembler optimizations for MIPS32 and MIPS64 have been included, and SHA-3 performance has been improved.

<https://github.com/openssl/openssl/releases/tag/openssl-4.1.0>

OBS Studio 33.0:

24/10/2026

OBS Studio 33.0, a package for streaming, compositing, and recording video, has been released. The code is written in C/C++ and distributed under the GPLv2 license. Builds are available for Linux, Windows, and macOS.

OBS Studio was developed with the goal of creating a portable version of the Open Broadcaster Software (OBS Classic) application, independent of the Windows platform, supporting OpenGL, and extensible through plugins. During broadcasting, you can switch between several predefined scenes (for example, to switch between views focusing on screen content and webcam feeds). The program also provides tools for audio mixing, filtering using VST plugins, volume leveling, and noise reduction.

They have stopped support for Ubuntu 24.04...

<https://github.com/obsproject/obs-studio/releases/tag/33.0.0>

VeraCrypt 1.26.30:

24/10/2026

VeraCrypt 1.26.30, a fork of the defunct TrueCrypt disk encryption system, has been released. VeraCrypt is notable for replacing TrueCrypt's RIPEMD-160 algorithm with SHA-512 and SHA-256, increasing the number of hashing iterations, simplifying the build process for Linux and macOS, and addressing issues identified during the TrueCrypt source code audit. Code developed by VeraCrypt is licensed under the Apache 2.0 License, while its derivatives from TrueCrypt continue to be licensed under the TrueCrypt License 3.0. Builds are available for Linux, FreeBSD, Windows, and macOS.

https://github.com/veracrypt/VeraCrypt/releases/tag/VeraCrypt_1.26.30

SteamOS 3.9:

25/10/2026

Valve has released SteamOS 3.9.5, marking the first stable release in the 3.9 branch. 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. In the past, enthusiasts developed unofficial builds of HoloISO and SteamFork, but these 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, utilizes an atomic update mechanism, utilizes the PipeWire multimedia server, and offers two interface modes (the Steam shell and the KDE Plasma desktop). SteamOS supports Flatpak packages, but can also be installed in AppImage format or via Distrobox, which has been included since version 3.5.

<https://store.steampowered.com/news/app/1675200/view/694275728822244963>

qBittorrent 5.3.0:

25/10/2026

qBittorrent 5.3.0, a torrent client written using the Qt toolkit and developed as an open-source alternative to µTorrent with a similar interface and functionality, has been released. qBittorrent features include an integrated search engine, RSS subscription, support for many BEP extensions, remote control via a web interface, a sequential download mode in a preset order, advanced settings for torrents, peers, and trackers, a bandwidth scheduler and IP filter, a torrent creation interface, and support for UPnP and NAT-PMP. The project is written in C++ and distributed under the GPLv2+ license. Builds are available for Linux, Windows, and macOS.

<https://github.com/qbittorrent/qBittorrent/releases/tag/release-5.3.0>

Alpha version of CusDeb OS:

25/10/2026

Six months after the publication of the prototype Windows-like operating system C:\Deb, the first alpha version of the project, renamed CusDeb OS, was released. Unlike the prototype, which was a standard Linux environment styled after Windows 95/98 using PCManFM, LXPanel, and other components, CusDeb OS Alpha 1 offers a full-fledged classic Win32 environment based on user-defined ReactOS components running through Wine. The user-defined environment is being developed as part of CusDeb OS under the name CDEX (CusDeb Desktop Environment X) and is a version of the ReactOS shell adapted to run without the ReactOS kernel.

As with the prototype, Debian 13 remains the base operating system. A live system (894 MB) is available for download, which can be run in a virtual machine or on a real computer. The project's author is Evgeny Golyshev, who maintains the Elixir package in Debian.

<https://cusdeb.com/os>



COMMAND & CONQUER

Written by Erik

Spring Cleaning

I like programs like Bleachbit. It simplifies cleaning my machine after updates, especially those localizations that just waste my space and time. While bleachbit is an amazing tool and apt is really great at uninstalling programs, things do get left behind. These are usually the reasons I like installing the latest versions of Ubuntu fresh on my machine instead of updating. Usually I am lazy and I run a tool like bleachbit to clean my machine, but I have noticed that when I update, I seem to get a Virtualbox error. Somehow virtualbox is still trying to install the tools from 7.1, whereas I use 7.2. Please note, I'm using bleachbit as an example only. I'm not saying anything bad about the application; in fact, I like the application a lot. (It sometimes has weird quirks, but generally works fine.)

My issues stem from the residual files that a tool like bleachbit does *not clean. How do you even find these residual files? Sure enough, you can go scratching in .config, et cetera, but at the end of the day, I'm lazy and my time is worth

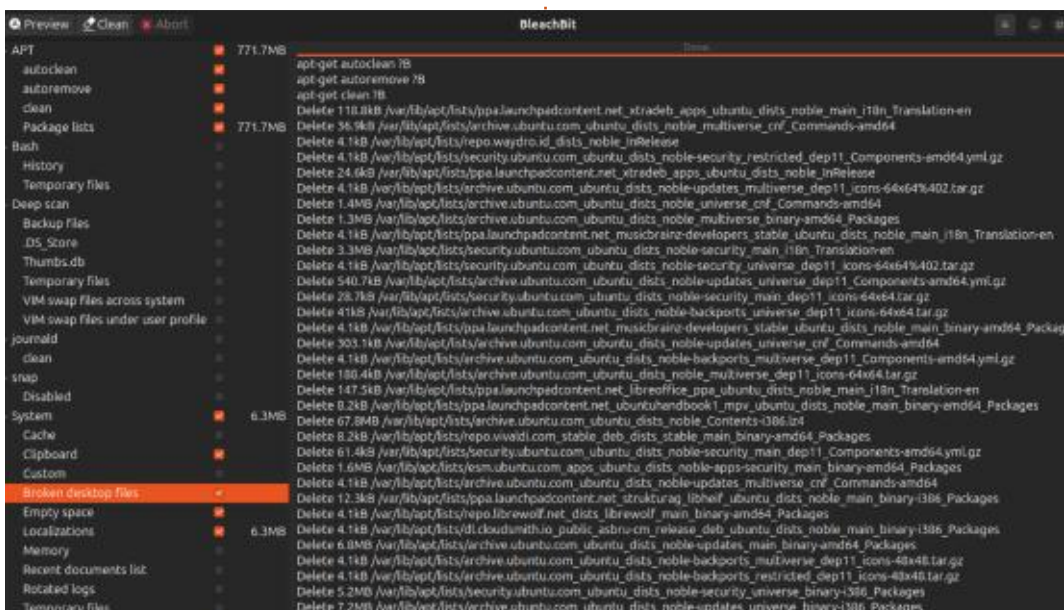
something to me.

Again, **apt** comes to the rescue!

Apt list, sort of like dpkg-query --list, can help you find those pesky residual config files that you want. In fact, I will be using dpkg-query to have a look at each of these residual configurations first.

Let's pretend I did not know if it's installed/uninstalled. I need to query it to see the status.

The command we want to run is:



```
edd@gift:~$ dpkg-query -l 'bruno' 'waydroid' 'appimagelauncher' 'caffeine'
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/half-Inst/trig-await/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
++-+
|/ Name          Version             Architecture Description
++-+
rc  appimagelauncher 3.0.0-beta-2-gha287-96cb937 amd64      ldnip-built package
rc  bruno             2.6.1               amd64
rc  caffeine          2.9.12-1            all      prevent the desktop becoming idle in full-screen mode
rc  waydroid          1.6.1               all      Android™ application support
edd@gift:~$
```

dpkg-query -l <package name>

The very first line may seem confusing to you, but bear with me.

If you want to queue up a few, simply put the names in quotes.

What we are looking for are

those first few letters, before the name of the package. You will see, in all three cases above, they are rc. What does that mean? No, they are not radio controlled. Here is a list of what each letter is:

First:

i : install
u : unknown
h : hold
r : remove
p : purge

Second:

n : not-installed
c : config-files
H : half-installed
U : unpacked
F : half-configured
W : triggers-awaiting
t : triggers-pending
i : installed

Simple, no?

Therefore, rc indicates that:
r – package was removed (or marked for removal)
c – configuration files lying uselessly about your disk

You will often see (ii) when looking at your video drivers etc, but that is beyond this short CnC, just know what it means. I just wanted you to have some context.

If you peruse the images above, you may see three “+” signs in the top, above the “rc”, that indicates that there are actually three columns. ;)

OK, now for the warnings:

Removal of system files can make your system unstable. Do not remove system files this way. Always back up your system before doing anything destructive! Make sure you know what a package is before removing it. We know that common sense is not common, so we accept no responsibility if you continue.

```
rc waydroid      1.6.1          all      Android™ application support
edd@gift:~$ sudo apt --purge remove bruno
[sudo] password for edd:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages will be REMOVED:
  bruno*
0 upgraded, 0 newly installed, 1 to remove and 1 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n]
```

Right, now that the newbies have proper focus and understand what is happening, let's talk about removing these useless files that may, or may not influence updates and cause errors, like they did for me.

Why does this happen?

Well, sometimes one removes a package to reinstall it again at another time. Sometimes installers remove it that way. Usually we use the -purge option when uninstalling a test package, that we do not plan on installing ever again. (I'll admit,

that is what I did with bruno, to have something to show, not realising I already had some.)

You can simply employ this method to remove the offending config-files.

I can repeat that with the other candidates, but in my case, I have a butt-load of Nvidia config files for every version ever installed!

I'll pipe it to word count and see:

```
apt list '~c' | wc
```

```
Reading state information... Done
The following packages will be REMOVED:
  bruno*
0 upgraded, 0 newly installed, 1 to remove and 1 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
(Reading database ... 440529 files and directories currently installed.)
Purging configuration files for bruno (2.6.1) ...
edd@gift:~$
```

The easiest way would be to export them to a list and then run a script that steps over each one in the list until they are all uninstalled. Again, there is danger here.

Danger, Will Robinson! If you were to use wildcards, you may also delete the current configuration files, so triple caution!

You could also use: `sudo apt purge '~c'` -if you are 100% sure of yourself, as this will kill everything listed.

For best results, back up your system before using the nuclear option!

With that, this is Galaxy News Radio signing off....
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

We finished Part 4 of this series with a Kubuntu 26.04 laptop with the VirtualBox application installed. We had created a Virtual Machine (VM) and installed the Ubuntu Server 26.04 OS. Then we installed the MediaWiki software and showed the Apache web server running. Both our server and virtual computers were configured for ssl access, and each had a “ufw” firewall configured and running. It’s now time to configure MediaWiki.

The configuration steps we need to complete are documented in the LinuxConfig.org tutorial, at <https://linuxconfig.org/setting-up-a-lamp-server-on-ubuntu-24-04> starting at Step 3, where we “secure the mysql”. We can skip steps 1 and 2 as they were completed by the deb package installation we did last time;

```
sudo
mysql_secure_installation
```

To the first question - “Would you like to set up VALIDATE PASSWORD component?” I answered “no” - I don’t insist on password complexity inside my

home network.

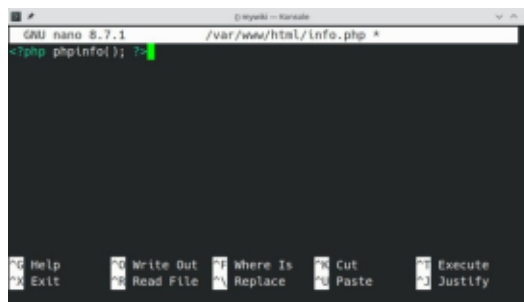
Similarly, at the next “Remove anonymous users?” prompt, I answered “no”.

I responded “no” again to the prompt “Disallow root login remotely?”, and “no” again at “Remove test database”.

For Step 4’s PHP testing I copied the quoted text to the clipboard, then in my virtual’s ssh session I opened a blank file with nano;

```
sudo nano /var/www/html/
info.php
```

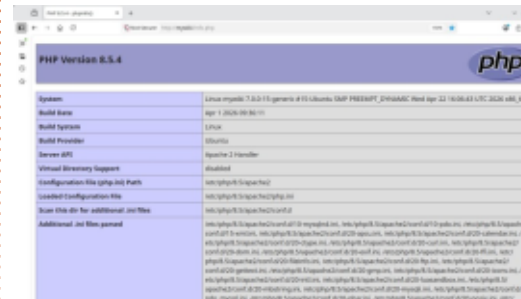
And pasted the required text in, to get a display like;



After a save and close and applying the URL <http://localhost/info.php> into my browser I got a

Build Your Own Wiki - Part 5

page not found error - I needed to change the link to <http://mywiki/info.php> then I got the PHP info page;

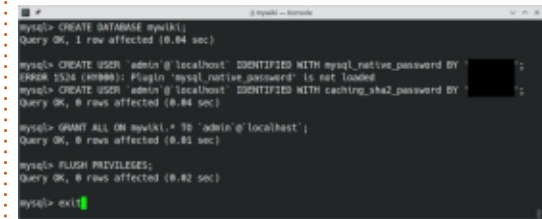


In Step 5 I changed the database name (from linuxconfig to mywiki) in the relevant commands, starting with the first;

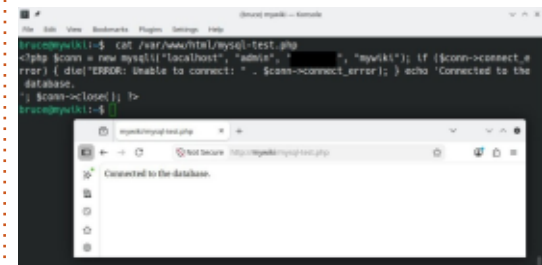
```
mysql> CREATE DATABASE
mywiki;
```

At the next step about creating a user I got the error shown below. Help was found on this page - <https://php.watch/articles/fix-php-mysql-84-mysql-native-password-not-loaded> - which said there’s been an update to authentication in PHP; the “mysql_native_password” module has been replaced by one named “caching_sha2_password”. Substituting the new for the old and running the modified command

appeared to work.



Step 6 worked for me after I used the same technique as above to create the “mysql-test.php” file, making sure to change the database name to “mywiki”:

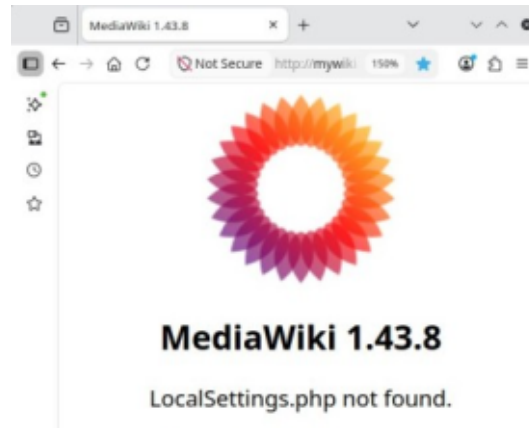


I skipped Step 7 - “Implementing SSL with Let’s Encrypt” – as I don’t have a DNS accessible from the outside world, nor do I have a fully qualified domain name for my server. My primitive appreciation is that encryption established by ssl reduces the risk of “man-in-the-middle” attacks; given that both my wiki and the machines accessing it will be contained within my home

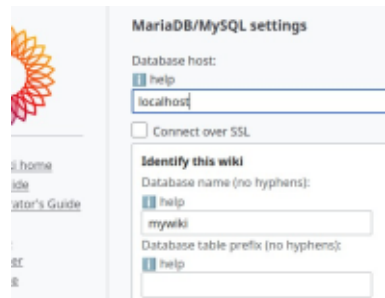
HOWTO - BUILD YOUR OWN WIKI

network I'd hope not to be at risk of such an attack.

With SQL and Perl now configured we should be able to open our first wiki page with, in my case, this URL - <http://mywiki/mediawiki/>.



Clicking that “set up the wiki” link gives me a page titled “MediaWiki 1.43.8 installation” where I clicked “Continue” - English is my default. I could also click through the next “Environmental checks Page” as there were no highlighted issues.



On the next “Connect to database” screen I applied the field entries shown here;

Next I agreed to use the same account for web access;



The following screenshot shows how I populated the next “Name” page. Not shown in the screengrab is a button to choose to proceed without having to answer any more questions - I opted for that.



Clicking “Continue” on the next page begins the installation, which subsequently reported as successful. Clicking “Continue” on that page initiated the download of the “LocalSettings.php” file;



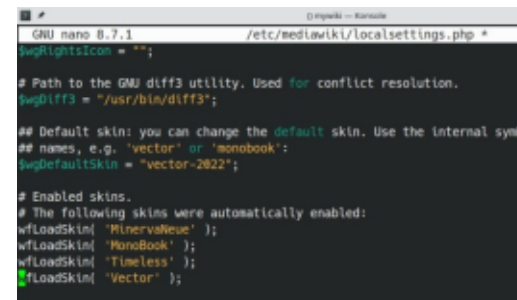
The last thing we need to do is to create the required;

`/etc/mediawiki/LocalSettings.php`

file, populating that with the content of the file just downloaded. We can use the “nano” editor again; so;

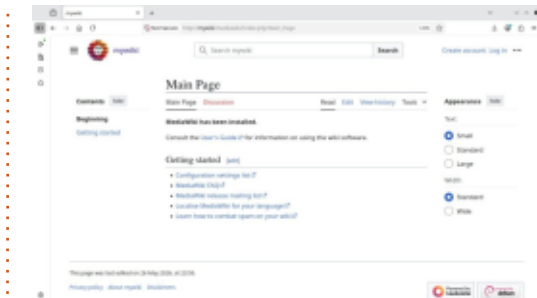
`sudo nano /etc/mediawiki/LocalSettings.php`

and paste the required text in, to get a display like;



Save and exit, and finally, we can launch into our wiki with the (in my case) URL <http://mywiki/mediawiki/>

[index.php/Main_Page;](http://mywiki/Main_Page;)



It has taken us five months but finally, we have a working wiki. Next time we'll look at creating pages, populating and editing them, and linking them together to give us the browser based note taking application we came for.



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.2

This time I hope to give you some ideas and thoughts about using various theme packages with Beamer presentations. If this is your first issue of FCM and especially if you are new to FCM and Beamer you should review the initial article about Beamer in **FCM#234** (last month).

There are five different sets of themes in the Beamer addition to LaTeX. Each set controls specific parts: presentation themes, color themes, font themes, inner themes, outer themes. The names of the various themes were assigned by the designers. They may not indicate the “contents” or the effect of the theme.

Presentation themes (`\usetheme`) (labelled with city names) control every detail of a presentation. Presentation themes are designed to use a particular set of the other four types of themes (one of each type) the presentation theme designer thought work well together. Standard presentation themes are named after cities: AnnArbor, Antibes, Bergen,

Berkeley, Berlin, Boadilla, boxes, CambridgeUS, Copenhagen, Darmstadt, default, Dresden, EastLansing, Frankfurt, Goettingen, Hannover, Ilmenau, JuanLesPins, Luebeck, Madrid, Malmoe, Marburg, Montpelier, PaloAlto, Pittsburgh, Rochester, Singapore, Szeged, Warsaw.

Color themes define all the colors used in a presentation, as you would expect from the name. Once you have chosen a particular presentation theme, choosing a color theme changes only the colors in the presentation. Color themes may be general or very specific. They are named: albatross, beaver, beetle, crane, default, dolphin, dove, fly, lily, monarca, orchid, rose, seagull, seahorse, sidebar, spruce, structure, whale, wolverine.

Font themes control the fonts or font attributes used in a presentation. Font themes may also be general (all text) or specific (text on a button). Fonts available are: default, professional, serif, structurebold, structureitalicserif,

structuresmallcapsserif.

Inner themes (`\useinnertheme`) control elements inside a frame, elements that are not part of the headline, footline or sidebars. Included in inner elements are: enumerations and itemized items (lists), block elements, theorem environments and the table of contents. Inner theme names are: circle, default, margin, rectangles, rounded.

Outer themes (`\useoutertheme`) control headlines and footlines, sidebars, frame titles, logos, navigation symbols and bars, etc. It specifies where a frametitle appears and how it is typeset. Outer themes are called: default, infolines, miniframes, shadow, sidebar, smoothbars, smoothtree, split, tree.

All five of these types of themes have options as well as names. Any options you wish to use appear in square brackets between the command instruction and the name of theme (which appears in curly braces).

On my texlive 2026 installation the various theme files are located at `/usr/share/texlive/texmf-dist/tex/latex/beamer/base/themes`. Each theme has its own directory.

I am sure you understand why I cannot show you examples of all the themes here. There are twenty-eight presentation themes and eighteen color themes not counting default. Showing every possible combination of those two types requires over five hundred examples. Of course some colors and presentations would not look good to you. Your list of acceptable combinations is probably less than five hundred. If you want full color examples of the theme matrix visit: <https://hartwork.org/beamer-theme-matrix/> and also visit https://deic.uab.cat/~iblanes/beamer_gallery/index.html

If you are interested in building a custom theme take a look at: <https://tex.stackexchange.com/questions/146529/design-a-custom-beamer-theme-from-scratch>. I am not going to discuss

this topic.

I have included two examples of themes with this column. One uses the presentation theme Antibes, the other uses the presentation theme Copenhagen with the structuresmallcapsserif font theme.

A presentation theme (one of the “city” themes) contains instructions for every possible element of a Beamer presentation. If you use one of them you may feel very comfortable with the result. On the other hand you may wish to change the look of one or more of

the elements. You are free to do so. Simply apply one or more of the other four theme classes as desired.

Warning: you may use a lot of time trying to find exactly what you think is the perfect look for your presentation. Suggestion: the content of the presentation is what your audience wants to see and hear, not what color scheme you think is perfect. Use the style that you think will make the best impact on your audience. I made and used thousands of presentations in my teaching career. In my years of experience I learned that simple is

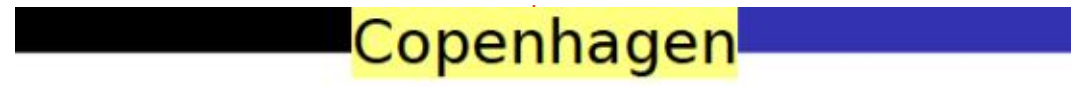
best. (If you want to know what to avoid, watch Don McMillan’s “Death by PowerPoint” presentation. It will show you what not to do.)

There are over fifty pages in the PDF user guide for Beamer entitled “Changing the Way Things Look”. There are many color examples to help you. The coding is quite simple: In the preamble issue the appropriate “use” statement or statements. The options for each theme are given in the user guide. (There are too many options for me to list here.) It is time well spent to look at the examples in the user

manual before designing your own presentation.

The user guide also points out it is possible to change the look of one or more specific elements without altering the whole theme or resorting to making your own custom Beamer theme.

Before I finish this time I will explain one more feature of Beamer: revealing points on a slide one at a time. Revealing your slide points one at a time is an easy way to reduce boredom for your audience. If you show the complete



There is no Largest Prime Number

Euclid of Alexandria
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University of Alexandria

27th International Symposium of Prime Numbers

THERE IS NO LARGEST PRIME NUMBER

Euclid of Alexandria
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University of Alexandria

27th International Symposium of Prime Numbers

contents when the slide appears the audience will read all the information immediately, meaning they are reading when they should be listening to you. Then they will think about something else while they wait for the next slide. This is not a good way to convey information.

Set up your information as either a bulleted list or a numbered list. Use the following coding (shown top right).

The item option `<n->` controls the order of revealing the points. As you can from the code above, item 1 is shown first, then the second and fourth item (note the `<2->` with the fourth item) then the third item. As you have come to expect item 1 stays visible when item 2 becomes visible and so on. This is a simple way to put things in order. If you add or remove an item then you need to renumber the order of appearance. Editing the order of appearance can be automated using the following code:

```
\begin{itemize}[<+>]
  \item first point
  ...
\end{itemize}
```

```
\begin{enumerate}
  \item <1-> Suppose  $p$  were the largest prime number.
  \item<2-> Let  $q$  be the product of the first  $p$  numbers.
  \item<3-> Then  $q + 1$  is not divisible by any of them.
  \item<2-> But  $q + 1$  is greater than  $q$ ,
\end{enumerate}
```

Another way to get the same effect is to use the “pause” instruction after each piece of information. I used pause in the file I made available last month. It has the same effect as the `<+>` option, it automates the delivery of information one piece at a time. The `<n->` allows the presentation designer to control what order the information is made visible. Which you use depends on which one you like and which one is most suitable for your presentation. There are more possibilities discussed in three pages in the user guide.

Next time I will explore features of Beamer presentations that are not text. I also want to discuss making handouts and some other topics which will probably have to wait for two issues from now. Beamer can be a lot of fun to play with and is certainly a powerful alternative to other presentation software. Like all powerful software it takes time and practice to learn how to use it well in your situation. I

encourage all Beamer users to get, to read and to use the Beamer User Guide.



HOW-TO

Written by Mark Crutch

This month, more entries from the Extensions > Generate from Path... menu.

Generate from Path > Inset/Outset Halo...

From the outset (no pun intended) I'm going to tell you that I really dislike this extension. It has plenty of potential, but its parameters are too few and too limited, and its overall behaviour seriously breaks the conventions used by other Inkscape extensions.

First, what does it do? In short, it creates multiple copies of your path, with some being inset inside

your original path, and others being outset. Each of them has its opacity set quite low, with the exact figure depending on the number of copies. Here's an example of a star (below left) used as the basis for two different haloes. Both create five copies of the path, with the only difference being the "width" parameter.

Looking at the middle star, we can see four copies. The fifth is directly on top of the original path, so isn't visible. Two of those copies are inset, while two are outset, with even spacing between them. The right-hand star is exactly the same, except that the spacing is less than the width of the path. This leads to

the copies overlapping, with their opacities combining to look more like a stepped glow. It's not so easy to make out in this example, but the overlapping opacities become more obvious if the original path is filled. That does, however, make the inner copies somewhat pointless.



Taking a look at the extension's dialog reveals only two parameters: 'Width' and 'Number of steps'. It does also have the usual 'Live preview' checkbox – but it turns out to be quite useless in this case, as we'll see.



Starting with the two parameters, there's not much to discuss. 'Width' sets the "Width in px of the halo" according to the tooltip. This value refers to the distance between the center line of the innermost path, and the center line of the outermost path – it doesn't take the line thickness into account. Annoyingly, this field is capped at 50, which might be fine for small paths, but is way too restrictive for larger ones.

The 'Number of steps' field barely needs explaining, except to note that the value here is split evenly between the number of inset and outset paths. If this is an odd number, as we saw earlier, the middle path will lie exactly on top of the original. Whereas the cap on the Width field seems too small, the cap of 100 on this control feels like it's way more than anyone is likely to need. Conversely, it has a lower limit of 5, whereas I'd like to be able to take this all the way down to 2 for just a single inset/outset pair.



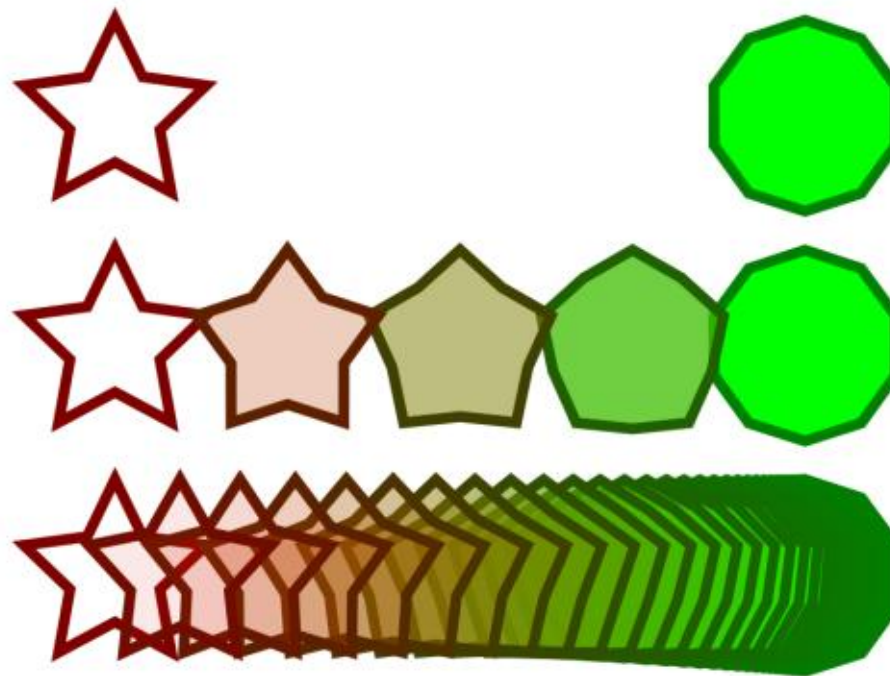
It's important to note that this field also affects the opacity of each copy. With a value of 5, each copy will be set to 20% opacity, whereas 100 copies results in 1% opacity for each. Quite why there's no control to independently set or adjust the opacity escapes me completely.

Now onto the bigger problems with this extension. You might be inclined to take my usual advice and enable the 'Live preview' checkbox when experimenting with the other two fields – but that would be a mistake. With this extension it doesn't actually preview the result, it applies it immediately. With that checkbox enabled, every tweak of a parameter causes the extension to run again, layering copies on copies on copies.

Even with that behaviour, you might think that closing the dialog with the 'Close' button, rather than the 'Apply' button would undo the changes, but it doesn't. Never mind... you can just hit Ctrl-Z to undo the change, right? Again, this extension makes life difficult: undo removes one copy of the path at a time. At the very least you'll have to Undo five times to get back to where you started – and potentially

many more. The good news is that all the copies are grouped together for each run of the extension. If you do want to remove its effects, the best approach is to select the group and delete it as one. If you used live preview then you may still need to do this multiple times.

If you really want the effect this extension provides, then it might be worth using so long as you are aware of its problems. But it's so limited in scope that you might be better off learning other, more flexible ways to achieve the same result.

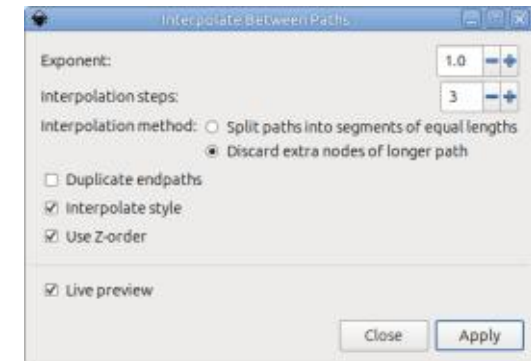


Generate from Path > Interpolate Between Paths...

This extension is, as the name suggests, used for creating intermediate paths whose shape and style fall between those of two selected paths. For example, given a red star (with a transparent red fill), and a green polygon (top row), this extension can create paths that morph from one shape to the other.

The middle row shows the basic idea. I've set it to create 3 intermediate paths and you can see

how they progressively interpolate their shape and style from one end to the other. The bottom row does the same, but with more steps which are no longer linearly spaced. Let's take a look at the controls.



The 'Exponent' field determines whether the copies are evenly spaced, or placed with exponentially larger or smaller distances between them. Most people will probably leave this set to 1.0 for even spacing, but play around with it if you want an effect more like the third row in the earlier image. It accepts numbers from 0 to 100, with those less than 1.0 bunching closer to one end, and those above 1.0 bunching closer to the other. A value of 1.0 spaces the copies linearly and is likely what you'll want most of the time. Fortunately, the 'Live preview' option works well with this extension, so playing around with

the controls to get the right effect is a perfectly practical option.

The 'Interpolation steps' control should, I think, have been the first one in the dialog. It's arguably the most important field here, letting you create anywhere from a single mid-value path, up to 1000 copies to give the impression of a continuous sweep from one end path to the other. While experimenting, starting with 10 seems reasonable here to give a good idea of the effect of the other controls without creating so many paths that it slows Inkscape's performance.

The 'Interpolation method' control determines how one arbitrary path is mapped to the other, especially when they are made up of a different number of

line segments. The first option breaks down each path into smaller segments to ensure that both end up with the same number, whereas the second option just ignores any additional segments on the longer path.

The first option may seem preferable, saving you from worrying about node counts and path segments. But splitting the paths can have a detrimental effect on the style of the paths. Here's the same interpolation as above, but focusing on the tight corners of the star with each of the two types. Note how not only the angle at the top gets broken in the first case, but also that the thickness of the line in the first version is inconsistent.

For best results I recommend

Split paths



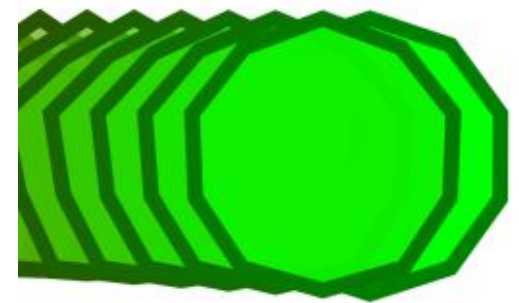
Discard nodes



ensuring your end paths have the same number of segments before you use this extension. Manually editing them gives you the opportunity to insert extra nodes where you want them, rather than relying on the extension's even splitting. When both paths have the same number of nodes, the 'Discard nodes' option is generally the better one, as you can see from my example, as it won't have anything to discard and will therefore be able to map the start to the end shapes directly.

This extension creates as many interpolated copies as you specify – but that's not always quite what you want. Consider selecting two end paths and asking for 3 interpolation steps: what you'll end up with are the three intermediate paths, in a group, with your original end paths omitted (albeit that the original objects will still be on the canvas). In many cases what you want to end up with is a single group that includes the end paths

(well... copies of them) in addition to the intermediate steps. That's what the 'Duplicate end paths' checkbox achieves. Where the generated paths overlap each other, it also helps to avoid the visual discontinuity of the original end path peeking out from behind the copies, as in this image taken with the checkbox un-checked.



The 'Interpolate style' control determines whether it's just the path shape that is interpolated, or if the style (stroke thickness, fill and stroke colors, etc.) is interpolated as well. All my examples have been created with this option enabled. With it disabled, the copies will all adopt the style of one of the end



paths – typically the first one selected (though you may be able to flip that with the next checkbox). I'll wager that most people will want this enabled all the time.

Finally, the 'Use Z-order' checkbox is a little bit of a head-scratcher. The tooltip says it enables a "workaround for selection order in Live Preview cycles". I'm not entirely sure what that means, but I do know that checking this box seems to cause the extension to use the z-order of the selected objects, rather than the order in which they were selected, to determine which is 'on top' and which is 'at the bottom'. In short, if your intermediate paths appear to be stacking in the wrong order, try toggling this setting. If that doesn't work, try selecting your end paths in the opposite order.

One important thing to note about this extension is that it's most happy when working with actual paths, rather than other primitives. In all my examples, the star and the polygon were created with the Star/Polygon tool, but then converted to paths (Path > Object to Path) before using the extension. Trying to use it on the

original primitive shapes did work, but also created unwanted extra copies of them which interfered with the end result.

Generate from Path > Long Shadow...

Have you ever wanted to take a path and extrude it to give the appearance of a long, creepy shadow? No, me neither. But if I ever do want to do that, at least I now know there's an extension just for this task. Here's the obligatory example, showing a crescent shape (my original path, with yellow fill and black stroke) with a long 45° 'shadow' trailing behind.

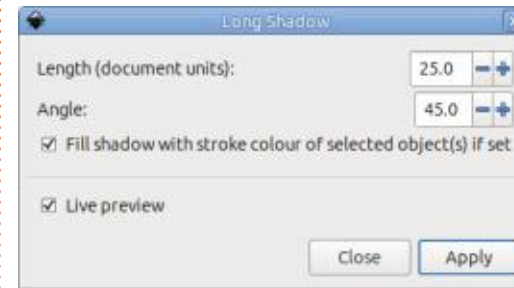


Unfortunately, not all shapes work so well, as this star will attest. Look at the tips of the shadow, and where it meets the star, and you'll see that – as is often the case – sharp corners can throw a wrench in the works.



There are only three controls for

this one, which are all pretty self-explanatory. 'Length' sets the length of the shadow, while 'Angle' sets its angle. You probably didn't need me to tell you that.



The last option does deserve a small amount of extra consideration. When checked, the shadow is a solid color, taken from the stroke of the selected object. I used that mode for the crescent and star screenshots above. Turn this off, however, and you can potentially get a more 'wireframe' look (much like we saw with the 'Extrude Between Two Paths...' extension previously). Again, the sharp corners somewhat spoil the effect, but it could be useful with other shapes.



Be aware that the stacking order of the shadow parts may not always be correct, depending on your

original path shape. This can easily be seen when starting with a filled star.



Entering the shadow's group and either removing or re-stacking the problem parts can often solve this issue – but it's worth knowing that's a possibility before you discard the output as broken.

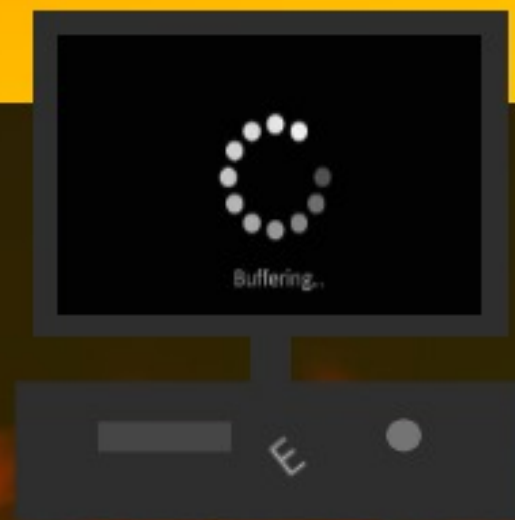
That's all for this month. One broken and overly simple extension; one powerful and genuinely useful; and one that sort-of makes long shadows. Next month we'll conclude our look at the Generate from Path sub-menu.



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

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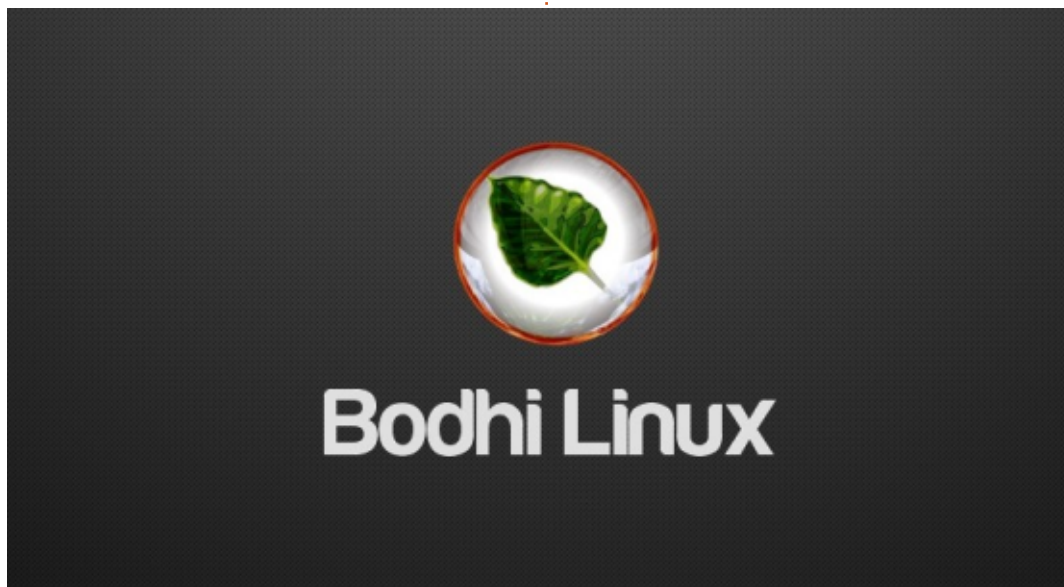
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BODHI CORNER

Written by Joseph "Flux-Abyss" Wiley

BACK NEXT MONTH





We are happy to announce the release of Ubuntu Touch 24.04-2.1 and Ubuntu Touch 24.04-1.5, maintenance releases for 24.04-2.x and 24.04-1.x series, respectively. Both releases will become available for the supported Ubuntu Touch devices over the coming days.

What's new?

Firstly, Ubuntu Touch 24.04-2.1 and 24.04-1.5 contain a security fix for vulnerabilities which allow unconfined applications to gain privilege without password. All users are recommended to update as soon as possible. See the security advisories (<https://forums.ubports.com/topic/12671/security-advisory-arbitrary-root-command-execution-and-unauthenticated-arbitrary-file-read-as-root-in-lomiri-download-manager>).

Ubuntu Touch 24.04-2.1 is a maintenance release of 24.04-2.x series. This release contains mostly bug fixes and small improvements. The notable ones are:

- Compared to 24.04-2.0 (<https://ubports.com/blog/ubports-news-1/ubuntu-touch-24-04-2-0-and-24-04-1-4-release-4007>), the following devices are added to the list of devices supported by Ubuntu Touch 24.04-2.1:
 - Nothing Phone (1)
 - OnePlus Nord N10
 - OnePlus Nord N100
 - Volla Tablet
 - Xiaomi Redmi Note 9 Pro (Global)
 - Xiaomi Redmi Note 9S/9 Pro (India)
 - Xiaomi Redmi Note 9 Pro Max
 - Xiaomi Poco M2 Pro
- Morph Browser received engine update to QtWebEngine 6.11.2 based on Chromium 140 + security fixes.
- Issue where mouse pointer is confined when the screen is rotated is now fixed. This benefits Volla Tablet when the Volla Keyboard cover is used.
- Flashlight toggle is now functioning on Volla Phone Plinius.
- Push notification now works more reliably in certain scenarios.
- Fixed issue where time in the indicator is shown in the incorrect timezone.
- On-screen keyboard is now fixed

for Libertine applications.

- General bug fixes and security updates.

Unfortunately, there's one known issue for 24.04-2.1:

We've received a very small amount of reports where Morph Browser fails to launch after upgrading from 24.04-1.5 or earlier to 24.04-2.0 or later. We've found the source of the issue, and should be able to fix this completely in the next update. In the meantime, the following commands (running through Terminal app, ADB, or SSH) should workaround the problem for affected users:

```
sudo sh -c 'rm -vf /var/cache/apparmor/*/usr.bin.morph-browser*'
```

```
sudo apparmor_parser --replace /etc/apparmor.d/usr.bin.morph-browser
```

If prompted for password, please enter the lock screen PIN or passphrase.

Ubuntu Touch 24.04-1.5 is a maintenance release of 24.04-1.x series. This release contains mostly

bug fixes and small improvements. The notable ones are:

- Issue where mouse pointer is confined when the screen is rotated is now fixed. This benefits Volla Tablet when the Volla Keyboard cover is used.
- Push notification now works more reliably in certain scenarios.
- Fixed issue where time in the indicator is shown in the incorrect timezone.
- General bug fixes and security updates.

Unfortunately, there's one known issue for 24.04-1.5:

On Pixel 3a and Pixel 3a XL, after installing 24.04-1.5, the next upgrade may spuriously fail after a reboot, due to a race condition. Usually, an upgrade can succeed after a reboot and a new attempt. However, if the issue persists, UBports Installer can be used to restore the device to a working state.

Source:

<https://ubports.com/blog/ubports-news-1/ubuntu-touch-24-04-2-1-and-24-04-1-5-release-4014>

The Daily Waddle

JAVASCRIPT ? NO ! WHAT KIND OF
MONSTERS DO YOU THINK WE ARE?





MMOs of all sizes suffer from a lack of liquidity in their markets. A material can be plentiful in the game and still be unavailable when a player needs it. Maybe an impatient high-level player just cleared the listings. Whatever caused the shortage, the player can be left waiting for someone else to restock the market. Oftentimes they'd rather quit.

I ran into the usual auction-house mat stall in the famously obscure indie MMO World of Warcraft while leveling Blacksmithing. I had plenty of gold to spend and still could not buy the ores I needed. That was probably 15 years ago that it happened, and still the moment remains seared in my mind.

Not every player wants to become a specialist in every resource-gathering category just to make a 'Twig of Toothpicking' ..., especially after doing enough of the broader grind to accumulate the gold that should have been enough to buy the ingredients.

A liquid, player-driven market is

almost certainly one of the necessary ingredients in the rare recipe of an MMO that lasts for ten years or more, and perhaps even across generations.

Nodiatis, which has been around since 2008, addresses the same problem with a small, persistent market-making system inside an online world. Goblin Merchants do not replace the auction house. They make it more usable when another player is not online, interested in the same item, or willing to wait.

Maybe all MMOs should probably adopt market makers.

The broader idea comes from financial markets. Large algorithmic market-making firms quote both sides of a market, estimate fair value, adjust their prices as inventory changes, and repeat the process across a very large number of trades. The spread on any one trade may be small, but the system can support enormous volume. That revenue is not risk-free profit: inventory losses, hedging, infrastructure, exchange fees, and

other costs matter. Virtu, for example, reported approximately \$1.8 billion in 2024 trading income from its Market Making segment.

An MMO has a different goal. It does not need Wall Street scale. It needs a world where players can gather, craft, specialize, trade, and return years later without finding that every useful market is empty. Liquidity is part of the game design.

WHY PLAYER-DRIVEN ECONOMIES NEED LIQUIDITY

A player economy creates meaningful choices. One player can specialize in gathering. Another can craft. A third can accumulate rare items and sell them when demand changes. Prices carry information between all of them.

But a pure player-to-player market has a practical weakness: it is intermittent. A player may have the item but not be online. A buyer may need the item now. A thinly traded item may have a reasonable

long-term value but no current listing at all.

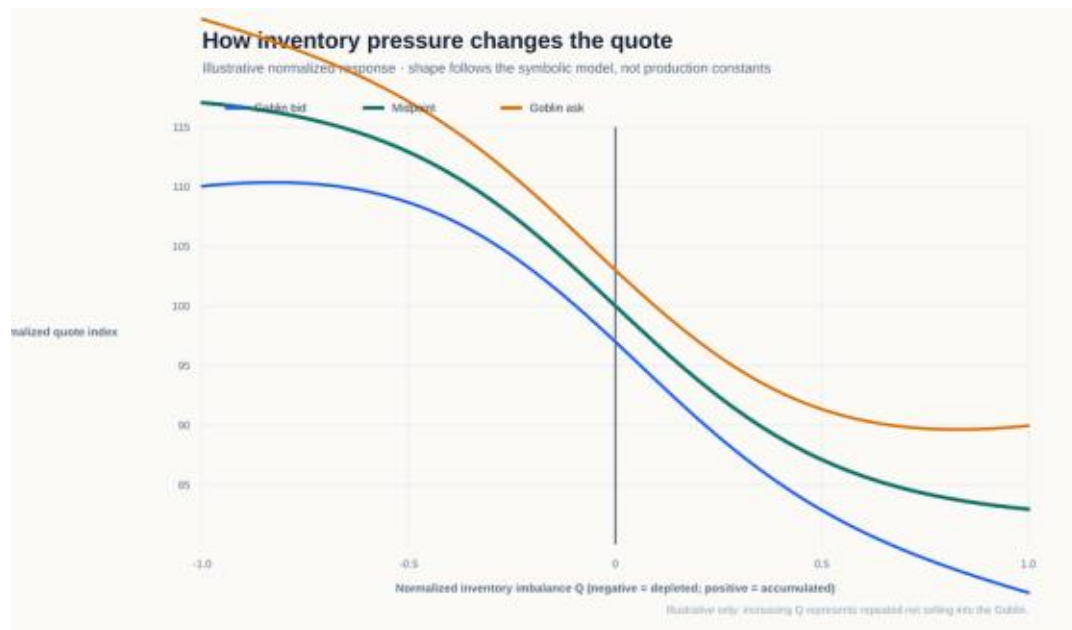
A normal shop solves availability by imposing fixed prices. That is reliable, but it removes much of the information and opportunity created by player trading. A market maker takes a middle path. It offers a fallback quote, but changes that quote when the market absorbs inventory or when player auctions provide new evidence.

In Nodiatis, the Goblin is not simply an NPC shopkeeper. That would defeat the purpose of having a player-driven market. It is an automated counterparty with inventory, cash, a moving midpoint, a volume estimate, and a deliberately asymmetric spread.

THE THREE NUMBERS BEHIND A QUOTE

Every active market maker maintains a moving midpoint price. Around that midpoint it calculates two player-facing prices:

- Bid: the price the Goblin pays



when a player sells an item to it.

- Midpoint: the system's current estimate of the item's fair reference value.
- Ask: the price a player pays when buying an item from the Goblin.

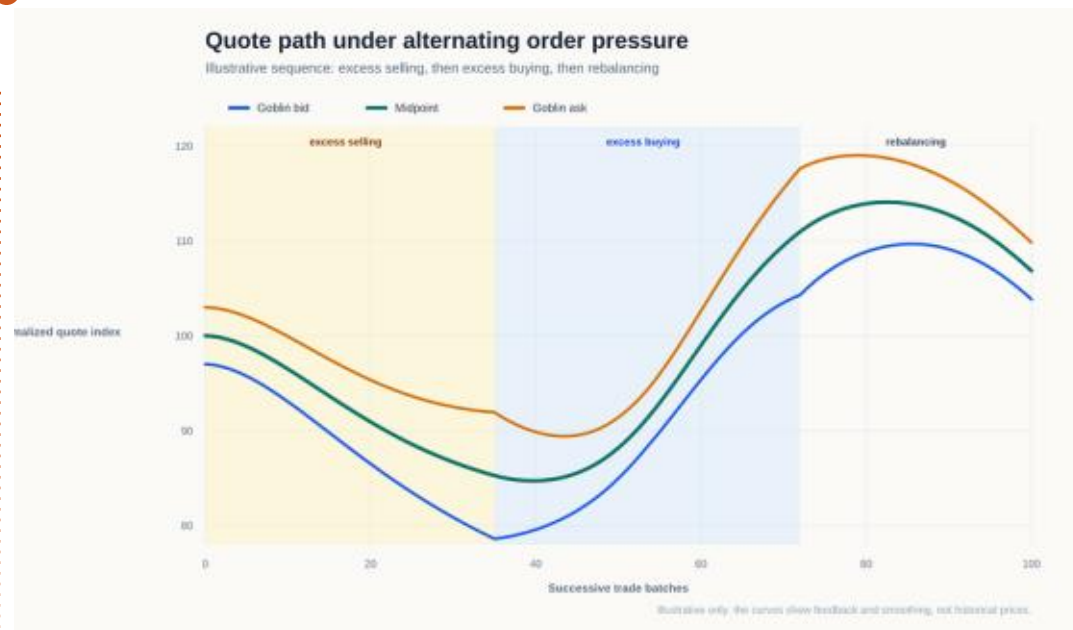
The midpoint is not a promise that every player must accept. It is the center of a responsive quote. The bid and ask are separated by a spread because the market maker must manage uncertainty and inventory.

The simplified model is:
 M = current midpoint
 Q = inventory imbalance
 V = effective average daily volume

B = Goblin bid
 A = Goblin ask

The effective volume is the larger of measured average daily volume and a configured minimum. This matters because a thin market should not react as if it had the depth of a heavily traded resource. Lower-volume markets use wider spreads and reach their maximum inventory response with a smaller imbalance.

The basic quote is approximately:
 $B = \text{round}((M - \text{tick offset}) \times \text{BuyMultiplier})$
 $A = \text{round}((M + \text{tick offset}) \times$



SellMultiplier)

The important point is that the system does not use one fixed percentage spread for every item. Volume and inventory both affect the quote.

WHY THE RESPONSE IS NONLINEAR

A market maker should not panic after one ordinary trade. It should also not keep offering the same price after players have pushed a large amount of inventory in one direction.

Nodiatis uses clamped, squared

interpolation for its inventory-sensitive curves. In simplified form:

$$F(x) = \text{clamp}(\text{start} + (\text{end} - \text{start}) \times \text{fraction}^2)$$

The square makes the curve gentle close to its starting point and progressively stronger as the imbalance grows. That produces a useful shape:

- Small trades have limited effect.
- Repeated trades gradually move the quote.
- A large inventory imbalance receives a much stronger response.
- The system approaches configured limits instead of moving without bounds.

The buy and sell curves are separate. They are intentionally asymmetric rather than mirror images. That lets the market respond differently when it has too much of an item than when it has too little.

INVENTORY IS THE SIGNAL

When players sell items to the Goblin, the Goblin's inventory rises. The midpoint moves down through a volume-sensitive multiplier, and the bid becomes less attractive. This reduces the incentive to keep selling into an already saturated inventory.

When players buy items from the Goblin, the inventory falls. The midpoint moves up, and the ask becomes less attractive. This rewards the market with a better quote when players help remove excess inventory, while also making the next purchase more expensive as supply becomes scarce.

In simplified form, the immediate midpoint update is:

$$M_{\text{new}} = M_{\text{old}} \times \text{ImmediateMoveMultiplier}(\text{abs}(Q), V)$$

The upward and downward directions use reciprocal behavior. A Goblin purchase pushes the midpoint down; a Goblin sale pushes it up. The inventory update and price update work together, so every fill contributes a small piece of feedback.

This is the central difference between a responsive market maker and a fixed-price shop. The quote is part of the economy's feedback loop.

THE SLOW CORRECTION THAT PREVENTS STALE INVENTORY

Immediate trade response is only one layer. Nodiat's also applies a slow hourly correction based on inventory imbalance.

If Q is positive, the market maker has accumulated too much inventory and the midpoint slowly creeps downward. If Q is negative, the midpoint slowly creeps upward.

If inventory is near balance, the correction is small.

The correction is intentionally slow. A fast correction could become an obvious repeated-trading exploit. A slow correction allows the market to remember a real imbalance while still tending toward a stable long-term state.

The system also protects new items. A brand-new item does not automatically become a fully active market. The first qualifying player auction can establish a reference price, but the market remains unavailable until it has been reviewed and stabilized. This prevents a temporary launch-price spike from becoming an easy way to sell a large quantity to the Goblin.

PLAYER AUCTIONS STILL DISCOVER PRICE

The Goblin is a fallback market, not the only market. Player-to-player auctions continue to influence the midpoint.

A qualifying auction price is first bound so that one unusual trade cannot move the market without limit. The midpoint then moves

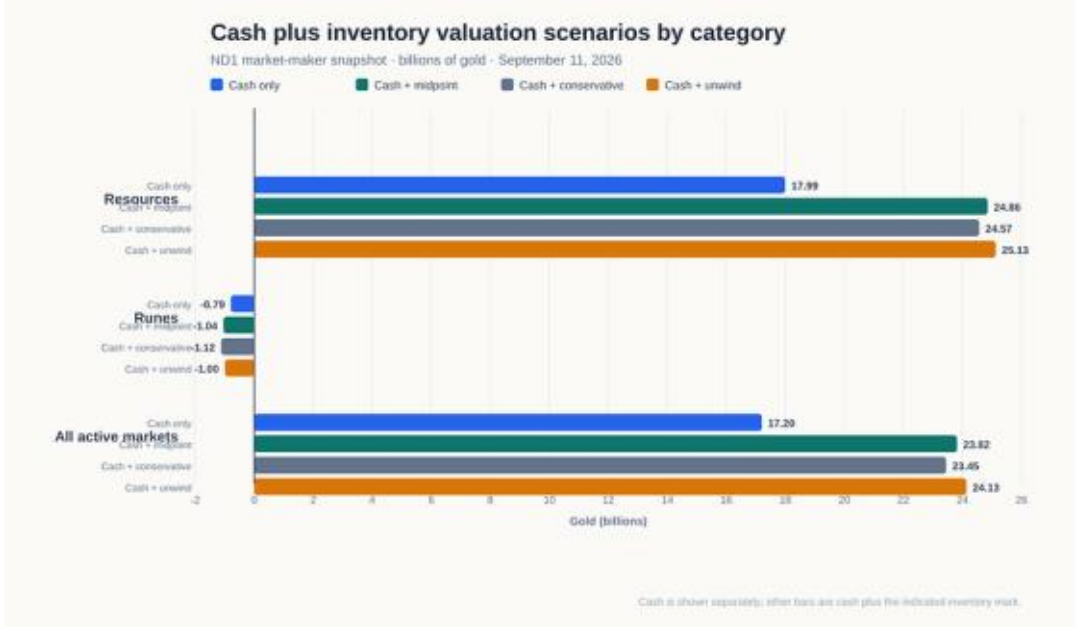
toward the player's price through a Wilder moving-average update:

$$M_{\text{next}} = M_{\text{current}} + \alpha \times (\text{player price} - M_{\text{current}})$$

A Wilder moving average is a recursive, EMA-like smoothing method. It keeps most of the current value and moves only a configured fraction toward the new observation. One trade therefore has limited influence, while repeated observations gradually establish a trend.

For a stack of items, the update can be applied repeatedly. The market can therefore learn from a large sale without treating the entire stack as one impossibly large jump.

The system also uses safeguards for trades that would create obvious distortions. Trades outside the relevant quote range can be ignored for price discovery, and tax-linked limits restrict how far an ordinary player auction can move the midpoint in one transaction.



WHAT THE CURRENT STATE SHOWS

As of September 11, 2026, which is 866 days since the market makers went live, the deployed binary state contains 1,271 active item markets: 686 resource markets and 585 rune markets. The current Goblin state reports 16,984,901 lifetime item units traded and approximately 26,901 units of average daily volume across the active markets.

Resources account for 16,322,674 lifetime units. Runes account for 662,227. This is a useful picture of where the liquidity

system is doing most of its work: resources dominate the number of fills, while runes are a smaller but higher-value market segment.

The same state contains cash and inventory for each market maker. If the current inventory is unwound at the current side of the quote, the combined net balance is approximately 6.93 billion gold, or about \$5,777 at the working conversion of \$5 per 6 million gold. The midpoint mark is approximately 6.61 billion gold, or \$5,511. The conservative mark is approximately 6.25 billion gold, or \$5,204.

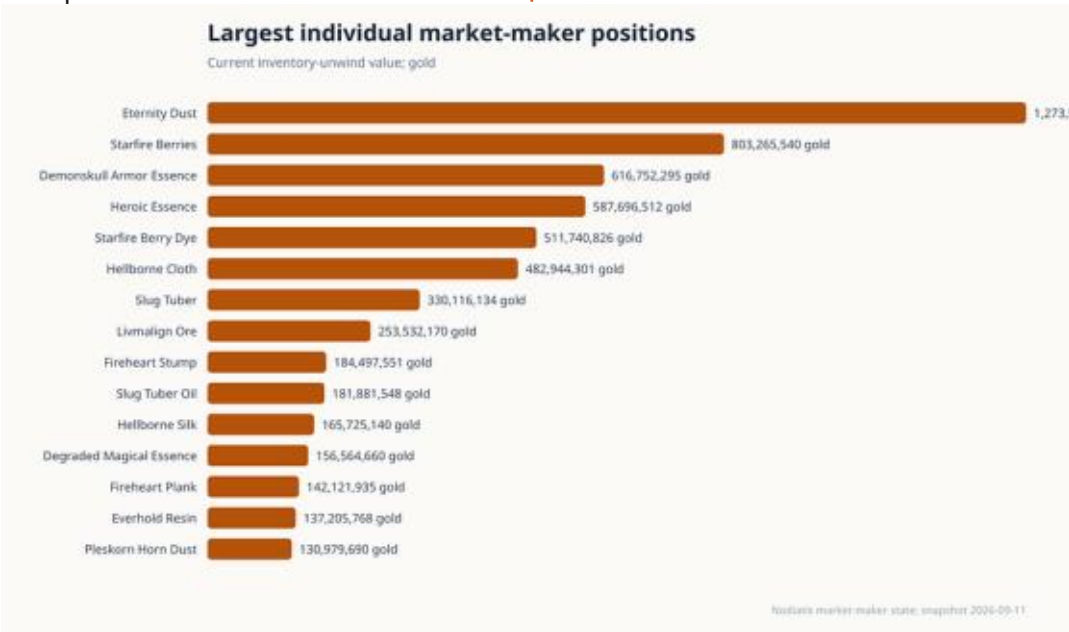
Note that the market makers

have actually lost money on runes — the risk of allowing unlimited purchases (player selling to Goblin) on items that could potentially lose value perpetually. There does not appear to have been any room for true exploitation here, just people selling their excess runes (which are in low demand except for the specific highest tiers) for slightly more than they probably would have otherwise. And the profits from resources more than make up for this.

Compared with EVE Online, which is famous for the scale of its player-driven liquidity, these numbers are modest. That is a fair comparison to make. Nodiatis is a

much smaller economy, and the Goblin is not designed to extract the maximum possible spread. On the contrary, we are trying to keep the spread as small as possible so the market maker has little risk of losing money without becoming predatory toward the player base. The Goblin is a safety net for liquidity, not a toll booth.

The 6.5 billion gold figure is a current net mark, approximate lifetime profit. The system currently holds about 17.20 billion gold in cash, but negative inventory positions and other market balances reduce the net market value.



MY STORY

The largest current positions are concentrated in resources. The leading inventory-unwind values include Eternity Dust at approximately 1.27 billion gold, Starfire Berries at approximately 803 million, Demonskull Armor Essence at approximately 617 million, and Heroic Essence at approximately 588 million.

A SMALL CASE STUDY: STARFALL RESIN

Starfall Resin illustrates why both liquidity and price feedback matter. In an earlier market inspection, the Goblin’s buy quote was approximately 519,000 gold and its sell quote approximately 530,000 gold. The market was processing roughly 30 trades per day, and its inventory (CurShares) was close to balance. Liq is the profit/loss that would be achieved if CurShares was forced to 0 at the current midpoint price. 100m ain’t bad.

The spread was small relative to the item’s value, but the repeated fills accumulated a large amount of gold over time. That is the same basic pattern seen in financial market making: a modest edge

repeated across meaningful volume, with inventory risk and changing prices always present.

The goal is not to eliminate arbitrage. Temporary discrepancies give players a reason to act. A player who can produce an item below the Goblin’s bid can sell it. A player who can source an item below the Goblin’s ask can undercut it. Those actions help move the player economy back toward consistency.

THE DESIGN PRINCIPLE



A healthy persistent-world economy needs both freedom and continuity.

Player trading provides discovery, specialization, negotiation, and opportunity. Automated liquidity provides availability when human timing does not line up. Inventory-sensitive prices connect the two. The market maker absorbs some of the friction, but it does not erase the information created by players.

That is why a properly functioning player-driven economy may be one of the rare ingredients

in a multiplayer game with a multigenerational lifespan. It gives players reasons to produce, trade, specialize, accumulate knowledge, and return even after they have left a conventional progression path behind.

The Goblin Merchant is a fantasy wrapper around a practical economic tool: a small, cautious, always-available market maker that helps the player economy keep moving.

Sources and notes

Virtu Holdings, Inc., 2024 Form 10-K, Market Making trading income.

Market figures in this article are from the Nodiatis server market-maker state snapshot dated September 11, 2026. The \$5 per 6 million gold conversion is an approximation used for these USD equivalents.

Nodiatis.com is an advocate of Linux. Links for standalone clients for many OSes can be found <https://nd1.nodiatis.com/forums/showthread.php?t=19523.html>



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



Linux Mint 22

Author: Thomas Berg

Price: +-\$10(?) (price varies and no home page)

Blurb: *"Quick, Simple Techniques to Personalize Your Desktop, Install Software, Optimize Performance, Organize Data and Use Applications"*

So, who is this book for?

"This manual is designed for

beginners who are either completely new to Linux or transitioning from other operating systems like Windows or macOS."

I was searching on Rakuten (<https://www.rakuten.co.jp/>) looking for camera equipment, when I thought about searching for Linux. Not expecting anything, I ran into this book listed for 1746 Yen (\$11). I quickly tried Google, StartPage and DuckDuckGo, for the homepage, but found none. It showed up on Amazon India, but I could not really find anything else. I'd like to tell you where to go to get it, but I can't. However, if it goes up for sale anywhere soon, hopefully this will make you aware. (It will probably be up for sale in other areas, by the time this gets published... maybe?)

On one hand, adding a version number to your book makes it easier to ensure users find the version they would need. It also means that when the next version launches, some people may consider your book obsolete. I say this as almost everything in this

book is valid for Linux Mint 20 and 21 - and probably will be for version 23.

Let's give you a breakdown of what to expect if you should see it somewhere and would like to know what to expect, before you whip out your credit card.

Chapter one: Getting started with Linux Mint 22

There are the introductory four paragraphs on the origins of Linux Mint, but thankfully it immediately goes over to requirements for installing and running Linux Mint. Then it walks one through choosing a version and then how to install it, before ending in a brief overview of the Desktop Environment.

Chapter two: Navigating the desktop

Honestly, this covers everything from the start button, to the panel, windows and workspaces, desktop icons and wallpapers (basically).

While this chapter does touch

Linux Mint 22

on everything, it did feel rather dull and uninspiring. It only covered Cinnamon, giving the reader only the most basic overview.

Chapter three: Essential system settings

Before I tell you what is in this chapter, I'd like to point out that people say a picture is worth a thousand words. I really think that some pictures here would drive the points home a lot better. This chapter is a breakdown of the control panel, covering display, sound, network, Bluetooth, power management, date and time and user accounts. While it tells you about each part, it felt a bit dry. Here is an example:

Chapter four: File management

We start with understanding the file manager - and again this is misleading, as it is a description of the file manager. This is followed by navigating your file system, creating and organizing your folders, search functions, file



properties and permissions, working with external drives and finally, cloud storage integration. However, it never once addresses the dangers of cloud storage and external drive types discussed only covers USB devices.

Chapter five: Installing and managing software

We start with understanding software sources, and here the author points out the dangers of PPAs, but not how to remove old PPAs. Next we move to using the software center, then installing applications from the software manager, covering common software and moving on to updating your software. Next we move to using the update manager, installing software from the terminal and ending with managing installed software. The chapter does not cover installing software from sources or self contained packages.

Chapter six: Internet and communication

The chapter starts off with setting up internet connections, using Firefox web browser, email setup and management, instant

messaging applications, video conferencing tools, social media applications then ending with download management. The thing that stood out for me in this chapter was that the author discussed Skype, which has been dead for years, and did not discuss things like Jami or Jitsi.

Chapter seven: Office productivity

LibreOffice Suite overview starts us out, then creating documents with Writer, working with spreadsheets in Calc, creating presentations with Impress, PDF management, calendar and task management, ending with note-taking applications. Again, this chapter is not bad, it describes what you see in each screen, it just needs screen-shots.

Chapter eight: Multimedia management

Playing audio files starts us off, followed by managing music collections, video playback, photo viewing and basic editing, screen recording, audio recording, streaming media. It does talk about things like ad blocking, but just in overview, in the streaming part.

Though GIMP is great, it is the only application discussed in the basic editing part.

Chapter nine: System maintenance and optimization

It is a rounded out chapter, with keeping your system updated, disk cleanup and management, managing startup applications, system monitoring tools, backup solutions, performance optimization tips and driver management. The weakest chapter is the performance optimization tips section, which is four paragraphs of nothing. Nonsense like, if "Firefox feels slow, try Chromium" rather than anything concrete.

Chapter ten: Security and privacy

This chapter caught my eye, beginning with understanding Linux security, setting strong passwords, firewall configuration, privacy settings, secure browsing practices, encryption options and malware protection. The chapter is a lot shorter than I would have liked and a lot lighter too. It may be that I looked forward to it and expected more, but it did not impress.

Chapter eleven: Troubleshooting common issues

We start with boot problems, but only one scenario is covered, which is sad, then network connectivity issues, sound problems, display issues, system performance issues and recovery options. Again in this chapter, the system performance issues part is really underwhelming.

Chapter twelve: Advanced tips and customization

Terminal Basics starts off very lightweight, and application shortcuts get mentioned like CTRL+C but not terminal shortcuts like CTRL+Shift+C which is odd. Creating custom shortcuts follows, desktop effects and animations, theme customization, extension and applet management, automating tasks, which is just a mention of cron. Customization was fine, but the rest felt a bit like lip service, rather than instruction. Tell me an anecdote rather than something I can smile about to remember the book. This empty section seems to be filled with lots of words but saying nothing.

REVIEW

Honestly, it felt like the book sputtered out at the end a bit.

Now for the odd part, when I clicked on a page accidentally, there were UDP callouts to arb ports on my firewall and trying to resolve DNS. I did not appreciate this. I cannot say if it was Foliate itself or the epub, but it should not do that without permission.

Is this book worth your \$11?

Honestly, I'm on the fence. While it does cover everything a Mint user would need, I found it lacking. If you know the "missing user manual" books, and you rate those five stars, (*not that they are worth 5 stars, just a comparison) this would be a four stars book. I'd buy it for a fiver, as it is ones and zeroes and that holds no value for me, but I'd still want to encourage the author. If it were a real paper book, I'd pay the \$11 if I were new to Linux Mint.



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.



With last spring's Ubuntu long term support (LTS) release now six months past, it is time to start a brand new developmental cycle with Ubuntu 26.10, released on 15 October, 2026.

As always, this cycle will consist of three interim releases and will culminate in the next LTS version, Ubuntu 28.04 LTS, due out in April 2028.

Already this cycle looks like it will be a busy one, as Ubuntu 26.10 has a lot that is new, so let's dive right in and have a look.

This is Ubuntu's 45th release and the 19th with the current modified GNOME 3 desktop. As an interim release, it has support for just nine months until July 2027.

Code named "Stonking Stingray", this is the second Ubuntu release that has an "S" code name. "Stonking" is a British colloquialism meaning "impressive" or "wonderful", while a stingray is an order of cartilaginous fishes. The previous Ubuntu with an "S" name

was Ubuntu 13.10, "Saucy Salamander", which came out on 17 October, 2013, 13 years ago. Since there are 26 letters in the English alphabet and there are two Ubuntu releases per year, the letters naturally repeat on a 13 year cycle.

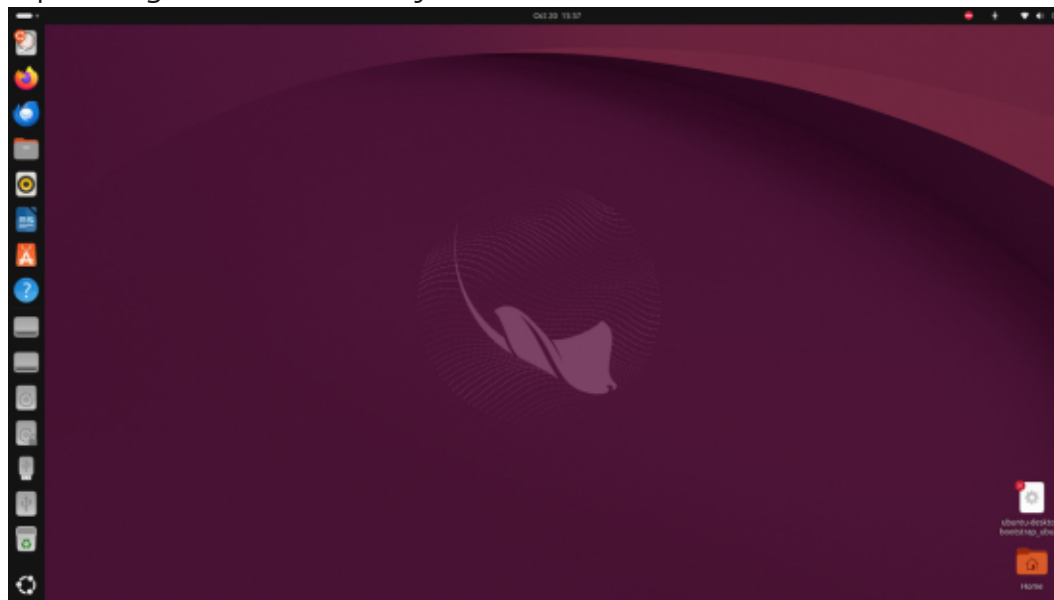
Installation

I downloaded Ubuntu 26.10 from the official source using the Transmission BitTorrent client. As I always do, I carried out an SHA256 sum check to ensure that the ISO file download was uncorrupted and it proved good. It has actually been

a long time since I have had a faulty download and never via BitTorrent, but it only takes a few seconds to do the check and is really a good practice to make sure.

This release is a 6.6 GB download, which is an increase of 200 MB over the Ubuntu 26.04 LTS, which was 6.4 GB.

I tested Ubuntu 26.10 over several live sessions from a USB stick, using Ventoy 1.1.18, which worked perfectly. This was not unexpected, as Ubuntu is officially supported by Ventoy.



System requirements

The recommended minimum system requirements for Ubuntu 26.10 have not changed since Ubuntu 26.04 LTS and remain:

- 2 GHz dual-core processor or better
- 6 GB system memory
- 25 GB of free hard drive space
- Either a USB port or a DVD drive for the installer media
- Internet access is helpful

New

Like recent releases, this one has some new features for desktop users, plus a lot that is new hidden behind the scenes. Being the first release in a new developmental cycle this is to be expected. Starting with the first one, the interim releases are the place to introduce new ideas so they can be refined before the next LTS release.

Ubuntu 26.10 comes with the GNOME 51 desktop environment, a one release upgrade from Ubuntu

REVIEW

26.04 LTS's use of GNOME 50. Like GNOME 50, the GNOME 51 desktop is Wayland-only, using GNOME Shell's own Mutter compositor. There are no more X11 sessions available. That said, any legacy X11-only applications which are needed can still be run using the included XWayland. There is no user action required to make this happen, just open them and they run.

GNOME 51 itself brings some desktop improvements, including better performance that makes it run more smoothly and respond faster, remembering monitor brightness across reboots, plus HDR changes and frame scheduling improvements that make for better animations.

GNOME Settings has a new automatic screen rotation and orientation lock on devices with an accelerometer, automatic touchpad disabling when a mouse is connected. Also, network settings now support DNS search domains and fingerprint enrollment has an improved interface. There have also been many accessibility improvements. For example, screenshot selections can now be controlled from the keyboard.

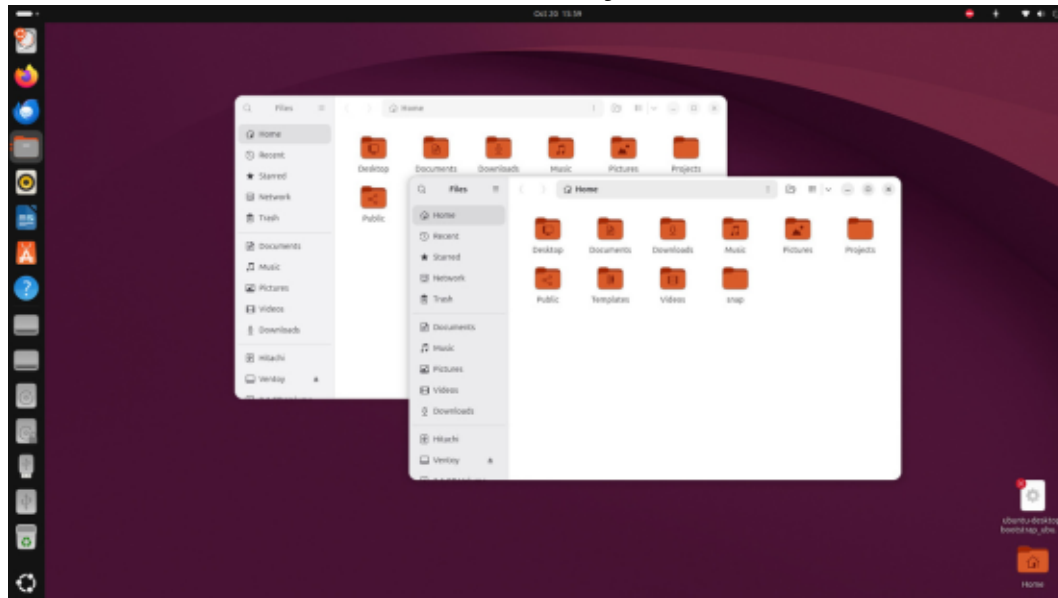
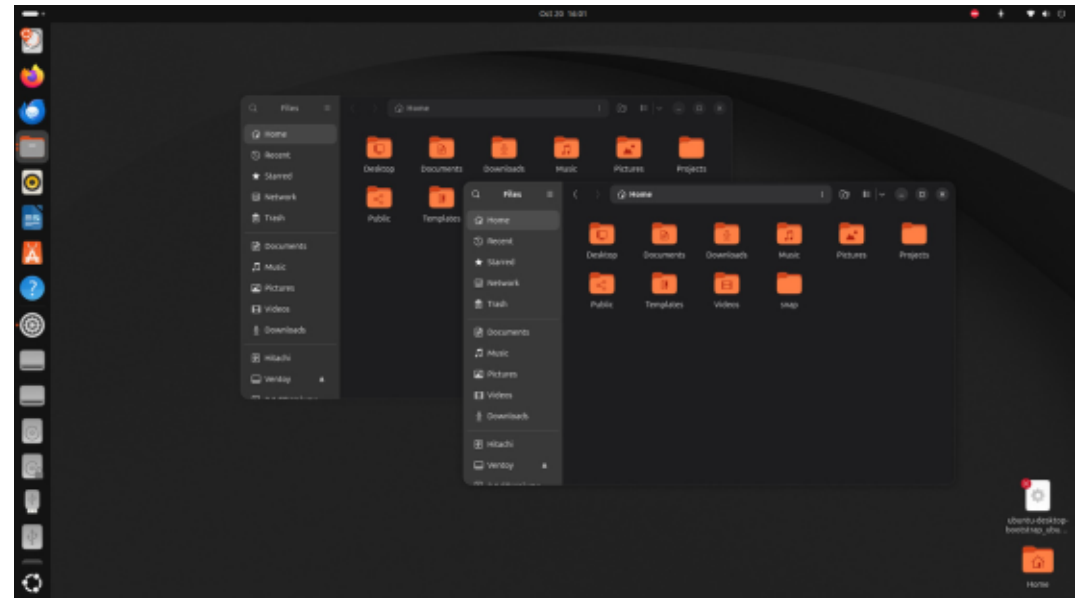
Included in GNOME 51, WEP Wi-Fi security is no longer supported by GNOME Settings. This is a very old and now insecure wireless security standard and there are probably very few routers left in service with

this option today anyway.

Outside of the upstream GNOME 51 upgrades, Ubuntu 26.10 itself incorporates a long list of tweaks and improvements.

The Ubuntu Certified hardware status can now be checked in GNOME Settings. This status is checked using the Ubuntu Hardware API and it caches the status to avoid repeated checks. The functionality for this is provided by the hwctl client, which is included as a Snap package. If you do check this and find your computer is not certified, don't worry, most aren't and Ubuntu will still work just fine!

Further changes include that the Ubuntu App Center now presents Snap and Debian package details in a unified app-details view. This provides information in one place such as the publisher, ratings, permissions, version, package size, screenshots and description, plus allows installing, opening or uninstalling the packages. The App Center also adds a dedicated page for hardware drivers which presents the available graphics drivers, including the NVIDIA driver branches. These driver choices now have clearer metadata. It is noted that the available choices will depend on your system's hardware, plus the software sources selected, of course. The App Center can now install one-time playback codecs.



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These can be needed when an encountered media file uses a codec that is not installed. Some of these codecs are proprietary and are thus not included in the default Ubuntu installation.

Another newly added feature is that computers that do not have a hardware "root of trust" can now have TPM-backed full disk encryption (FDE) installed anyway by using a PIN or passphrase on the TPM-backed key.

Also new is that dbus-daemon has been replaced by dbus-broker. D-Bus is a message bus for both the system bus and per-user sessions which allows inter-process communication. Using

asynchronous and event-driven architecture, dbus-broker improves accounting, reliability and scalability.

Myna (as in the speech-mimicking bird) is now included in Ubuntu 26.10. This is the first artificial intelligence (AI) feature for Ubuntu and I think that Canonical is going about this rollout in a really smart way. Myna is a "speech-to-text" application provided as a "technology preview" (ie it's experimental), that uses AI to translate your voice into written words in any application. The good part is that it is run locally on your own computer so nothing goes to "the cloud", is used for AI training or any other purposes. Also well-

planned is that it is optional and not installed by default. It is available from a PPA (Personal Package Archive) so to install it you need to open a terminal and run:

```
sudo add-apt-repository  
ppa:canonical-desktop-team/  
myna
```

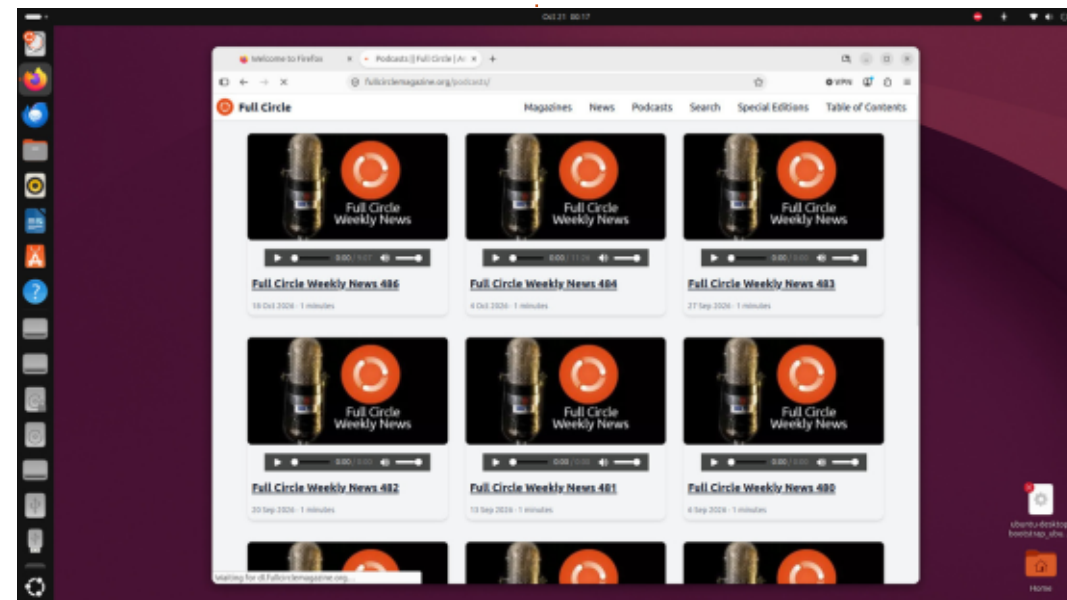
```
sudo apt install myna-config
```

At present, Myna can be installed on Ubuntu 26.10 but also on Ubuntu 26.04 LTS and 24.04 LTS. This is a useful role for AI and may be of actual help to users with specific disabilities.

This release brings a desktop tiling pop-up, the Ubuntu Tiling Assistant. Whenever you move a

window, it appears as a small, white tab at the top of your screen. If you want to tile the application window, just drag it up to the tab and it expands to offer tiling options. Pick one, drop the window on it and it will arrange it as a tile. If you don't want to use tiling and prefer floating windows then you can just ignore the tab when moving a window and it will remain as a floating window. Tiling desktops is a recent trend and I think most people really either love it or hate it, probably depending on how your brain works. Personally, I have tried it and don't like it, but I know some people who swear by it, so it is good to have the choice.

There is no graphical means to



REVIEW

turn this tiling feature off at the present, but if it annoys you, it can be disabled from the command line, using:

```
gsettings set org.gnome.shell.extensions.tiling-assistant enable-layout-picker false
```

If you then miss having it, you can turn it back on with:

```
gsettings set org.gnome.shell.extensions.tiling-assistant enable-layout-picker true
```

Another change is the sound that plays when you do a screenshot. Previously it sounded like a camera shutter activating and that caused some disconcertion

when doing screenshots in public places, like coffee shops, etc. The new sound is more like a door closing than a camera shutter. Of course, you can also just turn all system sounds off, like I do, if you don't like your computer making springing and spronging noises all day long.

The desktop icon extension for GNOME Shell which Ubuntu uses by default, called Desktop Icons NG (DING), is now GTK4-based and that means that the visual style of the context menus and dialog boxes now better matches the desktop.

This release comes with Linux kernel 7.3, initially provided as a "release candidate" but already

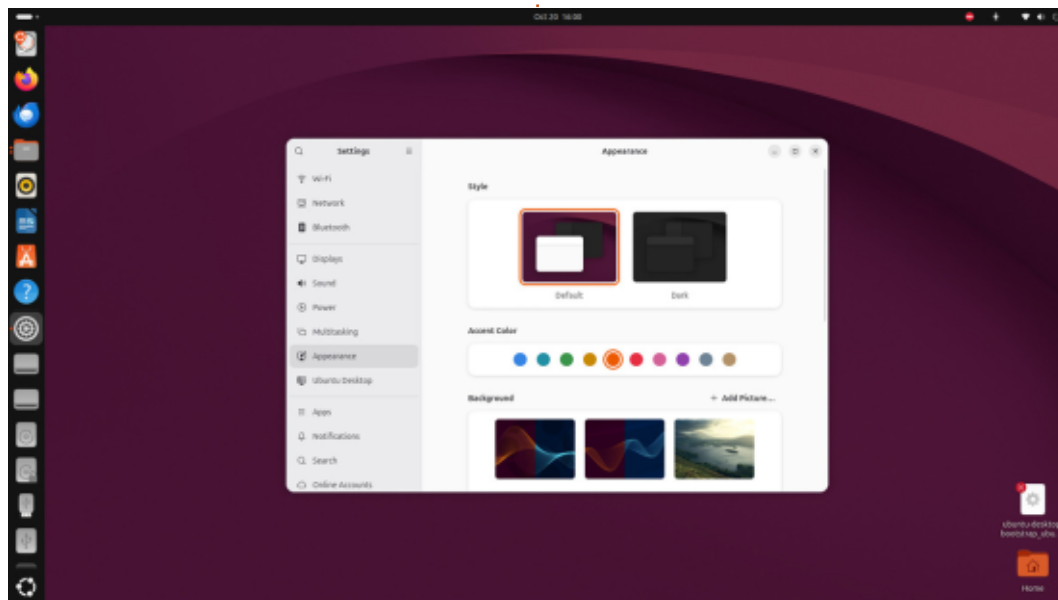
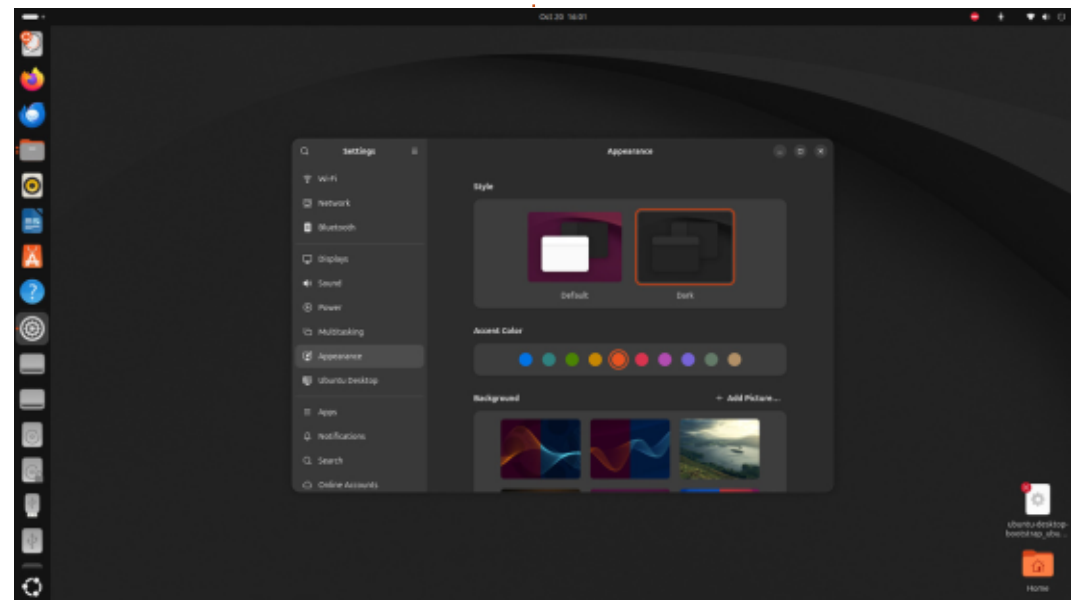
quickly upgraded to "stable". This kernel provides early support for Snapdragon X2 Elite laptops: Asus Zenbook A14 (UX3407NA), HP EliteBook X G2q 14 AI, and Lenovo Yoga Slim 7x Gen 11. Support for more Snapdragon X Elite and X Plus devices: Lenovo IdeaCentre Mini 01Q8X10 (Snapdragon X Plus model), Lenovo IdeaPad Slim 5x 14Q8X9, HP EliteBook 6 G1q, Acer Swift 14 AI (SF14-11) and Acer Swift Go 14 AI (SFG14-01). Plus there is now support for the built-in cameras of several Snapdragon X Elite laptops, including the Lenovo ThinkPad T14s, Lenovo Yoga Slim 7x, Dell XPS 13 9345, Dell Inspiron 14 7441, and Asus Zenbook A14.

Ubuntu 26.10 also introduces

official support for several RVA23 RISC-V platforms, including SpacemiT K3 boards (Pico-ITX, CoM260 kit) and SiFive BigSky platform.

The graphics stack is provided by Mesa 26.2.

Ubuntu 26.10's initialization system is systemd 261.3. In conjunction, support for old System V scripts has now been removed. As was previously announced, the component systemd-sysv-generator for creating systemd services from /etc/init.d scripts at runtime has been removed. As a result, packages in the Ubuntu Archive that relied on this component either now ship a systemd service,



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or have been dropped entirely if the package is no longer maintained.

One upgrade is that all coreutils have been completely converted to Rust. The few remaining GNU utilities (cp, mv, and rm) which had been previously retained due to compatibility issues, have now all been switched to Rust-based ones. This gives better performance and security.

Many behind-the-scenes changes to packages and toolchains have been incorporated. These are things that most desktop users will probably not notice. Updated are: apache2 2.4.68, GCC 15.2.0, Go 1.27, LLVM 22.1.8, .NET 10.0.112,

OpenJDK 25.0.4, OpenLDAP 2.6.13, PHP 8.5.9, Python 3.14.7, Rust 1.97.1, squid 7.7, sssd 2.12.0 and Zig 0.16.

There are also many other small tweaks, fixes and updates Incorporated throughout Ubuntu.

Settings

As has been the case for quite a while, Ubuntu still has very limited choices for user customization compared to some Linux distributions. There are only two window themes: light (which is called "default") and dark, although there is a choice of ten highlight colors (with orange as the default), giving a total of 20 color and theme

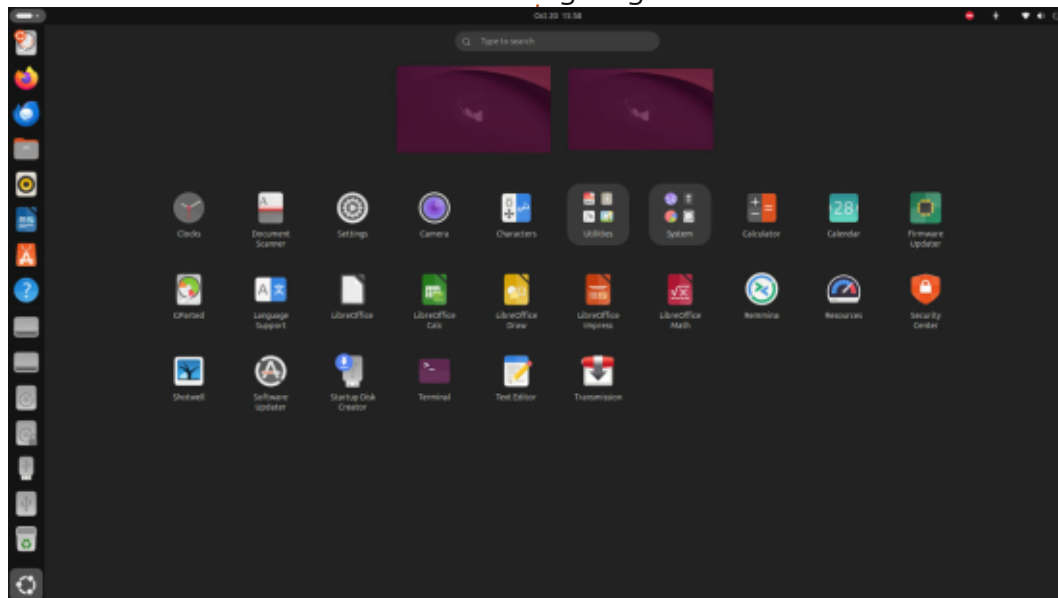
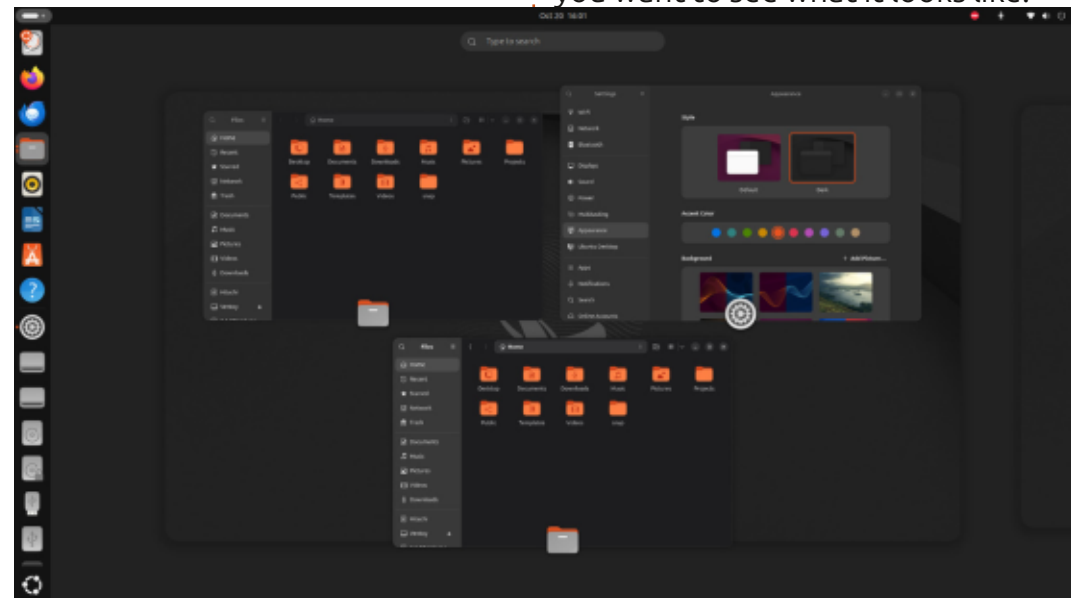
combinations. This is less customization than Kubuntu or Pop!_OS offers, but it is actually probably enough choice to keep most people happy.

As this release is code-named "Stonking Stingray", it comes with a new stingray-themed light wallpaper which changes to a dark wallpaper when the window color theme is changed from light to dark. There are 17 wallpapers provided, of which 11 have stingray themes. The wallpapers included are all really well rendered and would be suitable in any professional environment. In fact, overall these days Ubuntu really feels like an enterprise-aimed Linux distribution. While it works great at

home, it looks sharp enough for any office.

Applications

As has been the case for a while, if you install Ubuntu's default minimal installation you will get only Firefox, Nautilus, GNOME Text Editor and a few basic GNOME utilities, although any desired applications can easily be added from the repositories. However, the ISO file does come with the complete extended selection of applications, in case you would rather install the normal default suite of applications. When you boot up the live session, it displays the full extended selection in case you want to see what it looks like.



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The choice between the two installation options is really a matter of how you would rather spend your time: adding the applications that you want or removing ones you don't want.

Some of the applications included with the full 26.10 extended selection installation are:

Archive Manager (file-roller) 44.7 file archiver
CUPS 2.4.16 printing system*
Deja Dup 50.1 file back-ups
Firefox 157.0.1 web browser**
GNOME Calculator 50.0 desktop calculator*
GNOME Calendar 51.0 desktop calendar
GNOME Clocks 50.0 clocks*

GNOME Disks 46.1 disk manager*
GNOME Document Scanner (simple-scan) 50.0 optical scanner
GNOME Document Viewer (papers) 51.0 PDF viewer
GNOME Files (nautilus) 51.0.1 file manager
GNOME Image Viewer (Loupe) 50.0 image viewer*
GNOME Snapshot 50.0 webcam application*
GNOME Resources 51.0 system monitor
GNOME Sysprof 50.0 system profiler*
GNOME Terminal (Ptyxis) 50.1 terminal emulator*
GNOME Text Editor 50.1 text editor
GNOME Videos (showtime) 50.0 movie player*
Gparted 1.8.0 partition editor***

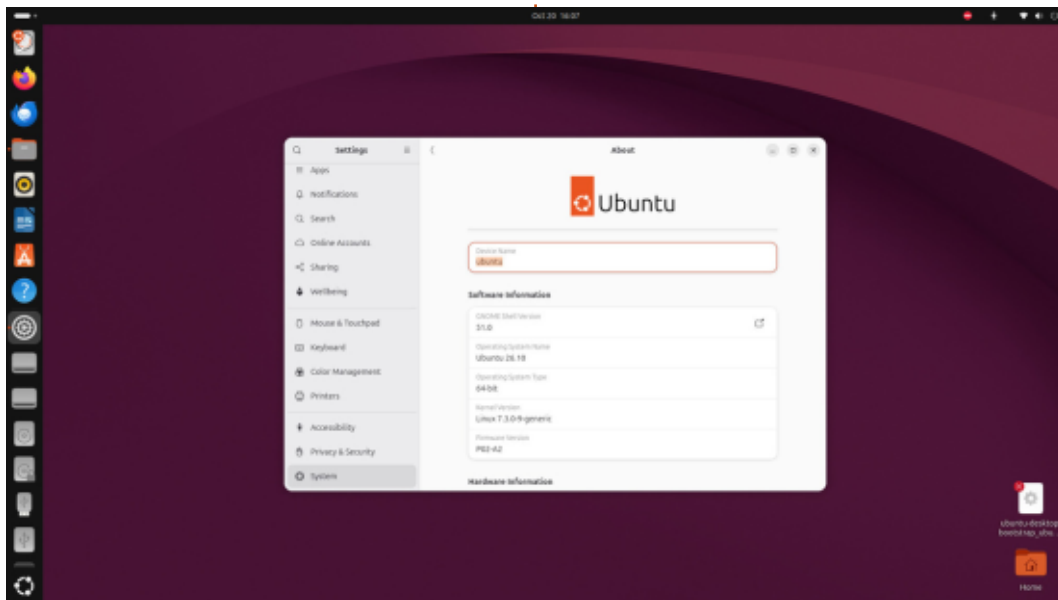
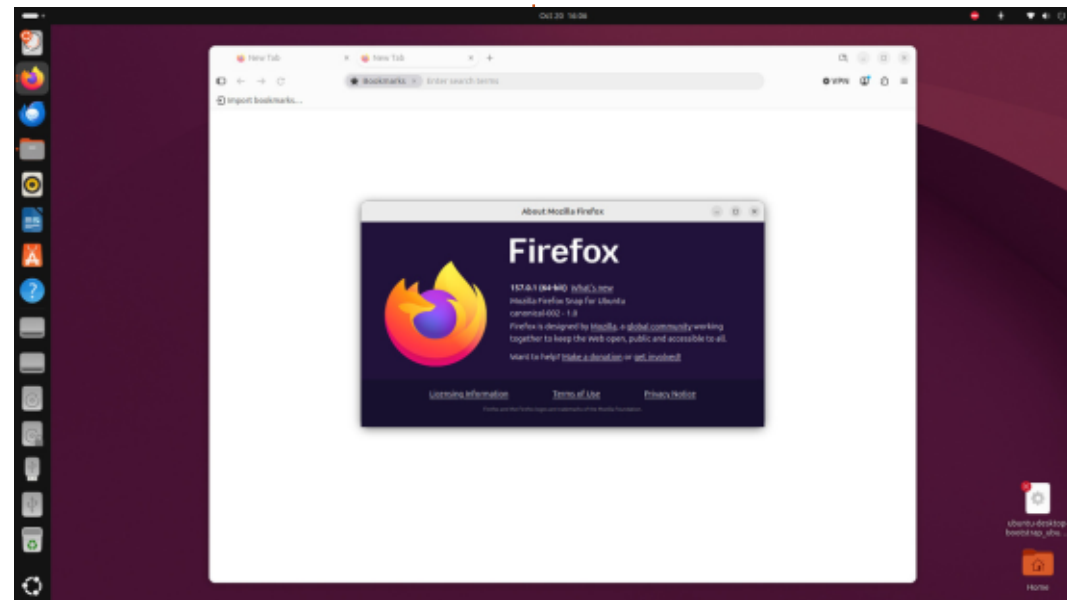
LibreOffice 26.8.1.1 office suite, less LibreOffice Base
PipeWire 1.6.8 audio controller
Remmina 1.4.43 remote desktop client
Rhythmbox 3.4.9 music player*
Security Center (desktop-security-center) 0+git.4adf2b9 security controller**
Shotwell 0.32.15 photo manager
Startup Disk Creator (usb-creator-gtk) 0.4.1 USB ISO writer*
Systemd 261.3 init system
Thunderbird 158.0.1 email client**
Transmission 4.1.3 bit torrent client
Ubuntu App Center (snap-store) 0+git.5534399d package management system**
Wget 1.25.0 command line webpage downloader*

* indicates same application version as used in Ubuntu 26.04 LTS
** supplied as a Snap package, so the version depends on the upstream package manager
*** included on the ISO for boot-up, but not included in a full installation

The mix of default applications provided has not changed with this release.

As can be seen by the number of asterisks, very few of the applications have been upgraded to GNOME 51 and many remain at GNOME 50, which is fine as they still work well and are now well-tested.

In terms of the GNOME 51



REVIEW

application upgrades, the GNOME Files (nautilus) 51.0.1 file manager now gives a count when dragging and dropping groups of files and groups the file notifications together. GNOME Calendar 51.0 has had its responsiveness improved and the GNOME Document Viewer (papers) 51.0 PDF viewer now allows handwritten signatures to be added to documents as annotations.

Conclusions

Ubuntu 26.10 makes a quick start off the mark in this new development cycle, as this first interim release brings a lot of new tweaks and adjustments without introducing anything truly dramatic.

ubuntu



Even though it is just an interim release, with only nine months of support, it is still very slick, polished, pretty flawless and ready to start work right from installation.

We'll follow this developmental cycle along, as we look at the two further interim releases, 27.04 and 27.10, before the next long term

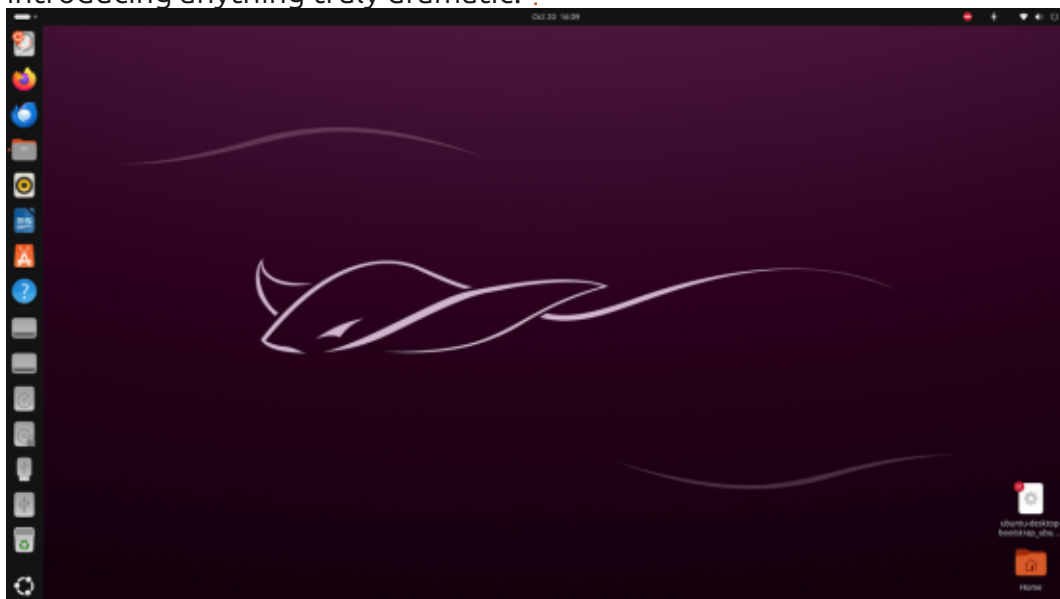
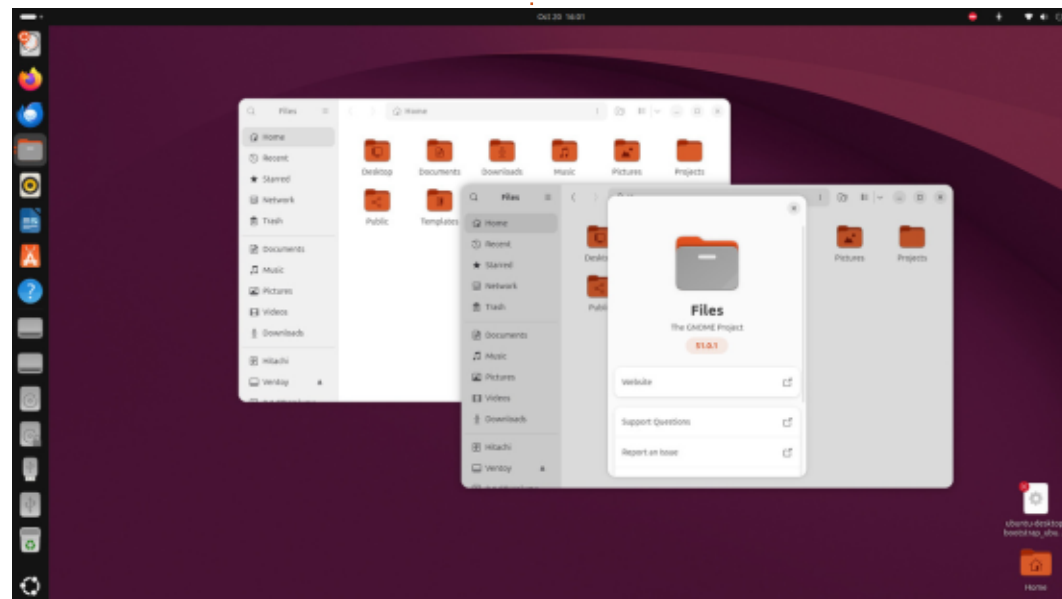
support version appears. That will be Ubuntu 28.04 LTS, expected out in April 2028.

External links

Official website:
<https://ubuntu.com/>



Adam Hunt started using Ubuntu in 2007 and has used Ubuntu since 2010. He lives in Ottawa, Ontario, Canada, in a house with no Windows.





LETTERS

If you would like to submit a letter for publication, compliment or complaint, please email it to: letters@fullcirclemagazine.org. PLEASE NOTE: some letters may be edited for space.

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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.

I have this Italian friend who keeps trying to tell me that Italian is a world language, like English or Spanish. While I may not agree with his statement, you have to agree that the Italians are passionate about Linux, as there are quite a few Linux publications that are only available in Italian. He also pointed me in the direction of the Italian retro computing scene. I cannot say that I was not impressed. It seems that Italy is brewing and bubbling

just below the surface, for those of us who do not speak the language. It is as if there are not a lot of translators out there that translate all these wonderful Linux publications. Honestly, I have learned of quite a bit of open source kit, from the man and I can only hope there are people out there that will translate some of these things for the rest of us. I have also just been gifted a whole year's worth of "Linux Pro" magazines and I only speak Italian hand gestures....

Q : Hi there, I'm running Ubuntu on my laptop and I use the F-keys to set the brightness up or down. I just installed the latest version of Xubuntu and nothing happens when I try to change the brightness. I mainly use my laptop at night, so I need to set the brightness down!! Can you help me out here?

A : Have you tried the Fn key with your F-keys?

Also see this:

<https://askubuntu.com/questions/1568686/why-cant-i-adjust-brightness>

Q : Is there an application to convert LibreOffice to Word? Preferably FOSS.

A : You can just do that with LibreOffice itself, use "save as" and choose ".docx" or ".doc"

Q : Error with short-cut screenshots button. I have Ubuntu Gnome installed on my Dell laptop. It has a "prt sc" button I have used to take screenshots for like forever. Recently, when I use this button, my screenshots are blank. Just the color of the application, nothing else. If I use the menu shortcut "take a screenshot" and repeat the screenshot, not even changing anything, the selected rectangle is captured perfectly.

A : With Gnome, those types of errors are usually caused by Gnome extensions. Turn off all your

extensions, reboot and try again. Should it be fine, turn on your extensions one-by-one and keep trying until you find the culprit. Unfortunately it is a long process and I suggest at least logging out and in between activating an extension or rebooting to identify it.

Q : I recently had to join a Teams meeting for training. I don't trust Microsoft whatsoever, so I loaded up a fresh Ubuntu 24.04 VM, disabled the camera and used the browser for access, in VirtualBox 7.2. It all seemed fine, until it was my turn to speak, and no-one could hear me. I had to type everything. I noticed that the input was the same as the output device in the browser. Since I have another meeting on Teams in a few months, I'd like to address this issue. Can you help?

A : This is very vague from a diagnostics side. I think that it may be down to the add-on pack for virtual machines, update that. (What I mean by this is that the

Q&A

version installed by updates usually lack behind what you may have updated VirtualBox to, as Ubuntu 24.04 is not on 7.2 yet) Maybe what you could do is to try the Teams App in the virtual machine, starting with the Snap and test your microphone with it first. Should that fail, try an external device like headphones with a mic. Have a test call with a friend first, before the day of your training.

Q : I upgraded Ubuntu 24.04 to 26.04 and it seems to have worked with all my apps except Zoom. Whenever I try to share my screen, it is all black. I have run an upgrade and it updated my Nvidia drivers too, but it still remains black when I try.

A : You do not seem to be the only one, it seems to be the fault of the Snap version of Zoom. Just install the .deb file and you should be good.

Q : Hai. I'm trying to install the newest version of my comic book reader from a .deb file with Gdebi, but I've run into a "dependency not satisfiable" error. I didn't take a screenshot before

deleting it, so I'm not 100% on the error details, but you get the gist. I tether via my phone, so I don't want to incur charges for grabbing the file repeatedly and it is midnight and I'm done for the night. Can you help me?

A : Sure, grab a self-contained version of.... well you did not say which one it was, but grab an AppImage, Snap or Flatpak of the software. It may be a bigger download, so charges may apply, but it is what it is, as they say. Once you start messing with dependencies it usually spirals out of hand.

Q : I don't like curl as there are too many switches and things to remember. Is there an easier way to check a website from the terminal on a regular basis please? I'm new to Ubuntu and Ubuntu server, so the simpler the better. Oh and if possible it should also run on my Mac.

A : Sure, if it is just checking try xh, it is much simpler.
<https://github.com/ducaale/xh>

Q : I have a question for Firefox on my Ubuntu machine: You see, on Chrome, I can hover my mouse over a tab and see how much memory it uses, but on Firefox, it displays a miniature version of the website instead. How do I know if my YouTube tabs are eating up all my memory? I'm using Ubuntu 24.04 with Firefox 152.

A : On Firefox or FF derived browsers simply type about:processes in the address bar or press SHIFT+ESC and it will go there. You can then sort columns by memory by clicking on the word "memory" in the top row to see which tabs are memory hogs.

Q : I sort of liked OpenKylin - <https://en.kylinopen.top/> and then I heard I can have Ubuntu with the kylin desktop. What is the best way to install it?

A : The desktop you are looking for is called UKUI and you can download it here: <https://www.ubuntukylin.com/downloads/download-en.html>

Q : Is there any reason I should not upgrade to Ubuntu 26.04?

In pure Wayland, my X11 stuff will stop working so I'm hesitant.

A : There are lots of reasons, they depend on the use case. We have had people on 18.04 that do not want to upgrade, as some software will stop working. However, sooner or later, the software you rely on will stop working and you will need to find alternatives. I suggest subscribing to Ubuntu Pro if you plan on staying on Ubuntu 24.04.

Q : So I move my videos onto my local drive to play as the external drive is a USB 2 interface and slow, otherwise VLC has tearing and skipping. Thing is when I preview a video and then copy it, there is some sort of delay, like it is still caching. I'm not sure if it is VLC causing the issue or Ubuntu. How can I see what is causing the error?

A : I had to delete everything I wrote, as it seems to be a bug: <https://bugs.launchpad.net/ubuntu/+source/linux/+bug/1415238>

Unfortunately you will have to wait for a fix or use another video player in the meantime.



UBUNTU GAMES

Written by Erik

Price: \$1.49 Steam / \$4.49 GOG / \$22 Fanatical

Blurb: *"Take control of one of the most technologically advanced factions in the Imperium: the Adeptus Mechanicus. As Magos Dominus Faustinius, you'll lead operations on the newly rediscovered planet of Silva Tenebris. Customize your force, manage resources, discover long-forgotten tech, and fight to prevent the Necron awakening across 50 hand-crafted missions."*

So why are we featuring an old game? Think of it as a retrospective and I will list the reasons. It is because there is a Steam Autumn sale on and the game is a whole \$1.50 USD. That is a massive 95% discount. (They want you to buy the new Mechanicus II.)

You also don't need a beast of a computer to play it, almost any gaming setup from the last 10 years is good enough. Also, it is Halloween and what is better than a spooky game featuring the living dead?

MINIMUM:

OS: SteamOS, Ubuntu 16.04 (64bit)
PROCESSOR: Intel Core i7 3.0 GHz+
MEMORY: 8 GB RAM
GRAPHICS: 2GB ATI Radeon HD 7970, 2GB NVIDIA GeForce GTX 770 or better
STORAGE: 11 GB available space

RECOMMENDED:

OS: SteamOS, Ubuntu 16.04 (64bit)
PROCESSOR: 3GHz Quad Core
MEMORY: 8 GB RAM
GRAPHICS: GeForce GTX 960 4GB/AMD Radeon R7 200 series/4GB
STORAGE: 11 GB available space



Warhammer Mechanicus

If you liked the X-Com games, you should like this. If you are a Warhammer fan, I need not say anything, other than, pursue the purity of the blessed machine!

I am playing the game on Ubuntu 24.04, but it should be good on Ubuntu 26.04 as well. The gameplay is smooth and it is the most fun you can have for \$1.49, or so I'm told. (I would not know, I did not have another \$1.49 to test the theory)

Let's talk about the game a bit

more informally, as I have owned it for a few years now and played it over and over. I'll be frank, I was not drawn in by the storyline. You are an archaeologist? Grave robber? I am unsure, even today, but it does not matter. The world you get thrust into is one large Necron Tomb. (For those of you, like me, who are not Warhammer fans, I'll explain quickly, the rest can skip forward)

The QRD on Necrons are: They are mysterious 'xenos' species of humanoid, robotic skeletal warriors that have lain dormant in their stasis-tombs for more than 60 million Terran years. They have whole worlds which are basically graveyards. If you damage them, they simply heal, making them a really dangerous foe.

The game ramps up the challenge by how quickly these Necrons awake as you scramble to survive. You have a meter in the top left, showing you the percentage of awakened Necrons, so don't dawdle. This also gives you the feeling that your choices in-game

matter, as they either speed up this meter in bigger or smaller chunks. You cannot, however, reverse the meter at any stage. These in-game choices you make and factions and leaders that you support, can also influence the ending. This allows you to replay the game. If you are like me, every year or so, I'll take it off the shelf and play it again, just to choose a different strategy. Unfortunately, I do not follow Warhammer lore, so I blunder ahead without really knowing why I choose X or Y, but it is fun none-the-less. The over-the-top Catholic themes is why I never bothered with Warhammer in the first place, but what the game serves up really fits with what I know about Warhammer. The little info-dumps

during the game made me feel like a Warhammer insider, even if I was an outsider. So if you feel that you would miss out, not being a fan, you can hop right in. There is subtle humour scattered throughout, should you pay enough attention, like things that rhyme or alliteration.

When the game was released, I felt that the graphics were on par with X-Com and now, after a couple of years, it is still great. I cannot say I was all in, when the palette was all luminous green at the start, but the animations are great and so are the lighting effects. It was only after looking up lore, that I came to grips with the choices. So what I'm saying is that it grows on you. Since I'm not

a Warhammer fanboy, the character portraits did not impress and, looking at it today, they still do not, but they do fit the lore, I suppose. The dark atmosphere really leans into the "tombs" of the storyline and the tile-sets give off an "ancient Egyptian"-like theme. Since we are looking back, with 20/20 vision, the graphics seem a bit basic, but on Ubuntu 24.04 on my semi-gaming laptop, the scrolling and panning is super-smooth and the zoom function feels like you are gliding in. Speaking of zoom, unlike some of the other Warhammer titles out there, this one allows you to zoom in up to the characters and have a look at the wonderful animation work. Considering that the game is now almost ten years old, it holds

up pretty well. Other factors, like the physics, are still really awesome. For instance, when a character is thrown back, they sprawl out on the floor. They say the devil is in the details, so be sure to pay attention.

When it comes to audio, I am usually drawn in by amazing game music. I will lead with it if the game has an amazing OST. However, I did not find this game via its music, it is here because of the bargain price. That does not mean the music and sound in this game is sub-par. In fact, this rates right up there with Skyrim, but for a strategy game. If you are a laptop gamer, I suggest some headphones with bass. You can listen to the OST here:



<https://www.youtube.com/watch?v=bbQre7tQqM> or here: <https://www.youtube.com/watch?v=aJIDqYZ7qM0> -It is moody and atmospheric and you can listen to it out of game context too, but I can say that it fits the game like a glove. The organs and the choir vocals cements that hyper-religious vibe that the game has going juxtaposed with the synths and machine noises giving it that gritty futuristic feel. It compliments the immersion

without getting in the way. The theme throughout stays the same, and there is a common thread running through all the tracks, rather than intro music and battle music and so forth. Honestly, I wish some talented individuals would remix these tracks. You can bet your bottom dollar I'm listening to it right now, helping me get in the right mood to write this article. Sound effects are top-notch too and have just the right amount of

punchy-ness and plosive-ness. (Is that even a word?) Regardless, the sound effects extend to briefing screens and your ears are in for a treat. The character voices(?) are heavily digitised and sit in the hit-or-miss zone for me. Mileage may vary, but it does reinforce the alien-ness of it all.

Is the game worth your time and money?

The game is free of gender-politics and DEI rubbish that seems to have weaved itself into all the modern games, so that alone makes this game worth more than the asking price. Should you enjoy turn-based, squad-based tactics games, this is a no-brainer. It works great on Ubuntu and will probably still work in the next few years, unlike with Windows, where almost none of my favourites still work. For the price of a soda, you can have hours of fun, so I'd say grab it while it is discounted!

P.S. The DLC's are also on a 50% discount at \$3.99 ea.



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 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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